



ENERGY EFFICIENCY PROGRAMS

PRESENTED TO

EPA TECHNICAL FORUM

APRIL 14, 2005



1-866-PWR-4-TEX
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BACKGROUND

ELECTRIC EFFICIENCY PROGRAMS

- **Policy Drivers**
 - Clear Air Act
 - Continuation of Energy Efficiency in Competitive Environment
- **Policy Implementation**
 - State Statute
 - Public Utility Regulation



BACKGROUND

ELECTRIC EFFICIENCY PROGRAMS



- Retail competition in ERCOT began January 1, 2002 for investor-owned utilities (Senate Bill 7 – 1999 session)
- SB 7 also required utilities to conduct energy-efficiency programs
- Competition delayed in other areas
- Adequate supply of generating capacity



ENERGY EFFICIENCY PROGRAMS

- Senate Bill 7 (1999 session) required utilities to conduct energy-efficiency programs
- Senate Bill 5 (2001 session) required PUC to conduct energy-efficiency grant program
- SB 5 required calculation of reduction in air emissions from SB 5 and SB 7 programs



SENATE BILL 7 ENERGY EFFICIENCY PROGRAM



- Utilities required to meet 5% of growth in demand through energy-efficiency programs by January 1, 2003 and 10% of growth in demand by January 1, 2004 - five year rolling average of historical peak average of year preceding the goal year
- Standard offer and market transformation programs
- Funded by Transmission & Distribution Rate
- Objective to obtain cost-effective energy-efficiency programs from third parties



SENATE BILL 5

ENERGY EFFICIENCY PROGRAM



- Utilities in non-attainment areas and affected counties apply for grants
- Utilities may use standard offer or market transformation programs
- Funded from Fees and Surcharge on Motor Vehicles
- SB 5 required calculation of reduction in air emissions from SB 5 and SB 7 programs



DESIGN ISSUES

§25.181 Energy Efficiency Goal

- **Eligible Sectors**

all customers, in all customer classes, have a choice of and access to energy efficiency alternatives that allow each customer to reduce energy consumption and energy costs

- **Incentive Levels Set as a Percentage of Avoided Cost**

- 100% for hard-to-reach customers
- 50% for residential and small commercial customers
- 35% for large commercial and industrial customers
- 15% for load management programs

- **Inspection, Measurement and Verification (M&V)**

for each standard offer program the energy efficiency service provider shall include an industry accepted measurement and verification protocol used to measure and verify energy and peak demand savings to achieve the goals



ADDITIONAL RESOURCE NEEDS

§25.181 Energy Efficiency Goal

- **Foster Development of Energy Efficiency Sector in Economy**
 - a utility may shall not be involved in directly providing customers any energy efficiency services
 - a utility may provide a list of Energy Efficiency Service Providers (EESP) participating in the utility's energy efficiency programs
 - the utility may not endorse or favor any EESP
 - the utility shall compensate EESP for energy efficiency projects in accordance with the contract and the requirements of this section
 - an individual energy efficiency service provider may not receive more than 20% of the total incentive payments available



ADDITIONAL RESOURCE NEEDS

§25.181 Energy Efficiency Goal

- **Realistic Timeframe - Three Year Transition**
 - Pilot Program, Transition Year, Goal Year
 - 2001 Pilot Program
 - 2002 Programs to Achieve 5% Goal
 - 2003 Programs to Achieve 10% Goal

- **Existing Energy Efficiency Market**
 - Time Required to Adjust to Utility's Requirement
 - Marketing Adjustments
 - Adjust Business Plans to Meet Incremental Goals



BASELINE FOR MEASURING SAVINGS

§25.181 Energy Efficiency Goal

- **Deemed Savings**
pre-determined, validated estimate of energy and peak demand savings of an energy efficiency measure in a particular type of application that a utility may use instead of energy and peak demand savings determined through measurement and verification activities
- **Independent M&V Expert**
the PUC shall select an independent M&V expert to verify the energy and peak demand savings, including deemed savings, reported by energy efficiency service providers
- **Update Deemed Savings**
to reflect market standards and avoid rewarding business improvements



Environmental Benefits EPA - EGRID

Emissions & Generation Resource Integrated Database

- integration of 24 different federal data sources on power plants and power companies
- power plant emission rates, historical relationships between the areas of power production and areas of consumption, and the primary fuel type utilized to generate electricity
- Energy Information Administration generation data to generate the value of pounds per megawatt-hour (lbs/MWh) that is a direct correlation between electrical generation and environmental quality



SB 5 Grant Results

\$3 Million Awards 2002-2003

- 220 Tons NO_x Reductions / 10 Years
- Equal to Removing 12,000 Motor Vehicles from the Roadway
- Value of Saved Energy \$900,000 / Year



SB 7 Results - 2004

\$85 Million

- 7,300 Tons NO_x Reductions / 10 Years
- Equal to Removing 140,000 Motor Vehicles from the Roadway
- Value of Saved Energy \$25 Million / Year



REFERENCE DOCUMENTS

Texas Senate Bill 7

<http://www.capitol.state.tx.us/cgi-bin/tlo/viewtext.cmd?LEG=76&SESS=R&CHAMBER=S&BILLTYPE=B&BILLSUFFIX=00007&VERSION=5&TYPE=B>

PURA Sec. 39.905. Goal for Energy Efficiency

<http://www.puc.state.tx.us/rules/statutes/Pura03.doc>

§25.181. Energy Efficiency Goal

<http://www.puc.state.tx.us/rules/subrules/electric/25.181/25.181.doc>

Energy Efficiency Implementation Project 25.184

<http://www.puc.state.tx.us/rules/subrules/electric/25.184/25.184ei.cfm>

Air Quality Plans - Texas Senate Bill

<http://www.tnrcc.state.tx.us/oprd/sips/overview.html>

