



# Energy Efficiency Program Overview

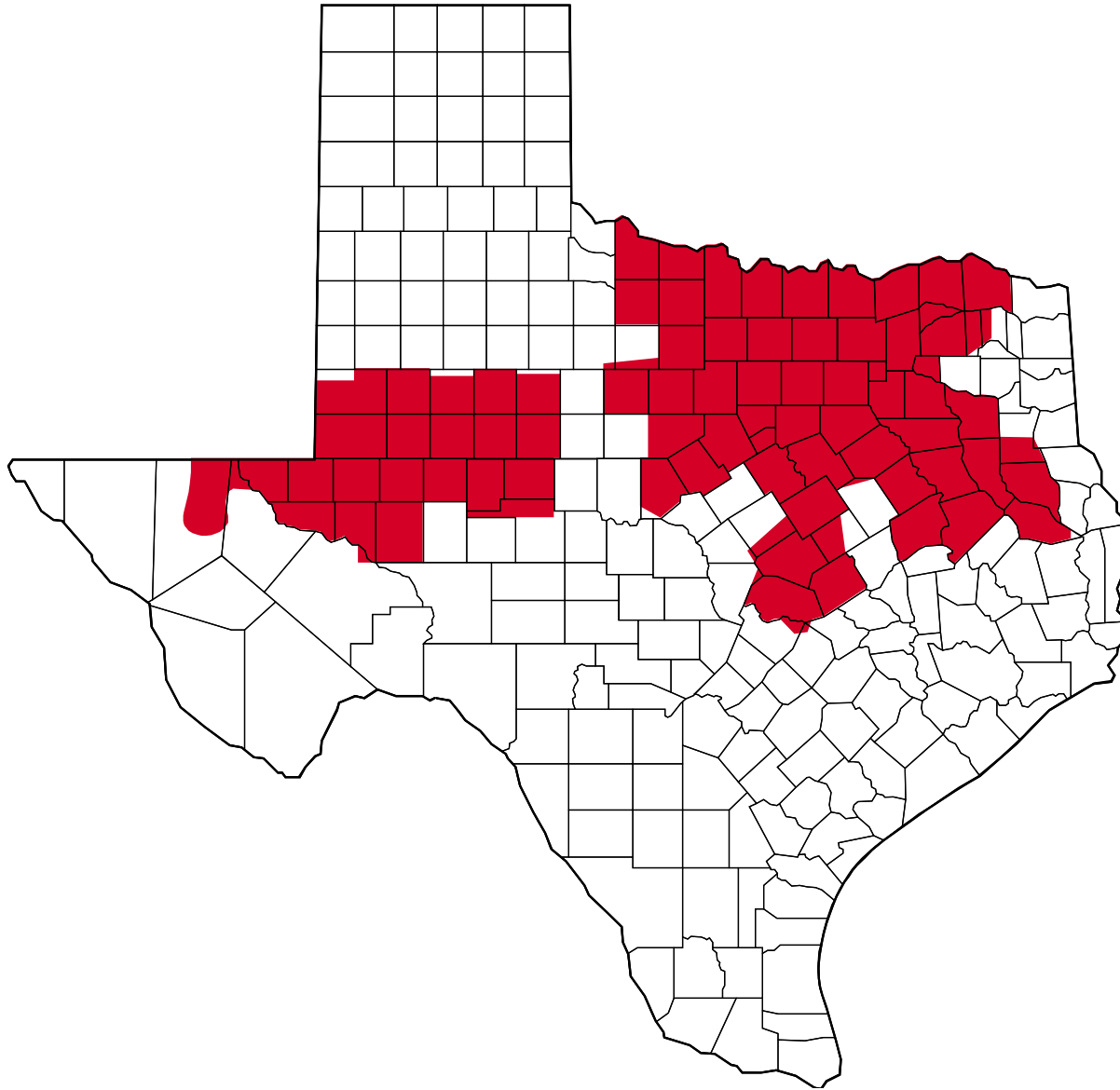
## A Texas Perspective

CUEexchange

October 2007

Price Robertson

# Service Territory





Oncor, a subsidiary of TXU Corp., is an electric distribution and transmission business that provides power to more than 3 million homes and businesses and operates more than 115,000 miles of transmission and distribution lines in Texas.

***Oncor administers the largest energy set of efficiency programs in Texas***

Rank	Utility	DSM Expenditures (\$)
1	Oncor	50,469,000
2	CenterPoint	13,470,000
3	AEP -Central	6,007,000
4	Entergy	3,353,000
5	AEP - SWEPCO	1,859,000
6	Xcel	1,631,000
7	AEP - North	1,075,000
8	PSNM - TNMP	662,000
9	EI Paso Electric	142,000
10	Sharyland Utilities	0

***Nationally, Oncor ranks 10<sup>th</sup> based on 2005 expenditures***

Rank	Utility	DSM Expenditures (\$)
1	Southern California Edison	293,322,000
2	Pacific Gas & Electric	183,416,000
3	Florida Power & Light	144,192,000
4	Public Service Electric & Gas	138,827,000
5	San Diego Gas & Electric	85,438,000
6	Northern States Power	81,065,000
7	Progress Energy Florida	58,283,000
8	Connecticut Light & Power	56,443,000
9	Massachusetts Electric	53,184,000
10	Oncor Electric Delivery	50,469,000

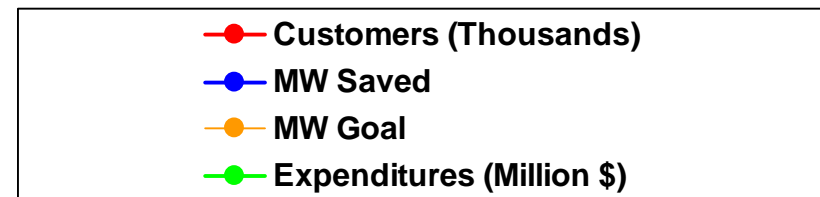
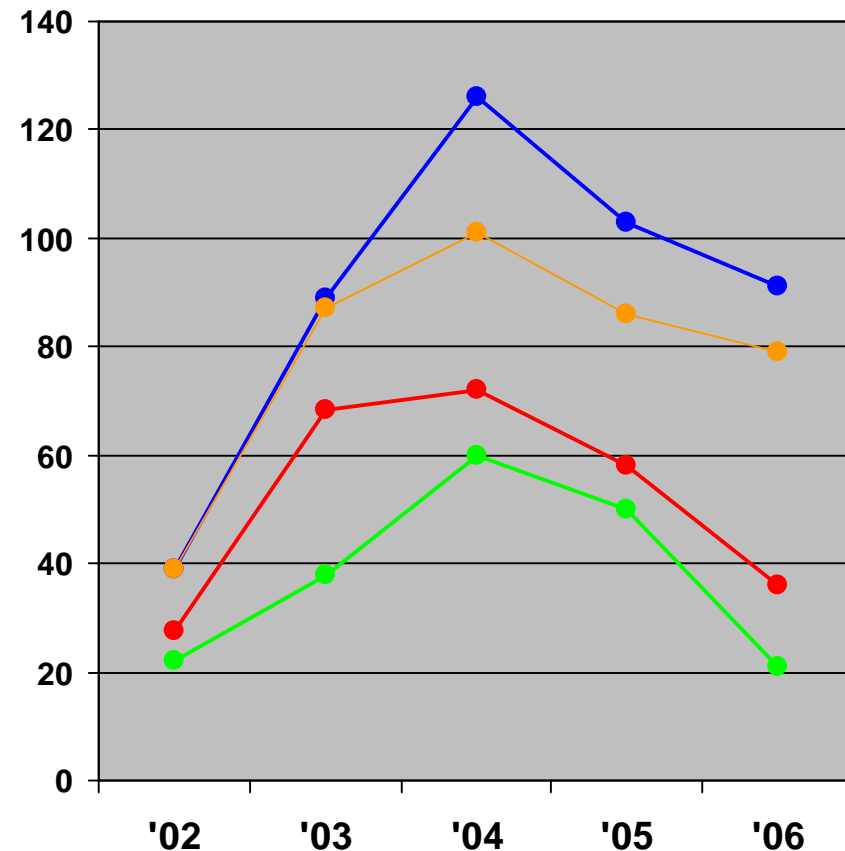
**Comparisons are based upon 2006 Annual Energy Efficiency Reports on file at PUCT and Department of Energy EIA-861 Reports**

# Program Results



Since 2002, Oncor programs have:

- Served over 260,000 customers
- Reduced 448 MW of peak demand
- Saved over 1,067,702 MWH
- CO<sub>2</sub> reduction equal to removing 191,657 cars from the roads



## **Texas Electric Choice Act (Public Utility Regulatory Act § 39.905)**



- **All Texas investor-owned utilities must meet 10% of their annual growth in electricity demand. Goal increases to 15% in 2008 and 20% in 2009.**
- **All customers shall have access to energy efficiency in order to reduce energy consumption and costs.**
- **Programs to be administered by transmission-distribution utilities.**
- **Programs are implemented by Energy Efficiency Services Providers and Retail Electric Providers.**
- **Program rules and guidelines established by Public Utility Commission of Texas.**

## Substantive Rule § 25.181



- **Enacted by Public Utility Commission of Texas**
- **Implements PURA § 39.905**
- **Establishes program requirements:**
  - **Methodology to calculate demand goal (5 year rolling average)**
  - **Program designs**
  - **Avoided costs (\$566/kW and \$0.193/kWh)**
  - **Maximum incentive levels by customer class**
  - **Program responsibilities**
  - **Reporting requirements**
  - **Measurement and verification**

# TDU Responsibilities



- **Administer programs in market neutral and non-discriminatory manner.**
- **Outreach to energy efficiency energy services community.**
- **Enter into contracts with Energy Efficiency Service Providers and Retail Electric Providers.**
- **Perform pre and post-installation inspections.**
- **Make incentive and contract payments.**
- **Report results to Public Utility Commission of Texas.**

# Competitive Energy Services



- **TDUs can no longer provide “competitive energy services” directly to customers.**
- **Cannot provide any of the traditional energy efficiency programs, such as air conditioner rebate programs, energy audits, weatherization programs, or energy information programs. All programs are implemented through third parties.**
- **TDUs are allowed to perform outreach activities to energy efficiency service providers and large commercial customers concerning energy efficiency programs.**



# Energy Efficiency Implementation Project



- **Ongoing project at PUCT.**
- **Development and review of energy efficiency program templates.**
  - **Standard Offer Programs**
  - **Market Transformation Programs**
- **Determination and development of deemed savings for typical energy efficiency measures.**
- **Recommend one or more independent program evaluator.**
- **Make recommendations on incentive levels.**
- **Periodic review of cost effectiveness methodology.**

## Program Funding



- **Funding for programs are collected in T&D charges to retail electric providers.**
- **Utility administrative costs are capped at 10% of program expenditures.**
- **Program budget is submitted to PUCT each year for approval.**
- **Unspent funds must be “rolled-over” to next year program budget.**

## Eligible Technologies



- **Must produce measurable and verifiable demand and energy reduction.**
- **Must produce savings through and increase in energy efficiency or a substitution of another energy source for electricity.**
- **Must have a minimum measure life of 10 years.**
- **Must meet or exceed minimum equipment standards.**

# Program Mechanisms



## ■ Standard Offer Programs

- Encourage the private sector delivery of energy efficiency products and services by a wide range of Energy Efficiency Service Providers.
- Achieve customer energy and cost savings.
- Create a simple and streamlined program process to stimulate strong participation from energy efficiency service providers.
- Reduce barriers to participation by streamlining program procedures and measurement and verification requirements.

## ■ Market Transformation Programs

- Strategic efforts to make lasting changes in the market that result in increased adoption of energy efficient technologies, services, and practices.
- Programs are designed to overcome specific market barriers that prevent energy efficient technologies from being accepted. Market barriers include:
  - Lack of or imperfect information
  - First cost
  - Split incentives
  - Access to energy efficiency measures

# 2007 Program Set



<b>PROGRAM</b>	<b>MW Goal*</b>	<b>Budget (Million \$)</b>
<b>Total</b>	<b>104.1</b>	<b>\$57.1</b>
<b>Administration – Energy Efficiency</b>	-	5.3
<b>Administration – Research and Development</b>	-	0.43
<b>Research and Development</b>	-	3.8
<b>TDHCA</b>	-	6.8
<b>Hard-to-Reach Program</b>	12.2	10.8
<b>Energy Star Homes Program</b>	14.1	4.4
<b>Commercial A/C Distributor Program</b>	3.4	1.2
<b>Texas SCORE Program</b>	4.2	1.0
<b>Residential &amp; Small Commercial Program</b>	12.2	5.8
<b>Large Commercial &amp; Industrial Program</b>	28.0	13.2
<b>Air Conditioning Installer Program</b>	6.1	2.0
<b>Emergency Load Management Program</b>	21.8	1.3
<b>A/C Tune Up Pilot Program</b>	0.30	0.18
<b>Refrigerator Recycling Pilot Program</b>	0.30	0.18
<b>City Smart Pilot Program</b>	1.0	.38
<b>CCET Demand Response Pilot Program</b>	0.5	0.20

\*Statutory MW goal for 2007 is 75.4 MW.

# Overview

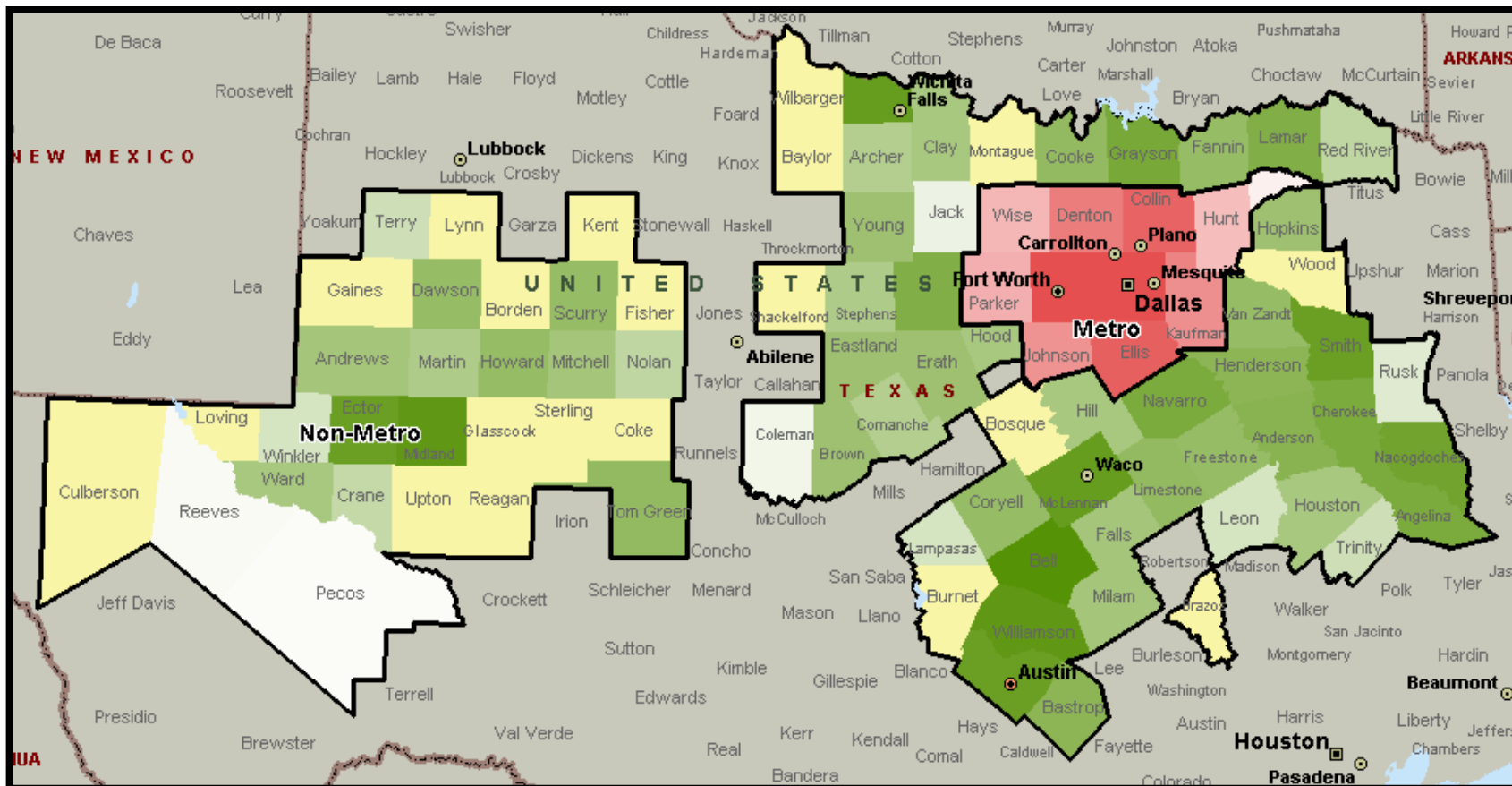
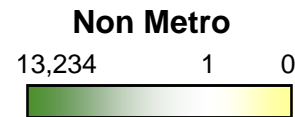
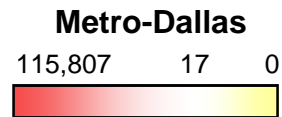


Program Year	Customers Impacted	MW Goal	MW Saved	Program Budget (\$ Millions)	Program Expenditures (\$ Millions)
2002	27,722	39	39	26	22
2003	68,178	87	89	55	38
2004	70,726	101	126	56	60
2005	57,213	86	103	52	50
2006	35,914	79	91	34	21
2007P As of 8-9-07	-	Stated Goal =104 Mandated goal = 75.4	93	57	45
<b>Total 02-06</b>	<b>259,748</b>	<b>-</b>	<b>448</b>	<b>232</b>	<b>199</b>

# Geographic Distribution of Results



*Scale is total kW reported for 2003 - 2006*



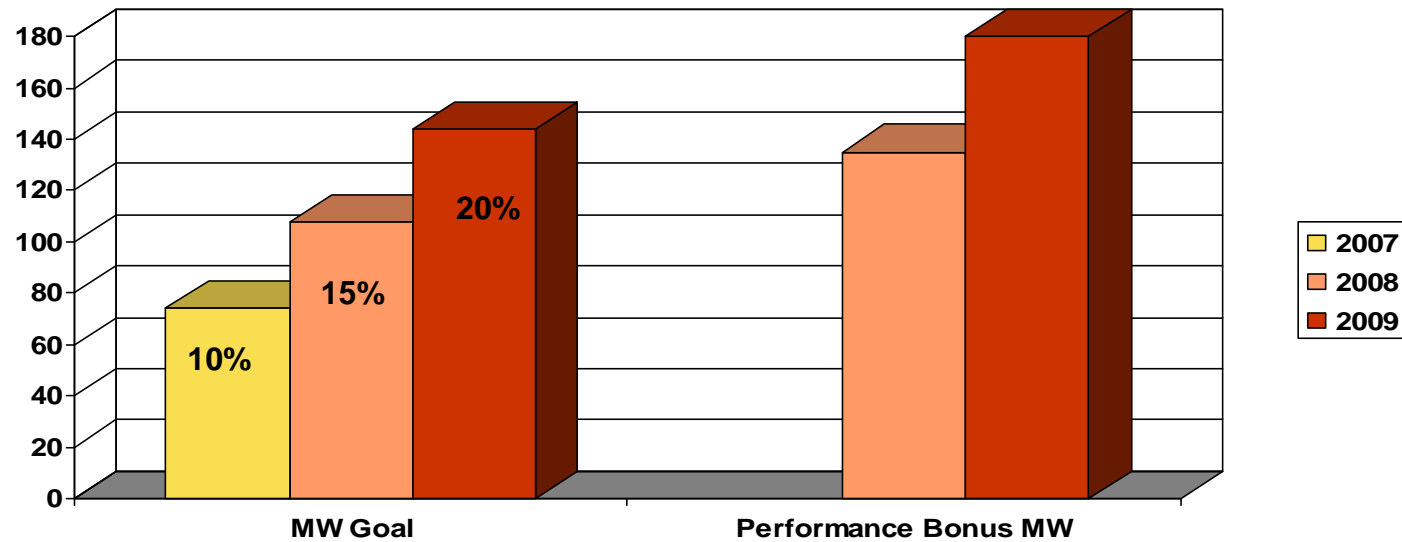
# HB 3693 Summary



- **Adopted by 80<sup>th</sup> Legislature**
- **Energy efficiency goal is increased to 15% of growth in demand by 2008 and 20% by 2009.**
- **The budget for 2008 may not be greater than 75% above the 2007 budget. For 2009, the budget may not be greater than 150% above the 2007 budget. The current budget is approximately \$57 million. The budget caps are \$99 million for 2008 and \$142 million for 2009.**
- **PUCT is to create an Energy Efficiency Cost Recovery factor. The factor is to be adjusted to reflect under and over recovery.**
- **PUCT is to establish performance incentives for those TDUs that exceed the minimum energy efficiency goals.**
- **Creates a “Safe Harbor” provision, if a TDU is not able to make the goal.**



# Increased Energy Efficiency Goals



**Goals based on 717 MW of load growth.**

	EE Goal (% of Growth)	MW Goal	Budget	Performance Threshold (MW)	Performance Bonus Estimate*
2007	10.0	93 (Projected)	\$45,300,000	-----	-----
2008	15.0	108	\$59,674,398	135	\$2,000,000
2009	20.0	144	\$67,678,479	180	\$3,000,000

\*Bonus calculation assumes Oncor reaches 125% of the demand reduction goal and could change depending upon PUCT rulemaking. Final bonus is based upon a conservative estimate of pending PUCT rules.

**Close**



**Thank you for the opportunity to present this material to you.**

**Are there any questions?**



## **Detailed Results**

# Energy Efficiency – Positive Performance



- **Achieved 116% of the 2006 Program Year Energy Efficiency Goal as reported to PUCT in April 2007.**
- **Sustained Excellence Award for Energy Star Homes Program from EPA**
- **Outstanding Achievement Award for Energy Star Homes from EPA**
- **Texas Association of Builders recognizes Oncor for:**
  - Partnership and encouraging builders to use energy efficient appliances and techniques when building
    - By recognizing those builders, this encourages others to participate and allows them to use the award for marketing their "stellar" product.
- **1<sup>st</sup> Quarter Energy Efficiency Program Customer Satisfaction Survey**
  - Hard-to Reach Program – 92% Satisfaction Rating
  - Residential & Small Commercial Program – 90% Satisfaction Rating
- **Initiated Take a Load Off Texas Energy Efficiency Outreach Program**
- **EPA Energy Star Quality Installation Pilot was successful with the installation of 29 systems.**
  - Analysis of data will be available by year end
  - EPA wants to launch the Energy Star Quality Installation Program in the first quarter of 2008

# PUCT Projects for Energy Efficiency



## Energy Efficiency Report and Plan

2002 Project No. 25600

2003 Project No. 27541

2004 Project No. 29440

2005 Project No. 30739

2006 Project No. 32107

2007 Project No. 33884

## Energy Efficiency Implementation Project

Project No. 27647

## Independent Measurement and Verification Review

Project No. 30170

## Amendments to Substantive Rule § 25.181

Project No. 33487

## PUCT Interchange Address

<http://interchange.puc.state.tx.us/WebApp/Interchange/application/dbapps/login/pgLogin.asp>

# Energy Star Homes

Targets residential new construction / Homes must be at least 15% more efficient than State Energy Code / Provides technical assistance, incentives and advertising for builders and contractors.



Program Year	Customers Impacted	MW Goal	MW Saved	Program Budget (\$ Million)**	Program Expenditures (\$ Million)
2002	6,492	5.1	7.4	3.3	1.9
2003	13,558	14.0	27.7	9.4	9.8
2004	13,013	22.1	28.3	8.5	7.1
2005	13,014	18.9	29.1	7.5	6.7
2006	13,143	8.3	28.1	4.4	5.2
<b>Total</b>	<b>59,220</b>	<b>-</b>	<b>120.6*</b>	<b>33.1</b>	<b>30.7</b>

\*With 147,101 MWH's in energy savings

\*\*Excluding utility administrative costs.

## Low-Income Weatherization



Targets residences with household incomes 200% and below Federal Poverty Guidelines (\$ 40,000 for family of 4) / Typical measures include attic insulation, weather-stripping and duct sealing / Provides payments to contractors for 100% of installed cost / Average household saves \$ 374 per year.

Program Year	Customers Impacted	MW Goal	MW Saved	Program Budget (\$ Million)**	Program Expenditures (\$ Million)
2002	14,918	2.0	1.9	2.0	2.0
2003	18,453	4.2	6.4	5.2	6.8
2004	17,565	8.1	10.9	11.5	14.2
2005	14,514	9.0	10.0	12.3	11.4
2006	6,246	4.0	4.8	3.4	4.7
<b>Total</b>	<b>71,696</b>	<b>-</b>	<b>34.0*</b>	<b>34.4</b>	<b>39.1</b>

\*With 131,872 MWH's in energy savings.

\*\*Excluding utility administrative costs.

## A/C Installer and A/C Distributor



**Installer** - Targets improvement of installation practices of A/C dealers / Encourages proper sizing, refrigerant charge, and duct sealing / Program offers training and education in conjunction with incentives paid to dealer for qualifying installations.

**Distributor** - Encourages A/C equipment distributors to stock and promote high efficiency A/C equipment / Prior to 2006, targeted both residential and non-residential technologies. For 2006, targets only non-residential technologies / Incentives are paid to distributors for qualifying installations.

Program Year	Customers Impacted	MW Goal	MW Saved	Program Budget (\$ Million)**	Program Expenditures (\$ Million)
2002	1,360	5.9	1.5	3.8	1.0
2003	13,794	14.0	12.6	9.4	3.1
2004	8,652	18.1	29.5	6.4	3.7
2005	10,034	13.8	15.1	6.3	5.4
2006	2,026	11.1	9.4	5.6	1.1
<b>Total</b>	<b>35,866</b>	<b>-</b>	<b>68.1*</b>	<b>31.5</b>	<b>14.3</b>

\*With 92,514 MWH's in energy savings.

\*\*Excluding utility administrative costs.



## Large Commercial and Industrial

Targets non-residential customers with demands greater than 100kW / Participating customers include office buildings, schools, government, and industrial facilities / Typical measures include A/C chillers and lighting efficiency improvements / Payments are made to participating contractors.



Program Year	Customers Impacted	MW Goal	MW Saved	Program Budget (\$ Million)**	Program Expenditures (\$ Million)
2002	681	20.5	24.8	13.5	14.7
2003	417	30.6	19.3	23.4	9.8
2004	1,594	21.1	21.6	16.5	20.6
2005	497	17.2	21.5	14.9	16.5
2006	232	20.6	11.7	9.2	2.9
<b>Total</b>	<b>3,421</b>	<b>-</b>	<b>98.9*</b>	<b>77.5</b>	<b>64.5</b>

\*With 526,497 MWH's in energy savings.

\*\*Excluding utility administrative costs.

## Residential and Small Commercial

Targets both residential and non-residential customers with a demand of less than 100 kW / Typical measures are attic insulation, duct sealing and A/C replacement / Payments are made to participating contractors.



Program Year	Customers Impacted	MW Goal	MW Saved	Program Budget (\$ Million)**	Program Expenditures (\$ Million)
2002	4,271	5.9	3.7	3.8	1.3
2003	21,945	1.4	10.1	7.7	8.4
2004	29,893	13.9	19.6	10.4	12.4
2005	19,152	13.8	14.3	9.7	8.8
2006	14,245	8.7	11.9	6.3	5.8
<b>Total</b>	<b>89,506</b>	<b>-</b>	<b>59.6*</b>	<b>38.0</b>	<b>36.7</b>

\*With 248,193 MWH's in energy savings.

\*\*Excluding utility administrative costs.

# Emergency Load Management

Targets non-residential customers with demands greater than 750 kW / Participating customers includes office buildings, hospital, government and industrial facilities / Load must be reduced when called for by utility / Payments are made to customer.



<b>Program Year</b>	<b>Customers Impacted</b>	<b>MW Goal</b>	<b>MW Saved</b>	<b>Program Budget (\$ Million)*</b>	<b>Program Expenditures (\$ Million)</b>
<b>2002</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>2003</b>	<b>11</b>	<b>13.1</b>	<b>13.1</b>	<b>0.2</b>	<b>0.2</b>
<b>2004</b>	<b>9</b>	<b>15.1</b>	<b>15.1</b>	<b>0.5</b>	<b>0.4</b>
<b>2005</b>	<b>2</b>	<b>12.9</b>	<b>12.9</b>	<b>0.7</b>	<b>0.6</b>
<b>2006</b>	<b>10</b>	<b>23.7</b>	<b>23.7</b>	<b>1.1</b>	<b>1.1</b>
<b>Total</b>	<b>32</b>	<b>-</b>	<b>64.8</b>	<b>2.5</b>	<b>2.3</b>

\*Excluding utility administrative costs.

# Texas SCORE (Schools Conserving Resources)

Targets Independent School Districts. Encourages peak demand and energy reduction through monetary and non-monetary incentives. Facilitates benchmarking activities with Energy Star Portfolio Manager tools. Incentives are made directly to School District.



Program Year	Customers Impacted	MW Goal	MW Saved	Program Budget (\$ Million)**	Program Expenditures (\$ Million)
2002	-	-	-	-	-
2003	-	-	-	-	-
2004	-	-	-	-	-
2005	-	-	-	-	-
2006	7	2.0	1.7	0.75	0.67

<b>Total</b>	<b>7</b>	<b>2.0</b>	<b>1.7</b>	<b>0.75</b>	<b>.67</b>
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\*With 4,257 MWH's in energy savings.

\*\*Excluding utility administrative costs.

# 2007 Pilot Programs



## ■ A/C Tune-Up Program

- Promote residential HVAC system performance analysis and encourages identified system improvements.

## ■ Refrigerator Recycling Program

- Encourage residential customers to remove from service spare refrigerators or freezers from their homes.

## ■ City Smart Program

- Assist city and county governments in benchmarking their facilities and identifying potential energy efficiency retrofits.

## ■ CCET Demand Response Program

- Demonstrate residential DR potential by controlling residential load through AMI and BPL infrastructure.