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Southern Alliance for Clean Energy

Energy Efficiency Program Impacts and Policies in the Southeast

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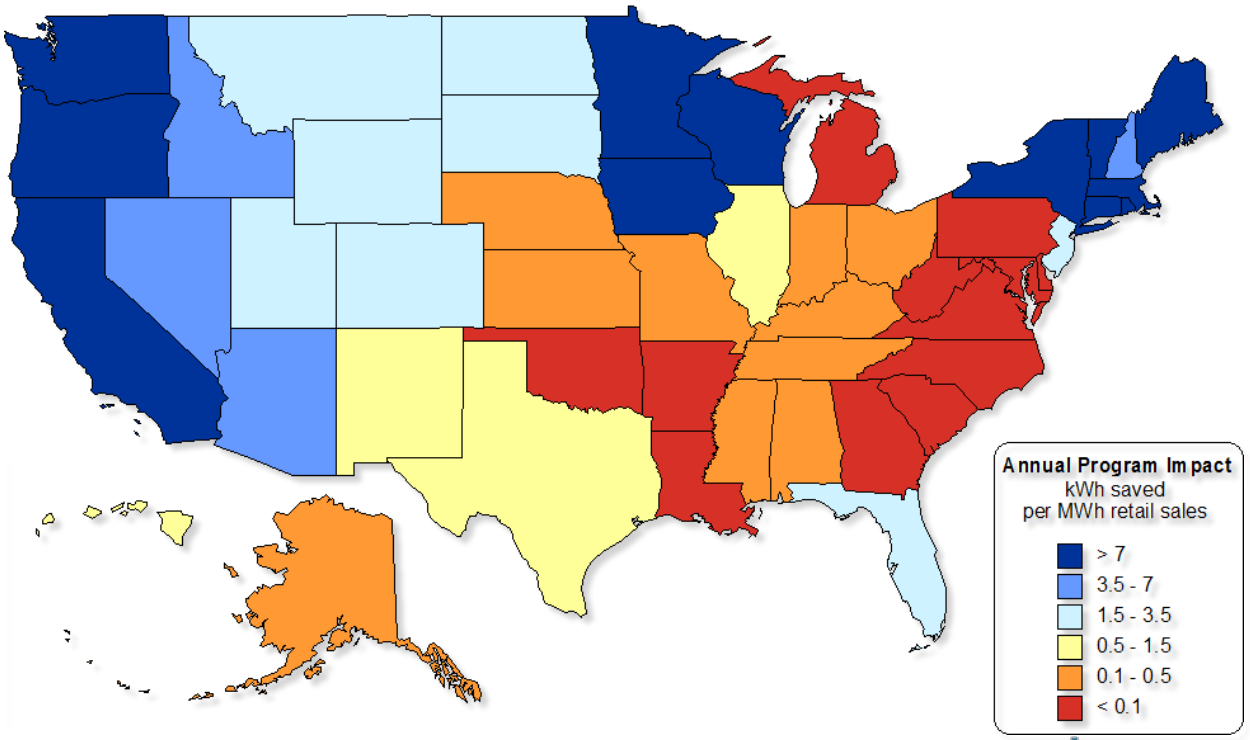
Members Webinar May 2009

Southeast Lags the Nation: Energy Efficiency Program Impacts

2007 Energy Efficiency Program Impacts, by State



Source: ACEEE, EIA Form 861.

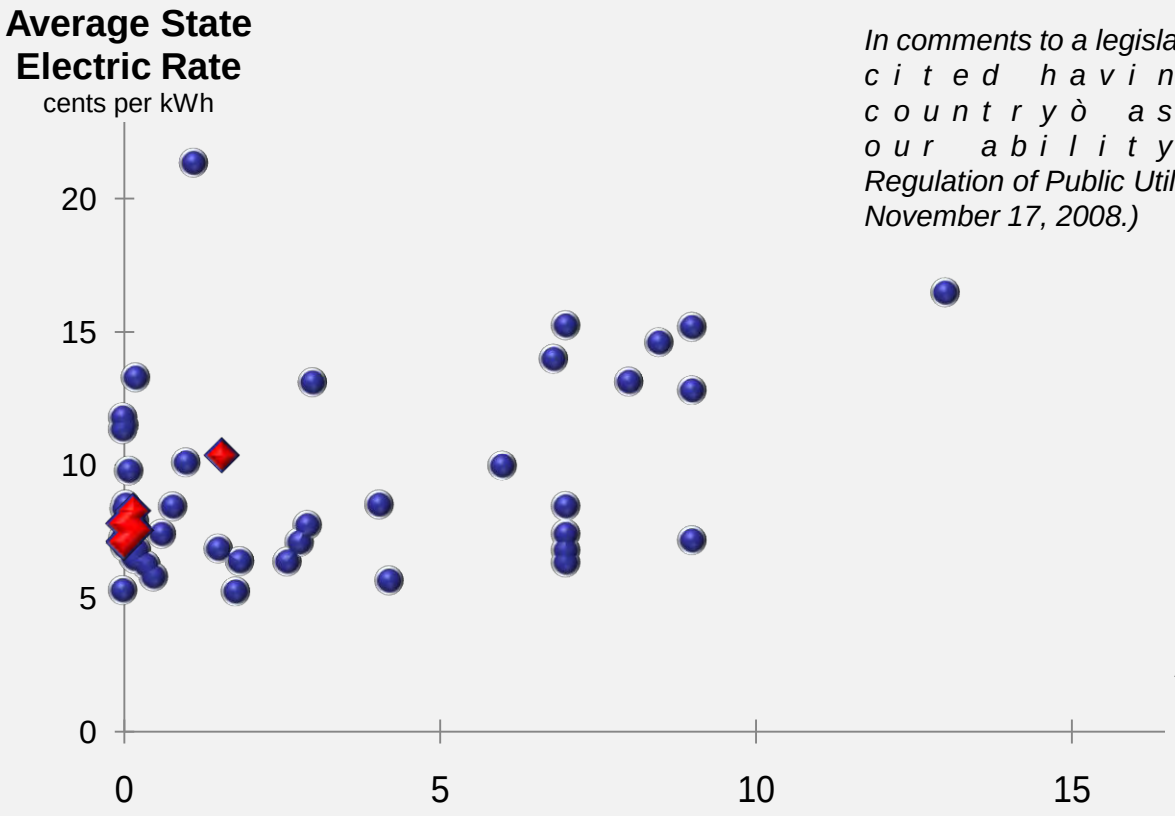
Why Does the Southeast Lag Other Regions in Energy Efficiency?

- **Myths:**
  - Low electric rates make efficiency infeasible
  - Low-income people are an obstacle*

- **Reality: The Southeast lacks . . .**
  - legislative standards similar to those adopted in many states
  - utility regulatory commission support
  - high quality programs, with economies of scale to achieve low costs
  - interest of utility management
  - rate structures that promote efficiency
  - financial incentives for utility success (utilities face disincentives)

* "These low-income households are truly unable to participate in any energy efficiency and conservation efforts." – *Testimony of South Carolina Public Service Commissioner David A. Wright before the Senate Energy and Natural Resources Committee on a national Renewable Portfolio Standard,* February 10, 2009.

Energy Efficiency Impacts Are Large in Some States Where Rates Are Comparable to the Southeast



In comments to a legislative study committee, SCE&G cited having ñsome of the lowes countryò as one of the factors our ability to be more energy e Regulation of Public Utilities Review Committee, November 17, 2008.)

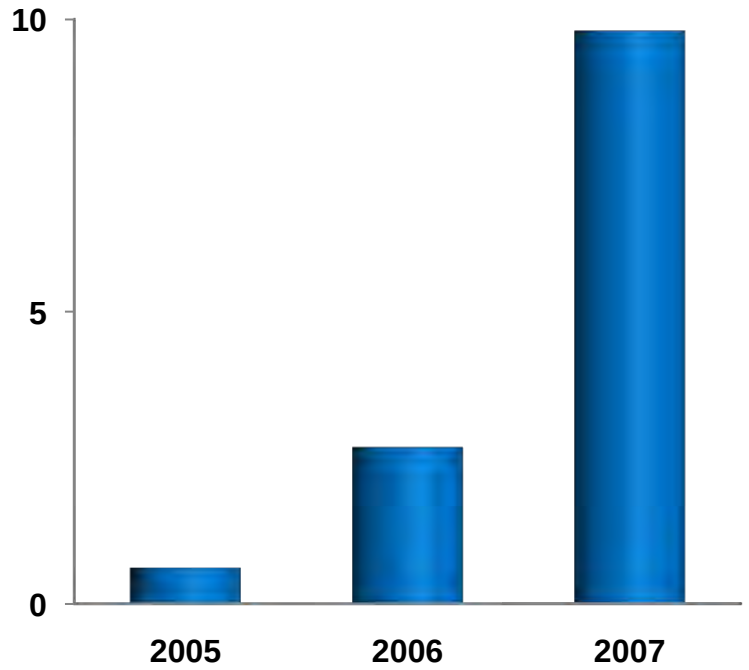
◆ **Southeast States**

Source: ACEEE, EIA Form 861.

Southeast Success Story: Reedy Creek Improvement District

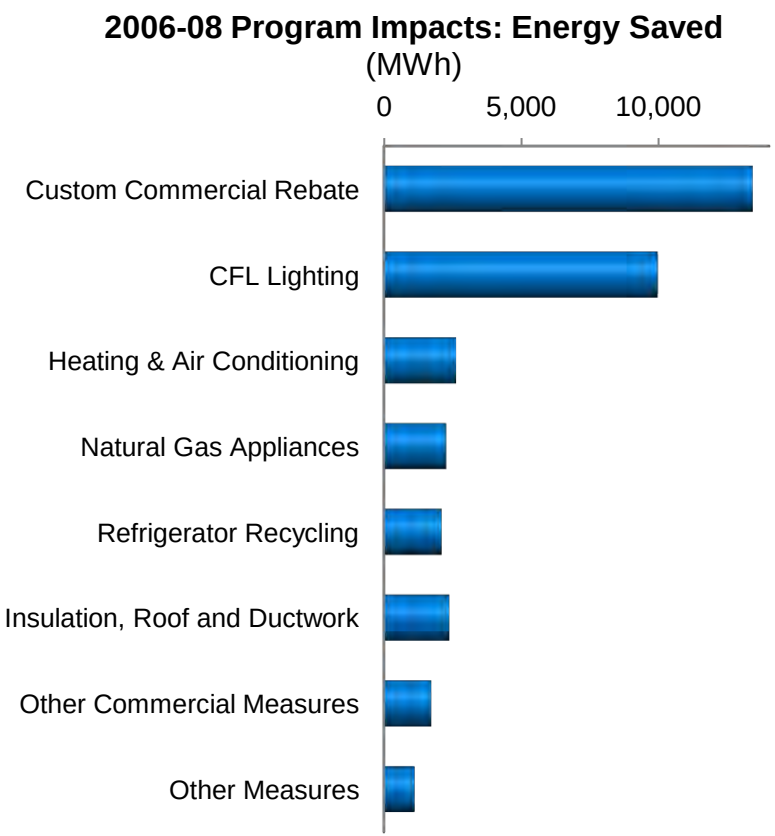
- **Reedy Creek Improvement District provides energy & energy services to Walt Disney World** (Orlando, FL)
- **From 1996 to 2006, Disney saved**
  - 100 GWh of electricity
  - 1 million therms of natural gas
- **Disney reports a 53% internal rate of return for efficiency programs**
- **Impacts increased dramatically in 2007**
- **Disneyôs program:**
  - Energy management system for each facility
  - Energy information system provides data to energy managers and other stakeholders
  - Disney staff collectively participate

Reedy Creek Efficiency Programs Impact
kWh saved per MWh retail sales



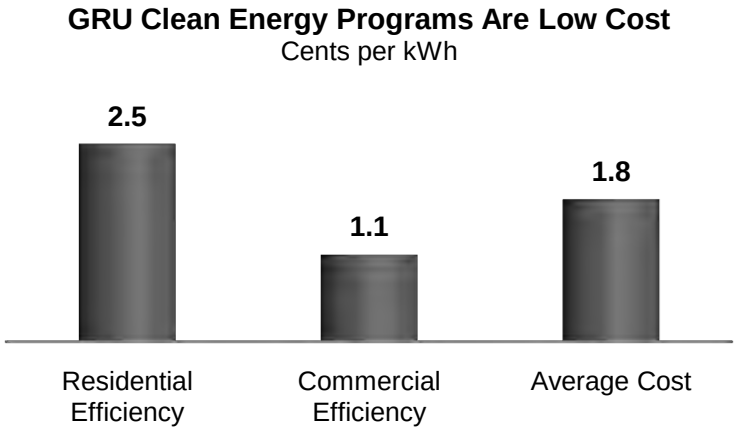
Source: EIA Form 861. Allen, P J, *Walt Disney World Resort's Energy Management Program*, 2006.

Southeast Success Story: Gainesville Regional Utilities



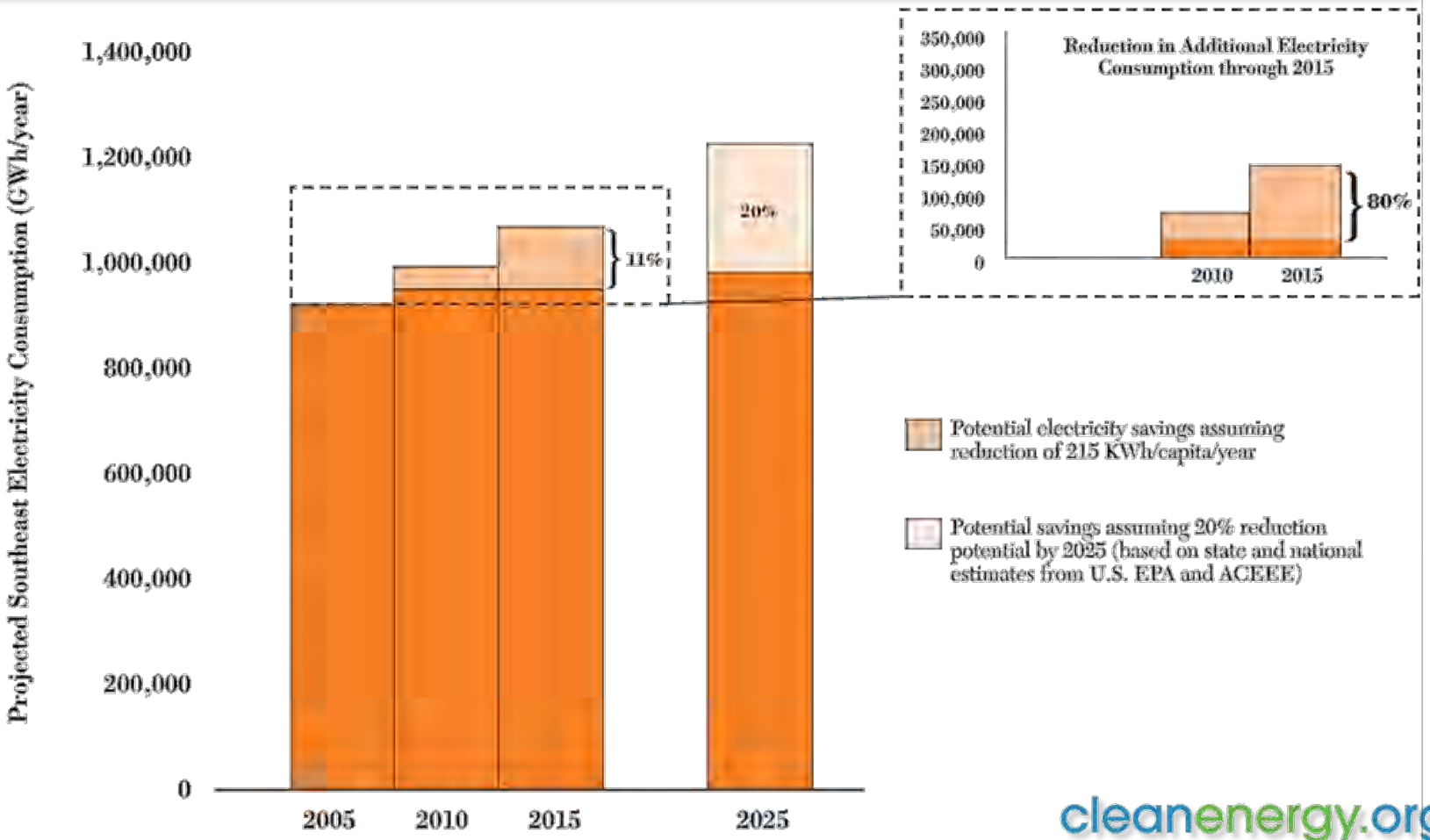
Gainesville Regional Utilities (GRU) is among the nation's leaders in energy efficiency. Its 2007 programs had an impact of approximately 7.6 kWh energy savings per MWh electricity sales.

In 2006, Gainesville Regional Utilities revised its energy strategy to put greater emphasis on energy efficiency and renewable energy. Since that time, its energy efficiency program impact has more than tripled – with very high cost-effectiveness.



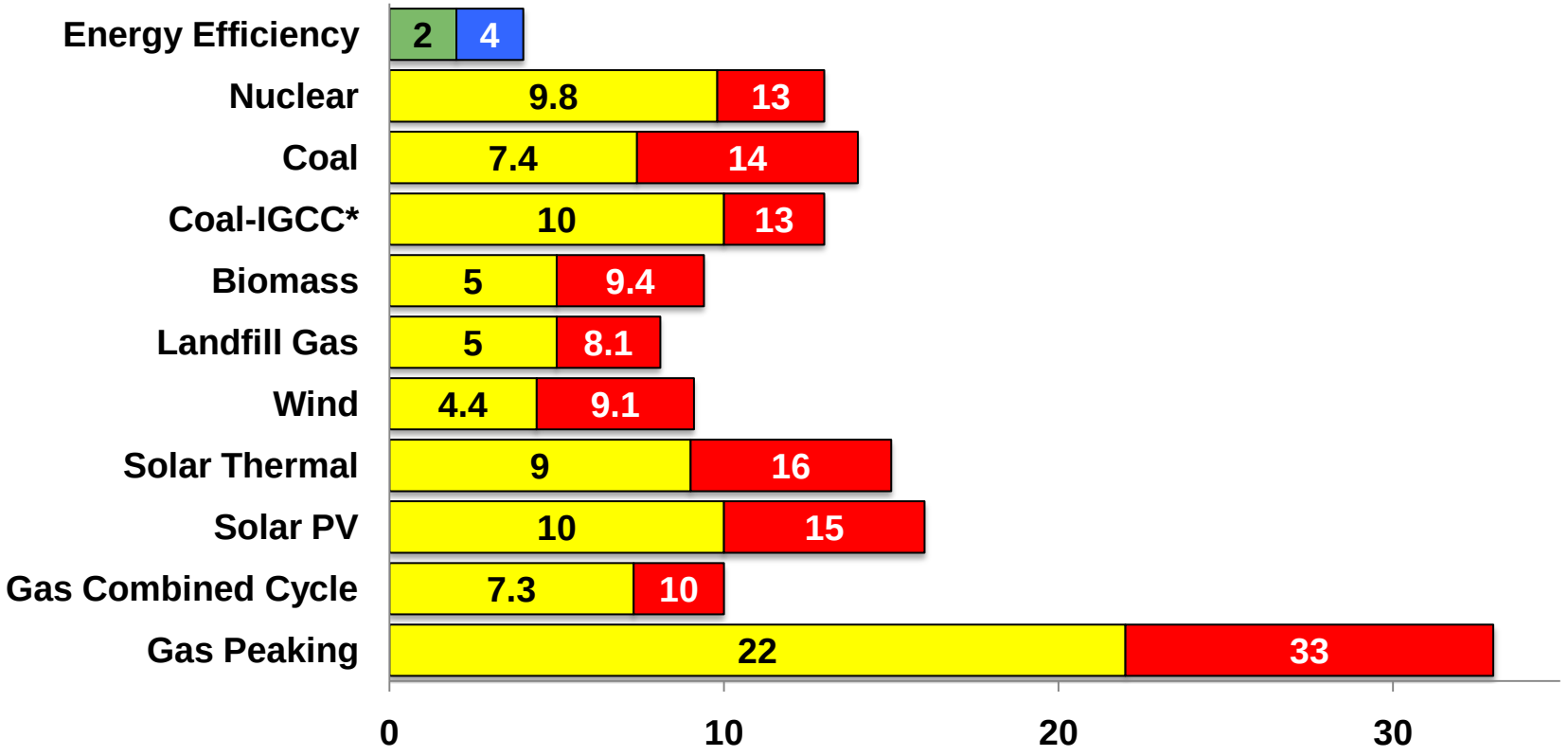
Source: Gainesville Regional Utilities, Fourth Quarter FY08 Report of Energy Efficiency Programs.
Note: Average cost also includes a small amount of renewable energy at about 20 cents per kWh.

Efficiency Can Meet Most Future Power Demand



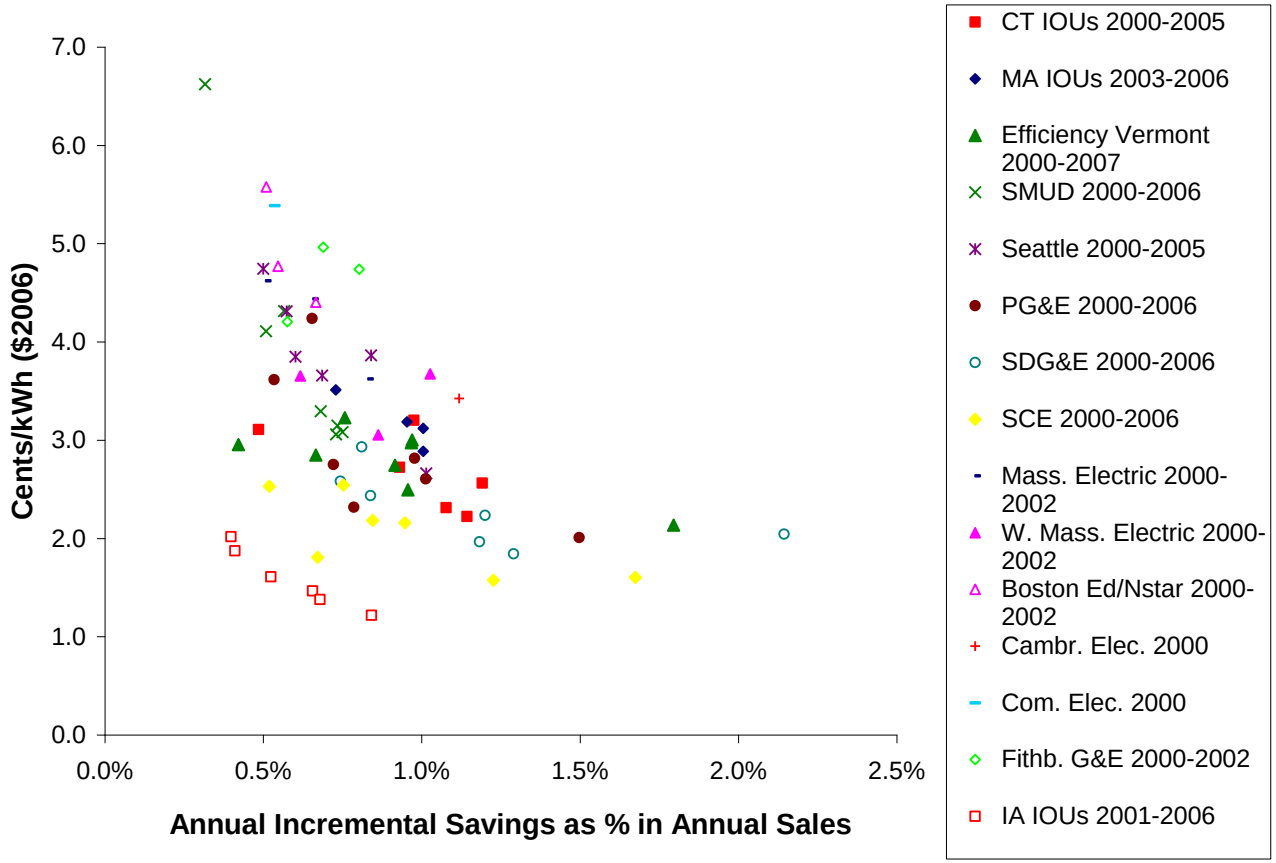
Source: WRI, SEEA, Southface issue brief, see http://www.wri.org/publication/southeast-energy-policy

Energy Efficiency Costs Less Than Generating Power



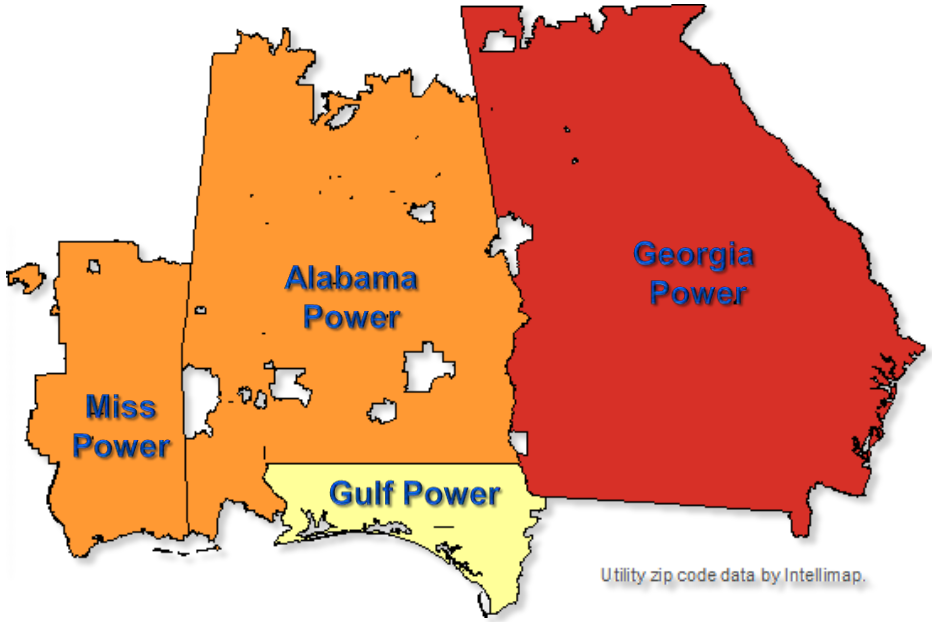
Source: Lazard, *Levelized Cost of Energy Analysis ï Version 2.0*, June 2008.

Economy of Scale: Costs Go Down As Market Penetration Increases



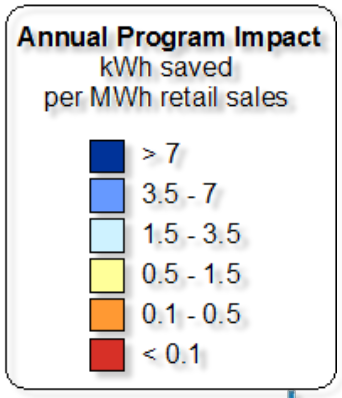
Takahashi, K and D Nichols, *The Sustainability and Costs of Increasing Efficiency Impacts: Evidence from Experience to Date*, 2008 ACEEE Summer Conference, August 2008.

State Energy Policy Makes A Difference: Southern Company Case Study



Southern Company Unit	2007 EE Program Impact kWh per MWh sold
Gulf Power (Florida)	1.14
Alabama Power	0.17
Mississippi Power	0.12
Georgia Power	0.02

Source: EIA Form 861.



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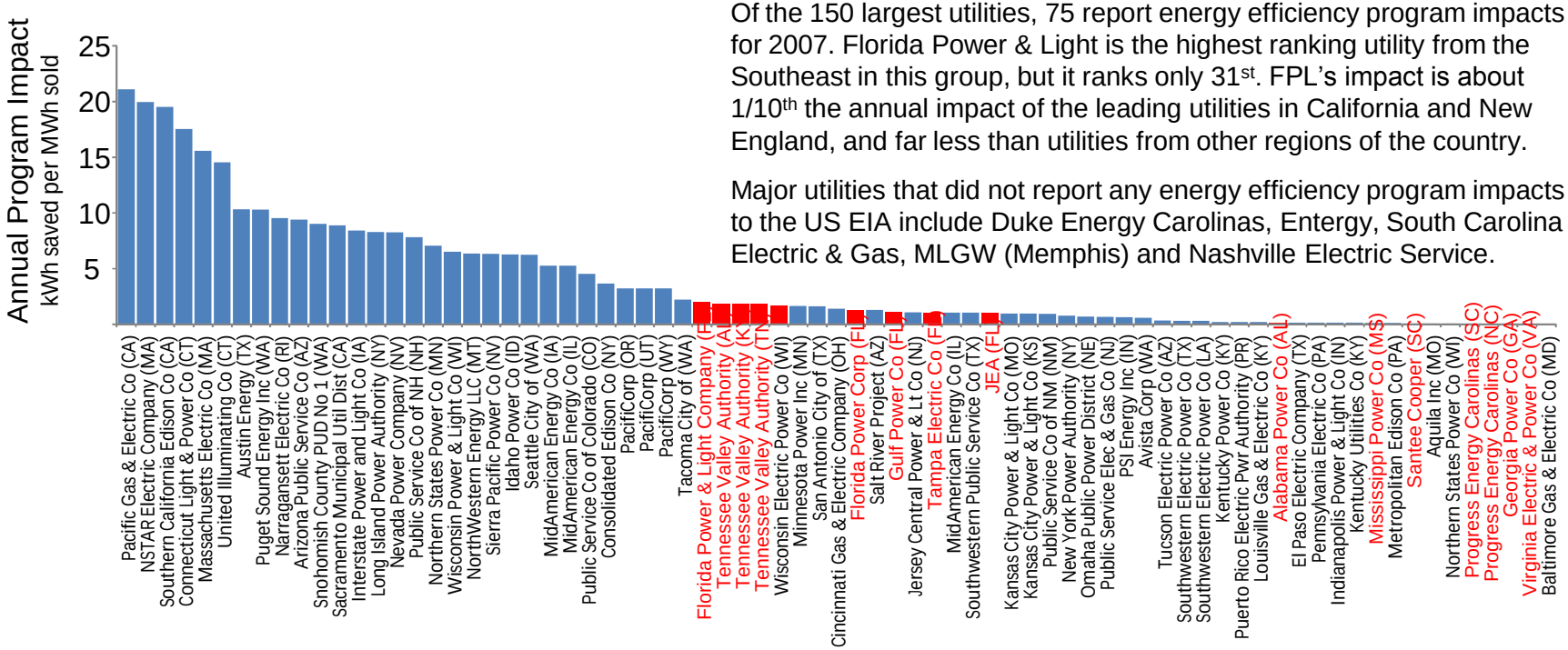
None of the Largest Southeast Utilities Lead on Energy Efficiency



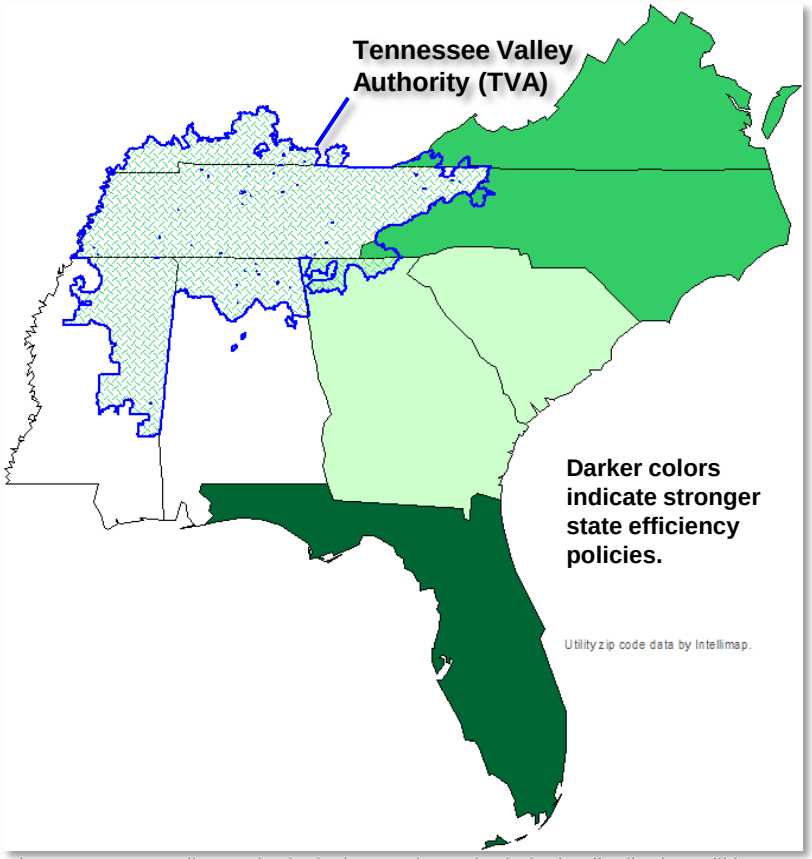
None of the largest utilities in the Southeast are among the leaders in saving energy.

Of the 150 largest utilities, 75 report energy efficiency program impacts for 2007. Florida Power & Light is the highest ranking utility from the Southeast in this group, but it ranks only 31st. FPL's impact is about 1/10th the annual impact of the leading utilities in California and New England, and far less than utilities from other regions of the country.

Major utilities that did not report any energy efficiency program impacts to the US EIA include Duke Energy Carolinas, Entergy, South Carolina Electric & Gas, MLGW (Memphis) and Nashville Electric Service.

Source: EIA Form 861.
Note: TVA performance based on direct service data only; the TVA system (including direct serve and distribution utilities) has substantially lower annual program impact.

Southeast State Efficiency Policies



State	Efficiency Standard	Efficiency Building Codes Commercial	Residential
Florida	Admin goals pending	Most recent	Most recent
Virginia	Admin goals pending	Recent	Recent
N Carolina	Optional to meet RPS	Recent	Needs update
S Carolina	None	Most recent pending	Most recent pending
Georgia	None	Recent	Recent
Tennessee	No authority over TVA	Local option	Most recent pending
Alabama	None	Local option	Local option
Mississippi	None	Local option	Local option
TVA	Admin goals pending	No authority	No authority

The Tennessee Valley Authority is the regulatory body for its distribution utilities.
Efficiency Standard: Federal Energy Regulatory Commission, *Electric Market Overview: Energy Efficiency Resource Standards (EERS) and Goals*, April 3, 2009. Augmented by information on recently enacted legislation in Virginia. This summary refers to electricity only; natural gas utilities are not covered in any state.
Efficiency Building Codes: Department of Energy, *Status of State Energy Codes*, May 2009. Augmented by information on pending legislation in Tennessee and South Carolina state legislatures.

A National Energy Efficiency Goal (EERS): More Jobs, Less Waste, Less Pollution

State	Annual Electricity Savings (GWh)	Peak Demand Savings (MW)	Peak Demand Savings (Equivalent Power Plants)	Annual Direct Gas Savings (TBtu)[†]	Household Energy Needs Met (equivalent number[††])	Energy Savings ($ millions)	Net Jobs Created	CO_2 Emission Savings (MMT)
Alabama	12,440	4,001	13	5.8	1,426,166	3,641	5,202	9.8
Florida	33,553	10,791	36	5.8	3,742,348	14,007	19,754	20.6
Georgia	18,972	6,102	20	15.5	2,245,134	6,326	8,894	15.2
Mississippi	5,854	1,883	6	5.0	694,523	1,935	2,731	4.1
N Carolina*	13,840	4,451	15	10.3	1,627,183	3,017	6,426	11.5
S Carolina	11,662	3,751	12	4.7	1,328,925	3,102	4,495	9.5
Tennessee	13,026	4,189	14	8.6	1,519,999	3,505	5,104	12.3
Virginia*	8,473	2,725	9	14.3	1,080,348	2,342	3,744	7.5
8 SE states	**117,820**	**37,893**	**126**	**70.0**	**13,664,626**	**37,875**	**56,350**	**90.5**
National	364,100	117,091	390	794	47,677,152	168,600	222,100	262

Source: American Council for an Energy Efficient Economy (ACEEE), *Laying the Foundation: Implementing a Federal Energy Efficiency Resource Standard* (March 2009).
Notes: * State with an Energy Efficiency Resource Standard (EERS). † State natural gas savings targets not considered. †† Derived by dividing total state energy savings (for residential, commercial and industrial customers) in a state by energy use of an average U.S. household.