Summary of "Energy Efficiency in the South":
A Study Conducted by Researchers at Georgia Institute of Technology and Duke University

Energy Efficiency in the South: *High Stakes, Strong Potential*

Nowhere are the stakes higher for the development of an energy policy that leads with energy efficiency than in the South. The region, comprised of 16 states and the District of Columbia, currently has the greatest dependence on fossil fuels in the nation. With only 36% of the country's population, the South accounts for 44% of the nation's energy use. As the fastest growing region in the nation, increasing demands for power will force even greater dependence if steps are not taken to reduce per capita energy use.

A Unique, New Report on the Impacts of Energy Efficiency Policy

This report, produced by researchers at the Georgia Institute of Technology and The Nicholas Institute for Environmental Policy Solutions at Duke University, is a follow-up to an extensive review of previous studies of energy efficiency potential in the South. The review revealed strong potential to reduce energy use in the South through energy efficiency, and received substantial national and regional news coverage. The current report provides new, up-to-date estimates of the potential to reduce the South's energy needs and the impacts of adopting public energy efficiency policies on energy prices, energy use, utility bills, job creation, demand for new power plants, water use, and carbon emissions. The analysis estimates the impacts of a suite of nine energy-efficiency policies on energy consumption by the South's industrial, commercial and residential sectors. The report provides one of the most-comprehensive assessments of the costs and benefits of such polices.

Scope and Methodology of the Study

The study uses the U.S. Energy Information Administration's forecast of future energy consumption in the South. State-of-the-art economic modeling techniques are used to compare economic, energy use and environmental outcomes in the baseline scenario with outcomes that would occur if achievable, cost-effective energy efficiency investments were made.

Energy-efficiency policies examined in the study include: 1) in the residential sector -- building codes, appliance standards and incentives, weatherization assistance, retrofit incentives and equipment standards; 2) in the commercial building sector -- appliance standards and building retrofit incentives; and 3) in the industrial sector -- assessments of plant utility upgrades, process improvement policy, and combined heat and power incentives.

This study provides a useful estimate of the benefits associated with an aggressive commitment to energy efficiency. Since it does not include every energy efficiency investment that could be considered, it is by no means an exhaustive measure of the benefits associated with an aggressive commitment to energy efficiency.

Findings and Conclusions: *Potent Impacts of Energy Efficiency Policies in the South*

The report's main conclusion is that the South has a significant potential to reduce its growing energy needs, save consumers and businesses money, and spur job creation if a comprehensive suite of energy-efficiency policies was adopted. The analysis found that the suite of energy-efficiency policies would provide substantial reductions in energy consumption, energy prices, utility bills, water use, and carbon emissions. It would also eliminate or at least postpone the need for new power plant capacity and add jobs to the regional economy.

"Energy Efficiency in the South" identifies four main findings associated with that the adoption of aggressive energy-efficiency initiatives in the South. The set of energy efficiency policies examined in the study would:

1. **Prevent energy consumption from growing over the next 20 years.** In the absence of such initiatives, energy consumption in these three sectors is forecast to grow by approximately 13 percent between 2010 and 2030.
2. **Generate new jobs, cut utility bills and sustain economic growth.** Overall utility bills would be reduced by **$41 billion each year in 2020 and $71 billion in 2030**; the average residential electricity bills would decline by $26 per month in 2020 and $50 per month in 2030; electricity rate increases would be moderated; and **380,000 new jobs would be created by 2020 (annual job growth increases to 520,000 new jobs in 2030).** The region's economy is anticipated to grow by $1.23 billion in 2020 and $2.12 billion in 2030.
3. **Reduce the need for new power plants.** Almost 25 gigawatts of older power plants would be retired and the construction of up to 50 gigawatts of new plants (equal to the amount of electricity produced by 100 power plants[1]) would be avoided.
4. **Result in substantial water conservation.** The reduction in power plant capacity would save southern NERC regions[2] 8.6 billion gallons of freshwater in 2020 and 20.1 billion gallons in 2030.

The energy efficiency policies examined in this study are also highly cost effective. On average, each dollar invested yields approximately $2.25 in benefits over the next 20 years.

Conclusion: *Energy-Efficiency Policies Offer an Opportunity to Redefine the South's Energy Future*

The findings of this report demonstrate the urgency and enormous potential of energy-efficiency policies to reverse the long-term trend of ever expanding, wasteful energy consumption in the South and to create jobs, reduce the region's and the nation's energy needs, save energy consumers money, and address pressing environmental issues.

Without supporting policies, this energy efficiency potential will not be realized. Substantial improvements in energy efficiency can only be achieved by new financial investments and shifting of priorities that will not occur if left simply to the marketplace. Through public policies that provide information dissemination and education, financial assistance, regulations, and capacity building, residential, commercial and industrial energy users can be encouraged to invest in energy efficiency on a scale that will help redefine the region's energy economy.

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[1] See footnote #1.

[2] The North American Electrical Reliability Corporation (NERC) regions covered include all of Alabama, Georgia, Florida, North Carolina, South Carolina, Tennessee, Missouri and portions of Kentucky, Virginia, Illinois, Iowa, Mississippi, Louisiana and Texas.