

# The Benefits of Expanding Energy Efficiency in Louisiana

State & local governments, utilities, and businesses around the country are turning to energy efficiency as the least-cost and least-risk resource to meet energy demand while lowering energy bills, and improving the reliability of our power grid. Efficiency is a commonsense, win-win-win solution that directly addresses economic challenges by putting money back into consumers' pockets, lowering businesses' costs, and also creating jobs. Energy efficiency programs cost less than any supply side resource options (Figure 1). ACEEE analysis finds that efficiency programs are successfully achieving energy savings at a utility cost of about 2.5 cents per kilowatt-hour.<sup>1</sup> In an uncertain planning environment, energy efficiency also is the least-risk resource compared to other resource options.<sup>2</sup>

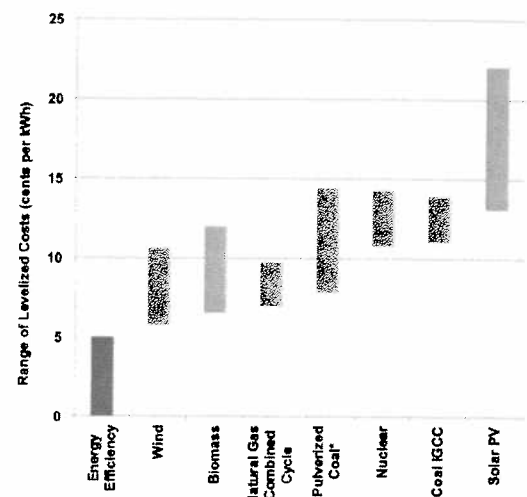
## LOUISIANA AND NEW ORLEANS

Much more untapped energy efficiency potential remains on the table throughout the U.S and in Louisiana. While the state ranked only 43rd in ACEEE's 2012 State Energy Efficiency Scorecard, in 2013 the state of Louisiana is poised to improve access to energy efficiency as a low-cost and low-risk resource. The New Orleans Energy Smart programs have acted as a point of leadership in the state and have already begun to save energy for city residents. The Louisiana Public Service Commission's (PSC) recent adoption of an energy efficiency "quick start" program rulemaking lays the groundwork for significant future investments in energy efficiency statewide. And other state and local initiatives such as those through the state energy office, building energy codes, and low-income weatherization have also spurred energy efficiency improvements. Additional policy and program measures can pave the way for long-term, sustained commitments to energy efficiency.

## BENEFITS OF UTILITY ENERGY EFFICIENCY PROGRAMS IN THE U.S.

The U.S. utility sector invested about \$7 billion in energy efficiency programs in 2011, and spending is projected to significantly increase to \$11 - \$16 billion by 2025.<sup>3</sup> In 2010, customers who participated in utility energy efficiency programs saved more than 18,000 GWh of electricity.<sup>4</sup> That is equivalent to avoiding the need for 14 average coal power plants

Figure 1. Levelized Costs of Electricity Resource Options (\$ per kWh)



Source: Lazard 2011

## SUMMARY

- Energy efficiency is the least-cost, least-risk option for the utility system in Louisiana.
- Louisiana electricity customers, policymakers, and businesses are all poised to benefit from new energy efficiency resources in the form of lower energy bills, avoided power plant and transmission needs, job creation, and economic development.
- Utility savings targets, called "Energy Efficiency Resource Standards" or EERS, are a proven, successful framework for scaling up energy efficiency and are a good option for New Orleans and Louisiana.

1 These are the "levelized" costs, which mean the average cost over the lifetime of efficiency measures or supply-side options. Source: Friedrich et al. 2009. Saving Energy Cost-Effectively. American Council for an Energy-Efficient Economy.

2 Binz et al. 2012. Practicing Risk-Aware Electricity Regulation. CERES.

3 Goldman et al. 2012. On a Rising Tide: The Future of U.S. Utility Customer-Funded Energy Efficiency Programs

4 Foster et al. 2012. The 2012 State Energy Efficiency Scorecard. American Council for an Energy-Efficient Economy.

in 2010 alone.<sup>5</sup> And these savings and those from previous years will continue to reap benefits to customers and the utility system over the life of the efficiency upgrades, which average about 10-15 years, without additional investments. The societal savings from energy efficiency programs are significant, and in recent years have averaged about \$2.60 in benefits for every dollar invested.<sup>6</sup>

#### EERS: A SUCCESSFUL FRAMEWORK FOR SCALING EFFICIENCY

On average, 2010 utility efficiency program savings were about 0.5% of total electricity sales in the states. But savings vary widely by state. Those with an energy efficiency resource standard (EERS), which is a policy that requires utilities to achieve specific, annual energy savings targets over several years, saved about 0.8% per year relative to total electricity sales. States without an EERS saved on average only 0.3% per year, and therefore miss out on substantial energy and dollar savings and job benefits. And as targets continue to ramp-up, states with an EERS in place have a solid framework for increasing consumer and utility system benefits.

Twenty-five states have an EERS (Figure 2), and these states have demonstrated significant success toward reaching their targets.<sup>7</sup> Utilities in several of these states reached savings of 1% - 1.5% per year in 2011 and more states are ramping up targets even further. For example, Arizona has set targets of about 2% per year, and Massachusetts recently set goals of 2.5% per year from 2013-2015.

#### ARKANSAS: AN EERS EXAMPLE

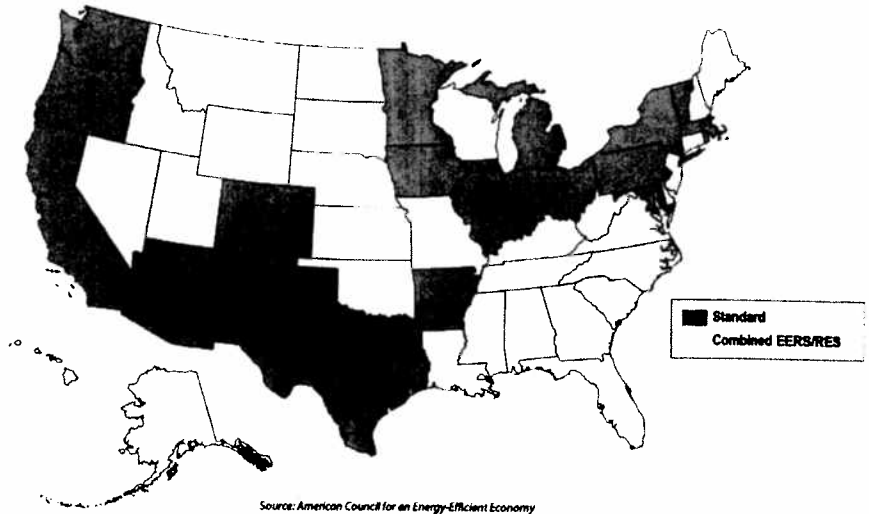
In 2010, Arkansas became the first state in the Southeast to adopt an EERS. Prior to that, the state adopted “quick-start” energy efficiency programs before moving into its comprehensive program phase. Both electricity and natural gas utilities have annual savings targets, and for electricity they start at 0.25% in 2011 and ramping up

<sup>5</sup> Assuming an average coal power plant with a capacity factor of 64% and size of 228 MW (per U.S. Energy Information Administration (EIA) data).

<sup>6</sup> Friedrich et al 2009 identifies an average Total Resource Cost test or Societal benefit/cost ratio of 2.6 from utility programs in 7 states.

<sup>7</sup> Sciortino et al 2011. Energy Efficiency Progress Report. American Council for an Energy-Efficient Economy.

Figure 2. States with an EERS



to 0.75% in 2013. Between 2009 and 2011, the two largest investor-owned electricity utilities (IOUs) in Arkansas saved about 54,000 MWh through energy efficiency programs each year, or roughly 0.2% of sales. In 2011, these savings accrued an average total resource cost benefit ratio of 1.6. Given the success of programs, the Arkansas PSC is looking to continue ramping up, and recently issued an order recommending new targets for the next 3 years, ramping up to 1%, 1.25%, and 1.5% from 2014 – 2016.

If Louisiana’s IOUs scale to the same level of recent savings in Arkansas, they would achieve over 170,000 MWh per year. And if all electricity utilities in Louisiana scale to 1% savings per year (a level that numerous leading states are now achieving) for 10 years, customers throughout the state have the potential for net electricity bill savings of \$1.3 billion.<sup>8</sup>

#### RECOMMENDATIONS FOR NEXT STEPS

Louisiana and New Orleans are poised to improve energy efficiency in 2013 and for years to come, widening access to energy efficiency services and thereby reducing energy needs, saving money, and creating jobs and economic development opportunities. Utility energy savings targets and other policy and program measures can provide substantial savings to the state’s residents & businesses for years to come.

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<sup>8</sup> In net present value (NPV) real dollar terms, assuming an average cost of energy efficiency (TRC) to both utilities and customers of 4.6 cents per kWh (per Friedrich et al 2009), and customer benefits of 7.8 cents per kWh (average retail price of electricity in Louisiana in 2011, per EIA).