

The Cheapest Energy is the Energy You Don't Use

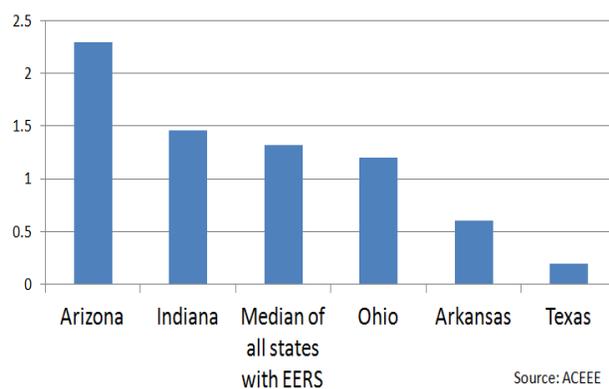
ISSUE SUMMARY:

Energy efficiency, even in a low-cost natural gas environment, is the cheapest energy resource. Texas led the way in 1999 by establishing the first Energy Efficiency Resource Standard (EERS), which requires that utility companies must use energy efficiency measures to meet a portion of the growing demand for electricity.

Last session, SB 1125 by Sen. Carona and Rep. Anchia increased the EERS goal slightly. Since 2007, the EERS requirement has been raised three times, but the total of the changes has, thus far, only had a small impact (see graph "TX Annual Energy Efficiency Budgets" at right). Now Texas is falling behind other states in using energy efficiency to meet Texas' growing demand for electricity.

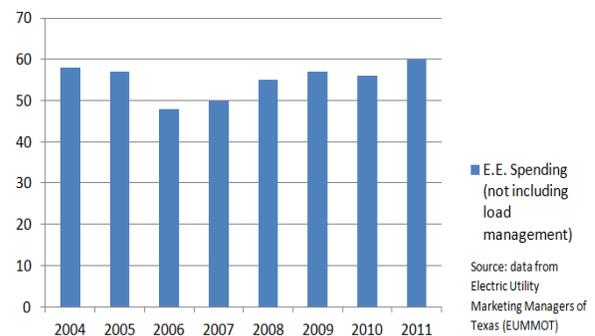
Texas' new EERS goal of .4% of peak electric load is a small fraction of other states' goals and well behind even the median. Because utilities increasingly meet their EERS goals with load management programs, which reduce peak electric demand only, the total savings from energy efficiency are only about .2% of total electric usage, putting Texas far behind peer states with EERS goals.

Approx. Annual Electric Savings Goal (as a %)



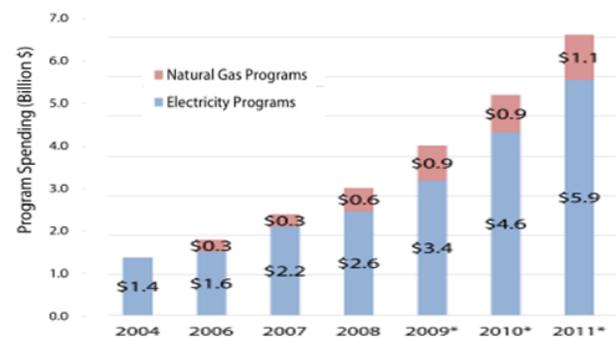
Since 2004, Texas' spending on energy efficiency, the cheapest available energy resource, has basically remained flat ...

Texas Annual Energy Efficiency Budgets
(not including load management)



... while the rest of the country has been racing to increase the most cost effective source of energy, energy efficiency.

Annual U.S. Electric and Natural Gas Energy Efficiency Budgets



Texas, as recently as 2006, ranked as high as 11th in the country for energy efficiency attainment, according to the American Council for an Energy Efficient Economy (ACEEE). Last year, Texas had fallen all the way to 33rd (Foster 2012). The growth of spending in other states

on efficiency nationwide, compared to Texas' stagnation, shows why.

Policy Considerations:

While our state leadership is concerned about making sure we have adequate resources to keep the lights on, they should not overlook the possibility of stepping up the most cost effective way to meet rising demand: energy efficiency. Over the last ten years, two large electric plants' worth of electricity have been saved through energy efficiency programs.

Efficiency reduces electric bills for customers that adopt efficiency measures, and their actions reduce the overall need for power generation, which reduces costs for everyone. Efficiency also reduces the need for costly transmission and distribution infrastructure, and relieves the pressure on our existing electricity grid.

Energy efficiency programs are paid for by ratepayer charges. **The Public Utility Commission's analysis of the programs show that for every \$1 that utilities spend on energy efficiency, consumers' bills go down by more than \$3 (PUC 2006).** This is because energy efficiency reduces the total amount of energy needed to keep the grid reliable, both on- and off-peak. Thus prices are cheaper than if energy had been used less efficiently.

Potential Energy Efficiency Opportunities:

- ***The Legislature could increase the EERS goal from the current level of .4% of peak demand to a minimum of .7%, a cost-effective goal that was noted in a 2008 study commissioned by the Texas PUC (Itron 2008).*** The median for states with EERS goals is higher than 1%. Given the state's current struggles with resource adequacy, all cost-effective resources should be tapped.
- ***The Legislature and the PUC could consider decoupling utilities' revenues from the volume of electricity sold.*** Utilities are volumetric businesses. If they sell less, they make less money. Understandably, utilities are less than enthusiastic about energy efficiency programs that cost them

revenue. To overcome this obstacle, a policy could be implemented to ensure that utilities can earn revenue and profits not only from the volume of electricity they sell, but from multiple measures like energy efficiency, customer satisfaction, avoiding outages, etc. Some form of decoupling or lost revenue adjustment (compensation for selling less because of increased energy efficiency) has already been implemented in 35 states.

- ***The Legislature could incentivize public entities to increase their energy efficiency.*** In 2001, the Texas Legislature required school districts, state agencies, colleges, universities, and most large cities and counties to implement all cost-effective energy efficiency measures and attain at least 5% energy savings annually. Versions of this requirement were passed again in 2007 and in 2011. For many reasons, very few public entities meet those goals. A future TCEC Issue Guide will focus on this issue.

Conclusion:

Energy efficiency is the lowest cost energy resource available, even in the current low-cost natural gas environment. Despite an early start, Texas now lags far behind states like Arizona, Indiana, and Arkansas in energy efficiency attainment. **The Legislature should consider raising the EERS goals in the 83rd session and implementing solutions to help utilities and public entities increase energy efficiency, with a slow but steady escalation to ensure that Texas fully utilizes the lowest cost electric resource to lower the cost of electricity for all consumers.**

Resources:

Itron (2008). Assessment of Achievable Levels of Electricity Savings from IOU's in Texas. <http://goo.gl/bRNI5> (accessed February 1, 2013).

Foster, Ben, et. al., (2012). ACEEE. *The State Energy Efficiency Scorecard 2012.* <http://goo.gl/rO4Ai> (accessed February 1, 2013).

PUC (2006). Emission Reduction Incentive Grants Report to TCEC. <http://goo.gl/foHdk> (accessed February 1, 2013).