# AEP Texas Central Company

# 2008 Energy Efficiency Plan and Report

## Substantive Rule § 25.181 and § 25.183

# May 1, 2008

Project No. 35440

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**INTRODUCTION**

AEP Texas Central Company (TCC or Company) presents this Energy Efficiency Plan and Report (EEPR) to comply with Substantive Rules § 25.181 and § 25.183, (Energy Efficiency Rule or EE Rule) which are the sections of the Public Utility Commission of Texas' Substantive Rules implementing 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 limited, targeted, market transformation programs ("MTPs"):

- at least 15% of the electric utility's annual growth in demand of residential and commercial customers by December 31, 2008;
- at least 20% of the electric utility's annual growth in demand of residential and commercial customers by December 31, 2009.

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 EEPR is intended to enable the Company 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 outlined in Substantive Rule § 25.181. The following section provides a description of the information that is contained in each of the subsequent sections and appendices.

## Energy Efficiency Plan and Report (EEPR) Organization

This EEPR consists of an Executive Summary, ten sections, a list of acronyms, a glossary and four appendices.

- Executive Summary highlights TCC's reported achievements for program year 2007 and TCC's plans for achieving its program year 2008 and 2009 goals and projected energy efficiency savings.

**Energy Efficiency Plan**

- Section I describes TCC's program portfolio. It details how each program will be implemented, presents related informational and outreach activities, and provides an introduction to any programs not included in TCC's previous EEP.
- Section II explains TCC's targeted customer classes and describes the size of each class and the method used in determining those class sizes.

- Section III presents TCC's projected energy efficiency 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 goals for each of the previous five years (2003-2007) based on its actual weather-adjusted peak demand.
- Section VI compares TCC's projected energy and demand savings to its reported and verified savings by program for calendar years 2006 and 2007.
- Section VII details TCC's incentive and administration expenditures for each of the previous five years (2003-2007) detailed by program for each customer class.
- Section VIII compares TCC's actual expenditures and projected budget for 2007 by program for each customer class. It identifies funds committed but not expended and funds remaining but not committed. It also explains any cost increases or decreases of more than 10% for TCC's overall program budget.
- Section IX describes the results from TCC's Market Transformation (MTP) programs. It compares existing baselines and existing milestones with actual results, and details any updates to those baselines and milestones.
- Section X documents TCC's most recent Energy Efficiency Cost Recovery Factor (EECRF).

**Acronyms**

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

**Glossary**

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

**Appendices**

- Appendix A – Reported and Verified kW and kWh Savings detailed by county for each program.
- Appendix B – Program templates for any new or modified programs and programs not included in TCC's previous EEP.
- Appendix C – Description of TCC's existing energy efficiency contracts and obligations.
- Appendix D - Provides data, explanations, or documents supporting other sections of the EEPR.

## Executive Summary – Energy Efficiency Plan

This portion of the EEPR details TCC's plans to achieve savings of at least a 15% reduction in its annual growth in demand of residential and commercial customers by December 31, 2008, and at least a 20% reduction in its annual growth in demand of residential and commercial customers by December 31, 2009. In the process, TCC addresses the corresponding calculated energy savings goal, which is derived from its demand savings goal using a 20% capacity factor [25.181(e)(2)]. The goals, budgets and implementation plans that are included in this EEPR are in accordance with requirements of the EE Rule and lessons learned from past experience and customer participation in the various historical energy efficiency programs. A summary of annual goals and budgets is presented in Table 1.

**Table 1: Summary of Goals, Projected Savings, and Projected Budgets (at the Meter) [1]**

| Calendar Year | Average Growth in Demand (MW) | Growth In Demand Reduction | Demand Goal (MW) | Energy Goal [2] (MWh) | Projected Savings [3] (MW) | Projected Savings [2 3] (MWh) | Projected Budget (000's) |
|---|---|---|---|---|---|---|---|
| **2008** | 70.85 | 15 % | 10.63 | 18,618 | 15.00 | 43,392 | $10,604 |
| **2009** | 70.85 | 20 % | 14.17 | 24,824 | 23.60 | 71,114 | $15,156 |

## Executive Summary – Energy Efficiency Report

This portion of the EEPR demonstrates that in 2007 TCC cost-effectively implemented SOPs and MTPs as provided for by PURA § 39.905. TCC exceeded its mandated reduction goal to be achieved by January 1, 2008 by procuring 9,496 kW of peak demand savings at a total cost of $5,203,100. Programs offered were the Commercial and Industrial (C&I) SOP, the Emergency Load Management (ELM) SOP, the Energy Efficiency Improvement Program for Not-for Profit Agencies (EEIP NFP) SOP, the Hard-to-Reach (HTR) SOP, and the Residential and Small Commercial (RES) SOP. New programs added during 2007 included the CitySmart Pilot MTP

[1] Average Growth in Demand figures are from Table 4; Projected Savings from Table 5; Projected Budgets from Table 6. All kW/MW and kWh/MWh figures in this Table and throughout this EEPR are given "at the Meter".
[2] Calculated using a 20% capacity factor.
[3] Projected savings are based upon the portfolio of programs identified in Table 5.

and a budget for the commitment to TDHCA for the Targeted Low-Income Energy Efficiency (TLI) Program.

The Company continues to use its best efforts to encourage and facilitate the involvement of Retail Electric Providers (REPs) as Energy Efficiency Service Providers (EESPs). On November 5, 2007 the Electric Utility Marketing Managers of Texas (EUMMOT) of which the Company is a member, hosted a EUMMOT-REP Efficiency Program Workshop in Houston, Texas. Twenty-one (21) REPs were invited and twenty-seven (27) attendees representing fifteen (15) REPs attended. The discussion centered around Legislative changes, the Energy Efficiency Rule, existing and new energy efficiency programs and how the REPs could become more involved in the cost-effective delivery of energy efficiency services. The Company also sends new and existing energy efficiency program information to the REPs as it becomes available throughout the year.

# ENERGY EFFICIENCY PLAN

## I. 2008 Programs

### *A. 2008 Program Portfolio*

TCC will implement a variety of SOPs and MTPs in 2008 to enable the Company to meet its statutory goals in a manner that complies with PURA § 39.905 and the EE Rule. TCC will also fund two specific Research and Development (R&D) projects: the Texas Alliance for NanoTechnology (TxAN) State Lab Project and the Center for Commercialization of Electric Technologies (CCET) Residential Demand Response Pilot Project, in addition to providing funding for the Study Regarding Cost Effective Energy Efficiency in Texas (Potential Study) conducted by the PUCT. These projects target broad market segments and specific market sub-segments that offer significant opportunities for cost-effective energy savings. TCC will also make an effort to provide funding from the R&D budget to foster greater competition among EESPs and REPs for new, innovative Demand Response.

TCC anticipates that targeted outreach to a broad range of EESPs and REPs will be necessary in order to position TCC to meet the savings goals as required by PURA § 39.905 on a continuing basis. Table 2 below summarizes TCC's planned programs and target customer class markets.

**Table 2: 2008 Energy Efficiency Program Portfolio**

| Program | Target Market | Application |
|---|---|---|
| CitySmart Pilot MTP | City facilities and K-12 public schools | Retrofit; New Construction |
| Commercial and Industrial SOP* | Commercial | Retrofit; New Construction |
| Load Management SOP | Commercial | Load Management |
| Energy Efficiency Improvement Program for Not-for-Profit Agencies SOP | Commercial | Retrofit; New Construction |
| Hard-to-Reach SOP | Hard-to-Reach Residential | Retrofit |
| Residential & Small Commercial SOP* | Residential and Commercial | Retrofit |
| Targeted Low-Income Energy Efficiency Program | Low Income Residential | Retrofit |
| **New Programs for 2008** | | |
| ENERGY STAR® New Homes MTP | Residential | New Construction |
| Residential Compact Fluorescent Lighting Pilot MTP | Residential | Retrofit |

* Effective with the 2009 program year, these programs will reflect name changes to reflect only residential and commercial customer eligibility.

The programs listed in Table 2 are described in further detail in Section B. TCC maintains a World Wide Web site containing all of the requirements for project participation, the forms required for project submission, and the currently available funding for many of its programs at www.AEPefficiency.com. This site will be the primary method of communication used to provide potential EESPs and other interested parties with program updates and information.

## *B. Existing Programs*

### CitySmart Pilot (CitySmart) MTP

#### *Program design*

TCC implemented this energy smart cities/schools pilot market transformation program in 2006, as envisioned by Senate Bill 712 (Texas 79th Legislature), and as approved by the PUCT. The CitySmart MTP provides energy efficiency and demand reduction solutions for local government entities and public schools on a pilot basis for the calendar year 2008.

Incentives will be paid to targeted customers served by TCC for certain eligible energy efficiency measures that are installed in new or retrofit applications and which provide verifiable demand and energy savings.

#### *Implementation process*

Under this pilot program, TCC has targeted a number of local government entities and public school districts for participation in the CitySmart MTP. The CitySmart MTP facilitates the identification of potential demand and energy savings opportunities, general operating characteristics, long range energy efficiency planning and overall measure and program acceptance by the targeted customer participants.

#### *Outreach activities*

TCC markets the availability of its programs in the following manner:

- Contracts with a third-party to implement outreach and planning activities.
- Targets a number of customer participants during the pilot program.
- Conducts workshops as necessary to explain elements of the program, such as responsibilities of the participants, project requirements, incentive information, and the application and reporting process.
- Participates in regional outreach activities as may be available.
- Attends appropriate industry-related meetings to generate awareness and interest.

## Commercial and Industrial (C&I) SOP

***Program design***

The 2008 C&I SOP targets Commercial customers with a maximum demand greater than 100 kW. Incentives are paid to project sponsors for certain eligible measures installed in new or retrofit applications, based upon verified demand and energy savings.

***Implementation process***

Any eligible project sponsor may submit an application for a project that meets minimum requirements. The program information on TCC's website is updated frequently to reflect participating project sponsors and the remaining available incentive budget.

***Outreach activities***

TCC markets the availability of its programs in the following manner:

- Utilizes mass electronic mail (e-mail) notifications to keep potential project sponsors interested and informed;
- Maintains internet Web site with detailed project eligibility, end-use measures, incentives, procedures and application forms;
- Attends appropriate industry-related meetings to generate awareness and interest;
- Participates in state-wide outreach activities as may be available;
- Conducts workshops as necessary to explain elements such as responsibilities of the project sponsor, project requirements, incentive information, and the application and reporting process.

## Energy Efficiency Improvement Program for Not-for-Profit Agencies (EEIP NFP) SOP

***Program design***

This program targets commercial NFP organizations that provide various services to HTR customers in the TCC service territory. Incentives are paid to project sponsors for certain eligible energy efficiency improvements made to their administration facilities, which provide verified demand and energy savings. These improvements reduce the organization's operating costs by making the building they occupy more energy efficient, and result in greater resources being made available to the HTR clients served.

### *Implementation process*

The EEIP NFP SOP is implemented by annually issuing a Request For Proposals (RFP) to a wide range of NFP organizations. The project proposals include information about the organization, planned energy efficiency improvements and specific installation costs. Proposals are reviewed and evaluated on a first-come, first-served basis until the annual program budget is fully reserved.

### *Outreach activities*

TCC markets the availability of its programs in the following manner:

- Conducts direct mail campaign targeting possible qualifying organizations;
- Utilizes mass electronic mail (e-mail) notifications to keep potential applicants interested and informed;
- Presents program information at agency functions and meetings as available.

## Hard-to-Reach (HTR) SOP

### *Program design*

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 a variety of eligible measures installed in retrofit applications, which provide verifiable demand and energy savings. Project comprehensiveness is encouraged. Deemed savings values are accepted as measured and verified savings for projects submitted for approval in this program.

### *Implementation process*

Any eligible project sponsor may submit an application for a project meeting the minimum requirements. The program information on TCC's website is updated frequently to reflect participating Project Sponsors and incentive amounts that are available.

### *Outreach activities*

TCC markets the availability of its programs in the following manner:

- Utilizes mass electronic mail (e-mail) notifications to keep potential project sponsors interested and informed;
- Maintains internet website with detailed project eligibility, end-use measures, incentives, procedures and application forms;

- Attends appropriate industry-related meetings to generate awareness and interest;
- Participates in state-wide outreach activities as may be available;
- Conducts workshops as necessary to explain elements such as responsibilities of the project sponsor, project requirements, incentive information, and the application and reporting process.

## Load Management (LM) SOP

### *Program design*

The LM SOP targets Commercial customers with a minimum peak electric demand of 750 kW or more. Incentives are paid to project sponsors that provide curtailment of peak interruptible electric load on short notice (1-hour ahead) notice. Incentive payments are based upon the reduction of metered peak demand reduction as called for by TCC.

### *Implementation process*

TCC will implement the LM SOP whereby any eligible project sponsor in the area identified by TCC may submit an application for a project meeting the minimum requirements. The program information on TCC's website is updated frequently to reflect remaining available budget amounts.

### *Outreach activities*

TCC markets the availability of its programs in the following manner:

- Utilizes mass electronic mail (e-mail) notifications to keep potential project sponsors interested and informed;
- Maintains internet website with detailed project eligibility, end-use measures, incentives, procedures and application forms;
- Attends appropriate industry-related meetings to generate awareness and interest;
- Participates in state-wide outreach activities as may be available;
- Conducts workshops as necessary to explain elements such as responsibilities of the project sponsor, project requirements, incentive information, and the application and reporting process.

## Residential and Small Commercial (RES) SOP

### *Program design*

The RES SOP targets Residential customers and Commercial customers with a maximum peak electrical demand that does not exceed 100 kW. Incentives are paid to project

sponsors for certain eligible measures installed in retrofit applications, which provide verified demand and energy savings. Project comprehensiveness is encouraged. Deemed savings values are accepted as measured and verified savings for projects submitted for approval in this program.

### *Implementation process*

Eligible project sponsors may submit applications for projects meeting the minimum requirements. The program information on TCC's website is updated frequently to reflect participating Project Sponsors and remaining available incentive amounts.

### *Outreach activities*

TCC markets the availability of its programs in the following manner:

- Continues existing electronic mail (e-mail) campaign targeting REPs, EESPs and national and local companies that provide energy-related services;
- Provides additional outreach using direct mail as necessary to attract more participants;
- Utilizes mass electronic mail (e-mail) notifications to keep potential project sponsors interested and informed;
- Maintains internet website with detailed project eligibility, end-use measures, incentives, procedures and application forms;
- Attends appropriate industry-related meetings to generate awareness and interest;
- Participates in state-wide outreach activities as may be available;
- Conducts workshops as necessary to explain elements such as responsibilities of the project sponsor, project requirements, incentive information, and the application and reporting process.

## Targeted Low-Income Energy Efficiency (TLI) Program

### *Introduction*

TCC's Targeted Low-Income Energy Efficiency Program is designed to cost-effectively reduce the energy consumption and energy costs of TCC's Low Income Customers using the existing federally funded Weatherization Assistance Program (WAP) service delivery system. Implementation of this Senate Bill 712 Weatherization Program will provide eligible residential customers appropriate weatherization measures and basic on-site energy education and will satisfy the requirements of Substantive Rule § 25.181(p).

### *Target Market*

An Eligible Customer is a person residing in the TCC service area who: (1) receives electric power service through the TCC distribution system; and (2) has a total household income at or below 125% of the federal poverty guidelines as defined by the U.S. Department of Health and Human Services (HHS).

### *Implementation and Outreach*

The designated program implementer will conduct outreach targeting existing weatherization service providers in TCC's service territory. Successful implementation of the program will enhance and supplement the federally funded Weatherization Assistance Program. Weatherization measures are prioritized and installed based upon their cost-effectiveness, as determined by the energy audit (EASY Audit) approved by the U.S. Department of Energy. Only measures that are reasonably expected to reduce the energy consumption and energy costs of the customer and which attain a Savings to Investment Ratio (SIR) of one or more are eligible to be installed in the eligible customer's home.

## *C. New Programs for 2008*

### ENERGY STAR® New Homes (ESNH) MTP

#### *Program design*

The ESNH MTP targets several groups, primarily homebuilders and consumers. The program's goal is to create conditions where consumers are demanding ENERGY STAR qualified homes, and homebuilders are supplying these energy-efficient homes. Incentives are paid to homebuilders who construct ENERGY STAR qualified homes in the TCC service territory, and independent home energy raters who verify the energy efficiency of the homes. Each home provides a verifiable demand savings of 1.16 kW, on average, and 2,627 kWh of annual energy savings. In addition to homebuilder and consumer outreach, the ESNH targets key allies in the homebuilding production and sales cycle: home energy raters, homebuilder sales agents, real estate agents, mortgage lenders, product manufacturers, homebuilder associations, and media outlets.

#### *Implementation process*

Any homebuilder constructing ENERGY STAR qualified homes in the TCC service territory may submit an application for incentives. The program information on the Company web site is updated to reflect program information and incentive amounts that are available.

#### *Outreach activities*

TCC markets the ESNH MTP in the following manner:

- Email and phone notification of informational meetings to homebuilders, home energy raters, real estate agents, homebuilder sales agents, mortgage lenders and other allies;
- Direct outreach to consumers at home and garden shows and through a multi-city advertising campaign (Target areas are: Corpus Christi, the Rio Grande Valley, and Laredo);
- Attendance at appropriate industry-related meetings to generate awareness and interest;
- Training workshops as necessary to explain elements such as responsibilities of and benefits to each party or ally, project requirements, incentive information, and the application and reporting process;

- Support of homebuilder sales efforts by providing sales training, marketing materials, and inclusion in print advertisements and the program's Web site;
- Support during the homebuilding process by providing technical training, home plan analysis and answers to questions as needed.

## Residential Compact Fluorescent Lighting Pilot MTP

TCC will be participating with other TDUs in a state-wide effort to promote the awareness, understanding, and use of compact fluorescent light bulbs (CFLs) by residential customers. The use of monetary incentives and consumer education will be used to overcome market barriers that hinder the widespread acceptance of this technology.

One or more third-party implementers will be retained to lead the effort and may work in unison with other efforts to capitalize on name recognition and outreach. One such program may be the ENERGY STAR® Change A Light, Change the World campaign.

The Request for Proposals issued in January 2008 can be found in Appendix B.

Objectives of the program include:

- Motivating and helping residential customers replace incandescent lights with CFLs;
- Educating consumers on the benefits of CFLs and creating a no-regret decision for the residential customer through incentives/discounts that make the purchase of a CFL a priority purchase;
- Saving electricity through incremental sales of CFLs;
- Delivering additional efficiency messages through a coordinated CFL program;
- Expanding consumer awareness of the benefits of energy efficiency and directing them to participating vendors;
- Co-branding with willing "partners";
- Offering "no-regret" partnership options;
- Engaging municipal utilities and electric cooperatives in the statewide effort to expand program reach and effectiveness;

## *D. Existing DSM Contracts or Obligations*

### Demand Response Pilot Project (DR Pilot) through the Center for Commercialization of Electric Technologies (CCET)

TCC will be participating in the DR Pilot through CCET in 2008 for the purpose of demonstrating that a demand response program targeting residential air conditioning, pool pumps and electric water heaters can be cost-effectively implemented in the Texas market by leveraging a Transmission and Distribution Utility's (TDU's) advanced meter infrastructure and intelligent grid technologies. TCC will not be deploying any technology in its service territory but will support the pilot financially along with management services.

The DR Pilot's primary objective is to demonstrate that the technology works for demand response (DR) solutions for residential customers leveraging advanced metering infrastructure and intelligent grid technologies, i.e. to (a) remotely send control signals to reset smart thermostats, cycle air conditioning load, and control appliance load switches, (b) provide usage data to customer and the Retail Electrical Providers (REPs), (c) test data flows between the user's appliance and the advanced meter, (d) test TDU's back-office systems for enhancing customer load management as well as DR billing, and (e) facilitate possible Electric Reliability Council of Texas (ERCOT) settlement on proposed REP DR offerings.

Secondly, the DR Pilot will determine if the various parties (TDUs, REPs and load control product service providers) can work together to achieve mutual benefits while operating within legal and regulatory constraints in the Texas restructured market. And finally, the DR Pilot is intended to develop data to measure and verify energy and demand impacts of the individual control measures/program offerings and allow estimates of the potential market size for specialized DR programs in Texas.

### Study Regarding Cost Effective Energy Efficiency in Texas (Potential Study)

TCC 's 2008 energy efficiency goals are based on achieving a reduction of at least 15% of its average weather-adjusted load growth for the previous five year period. The energy efficiency goals for 2009 and beyond will be based on TCC achieving a reduction of at least 20% of its

average weather-adjusted load growth for the previous five year period. This study will evaluate the potential for cost-effective energy efficiency in Texas to determine if TCC's energy efficiency goals for the years 2010 and beyond can be raised above the planned 20% reduction in 2009.

### Texas Alliance for NanoTechnology (TxAN) State Lab Project

TCC will be utilizing energy efficiency research and development (R&D) funds for the TxAN State Lab facility that are focused on accelerating nanotechnology commercialization for energy efficiency and power grid applications. Nanotechnology R&D in the field of energy usage through this state lab model may lead to dramatic improvements in power efficiency and waste reduction.

## II. Customer Classes

TCC's energy efficiency programs target the Residential and Commercial customer classes. TCC's energy efficiency programs also target certain customer sub-classes, including Hard-to-Reach Residential, Low-income, Public School Commercial, Not-for-Profit Commercial, and Local Government Commercial.

The annual projected savings targets are allocated among various customer classes and sub-classes by examining historical program results, evaluating certain economic trends, and compliance with Substantive Rule § 25.181(e)(1)(E).

Savings achieved through programs for Hard-to-Reach customers shall be no less than 5% of the utility's total demand reduction goal. Table 3 summarizes the number of customers in each of the customer classes at TCC. These numbers were used to determine goal and budget allocations for customer classes and program. It should be noted, however, that the actual distribution of the goal and budget must remain flexible based upon the response of the marketplace, the potential interest a customer class may have toward a specific program and the overriding objective of meeting the mandated demand reduction goal. TCC offers a varied portfolio of SOPs and MTPs such that all customer classes have access to energy efficiency alternatives.

**Table 3: Summary of Customer Classes**

| Customer Class | Number of Customers |
|---|---|
| **Commercial** | 110,802 |
| **Total Residential** | 642,473 |
| **Hard-to-Reach** [4] | 208,804 |

## III. Energy Efficiency Goals and Projected Savings

As prescribed by Substantive Rule § 25.181, TCC's energy efficiency goals are specified as a percent of its historical, five-year average growth in demand. As an example, the 2008 goal reflects the average annual growth in peak demand for the years 2003 through 2007 (the most recent historical load growth data available). The 2008 demand reduction goal is based upon achieving at least 15 % of this calculated annual growth in demand of residential and commercial customers by December 31, 2008. The demand reduction goal for 2009 is based upon achieving at least 20% of this calculated annual growth in demand of residential and commercial customers by December 31, 2009. The corresponding annual energy savings goals are determined by applying a 20% capacity factor to the applicable demand reduction goals for each of these years (2008 and 2009).

Table 4 presents the actual historical, annual, growth in demand for the previous five years that is used to calculate TCC's 2008 and 2009 demand reduction goals. Table 5 presents the projected demand reduction and energy savings, by program and for each customer class for the years 2008 and 2009. Projected energy savings reflect the estimated energy efficiency savings TCC's energy efficiency programs outlined within this Plan are projected to achieve.

[4] According to the U.S. Census Bureau's 2007 Current Population Survey (CPS), 32.5% of Texas families fall below 200% of the poverty threshold. Applying that percentage to TCC's residential customer base of 642,473, the number of HTR customers is estimated at 208,804.

**Table 4: Annual Growth in Demand and Energy Consumption (at the Meter)**

| Calendar Year | Peak Demand (MW) | | | | Energy Consumption (MWh) | | | | Growth (MW) | Average Growth (MW) [5] |
|---|---|---|---|---|---|---|---|---|---|---|
| | Total System | | Residential & Commercial | | Total System | | Residential & Commercial | | | |
| | Actual | Actual Weather Adjusted | Actual | Actual Weather Adjusted | Actual | Actual Weather Adjusted | Actual | Actual Weather Adjusted | Actual Weather Adjusted | Actual Weather Adjusted |
| 2002 | 4,084 | 4,090 | 3,597 | 3,603 | 18,983 | 18,832 | 15,442 | 15,291 | NAP | NAP |
| 2003 | 4,240 | 4,115 | 3,854 | 3,729 | 20,542 | 20,532 | 16,789 | 16,779 | 126 | NAP |
| 2004 | 4,033 | 4,171 | 3,652 | 3,791 | 19,644 | 19,647 | 16,047 | 16,050 | 61 | NAP |
| 2005 | 4,256 | 4,229 | 3,909 | 3,881 | 20,286 | 20,140 | 16,958 | 16,812 | 90 | NAP |
| 2006 | 4,132 | 4,244 | 3,846 | 3,958 | 20,284 | 20,026 | 16,871 | 16,613 | 77 | NAP |
| 2007 | 3,972 | 4,295 | 3,634 | 3,957 | 20,525 | 20,631 | 16,897 | 17,002 | 0 | NAP |
| 2008 | NAP | NAP | NAP | NAP | NAP | NAP | NAP | NAP | NAP | 70.85 |
| 2009 | NAP | NAP | NAP | NAP | NAP | NAP | NAP | NAP | NAP | 70.85 |

Growth for 2002 over 2001 and average growth from 2002-2007 are not applicable to any of the calculations or goals in this EEPR. Energy efficiency goals are calculated based upon the actual historical weather-adjusted growth in demand for the five most recent years, so peak demand and energy consumption forecasts for 2008 and 2009 are not applicable.

[5] Average historical growth in demand over the prior 5 years for residential and commercial customers adjusted for weather fluctuations.

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

| 2008 | Projected Savings | |
|---|---|---|
| **Customer Class and Program** | **kW** | **kWh** |
| **Commercial** | | |
| CitySmart Pilot MTP | **1,220** | **2,741,000** |
| Commercial and Industrial SOP | **2,600** | **9,113,000** |
| Energy Efficiency Improvement Program NFP SOP | **30** | **82,000** |
| Load Management SOP | **1,090** | **NAP** |
| Residential & Small Commercial SOP | **1,920** | **5,260,000** |
| **Residential** | | |
| ENERGY STAR® Homes MTP | **1,700** | **2,985,000** |
| Residential Compact Fluorescent Lighting Pilot MTP | **120** | **2,331,000** |
| Residential & Small Commercial SOP | **5,240** | **14,373,000** |
| **Hard-to-Reach** | | |
| Hard-to-Reach SOP | **960** | **2,670,000** |
| Targeted Low-Income Energy Efficiency Program | **120** | **3,837,000** |
| **Total Annual Projected Savings** | **15,000** | **43,392,000** |
| **2009** | **Projected Savings** | |
| **Customer Class and Program** | **kW** | **kWh** |
| **Commercial** | | |
| CitySmart Pilot MTP | **1,470** | **3,294,000** |
| Commercial SOP | **8,830** | **31,048,000** |
| Energy Efficiency Improvement Program NFP SOP | **30** | **82,000** |
| Load Management SOP | **1,090** | **NAP** |
| **Residential** | | |
| ENERGY STAR ® Homes MTP | **2,310** | **4,054,000** |
| Residential Compact Fluorescent Lighting Pilot MTP | **120** | **2,331,000** |
| Residential SOP | **7,660** | **20,992,000** |
| **Hard-to-Reach** | | |
| Hard-to-Reach SOP | **1,970** | **5,476,000** |
| Targeted Low-Income Energy Efficiency Program | **120** | **3,837,000** |
| **Total Annual Projected Savings** | **23,600** | **71,114,000** |

## IV. Program Budgets

Table 6 presents total projected budget allocations required to meet TCC's projected demand and energy savings for the years 2008 and 2009. The budget allocations are defined by the overall projected demand and energy savings, the avoided costs of capacity and energy in Substantive Rule § 25.181, allocation of demand goals among customer classes, the incentive levels by customer class, and projected costs for existing DSM contracts. The budget allocations presented in Table 6 are detailed by customer class, program, and the different budget categories: incentive payments, administration, and research and development (R&D). TCC added an additional budgeting "class" for R&D to account for R&D expenditures that are not affiliated with a specific customer class or program.

**Table 6: Projected Annual Budget by Program for Each Customer Class (000's)**

| 2008 | Incentives | Admin | R&D | Total Budget |
|---|---|---|---|---|
| **Commercial** | | | | |
| CitySmart Pilot MTP | $500.0 | $55.6 | | $555.6 |
| Commercial and Industrial SOP | $1,000.0 | $111.1 | | $1,111.1 |
| Energy Efficiency Improvement Program NFP | $150.0 | $16.7 | | $166.7 |
| Load Management SOP | $100.0 | $11.1 | | $111.1 |
| Residential & Small Commercial SOP | $1,000.0 | $111.1 | | $1,111.1 |
| **Residential** | | | | |
| ENERGY STAR® Homes MTP | $1,566.7 | $174.0 | | $1,740.7 |
| Residential Compact Fluorescent Lighting Pilot | $216.0 | $24.0 | | $240.0 |
| Residential & Small Commercial SOP | $2,732.4 | $303.6 | | $3,036.0 |
| **Hard-to-Reach** | | | | |
| Hard-to-Reach SOP | $732.2 | $81.4 | | $813.6 |
| Targeted Low-Income Energy Efficiency Program | $1,000.0 | $111.1 | | $1,111.1 |
| **Research and Development (R&D)** | | | | |
| DR Pilot | | | $56.3 | $56.3 |
| TxAN State Lab | | | $100.5 | $100.5 |
| Potential Study | | | $40.2 | $40.2 |
| Other | | | $410.0 | $410.0 |
| **Total Budgets** | $8,997.3 | $999.7 | $607.0 | $10,604.0 |
| **2009** | **Incentives** | **Admin** | **R&D** | **Total Budget** |
| **Commercial** | | | | |
| CitySmart Pilot MTP | $600.7 | $66.8 | | $667.5 |
| Commercial SOP | $3,406.9 | $378.5 | | $3,785.4 |
| Energy Efficiency Improvement Program NFP | $150.0 | $16.7 | | $166.7 |
| Load Management SOP | $100.0 | $11.1 | | $111.1 |
| **Residential** | | | | |
| ENERGY STAR® Homes MTP | $2,128.0 | $236.5 | | $2,364.5 |
| Residential Compact Fluorescent Lighting Pilot | $216.0 | $24.0 | | $240.0 |
| Residential SOP | $3,990.8 | $443.4 | | $4,434.2 |
| **Hard-to-Reach** | | | | |
| Hard-to-Reach SOP | $1,501.6 | $166.8 | | $1,668.4 |
| Targeted Low-Income Energy Efficiency Program | $1,000.0 | $111.1 | | $1,111.1 |
| **Research and Development (R&D)** | | | | |
| DR Pilot | | | $56.3 | $56.3 |
| TxAN State Lab | | | $100.5 | $100.5 |
| Other | | | $450.2 | $450.2 |
| **Total Budgets** | $13,094.0 | $1,454.9 | $607.0 | $15,155.9 |

## Energy Efficiency Report

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

Table 7 documents TCC's actual demand goals and energy targets for the previous five years (2003-2007) calculated in accordance with Substantive Rule § 25.181.

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

| Calendar Year | Actual Weather Adjusted Demand Goal (MW) | Actual Weather Adjusted Energy Targets (MWh) |
|---|---|---|
| **2007** [6] | 8.71 | 31,104 |
| **2006** [7] | 11.38 | 40,009 |
| **2005** [8] | 12.07 | 42,433 |
| **2004** [9] | 10.16 | 35,722 |
| **2003** [10] | 9.30 | 32,682 |

[6] Actual weather-adjusted MW Goals and MWh targets as reported in TCC's Energy Efficiency Report (EER) filed in April of 2007 under Project No. 33884.
[7] Actual weather-adjusted numbers from EER, Project No. 32107.
[8] Actual weather-adjusted numbers from EER, Project No. 30739.
[9] Actual weather-adjusted numbers from EER, Project No. 29440.
[10] Actual weather-adjusted numbers from EER, Project No. 27541.

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

**Table 8: Projected versus Reported and Verified Savings for 2007 and 2006 (at the Meter)**

| 2007 | Projected Savings [11] | | Reported and Verified Savings | |
|---|---|---|---|---|
| **Customer Class and Program** | **kW** | **kWh** | **kW** | **kWh** |
| **Commercial** | | | | |
| CitySmart Pilot MTP | 1,650 | 3,750,000 | 1,716 | 3,849,363 |
| Commercial & Industrial Solicitation Program | NAP | NAP | NAP | NAP |
| Commercial and Industrial SOP | 780 | 4,825,000 | 1,324 | 4,660,153 |
| Emergency Load Management SOP | 1,000 | 0 | 280 | 0 |
| Energy Efficiency Improvement Program NFP SOP | 20 | 49,000 | 65 | 339,319 |
| Residential & Small Commercial SOP | NAP | NAP | NAP | NAP |
| **Residential** | | | | |
| ENERGY STAR® Homes MTP | NAP | NAP | NAP | NAP |
| Residential & Small Commercial SOP | 6,100 | 13,299,000 | 5,635 | 15,325,147 |
| **Hard-to-Reach** | | | | |
| Hard-to-Reach SOP | 370 | 1,646,000 | 476 | 1,317,141 |
| Targeted Low-Income Energy Efficiency Program | 100 | 3,233,000 | 0 | 0 |
| **Total Annual Savings** | 10,020 | 26,802,000 | 9,496 | 25,491,123 |
| **2006 [12]** | **Projected Savings** | | **Reported and Verified Savings** | |
| **Customer Class and Program** | **kW** | **kWh** | **kW** | **kWh** |
| **Commercial** | | | | |
| CitySmart Pilot MTP | NAP | NAP | NAP | NAP |
| Commercial & Industrial Solicitation Program | NAP | NAP | NAP | NAP |
| Commercial and Industrial SOP | 3,610 | 17,230,000 | 4,184 | 18,011,027 |
| Emergency Load Management SOP | 3,650 | 0 | 1,091 | 0 |
| Energy Efficiency Improvement Program NFP SOP | 20 | 53,000 | 13 | 40,924 |
| Residential & Small Commercial SOP | NAP | NAP | NAP | NAP |
| **Residential** | | | | |
| ENERGY STAR® Homes MTP | NAP | NAP | NAP | NAP |
| Residential & Small Commercial SOP | 6,690 | 16,538,000 | 5,325 | 13,913,391 |
| **Hard-to-Reach** | | | | |
| Hard-to-Reach SOP | 400 | 1,094,000 | 533 | 1,168,518 |
| Targeted Low-Income Energy Efficiency Program | 110 | 1,007,000 | 0 | 0 |
| **Total Annual Savings** | 14,480 | 35,922,000 | 11,146 | 33,133,860 |

[11] Projected savings from Energy Efficiency Plan (EEP) filed in April of 2007, Project No. 33884.
[12] Projected and Reported/Verified Savings from Energy Efficiency Report (EER) filed under Project No. 33884.

## VII. Historical Program Expenditures

This section documents TCC's incentive and administration expenditures for the previous five years (2003-2007) detailed by program for each customer class.

**Table 9: Historical Program Incentive and Administrative Expenditures for 2003 through 2007 (000's)[13]**

| | 2007 | | 2006 | | 2005 | | 2004 | | 2003 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Incent. | Admin | Incent. | Admin | Incent. | Admin | Incent. | Admin | Incent. | Admin |
| **Commercial** | | | | | | | | | | |
| CitySmart Pilot MTP | $656.8 | $13.4 | $74.2 | $3.3 | NAP | NAP | NAP | NAP | NAP | NAP |
| Commercial & Industrial Solicitation | $285.0 | $13.0 | $218.1 | $9.8 | $281.8 | $17.8 | $266.2 | $15.0 | $266.9 | $3.9 |
| Commercial and Industrial SOP | $450.4 | $42.5 | $1,753.3 | $55.4 | $1,090.8 | $115.2 | $816.4 | $118.7 | $696.1 | $258.5 |
| Emergency Load Management SOP | $25.7 | $4.9 | $25.1 | $6.9 | NAP | NAP | NAP | NAP | NAP | NAP |
| Energy Efficiency Improvement Program NFP SOP | $99.5 | $5.7 | $88.9 | $4.2 | $79.6 | $15.6 | $90.0 | $9.8 | $147.6 | $46.7 |
| Residential & Small Commercial SOP | NAP | NAP | NAP | NAP | NAP | NAP | NAP | NAP | NAP | NAP |
| Standard Performance Contract | NAP | NAP | NAP | NAP | NAP | NAP | NAP | NAP | $474.1 | $25.2 |
| **Residential** | | | | | | | | | | |
| ENERGY STAR® Homes MTP | $20.2 | $4.8 | NAP | NAP | NAP | NAP | NAP | NAP | NAP | NAP |
| Residential & Small Commercial SOP | $2,937.1 | $64.9 | $2,701.6 | $83.3 | $3,054.7 | $146.6 | $3,025.1 | $172.0 | $4,047.6 | $383.2 |
| **Hard-to-Reach** | | | | | | | | | | |
| Hard-to-Reach SOP | $377.6 | $40.7 | $381.6 | $36.0 | $1,120.4 | $83.7 | $929.7 | $98.4 | $1,117.6 | $246.1 |
| Targeted Low-Income Energy Efficiency Program | $0 | $2.6 | $842.6 | $0.6 | NAP | NAP | NAP | NAP | NAP | NAP |
| **M & V Auditor** | NAP | NAP | NAP | $49.3 | NAP | NAP | NAP | NAP | NAP | NAP |
| **Research and Development (R&D)** | $131.8 | $26.5 | NAP | NAP | NAP | NAP | NAP | NAP | NAP | NAP |
| **Total Expenditures** | $4,984.1 | $219.0 | $6,085.4 | $248.8 | $5,627.3 | $378.9 | $5,127.4 | $413.9 | $6,749.9 | $963.6 |

[13] 2007 expenditures taken from Table 10 in the current EEPR; 2006 expenditures from Energy Efficiency Report (EER) filed under Project No. 33884; 2005 expenditures from EER, Project No. 32107; 2004 expenditures from EER, Project No. 30739; 2003 expenditures from EER, Project No. 29440.

## VIII. Program Funding for Calendar Year 2007

As shown in Table 10, the total forecasted budget for 2007 was $6,082,300 and actual expenditures for 2007 were $5,203,100, an overall decrease of 14%. The main reason for this decrease is due to the Targeted Low-income Energy Efficiency Program incentive of $842,600 being budgeted in 2007; but, not being expended in 2007. The incentive expenditure did not occur in 2007 because the Targeted Low-income Energy Efficiency Program has not been implemented due to the pending resolution of PUC Docket No. 34360.

**Table 10: Program Funding for Calendar Year 2007 (Dollar amounts in 000's)**

| | Total Projected Budget [14] | Numbers of Customers Participating | Actual Funds Expended (Incentives) | Actual Funds Expended (Admin) | Total Funds Expended | Funds Committed (Not Expended) | Funds Remaining (Not Committed) |
|---|---|---|---|---|---|---|---|
| **Commercial** | | | | | | | |
| CitySmart Pilot MTP | **$648.5** | **19** | **$656.8** | **$13.4** | **$670.2** | **$0** | **$0** |
| Commercial & Industrial Solicitation Program | **$0.0** | **0** | **$285.0** | **$13.0** | **$298.0** | **$0** | **$0** |
| Commercial and Industrial SOP | **$472.6** | **38** | **$450.4** | **$42.5** | **$492.9** | **$98.7** | **$40.3** |
| Emergency Load Management SOP | **$53.4** | **1** | **$25.7** | **$4.9** | **$30.6** | **$0** | **$22.3** |
| Energy Efficiency Improvement SOP | **$100.0** | **7** | **$99.5** | **$5.7** | **$105.2** | **$0** | **$4.4** |
| Residential & Small Commercial SOP | **NAP** | **NAP** | **NAP** | **NAP** | **NAP** | **NAP** | **NAP** |
| **Residential** | | | | | | | |
| ENERGY STAR® Homes MTP | **NAP** | **NAP** | **$20.2** | **$4.8** | **$25.0** | **$0** | **$0** |
| Residential & Small Commercial SOP | **$3,182.0** | **6,360** | **$2,937.1** | **$64.9** | **$3,002.0** | **$133.1** | **$280.4** |
| **Hard-to-Reach** | | | | | | | |
| Hard-to-Reach SOP | **$427.5** | **797** | **$377.6** | **$40.7** | **$418.3** | **$4.5** | **$2.6** |
| Targeted Low-Income Energy Efficiency SOP | **$936.3** | **NAP** | **$0.0** | **$2.6** | **$2.6** | **$842.6** | **$0** |
| **Research and Development (R&D)** | **$262.0** | **NAP** | **$131.8** | **$26.5** | **$158.3** | **NAP** | **NAP** |
| **Total Expenditures** | **$6,082.3** | **7,222** | **$4,984.1** | **$219.0** | **$5,203.1** | **$1,078.9** | **$453.9** |

[14] Projected Budget from the Energy Efficiency Plan (EEP) filed in April 2007 under Project No. 32107.

# IX. Market Transformation Program Results

## CitySmart Pilot MTP

TCC implemented the CitySmart Pilot MTP in 2006. The program initially targeted several cities and schools in the TCC service area. The CitySmart MTP pays monetary incentives to the program partners for the installation of energy efficiency measures that reduce peak demand and energy use as well as providing non-cash incentive tools that identify local government entities and public school districts critical needs and promote best business practices. As each customer participant commits to participating in the CitySmart MTP, benchmarking analysis is conducted for each facility. The benchmarking data compares energy performance within the various customer facilities, and against a state and national average. This data also serves as the program baseline data.

TCC contracted with a third party implementer to implement the program. Implementation duties and responsibilities include outreach activities, workshops, benchmarking, engineering analysis and reporting.

In 2007 TCC had projected to acquire 1,650 kW savings from this program. TCC exceeded this projection by verifying and reporting 1, 716 kW. This included participation by 19 customers (7 cities and 12 school districts) in four (4) different counties.

# X. Current Energy Efficiency Cost Recovery Factor (EECRF)

TCC has no Energy Efficiency Cost Recovery Factor (EECRF) in place; therefore, there are no over or under recoveries through such EECRF.

## Revenue Collected

Not Applicable

## Over- or Under-recovery

Not Applicable

# Acronyms

| | |
|---|---|
| **C&I** | Commercial and Industrial |
| **CCET** | Center for the Commercialization of Electric Technologies |
| **DR** | Demand Response |
| **DSM** | Demand Side Management |
| **EEP** | Energy Efficiency Plan, which was filed as a separate document prior to April 2008 |
| **EEPR** | Energy Efficiency Plan and Report |
| **EER** | Energy Efficiency Report, which was filed as a separate document prior to April 2008 |
| **EE Rule** | Energy Efficiency Rule, PUCT Substantive Rules § 25.181 and § 25.183 |
| **ERCOT** | Electric Reliability Council of Texas |
| **HTR** | Hard-To-Reach |
| **M&V** | Measurement and Verification |
| **MTP** | Market Transformation Program |
| **NAP** | Not Applicable |
| **PUCT** | Public Utility Commission of Texas |
| **REP** | Retail Electrical Provider |
| **RES** | Residential |
| **SCORE** | Schools Conserving Resources |
| **SOP** | Standard Offer Program |

# Glossary

**Actual Weather Adjusted --** "Actual Weather Adjusted" peak demand and energy consumption is the historical peak demand and energy consumption adjusted for weather fluctuations using weather data for the most recent ten years.

**At Meter –** Demand (kW/MW) and Energy (kWh/MWh) figures reported throughout the EEPR are reflective of impacts at the customer meter. This is the original format of the measured and deemed impacts which the utilities collect for their energy efficiency programs. Goals are necessarily calculated "at source" (generator) using utility system peak data at the transmission level. In order to accurately compare program impacts, goals and projected savings have been adjusted for the line losses (7%) that one would expect going from the source to the meter.

**Average Growth --** Average historical growth in demand (kW) over the prior 5 years for residential and commercial customers adjusted for weather fluctuations.

**Capacity Factor –** The ratio of the annual energy savings goal, in kWh; to the peak demand goal for the year, measured in kW, multiplied by the number of hours in the year, or the ratio of the actual annual energy savings, in kWh, to the actual peak demand reduction for the year, measured in kW, multiplied by the number of hours in the year.

**Commercial customer --** A non-residential customer taking service at a metered point of delivery at a distribution voltage under an electric utility's tariff during the prior calendar year and a non-profit customer or government entity, including an educational institution. For purposes of this section, each metered point of delivery shall be considered a separate customer.

**Deemed savings** -- A pre-determined, validated estimate of energy and peak demand savings attributable to an energy efficiency measure in a particular type of application that an electric

utility may use instead of energy and peak demand savings determined through measurement and verification activities.

**Demand** -- The rate at which electric energy is used at a given instant, or averaged over a designated period, usually expressed in kilowatts (kW) or megawatts (MW).

**Demand savings** -- A quantifiable reduction in demand.

**Energy efficiency --** Improvements in the use of electricity that are achieved through facility or equipment improvements, devices, or processes that produce reductions in demand or energy consumption with the same or higher level of end-use service and that do not materially degrade existing levels of comfort, convenience, and productivity.

**Energy efficiency measures --** Equipment, materials, and practices at a customer's site that result in a reduction in electric energy consumption, measured in kilowatt-hours (kWh), or peak demand, measured in kilowatts (kWs), or both. These measures may include thermal energy storage and removal of an inefficient appliance so long as the customer need satisfied by the appliance is still met.

**Energy efficiency program** -- The aggregate of the energy efficiency activities carried out by an electric utility under this section or a set of energy efficiency projects carried out by an electric utility under the same name and operating rules.

**Energy Efficiency Rule (EE Rule)** -- § 25.181 and § 25.183, which are the sections of the Public Utility Commission of Texas' Substantive Rules implementing Public Utility Regulatory Act (PURA) § 39.905.

**Energy savings** -- A quantifiable reduction in a customer's consumption of energy that is attributable to energy efficiency measures.

**Growth in demand** -- The annual increase in demand in the Texas portion of an electric utility's service area at time of peak demand, as measured in accordance with the Energy Efficiency Rule.

**Hard-to-reach (HTR) customers --** Residential customers with an annual household income at or below 200% of the federal poverty guidelines.

**Incentive payment** -- Payment made by a utility to an energy efficiency service provider under an energy-efficiency program.

**Inspection** -- Examination of a project to verify that an energy efficiency measure has been installed, is capable of performing its intended function, and is producing an energy saving or demand reduction.

**Load control** -- Activities that place the operation of electricity-consuming equipment under the control or dispatch of an energy efficiency service provider, an independent system operator or other transmission organization or that are controlled by the customer, with the objective of producing energy or demand savings.

**Load management** -- Load control activities that result in a reduction in peak demand on an electric utility system or a shifting of energy usage from a peak to an off-peak period or from high-price periods to lower price periods.

**Market transformation program (MTP)** -- Strategic programs to induce lasting structural or behavioral changes in the market that result in increased adoption of energy efficient technologies, services, and practices, as described in this section.

**Measurement and verification (M&V)** -- Activities intended to determine the actual energy and demand savings resulting from energy efficiency projects as described in this section.

**Peak demand** -- Electrical demand at the times of highest annual demand on the utility's system.

**Peak demand reduction** -- Reduction in demand on the utility system throughout the utility system's peak period.

**Peak period** -- For the purpose of this section, the peak period consists of the hours from one p.m. to seven p.m., during the months of June, July, August, and September, excluding weekends and Federal holidays.

**Projected Demand and Energy Savings** – Peak demand reduction and energy savings Company projects to achieve by implementing the portfolio of programs outlined in this EEPR. These projected savings reflect Company's goals required by the Energy Efficiency Rule (Substantive Rule § 25.181) and [list any other Utility-specific driver(s) for Project Savings Numbers].

**Project sponsor** -- An energy efficiency service provider or customer who installs energy efficiency measures or performs other energy efficiency services under the Energy Efficiency Rule. An energy efficiency service provider may be a retail electric provider or commercial customer, provided that the commercial customer has a peak load equal to or greater than 50kW.

**Renewable demand side management (DSM) technologies** -- Equipment that uses a renewable energy resource (renewable resource), as defined in §25.173(c) of this title (relating to Goal for Renewable Energy) that, when installed at a customer site, reduces the customer's net purchases of energy, demand, or both.

**Standard offer program (SOP)** -- A program under which a utility administers standard offer contracts between the utility and energy efficiency service providers.

# APPENDICES

## APPENDIX A:

## REPORTED AND VERIFIED DEMAND AND ENERGY REDUCTION BY COUNTY

## CALENDAR YEAR 2007

### CITYSMART PILOT MTP

| County | Reported and Verified Savings | |
|---|---|---|
| | kW | kWh |
| Cameron | 224.0 | 492,627 |
| Hidalgo | 738.0 | 1,599,867 |
| Nueces | 175.0 | 406,282 |
| Webb | 579.0 | 1,350,587 |
| **Total** | **1,716.0** | **3,849,363** |

### COMMERCIAL AND INDUSTRIAL SOP

| County | Reported and Verified Savings | |
|---|---|---|
| | kW | kWh |
| Aransas | 12.9 | 27,887 |
| Cameron | 195.0 | 557,092 |
| Hidalgo | 556.3 | 1,871,773 |
| Jim Wells | 14.7 | 58,180 |
| Karnes | 128.7 | 795,046 |
| Matagorda | 10.9 | 40,132 |
| Maverick | 124.6 | 506,372 |
| Nueces | 12.4 | 49,874 |
| San Patricio | 214.1 | 525,715 |
| Val Verde | 42.0 | 179,491 |
| Wharton | 12.6 | 48,591 |
| **Total** | **1,324.2** | **4,660,153** |

### EMERGENCY LOAD MANAGEMENT SOP

| County | Reported and Verified Savings | |
|---|---|---|
| | kW | kWh |
| Hidalgo | 280.2 | 0 |
| **Total** | **280.2** | **0** |

## ENERGY EFFICIENCY IMPROVEMENT PROGRAM NFP SOP

| County | Reported and Verified Savings | |
|---|---|---|
| | kW | kWh |
| Cameron | 59.2 | 317,016 |
| Nueces | 4.8 | 18,405 |
| Victoria | 0.8 | 3,898 |
| **Total** | **64.8** | **339,319** |

## HARD-TO-REACH SOP

| County | Reported and Verified Savings | |
|---|---|---|
| | kW | kWh |
| Aransas | 66.1 | 162,989 |
| Bee | 12.1 | 38,783 |
| Brooks | 3.5 | 11,105 |
| Calhoun | 5.8 | 14,728 |
| Cameron | 19.2 | 59,028 |
| De Witt | 3.7 | 12,208 |
| Goliad | 0.7 | 2,715 |
| Gonzales | 1.2 | 4,662 |
| Hidalgo | 96.7 | 307,461 |
| Jackson | 4.6 | 9,053 |
| Jim Wells | 6.0 | 17,204 |
| Karnes | 5.7 | 13,056 |
| Kleberg | 24.4 | 59,207 |
| Nueces | 89.8 | 211,833 |
| Refugio | 3.3 | 8,898 |
| San Patricio | 5.6 | 14,045 |
| Starr | 11.5 | 41,501 |
| Victoria | 106.7 | 308,038 |
| Webb | 8.5 | 19,251 |
| Wharton | 0.9 | 1,376 |
| **Total** | **476.0** | **1,317,141** |

## RESIDENTIAL & SMALL COMMERCIAL SOP

| County | Reported and Verified Savings | |
|---|---|---|
| | kW | kWh |
| Aransas | 59.4 | 160,629 |
| Bee | 53.7 | 188,694 |
| Brooks | 118.8 | 333,285 |
| Calhoun | 78.6 | 172,482 |
| Cameron | 136.4 | 452,839 |
| Colorado | 5.2 | 16,357 |
| De Witt | 5.2 | 17,264 |
| Duval | 17.1 | 43,367 |
| Goliad | 3.1 | 11,122 |
| Gonzales | 2.83 | 7,967 |
| Hidalgo | 979.1 | 3,288,210 |
| Jackson | 17.9 | 32,518 |
| Jim Wells | 61.0 | 157,499 |
| Karnes | 4.83 | 14,794 |
| Kleberg | 114.6 | 296,718 |
| Live Oak | 9.9 | 31,662 |
| Matagorda | 18.8 | 34,881 |
| Nueces | 2,736.1 | 6,819,901 |
| Refugio | 13.0 | 32,657 |
| San Patricio | 353.0 | 894,256 |
| Starr | 88.0 | 321,257 |
| Victoria | 567.0 | 1,392,410 |
| Webb | 177.1 | 566,652 |
| Wharton | 13.2 | 34,457 |
| Willacy | 1.2 | 3,269 |
| **Total** | **5,635.0** | **15,325,147** |

# APPENDIX B:

# PROGRAM TEMPLATES

# Texas Statewide Residential CFL Program

# Request for Proposals
# For Program Implementation

Released on: January 25, 2008

Released by: Frontier Associates, LLC

**Proposals Due:**

**February 15, 2008**

Frontier Associates on behalf of the AEP Companies {Southwestern Electric Power Company (SWEPCO), Texas Central Company (TCC), and Texas North Company (TNC)}, CenterPoint Energy, Entergy, El Paso Electric, Oncor Electric Delivery, Texas-New Mexico Power, and Xcel Energy seeks bids for work described in this request for proposals (RFP) for a program implementer or implementers to manage the Texas Statewide Residential Compact Fluorescent Light Bulb (CFL) Market Transformation Program. The selected implementer(s) will design and implement a program to increase the knowledge and use of CFLs among Texas residents, concentrating on producing sustained demand reductions and energy savings for the customers of the sponsor utilities.

**Project Background**

In March 2000, the Public Utilities Commission of Texas (PUCT) adopted the Energy Efficiency Rule §25.181. The Energy Efficiency Rule implements Senate Bill 7 of May 1999. This bill requires each investor-owned electric utility in Texas to meet 10% of its annual growth in demand through energy efficiency programs. House Bill 3693 has increased the minimum goal to 15% for 2008 and 20% for 2009. To achieve these goals, utilities must provide incentives through standard offer programs or limited, targeted market transformation programs[15]. The Texas electric utilities that are sponsoring this program are constantly looking for new ways to meet or exceed their annual energy efficiency goals. They have decided that including a compact fluorescent light bulb (CFL) promotion program in their energy efficiency portfolios for 2008 and 2009 can greatly aid them in achieving these goals.

CFLs present a promising yet challenging avenue for demand and energy savings for Texas utilities. CFL sales in Texas have increased rapidly in recent years to the point that Texas has been reported by Wal-Mart as their top-selling state for CFLs and by the EPA as the top-selling state for ENERGY STAR qualified CFLs among six national and regional retailers. In addition, national and local campaigns aimed at increasing the public's knowledge and use of CFLs are affecting the market in Texas. The EPA's ENERGY STAR "Change a Light, Change the World" pledge campaign shows Texas as the state with the third most pledges, and the mayors of 5 major Texas cities have recently kicked off a CFL campaign by naming the CFL the "state light bulb of Texas." Such popularity shows that consumers are willing to adopt this new technology when they are being well informed and adequately encouraged. However, this popularity also adds to the challenge of producing and demonstrating incremental sales (those which would not have occurred in the absence of the program).

This Statewide CFL program is intended to capture a significant portion of the opportunity while adequately addressing the market challenges described above.

[15] Market transformation programs are strategic efforts including, but not limited to, incentives and education designed to reduce market barriers for energy efficient technologies and practices. Standard offer programs are contracts between an energy efficiency services provider and a participating utility who specifies a standard payment based upon the energy or demand savings achieved with installing energy efficiency measures at electric customer sites.

## Program Description

### *Objectives*

This statewide CFL program's primary goal is to produce reductions in electrical peak demand and energy usage through verifiable incremental sales of ENERGY STAR qualified CFLs (and CFL fixtures, if desired) throughout the service areas of the sponsor utilities. These sales are to result from a combination of economic incentives and customer education that will remove the market barriers that block the purchase of CFLs and will help to permanently shift the Texas residential lighting market towards CFLs. As noted in the project background, the high levels of CFL sales and the grand promotional efforts in Texas make it difficult for this program to claim credit for 100% of documented increases in sales. As such, prospective implementers are encouraged to devise innovative strategies for ensuring that the program produces incremental sales of CFLs and minimizes free-ridership in a cost-effective and verifiable manner. Prospective implementers are also encouraged to coordinate with other promotional programs, including the ENERGY STAR "Change a Light" Program and the Texas mayors' program, to increase the program's reach as well as to help find ways to ensure that this program produces incremental sales distinct from these other efforts.

As a safeguard against free-riders, the program has the additional objective of increasing participation in the sponsor utilities' other energy efficiency programs. The design of marketing and outreach activities should include an educational component aimed not only towards permanently shifting the residential lighting market in Texas towards CFLs, but also towards increasing residential customer awareness of energy efficiency measures and the associated utility programs. Every customer that takes advantage of another utility program as a result of the information provided through the CFL program improves the program's cost-effectiveness and effectively lowers free-ridership.

To review, the objectives of the program are as follows:

- Motivate and help residential customers to replace incandescents with CFLs
- To educate the consumer of the benefits of CFLs vs. incandescents and create a no-regret decision for the residential customer through incentives/discounts that make the purchase of a CFL at parity to that of an incandescent bulb.
- Produce utility electricity savings through incremental sales of CFLs
- Deliver additional efficiency messages through coordinated CFL program
- Expand customer awareness of the benefits of energy efficiency and direct them to participating vendors
- Co-brand with willing "partners"
- Offer "no-regret" partnership options
- Engage municipal utilities and electric cooperatives in the statewide effort to expand program reach and effectiveness

### *ENERGY STAR CFL Qualifications*

To ensure that consumers develop and maintain positive opinions of compact fluorescent lighting technology, incentives will only be offered on products that qualify for the Environmental Protection Agency's ENERGY STAR. ENERGY STAR CFL specifications include:

- Efficiency level for bare lamps of 15 watts or more is 60 lumens/watt
- Efficiency level for bare lamps of less than 15 watts is 45 lumens/watt
- Minimum rated lifetime of 6,000 hours

Detailed specifications can be found on the EPA's ENERGY STAR website at:
http://www.energystar.gov/ia/partners/product_specs/program_reqs/cfls_prog_req.pdf

### *Customer Eligibility, Sales Goals, and Budget*

The goal of this program is to produce savings in the service area of each sponsor utility proportional to that utility's contribution to the overall program budget. Thus, efforts should be made to track sales and ensure that the CFLs distributed under the program are very likely to be installed in the service areas of the sponsors in the appropriate proportions. The budget details are shown in Table 1. The structure of the customer eligibility requirements for any incentives is left to the prospective implementers and should be included in the proposals. Proposals should also include sales and energy savings goals for each service area, calculated according to the budget breakdown.

**Table 1. Budget by Utility**

| Utility | 2008 Budget Contribution | 2009 Budget Contribution[16] |
|---|---|---|
| AEP-SWEPCO | $42,000 | $42,000 |
| AEP-TCC | $212,000 | $212000 |
| AEP-TNC | $42,000 | $42,000 |
| CNP | $500,000 | $500,000 |
| EGSI | $225,000 | $225,000 |
| EPE | $0 | $0 |
| TNMP | $35,000 | $35,000 |
| ONCOR | $2,300,000 | $2,300,000 |
| XCEL | $75,000 | $75,000 |
| **Totals** | **$3,431,000** | **$3,431,000** |

[16] 2009 budget contributions are subject to change upon regulatory review.

The selected implementer(s) will be responsible for program design and implementation including, but not limited to, determining delivery methods and incentive structures and values, negotiating terms with retailers and manufacturers, developing and implementing market intervention and promotional strategies, and coordinating with concurrent national and local CFL education campaigns. The implementer(s) will also assume a portion of the measurement and verification responsibilities.

**Promotion**

Implementer(s) will promote the CFL program through various market intervention strategies, which will entail the use of point-of-purchase educational materials, advertising, and public and in-store special events, among other options. Implementer(s) must obtain sponsor approval for all promotional materials through Frontier prior to release. Implementer(s) will forward the materials to Frontier and await word of approval. It is anticipated that instant rebate or mail-in coupons will be used to allow for the procurement of useful tracking data by requiring each participating customer to insert his/her name and electric service billing address in order for the incentive to be applied. However, alternative incentive structures that can produce sufficient data, for example, installation realization rates and service area location, are also welcome.

Proposals should address the enlisting of retailers, distributors, and/or manufacturers, as well as coordination with the EPA's Change a Light Program, the mayors' challenge, and other CFL campaigns. The bulbs and fixtures to be incentivized and the associated rebate levels should be specified. If fixture incentives are proposed, the cost-effectiveness of their inclusion should be demonstrated.

Proposals should explain educational activities and literature. CFL educational materials should inform customers of the benefits of CFLs over incandescent light bulbs and the proper applications of CFLs. Plans for addressing topics such as selection of lamps for their proper applications, the use of lamps in enclosed fixtures and recessed sockets, deciphering wattage equivalences, and optimal positioning of lamps should be laid out in the proposals. In addition, please include a discussion of methods for providing information about energy efficiency measures covered by the sponsor utilities' other market transformation and standard offer programs (or, at least, providing ways to investigate those offerings, accounting for the possibility that each sponsoring utility may have different offers and procedures).

Implementer(s) will provide field representatives that visit the stores to ensure that the retailer has product and signage displayed and that the sales staff is aware and trained on the promotion information. Implementer(s) will visit each store a minimum two times throughout the promotion and take digital photos of the displays that will be forwarded to Frontier.

**Delivery**

Implementer(s) will manage the delivery of all incentives for the program. Any rebate coupons will be collected by the implementer(s), who will process them and pass on relevant information to Frontier on a monthly basis. Frontier will distribute the information to the sponsor utilities for invoicing. Implementer(s) are also responsible for the delivery of all educational and promotional materials. The sponsor utilities will not provide advertising or bill inserts.

**Quality Assurance**

Implementer(s) must maintain a program that produces satisfied customers. The requirement that incentives only be given for ENERGY STAR qualified bulbs is an important initial step towards this goal. Additional efforts are needed, however. It is important that customers are informed as to the most effective use of CFLs. As mentioned above, educational efforts should emphasize the energy savings potential of the bulbs when used for the proper applications. Proposals should describe these efforts and include plans for handling customer questions and complaints.

**Verification Assistance**

The implementer(s) will be responsible for tracking sales in order to provide a means to prove that the sales are incremental and to ensure that they are distributed proportionally (with respect to budget) among the sponsor utilities' service areas. Implementer(s) will provide weekly sales reports to inform sponsors of the status of the sales. Implementer will notify Frontier one week in advance if sales are expected to exceed the designated amount. Sponsors are only obligated to provide funding for the designated sales estimate but may choose to increase the designated sales amount to accommodate the demand. Implementer(s) will regularly provide Frontier Associates with information that facilitates the following:

1. Determining the program impacts, including energy savings (kWh) and demand reduction (kW), and program value to customers
2. Assessing the program's cost-effectiveness based on various economic tests
3. Assessing the effectiveness of program delivery mechanisms
4. Determining and assessing free-ridership issues

Ideally, this information would include the number of each type of bulb sold, the general location of the sales, and the types of bulbs being replaced. A breakdown of the sales by income level would be quite beneficial in claiming savings among low-income and hard-to-reach customers. Proposals should discuss the methods for obtaining this type of data, including the nature of agreements with retailers.
In addition, implementer(s) will perform an annual evaluation to determine the number of incremental sales in each service area and thoroughly demonstrate that the sales were indeed incremental. It is crucial that the sponsor utilities are able to claim accurate demand reduction and energy savings resulting from this program.

## Bid Selection Criteria

This section describes the approach for scoring bid proposals and selecting those that best meet the program sponsors' objectives. The bid scoring approach will measure the ability of the bidder to successfully support the implementation of the CFL program. The bid score will be based primarily on a qualitative evaluation of information submitted in the bid proposal. The attributes that will be scored include:

- Innovations to Approach (30% of total score)
- Bidder Qualifications and Experience (25% of total score)

- Quality and Completeness of Proposal (25% of total score)
- Price (20% of total score)

Each attribute is described below.

**Innovations to Approach**

The Innovations to Approach scores the bidder's innovations to the anticipated scope of the CFL program. This attribute is the most heavily weighted, constituting 30% of the proposal's total score. The highest score shall be given to the most valuable innovations, especially those aimed at producing incremental sales and providing methods to show that the program was responsible for the sales. Extra points will be awarded to proposals that include methods for producing and verifying sales among low-income and hard-to-reach customers.

**Bidder Qualifications and Experience**

The Bidder Qualifications and Experience attribute constitutes 25% of the total score. This attribute scores the experience level of the bidding organization and/or key personnel to be involved in program implementation.

The minimum requirement for the Bidder Qualifications and Experience attribute is that the bidder can demonstrate knowledge and expertise needed for successful program implementation. The highest score for this attribute will be granted to the bidder with previous experience with similar programs, and excellent references. The lowest score will be granted to the bidder who submits the information requested in the Bid Response sections of this RFP, but does not demonstrate competence or qualifications related to the project tasks.

**Quality and Completeness of Proposal**

The Quality and Completeness of Proposal attribute score measures the overall completeness, clarity, and effectiveness of the proposal. This attribute constitutes 25% of the proposal's total score. A high-quality proposal is considered an indication that the bidder is capable of providing high-quality services to the program sponsors. The minimum requirement for the Quality and Completeness of Proposal attribute is that the bidder is responsive to the information requested in this RFP.

The highest score for this attribute will be given to a proposal that is outstanding in terms of completeness, clarity of presentation, and identification of effective program implementation strategies. In addition, the proposal should display an understanding of the market to be targeted and knowledge of the programs to be implemented. The bid response should provide a brief outline of the implementation plan, including strategies for data collection, program success, and quality assurance. The highest scoring proposal should require little or no additional clarification.

**Price**

The Price attribute score constitutes 20% of a proposal's total score. Bid price scoring takes into consideration the projected cost per kW and kWh delivered, calculated using CFL sales net of free-ridership, i.e., incremental sales. The main goal of this program is to produce

incremental sales of CFLs in the sponsor utilities' service areas, and, as such, it is important that the pricing and compensation schedule reflect this goal.
Additional points will be awarded to proposals that accept a reasonable share of the performance risk associated with program delivery. It is understood that some implementers may feel that front-loading is necessary to successfully implement their plans, and so this is a possibility, although it would be accompanied by a performance bond to ensure that the program remains cost-effective for the sponsors in the case that the incremental sales delivered are insufficient to produce avoided cost benefits for the sponsors in excess of the front loaded amount.
Bidders should anticipate potential expansion to additional utilities' service territories through the contract period, which is expected to be on an annual evergreen cycle. It is understood that exact pricing for service expansion is not possible, though bidders are asked to discuss the likely impact of expansion on their pricing and compensations schedule.

## Bid Response and Deliverables

The bid response should provide an outline of the implementation plan, including data collection and program evaluation strategies. The bid response must also provide the qualifications, resumes, and hourly rates of the staff expected to work on program implementation activities. The bidder may also submit documentation from previous projects to demonstrate competence and qualifications, including descriptions of successful delivery of similar programs, positive program evaluation reports and letters of recommendation.

### Maximum Bid Price

Payments to the Implementation Consultant(s) will not exceed the budget limits outlined above. Bidders should describe their compensation schedule and explain how their proposed schedule will help optimize cost-effectiveness and reach.

### Deliverables

The deliverables for the project are:

- Implementation plan. Prior to beginning implementation of the program, the selected implementer(s) will submit a detailed implementation plan to Frontier for approval. This plan will provide detailed plans for promotion, delivery, verification, and quality assurance. Once the implementation plan is approved by Frontier, the implementer(s) will proceed with the implementation of the program.
- Monthly reports detailing, at first, program rollouts and, later, program progress and efficiency gains.
- Recommended strategies for improving program delivery, reach, and cost-effectiveness.

### Timeline

Evaluation of bids is expected to be completed within two weeks of bid submittal. Bidder presentations may be scheduled, if required, within 7 to 10 days of the bid due date. The final selection will be announced at the end of the bid evaluation period.
Contract negotiation is expected to require no more than one week. In order to facilitate the contracting process, negotiation over terms and conditions will be strictly limited to bidder's noted exceptions to the terms and conditions released with the RFP. Requests for additional exceptions will be considered grounds to terminate negotiation and accept an alternate bidder's offer.
The program implementation plan will be delivered to Frontier **within 18 days of contract execution**, unless otherwise authorized by Frontier. An initial implementation report must be completed and submitted to Frontier **at the end of the second full month of project implementation**, unless otherwise authorized by Frontier. Subsequent implementation reports will be required monthly.

## Submitting Proposals

Program implementation bidders that intend to submit proposals should be aware of the following:
If a submitted proposal is submitted late, incomplete, or unclear, Frontier at its sole discretion may reject the proposal or request supplemental information from the bidder.
**Proposals must be received by 5 pm central time on Friday February 15, 2008.**
All proposals must be submitted in paper and/or electronic (Microsoft Word or Adobe Portable Document (PDF)) formats, and sent to the mailing and/or email address below:

John McClain
Statewide Residential CFL Program
c/o Frontier Associates LLC
1515 S. Capital of Texas Hwy., Ste. 110
Austin, TX 78746-6544
512-372-8778 ext. 116
jmcclain@frontierassoc.com

Proposals submitted via email should be accompanied by a request for a return receipt. If a potential implementer does not receive a return receipt, he/she should follow up immediately, or risk a late, and therefore unacceptable, proposal.
The winning bidder will be notified by February 29, 2008.

## Additional Information Regarding Proposals

### Preparation Costs

Frontier, or any of the sponsor utilities, will not reimburse a bidder for any costs incurred in the preparation of the proposal required for participation in the Statewide Residential CFL Implementation bidding.

## Confidentiality

Sensitive company and project information submitted by the bidder as part of its proposal will be treated confidentially to the fullest extent possible. However, Frontier will not be responsible for the release of any confidential and/or proprietary information. Please clearly mark all sensitive/confidential material.

For purposes of program evaluation or review, information contained in program submittals may be presented to outside parties, including sponsor utilities and the Public Utility Commission of Texas.

## Questions

A pre-bid conference call will be held on Monday February 11, 2008 for all bidders to get clarifications from Frontier.
All other questions related to this RFP or the "Terms and Conditions" below should be submitted by mail or email to:

John McClain
Statewide Residential CFL Program
c/o Frontier Associates LLC
1515 S. Capital of Texas Hwy., Ste. 110
Austin, TX 78746-6544
jmcclain@frontierassoc.com

The deadline for written questions is Wednesday **February 13, 2008.**

## Submission of False, Misleading, or Incorrect Information

Frontier reserves the right to discontinue its evaluation of and reject all proposals from any bidder who submits false, misleading, or incorrect information.

## Standard Terms and Conditions

The winning bidder(s) will be required to comply with the terms and conditions outlined in the following attachment.

# APPENDIX C:

# EXISTING CONTRACTS OR OBLIGATIONS

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

# APPENDIX D:

# OPTIONAL SUPPORT DOCUMENTATION

TCC does not have any Optional Supporting Documentation to provide for 2008.