

# Energy conservation in south could save billions, create jobs

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Energy-efficiency measures in the southern U.S. could save consumers \$41 billion on their energy bills, open 380,000 new jobs, and save 8.6 billion gallons of water by 2020, according to a new study from the Nicholas Institute for Environmental Policy Solutions at Duke University and the Georgia Institute of Technology. The study concludes that investing \$200 billion in energy efficiency programs by 2030 could return \$448 billion in savings.

The researchers modeled how implementation of nine policies across the residential, commercial and industrial sectors might play out over 20 years in the District of Columbia and 16 southern states.

"We looked at how these policies might interact, not just single programs," said Etan Gumerman of the Nicholas Institute and co-lead researcher of the study. "The interplay between policies compounds the savings. And it's all cost-effective. On average, each dollar invested in energy efficiency over the next 20 years will reap \$2.25 in benefits."

Policies considered by the study, "Energy Efficiency in the South," include new appliance standards, incentives for retrofitting and weatherization, upgrades to utility plants and process improvements.

The South is rich terrain for efficiency improvements. Without them, the region might expect 15 percent growth in [energy demand](#) by 2030. Thirty-six percent of Americans live in the study region. The region consumes an outsized portion of American energy, 44 percent, but it also

supplies 48 percent of the nation's power.

A combination of factors has left this disproportionate usage unexplored by policymakers keen on energy efficiency. The South historically has low electricity rates, which encourage consumption. Energy-efficient products have a lower market penetration than elsewhere in the U.S. And these states spend less per capita on efficiency programs than the national average.

The researchers generated a "business as usual" scenario, without any policies, and compared it with scenarios that included specific sets of energy-efficiency investments, to capture the cost savings.

The study, released Monday, concludes that aggressive energy efficiency initiatives would:

- Generate [new jobs](#), cut utility bills and sustain economic growth. Overall utility bills would be reduced by \$41 billion a 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.
- Reduce the need for new [power plants](#). Almost 25 gigawatts of older power plants could be retired and the construction of up to 50 gigawatts of new plants (equal to the amount of electricity produced by 100 power plants) could be avoided.
- Result in substantial water conservation. The reduction in power

plant capacity would save southern regions of the North American Electrical Reliability Corporation 8.6 billion gallons of fresh water in 2020 and 20.1 billion gallons in 2030.

"An aggressive commitment to [energy efficiency](#) could be an economic windfall for the South," said Dr. Marilyn Brown of the Georgia Institute of Technology and co-lead researcher of the study. "Such a shift would lower energy bills for cash-strapped consumers and businesses and create more new jobs for Southern workers."

**More information:** Profiles of the report's results for each state are available at: [www.seealliance.org/programs/research.php](http://www.seealliance.org/programs/research.php)

Provided by Duke University

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