

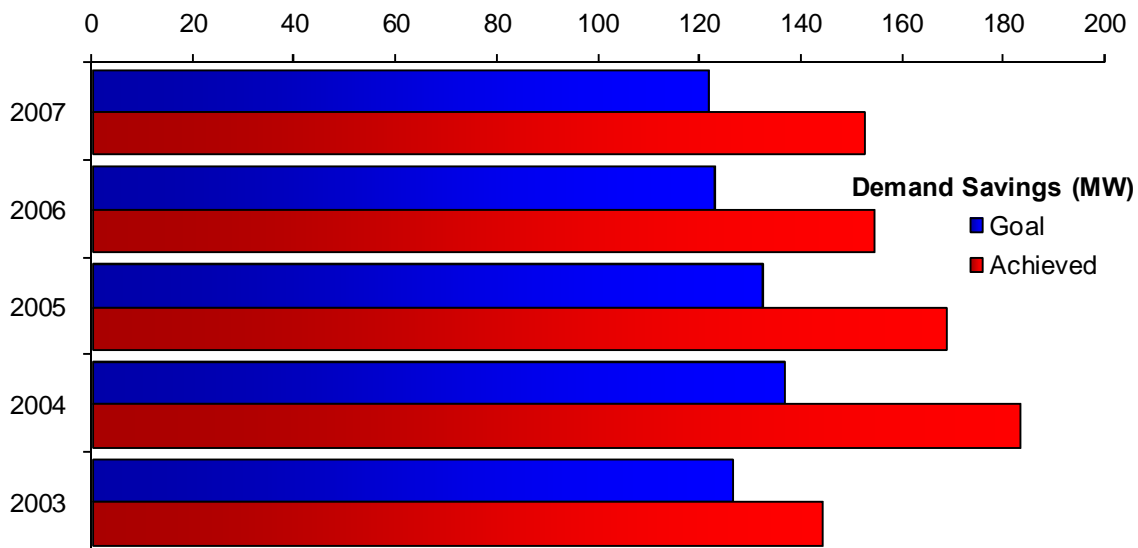
Energy Efficiency Accomplishments of Texas Investor Owned Utilities Calendar Year 2007

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1 Accomplishments

In 2007, the nine Texas investor-owned utilities (IOUs) exceeded their statewide legislative energy efficiency goals for the fifth straight year. The utilities achieved 167 Megawatts (MW) of peak demand reduction, which was 23% above their 136 MW goal, and 427.9 Gigawatt-hours (GWh) of energy reduction. These energy savings correspond to an equivalent reduction of 650,094 pounds of nitrogen oxide (NOx) emissions per year.¹ Figure 1 illustrates the annual peak demand savings for the past five years.

Figure 1: Total Demand Savings by IOUs, 2003-2007²



Most of the utilities' programs involve financial incentives, which were paid to project sponsors to offset the costs of a variety of energy efficiency improvements. The total program funds (including admin) expended to achieve 2007 savings were just under \$80.3 million.

¹ NOx emissions in this report were calculated using emission factors from the 2007 eGRID database compiled by the EPA. The average emissions factor for the ERCOT utilities has been applied to non-ERCOT utilities to provide a rough estimate of their emissions reductions as well.

² 2003 to 2006 data has been adjusted with a 7% T&D loss to reflect "at meter" savings

The Environmental Protection Agency (EPA) recognized Centerpoint Energy Company and Oncor Electric Delivery with a "Sustained Excellence Award". The EPA also awarded Entergy Gulf States with an "Outstanding Achievement Award" for their Energy Star New Homes program.

As of January 1, 2008, the utility programs implemented after electric industry restructuring in Texas had produced 923 MW of peak demand reduction and 2,433 GWh of electricity savings for the years 1999 through 2007. This translates to approximately 3,050 tons of NOx emissions reductions.

2 Energy Efficiency Program Overview

The 75th Texas Legislature passed a law requiring IOUs to meet certain energy efficiency goals. To comply with this law, all IOUs contract with energy efficiency service contractors to install energy efficiency measures that result in peak demand reductions and electricity savings. Contractors install a variety of savings measures at homes and businesses within a utility's service area.

Each utility contracts with national and local firms who contact electricity consumers (residential, commercial, or industrial) about performing work to save energy and reduce their electric bills. Customers select the contractor, decide what equipment will be installed, and choose what work the contractor will do. Price, warranty, financing, and other purchasing matters are entirely between the contractor and customer.

Table 1 lists the Texas IOUs and their common acronyms used throughout this report.

Table 1: Texas Investor Owned Utilities

Utility Name	Utility Acronym
American Electric Power-Southwestern Electric Power Company	AEP-SWEPCO
American Electric Power-Texas Central Company	AEP-TCC
American Electric Power-Texas North Company	AEP-TNC
CenterPoint Energy Company	CNP
El Paso Electric Company	EPE
Entergy Gulf States, Inc.	EGSI
Texas-New Mexico Power Company	TNMP
Oncor	Oncor
Xcel Energy Company*	Xcel*

*voluntary participant in energy efficiency programs

2.1 Legislative Background

Provisions in Senate Bill 7 (SB7), enacted in the 1999 Texas legislature, mandate that at least 10% of an IOU's annual growth in electricity demand be met through energy efficiency programs each year. The Public Utility Commission of Texas (PUCT) Substantive Rule §25.181 establishes procedures for meeting this legislative mandate. Utilities are required to administer energy savings incentive programs, which are implemented through retail electric providers and energy efficiency service providers (EESPs). All programs are designed to reduce system peak demand, energy consumption, or energy costs.

Utilities must achieve their energy efficiency goals through either standard offer programs (SOPs) or limited, targeted market transformation programs (MTPs). Programs are made available to all customers, in all customer classes. This gives each customer a choice of a variety of energy efficiency alternatives. Table 2 lists the types of SOPs and MTPs offered by each utility. Table 3 gives each utility's 2007 program savings and its associated 2007 expenditures.

Table 2: Programs Offered by Utility in 2007

Program Type	Type	AEPⁱ	CNP	EGSI	EPE	TNMP	Oncor	Xcel
Commercial & Industrial	SOP							
Residential & Small Commercial	SOP							
Hard-to-Reach	SOP							
Load Management	SOP							
Energy Efficiency Improvement Program ⁱⁱⁱ	Non SB7							
Low-Income Weatherization ⁱⁱⁱ	Non SB7							
ENERGY STAR [®] New Homes	MTP							
Air Conditioning Distributor	MTP							
Air Conditioning Installer Training	MTP							
Retro-Commissioning	MTP							
Multifamily Water & Space Heating	MTP							
Texas SCORE/CitySmart	MTP				ii			
Trees for Efficiency	MTP							
A/C tune-up ⁱⁱ	MTP							
Refrigerator Recycling ⁱⁱ	MTP							

ⁱ AEP is American Electric Power, and includes Texas North, Texas Central, and SWEPCO in this table.

ⁱⁱ Pilot program

ⁱⁱⁱ The Energy Efficiency Improvement Program (EEIP), and Low-Income Weatherization Program are non-SB7 programs, but included here for completeness. The EEIP is an SOP at AEP-TCC and AEP-TNC.

Figure 2 depicts an overview of the Texas Energy Efficiency Process. Following is Figure 3, a map of Texas outlining the service areas of each of the IOUs.

Figure 2: Overview of Texas Energy Efficiency Programs

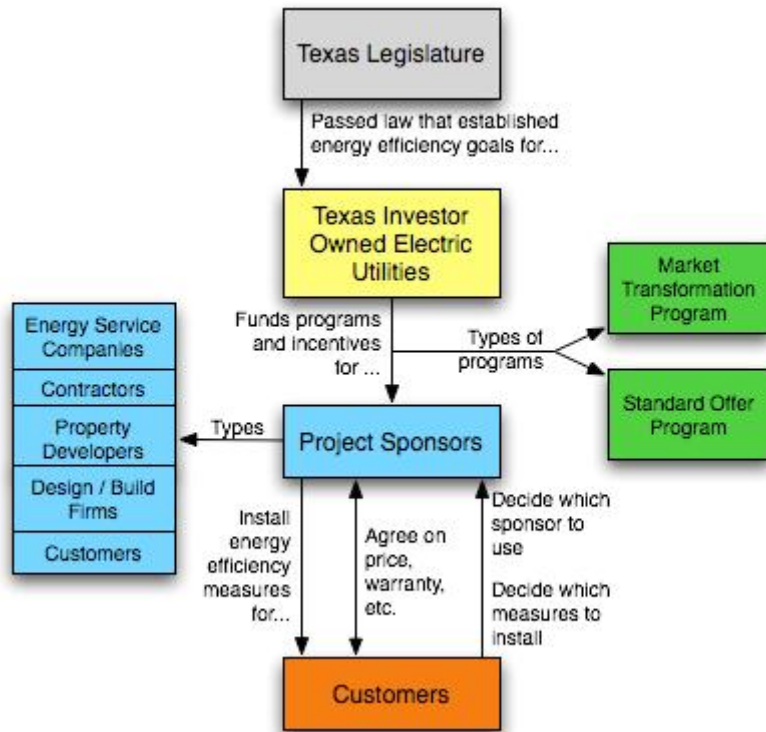
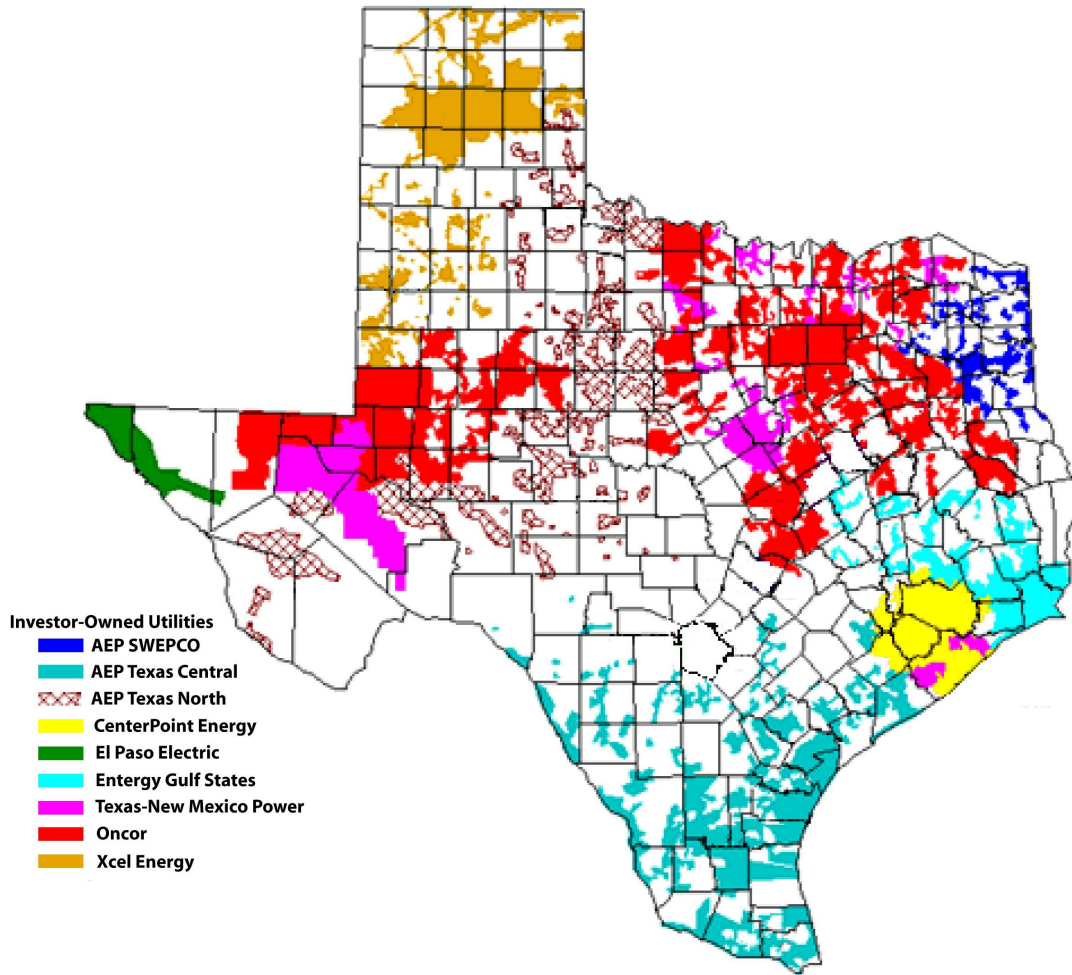


Figure 3: Texas Investor Owned Utility Service Area Map



**Table 3: Utility Funds Expended with Associated Demand and Energy Savings
2007***

(From the Annual Energy Efficiency Reports, including SB7 and non-SB7 programs.)

Utility	Funds Expended (\$)	Demand Savings (MW)	Energy Savings (MWh)
AEP-SWEPCO	\$1,234,200	1.61	5,496
AEP-TCC	\$5,203,100	9.50	25,491
AEP-TNC	\$993,800	1.37	4,894
CNP	\$19,563,098	52.28	135,364
EGSI	\$2,968,000	5.34	15,034
EPE	\$1,115,000	1.21	5,000
TNMP	\$819,757	2.30	3,394
Oncor	\$46,384,709	89.23	216,371
Xcel	\$2,008,000	4.14	16,818
TOTAL	\$80,289,664	166.98	427,862

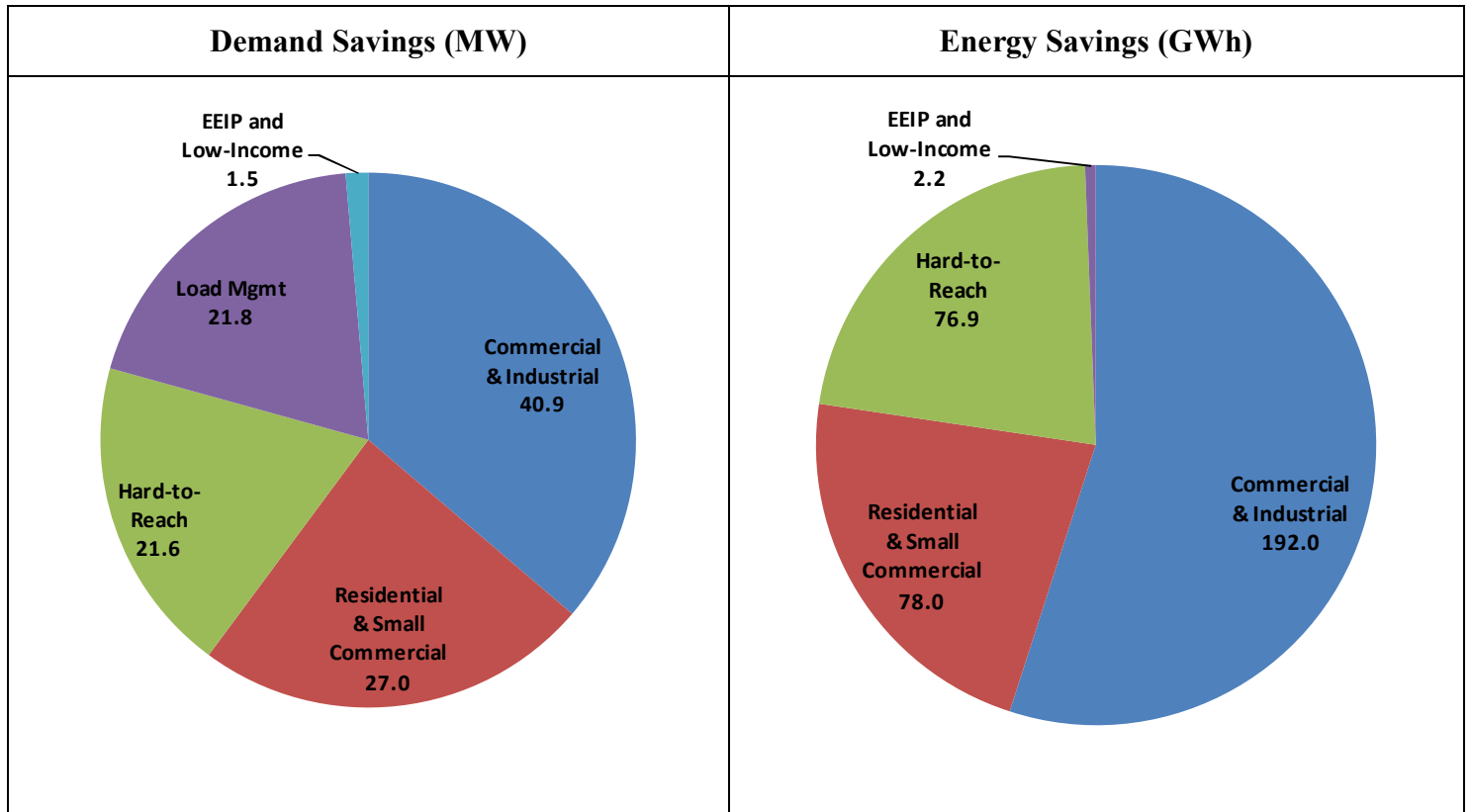
* All energy savings are calculated at meter.

3 Standard Offer Programs

An SOP is a type of energy efficiency program where parties enter into a contract with standard terms and conditions. Utilities offer standard incentives for a wide range of measures that are bundled together as a project. Incentives are based on prescribed avoided costs, and there is a 20% limit per project sponsor. Payment is based on energy efficiency performance. The following sections describe each SOP type offered by Texas IOUs.

Figure 4 shows the electricity savings from each SOP.

Figure 4: Demand & Energy Savings* by Standard Offer Program in 2007



*For completeness, this chart includes the savings associated with Energy Efficiency Improvement Programs (EEIP), and Low-Income Weatherization Programs even though these programs are not SB7 programs. Combined they are too small to distinguish on the chart. The EEIP is an SOP at AEP-TCC and AEP-TNC. This chart also includes CNP’s settlement programs.

3.1 Commercial & Industrial

The Commercial and Industrial (C & I) program targets large commercial and industrial customers with a maximum demand of more than 100 kW. Utilities pay incentives to project sponsors for certain measures installed in new or retrofit applications that provide verifiable demand and energy savings. Each project must reduce peak demand by at least 20 kW. Typical projects include chillers, lighting, and industrial process retrofits.

3.2 Residential & Small Commercial

The Residential and Small Commercial program (RSC SOP) targets small commercial customers as well as multi-family, single-family, and mobile homes. (Small commercial customers are retail, non-residential customers with a maximum demand that does not exceed 100 kW). The program provides incentives for the installation of a wide range of

measures that reduce system peak demand, energy consumption and energy costs. Retrofits and efficient new construction of low-income housing may also be undertaken.

Utilities pay incentives to Energy Efficiency Service Providers (EESPs). These incentives are based on deemed savings when available. (Deemed savings estimates are predetermined, validated estimates of energy and peak demand savings attributable to an energy efficiency measure.) Otherwise, the EESPs must follow the measurement and verification (M&V) protocol adopted by the PUCT. In this case, the incentives are based upon verified peak demand or energy savings using the International Performance Measurement and Verification Protocol.

The primary objective of RSC SOP is to achieve cost-effective reduction in energy consumption during peak summer demand. There are five additional objectives of the program: (1) to encourage private sector delivery of energy efficiency products and services; (2) to achieve customer energy and cost savings; (3) to significantly reduce barriers to participation by streamlining program procedures and M&V requirements; (4) to encourage participation by a wide range of EESPs; (5) to produce demand, energy, and bill savings in new single-family affordable housing projects and in new multifamily projects.

3.3 Hard-to-Reach

The Hard-to-Reach program encourages energy efficiency improvements in households with annual incomes at or below 200% of the federal poverty guideline. It is designed to be a comprehensive program by emphasizing first improving the building shell and then addressing end uses. It is a retrofit program that targets multi-family, single-family, and mobile homes.

Incentives are paid to project sponsors for eligible measures that provide verifiable demand and energy savings. Special measures include compact fluorescent lighting and water savers.

3.4 Load Management

Load Management programs encourage electric load control or shifting of electric loads in C&I facilities. The load control or load shift must be provided for a minimum of 10 years. The load must be under control of the project sponsor, utility, or Independent System Operator or other transmission organization. This program targets a mix of industrial, office, and hospital facilities.

3.5 Energy Efficiency Improvement Program

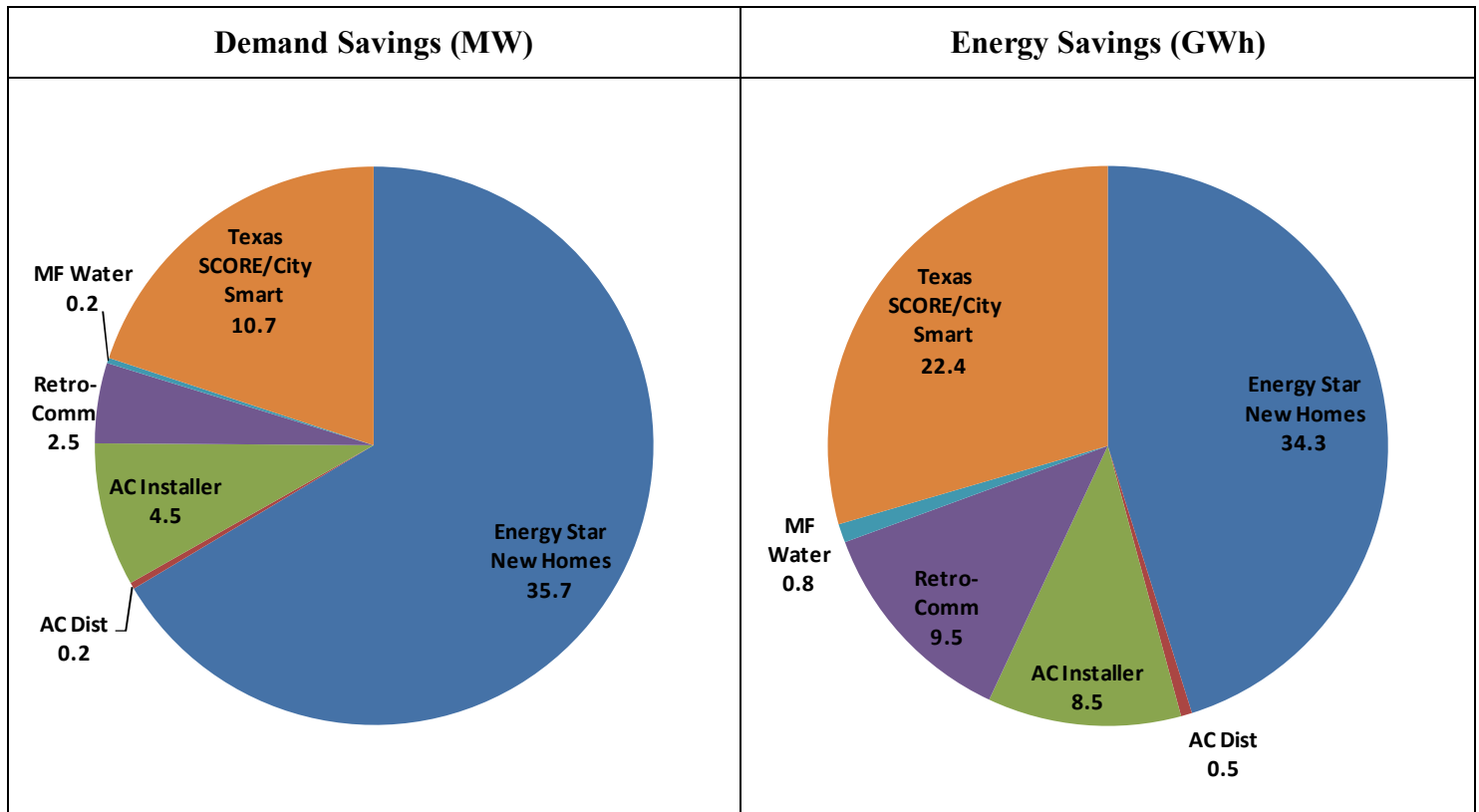
Not-for-profit (NFP) organizations are eligible for a special program offered by AEP. The EEIP provides financial assistance to NFPs that serve hard-to-reach customers. The program provides funding for the installation of energy efficiency improvements in the NFP administration facilities. These improvements reduce the organizations' operating costs by making the buildings they occupy more energy efficient.

4 Market Transformation Programs

An MTP is a strategic effort to make lasting changes in the market that result in increased adoption of energy efficient technologies, services, and practices. MTPs are designed to overcome specific market barriers that prevent energy efficient technologies from being accepted. Following is a description of each type of MTP offered in Texas by the IOUs.

Figure 5 shows the electricity savings from each MTP type.

Figure 5: Demand & Energy Savings* by Market Transformation Program in 2007



* This chart includes CNP's settlement programs. Not shown are some of CNP's miscellaneous programs such as City of Houston Weatherization, Rebuilding Together Houston, and Agencies in Action.

4.1 ENERGY STAR® New Home Construction

The ENERGY STAR® New Home Construction program targets residential new construction. It promotes the construction of energy efficient ENERGY STAR® new homes. To qualify, homes must score an 85 or less on the Home Energy Rating System and be 15% more efficient than the energy requirements of the 2004 International Energy Conservation Code. The program provides education and technical assistance to builders and subcontractors. In addition, the program is supported by training, education, and advertising components.

4.2 Air Conditioning Distributor

The Air Conditioning (A/C) Distributor Program promotes the sale of matched, high efficiency air conditioning units. Qualifying equipment must have a capacity of 5 tons or less and be rated at a Seasonal Energy Efficiency Ratio (SEER) of 14 or above. A complete system change-out is required. Both single and multi-family, new and existing homes (retrofits) are eligible.

4.3 Air Conditioning Installer Training

The Air Conditioning Installer Training Program targets improved installation practices of heating, ventilation, and air conditioning contractors. The program provides training, education, and incentives. It encourages proper sizing, charging, and duct sealing. Local Air Conditioning Contractors Association chapters implement this program.

4.4 Retro-Commissioning

The Retro-Commissioning program helps energy end users reduce their peak demand and energy usage. The program provides expert analysis and systematic evaluation of building systems. By implementing low-cost and no-cost measures that improve system operation, customers reduce energy and peak demand while maintaining or improving customer comfort.

4.5 Multifamily Water and Space Heating

The Multi-family Water and Space Heating Program promotes the installation of non-electric water and space heating over less efficient electric based counterparts. Incentives to multifamily housing project developers encourage these installations.

4.6 Texas Schools Conserving Our Resources (SCORE)/CitySmart

The Texas SCORE Program promotes a structured process to K-12 school districts to identify opportunities and implement energy efficiency measures. Incentives to school districts encourage these installations. Non-cash incentives promote best business practices. The Texas CitySmart Program promotes a similar program to a targeted audience of local and state government entities and municipalities.

4.7 Trees for Efficiency

The Trees for Efficiency Program promotes strategic landscaping through planting of shade trees, which are trees purposely planted to shade residences. Utilities educate the public on the energy efficiency benefits of planting these shade trees, and are currently testing market delivery channels for residential consumers.

5 NOx Emission Reductions

Table 4 shows the emission reductions of all Texas IOUs implementing SOPs and MTPs as part of the Texas Energy Efficiency Program.

Table 4: Annual Emission Reductions by Utility for Activities Completed in 2007*

Utility	Electricity Savings (MWh)	Emission Factor (lbs NOx/MWh)	Emission Reduction (lbs NOx)**
AEP-SWEPCO	5,496	1.429	7,854
AEP-TCC	25,491	1.122	28,601
AEP-TNC	4,894	1.122	5,491
CNP	135,364	1.629	220,508
EGSI	15,034	1.429	21,484
EPE	5,000	1.429	7,145
TNMP	3,394	1.222	4,147
Oncor	216,371	1.529	330,831
Xcel	16,818	1.429	24,033
TOTAL	427,862		650,094

*Emission factors are from the 2007 eGRID database compiled by the EPA; these factors are the same as those reported to the Texas Commission on Environmental Quality by the Energy Systems Laboratory for the Public Utility Commission of Texas SB7. The average emissions factor for the ERCOT utilities has been applied to the non-ERCOT utilities, as well, to provide a rough estimate of the emissions reductions achieved by the programs implemented by the non-ERCOT utilities.

**NOx Emission Reduction values assume discount (0%), and degradation (0%). There is a 7% T&D adjustment.

6 National Awards

In 2007, the Environmental Protection Agency (EPA) recognized Centerpoint Energy Company and Oncor Electric Delivery with a "Sustained Excellence Award". The EPA also awarded Entergy Gulf States with an "Outstanding Achievement Award" for their Energy Star New Homes program.

7 Summary & Conclusion

Once again, the nine Texas investor-owned utilities exceeded the legislature's statewide goals for energy efficiency. The utilities exceeded their 2007 demand reduction goal of 136 MW by 23%, achieving 167 MW of demand reduction. Furthermore, 427.9 GWh of energy savings were achieved, effectively reducing NOx emissions by 650,094 pounds for the year.

8 Appendices

8.1 Acronyms & Abbreviations

A/C	Air Conditioning
C&I	Commercial & Industrial
EEIP	Energy Efficiency Improvement Program
EEM	Energy Efficiency Measure
EESP	Energy Efficiency Service Provider
EPA	Environmental Protection Agency
GW	Gigawatt=one billion watts
GWh	Gigawatt-hour
IOU	Investor Owned Utility
kW	Kilowatt=one thousand watts
kWh	Kilowatt-hour
MTP	Market Transformation Program
M&V	Measurement & Verification
MW	Megawatt=one million watts
MWh	Megawatt-hour
NFP	Not-For-Profit
NOx	Nitrogen Oxides
PUCT	Public Utility Commission of Texas
RSC	Residential and Small Commercial
SB7	Senate Bill 7
SEER	Seasonal Energy Efficiency Ratio
SOP	Standard Offer Program
TDHCA	Texas Department of Housing and Community Affairs

8.2 Key Terms

Deemed savings estimate: a predetermined, validated estimate of energy and peak demand savings attributable to an energy efficiency measure. Deemed savings estimates may be used instead of determining energy and peak demand savings by measurement and verification activities.

Energy efficiency measure: systems, pieces of equipment, or materials that result in either reduced electric energy consumption, reduced peak demand, or both.

Nitrogen oxides: gases consisting of one molecule of nitrogen and one or more molecules of oxygen. Power plants and gasoline-powered vehicles typically emit NO_x. When NO_x molecules reach the atmosphere, they often contribute to the formation of smog. NO_x are thus considered pollutants and are recognized as such by the EPA.

Market transformation program: strategic efforts to induce lasting structural or behavioral changes in the market that result in increased adoption of energy efficient technologies, services, and practices.

Measurement & verification: all necessary equipment surveys, metering and monitoring, statistical estimation and analysis, and reporting used to quantify the energy savings and demand savings resulting from the installation of energy efficiency measures.

Standard offer program: a type of energy efficiency program where parties enter into a contract with standard terms and conditions, and utilities offer standard incentives for a wide range of installed energy efficient measures bundled together as a project.