



# Public Citizen's Texas Office

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## Making Available Energy Go Farther *Putting Texas Homes & Businesses in Control*

### Our Goals

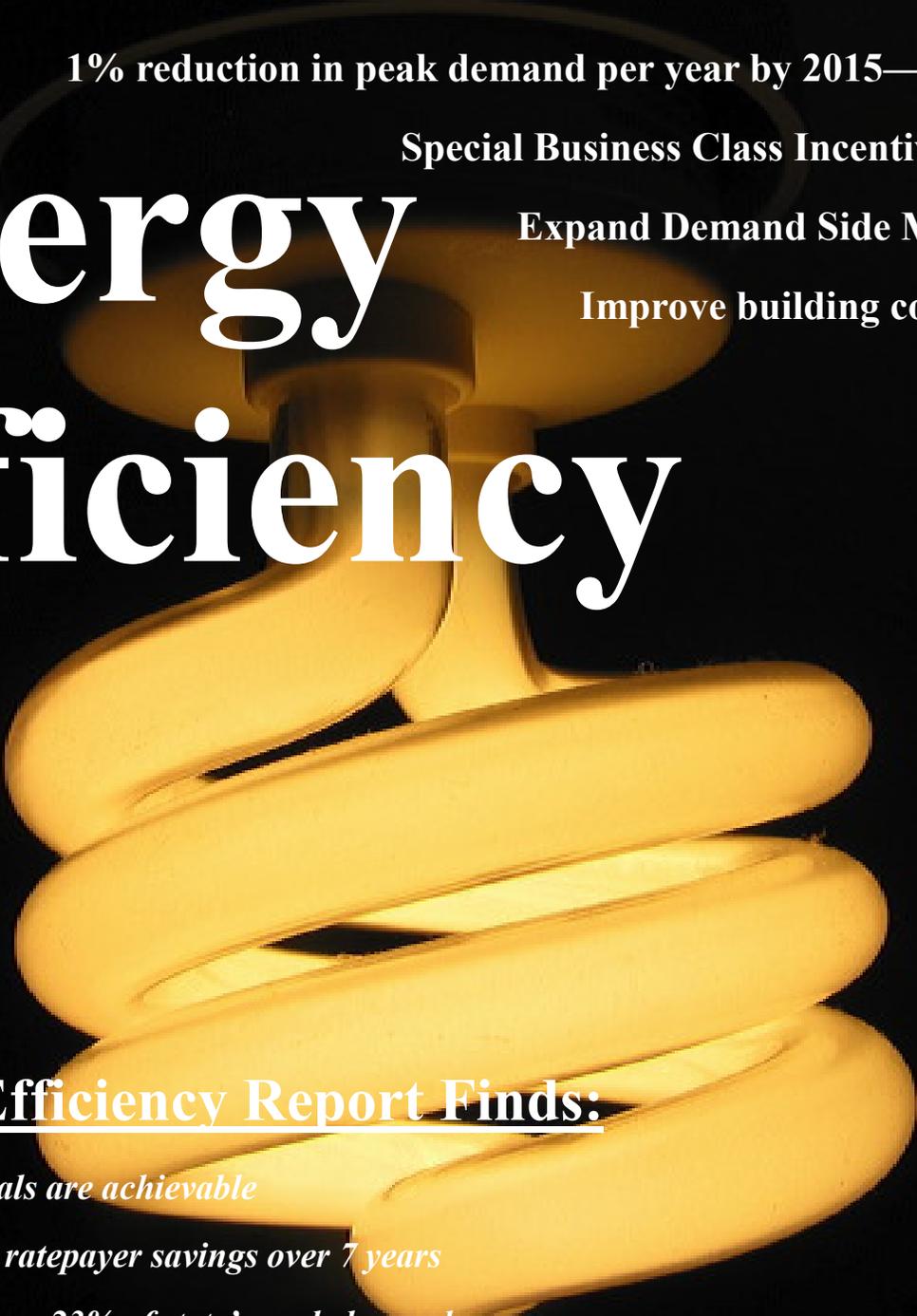
1% reduction in peak demand per year by 2015—2% by 2020

Special Business Class Incentives & Loans

Expand Demand Side Management

Improve building codes by 15%

# Energy Efficiency



### The PUC Efficiency Report Finds:

*More aggressive goals are achievable*

*Up to \$12 billion in ratepayer savings over 7 years*

*Efficiency can recover 23% of state's peak demand*

*Need to change how Texas measures efficiency goals*

## What is Energy Efficiency?

Energy efficiency includes products, equipment and processes that use less energy than conventional approaches that do the same work. Everything from compact fluorescent lights to attic insulation to better building codes makes a home or business more efficient.

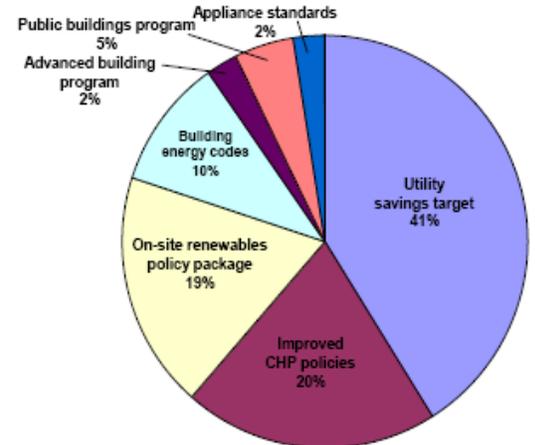
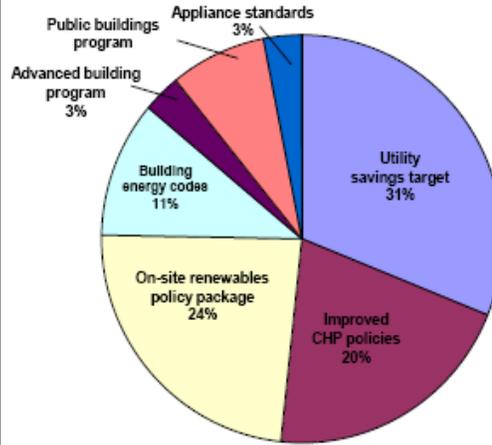
## Why Is It Important?

- **Quickest:** Efficiency programs free up existing energy faster than adding new electric generation. They also have a quicker payback time than new electric generation.
- **Cheapest:** The average cost of energy efficiency is 1 to 4 cents per kWh (source: PUC Report).
- **Cleanest:** Reduces mercury, NO<sub>x</sub>, SO<sub>x</sub>, and CO<sub>2</sub> by reducing the need to run coal and natural gas plants.
- **Local Green Jobs:** Energy auditors, heating, ventilation, and air-conditioning repair workers are local Texas jobs that cannot be outsourced. Houston and DFW could create 22,800 jobs alone through efficiency and onsite renewables investment (ACEEE).
- **Lower Utility Bills:** Standard weatherization measures like duct sealing, window caulking, and insulating water heaters can save 15% on energy bills. Whole house retrofits can save up to 50% (ACEEE).



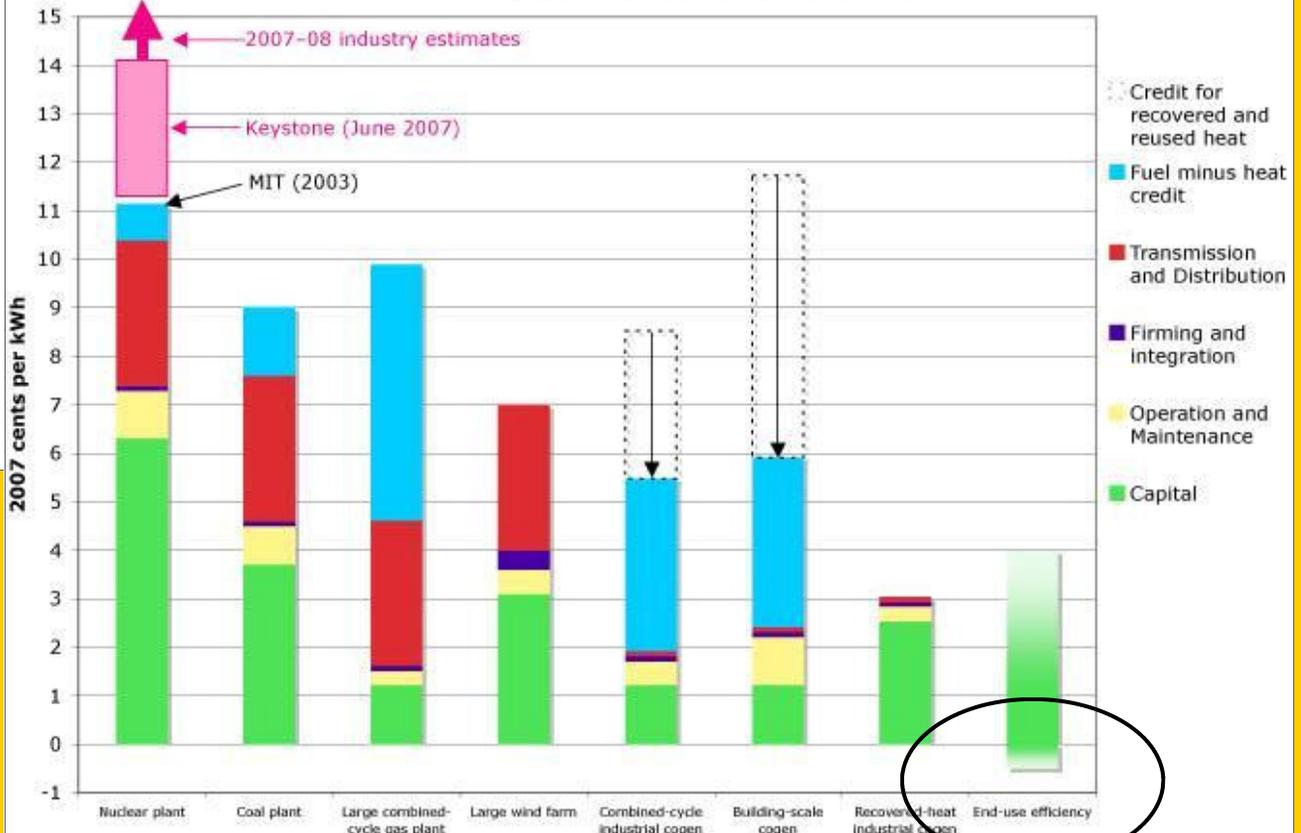
Dallas/Ft. Worth

Houston



(Above) Texas can meet 76-101% of growth in demand for electricity through existing energy efficiency programs, combined heat and power and onsite renewable energy, such as solar rooftops and geothermal heat pumps. Source: ACEEE.

Cost of new delivered electricity



Source: Rocky Mountain Institute

# The PUC Report

**\$1 invested in Efficiency = \$2 saved in energy costs**

In 2008, the **Public Utility Commission** completed an independent study to determine whether meeting 50% of the electricity demand growth in Texas by 2015 through energy efficiency is a reasonable goal. **Itron**, the firm that conducted the study, found that Texas could meet that goal and achieve even greater goals. Below are major findings and recommendations.

## What's Texas' Potential?

**Texas can save up to 18% of its electric consumption and 23% of its peak demand cost effectively.**



**Building code updates and demand response programs** were not included in the savings potential figures in Itron's study.



By including them in a more aggressive statewide energy efficiency goal, Texas will have more tools to achieve robust energy savings and lower utility bills for homes and businesses.

**Efficiency investment could save consumers \$4 to \$12 billion over the next 7 years.**

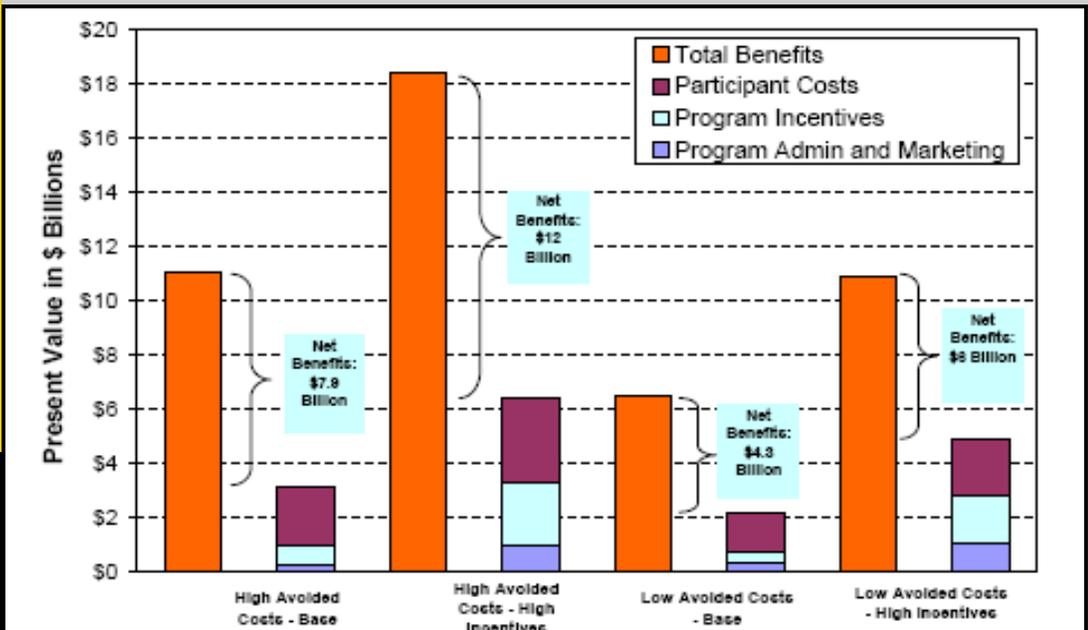
## Itron Findings & Recommendations

- **Goals Are Achievable:** Large utilities should have no difficulty meeting 30% of electric demand growth by 2012 or 50% by 2015 through existing energy efficiency programs.
- **Size Matters:** Smaller utilities will face a bigger challenge meeting the goals because of unique but surmountable market barriers (e.g. lack of bilingual marketing outreach).
- **Savings Metric:** The current savings goal is based on a percentage of electric demand growth. If we changed the savings metric to a percentage of peak demand or overall consumption, utilities would be able to achieve higher efficiency goals.
- **Include Industrials:** Currently, industrial customers are not included in the energy efficiency programs of utilities. If they were, the overall savings potential of the state would increase and the value of energy savings achieved by industrials would be greater than the cost of including them.
- **CFLs:** Compact fluorescent lamp programs would add greater potential savings across each investor-owned utility.

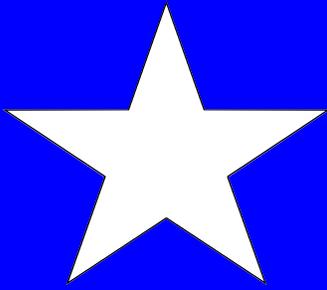
**Public Citizen**  
Changing the savings metric to a percentage of peak demand and consumption would guarantee energy savings for families and businesses during down economic times.

Download the full report at:

[http://www.puc.state.tx.us/electric/reports/misc/Electricity\\_Saving\\_2009-2018\\_122308.pdf](http://www.puc.state.tx.us/electric/reports/misc/Electricity_Saving_2009-2018_122308.pdf)



In four different scenarios, the benefits of larger energy efficiency goals exceeded the costs by a factor of 2 to 1, and in some cases 3 to 1. Source: Itron Report Executive Summary p. 16



# Texas Can Build on its Success

## Lower Utility Bills for All Texas Homes & Businesses Through Energy Efficiency

Here's how to do it:



### BUILDING UPGRADES

We can cut 30-50% of the energy used in the average home by tightening up leaking buildings and ductwork, adding shade and insulation, replacing appliances, and using electronic controls. Additionally, special incentive programs will have to be developed for tenants and landlords. This goal and program can be implemented by expanding the already successful programs run through the PUC.



### BUSINESS CLASS

Create special **business class incentives and loan programs for upgrades** to lighting, equipment, building shells, combined heat and power, solar, or other types of on-site generation. Since most businesses lease their space, special programs for tenants and landlords should be developed. These programs can also be run through the PUC.



### MORE EFFICIENT BUILDING CODES

**Adopt new energy codes statewide that could cut energy use in new buildings by 15% or more.** Texas' current code is IECC 2001. Texas should update its building code to IECC 2009. Building codes are under the jurisdiction of the Comptroller's Office.

### DEMAND SIDE MANAGEMENT

The price of electricity is driven by peak energy demand, but this peak could be reduced with electronic controls or through shifting the time of use. Smart meters will allow the utilities to send signals to reduce the use of non-essential equipment. **Texas should set a goal of being able to control 5% of the peak demand for energy by 2020.** These programs can be implemented through the PUC and ERCOT.



### EXEMPT EFFICIENCY PROJECTS FROM TAXES

Current incentives levels still aren't enough for some homeowners and businesses to invest in larger energy efficiency programs, like whole house retrofits. Exempting energy efficiency upgrades from sales and property tax would shorten the payback period.

### GIVE ENERGY EFFICIENCY ITS FAIR VALUE

The value of energy efficiency to utilities is calculated based on the difference between its program costs and the cost of building new power plants. However, the benchmark the PUC uses is based on the cost of a natural gas plant built in the late 90's. New power generation costs have risen significantly since then. **Every 2 years, the PUC should update the benchmark to reflect the value of energy efficiency.**



To learn more visit:  
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[Citizen.org/texas](http://Citizen.org/texas)

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