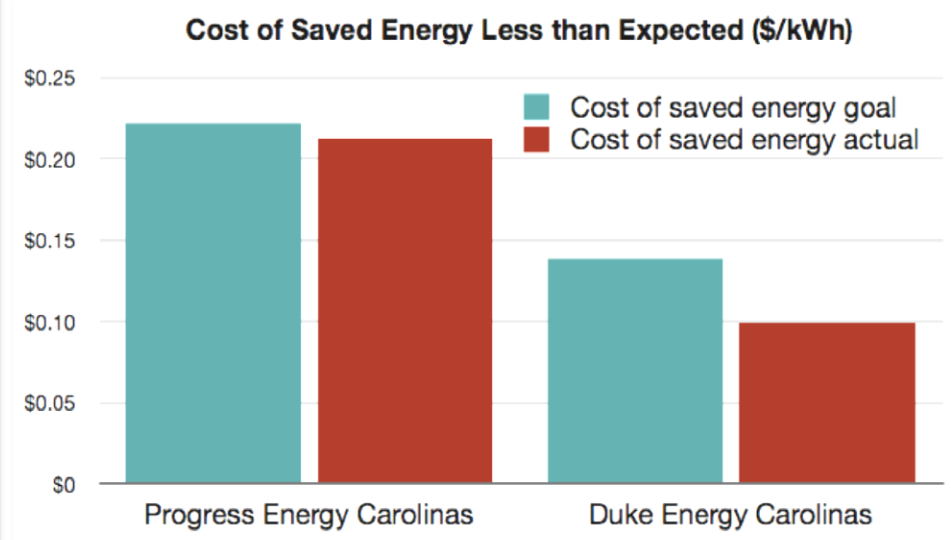
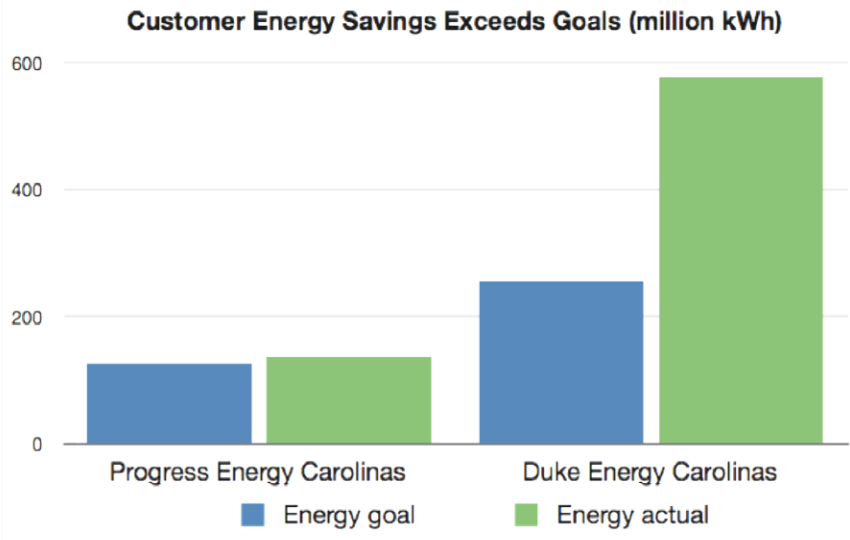


# Duke Energy & Progress Energy: One Year of Energy Efficiency

Duke Energy Carolinas and Progress Energy Carolinas both recently released the results of their first year of energy efficiency implementation in which the companies receive financial incentives for capturing efficiency. The results show that both utilities achieved **more energy efficiency** than anticipated for **less cost** than planned.



## Total Energy Efficiency Investments for First Full Program Year

	Progress Energy	Duke Energy
Cost Goal (million \$)	\$28	\$35
Cost Actual (million \$)	\$29	\$57

# Duke Energy and Progress Energy have the lowest cost of saved energy of peer utilities in the Southeast

Utility	Cost of Saved Energy (\$/kWh)
Duke Energy Carolinas (2010)	\$0.10
Progress Energy Carolinas (2010)	\$0.21
Georgia Power (Q1 2011)	\$0.32
Florida Power & Light (forecast 2011)	\$0.47
Gulf Power (forecast 2011)	\$0.60
Progress Energy Florida (forecast 2011)	\$0.88
Arizona Public Service (2011 savings)	\$0.16
MidAmerican Energy (2009-2013 savings)	\$0.12
Xcel Energy (2009)	\$0.18

We evaluated the costs of energy efficiency programs using a simple metric of “cost of saved energy” which is calculated as the total cost to the utility (program costs plus incentives) per total annual energy savings attributed to those programs, irrespective of measure life.

The main reason that we chose to use it was that it was relatively simple to compare utilities to peer or benchmark utilities in other states using readily available data. In contrast, “standard” cost-effectiveness tests are interpreted differently across regulatory jurisdictions. These interpretations cannot be directly compared due to important differences including definitions of benefits and assumptions regarding measure life. Furthermore, levelized or lifetime costs are not always available or feasible to estimate with available data.

# Duke and Progress: First Year Impacts Puts Carolinas on the Efficiency Map

Duke is outperforming Progress in terms of energy efficiency savings as compared to total retail sales. Most of the difference is due to Duke's aggressive residential lighting efforts.

Program impact (relative to electricity sales)	Progress Energy	Duke Energy
Efficiency from residential lighting programs	0.20%	0.52%
Efficiency from all other programs	0.13%	0.13%
<b>Total efficiency savings</b>	<b>0.33%</b>	<b>0.65%</b>

## Residential lighting incentives:

- Both utilities have made residential lighting incentives the single largest and lowest-cost efficiency program. These programs are focused on CFL bulbs.
- Over the next decade, federal lighting standards will increase the efficiency of many bulbs, which will benefit consumers, but create a higher bar for utilities to capture lighting savings because the utility only gets credit for helping customers go “beyond standards.”

## Overall program scale:

Duke and Progress are among the leaders in the southeast with their new programs. Typically, ambitious new programs save 0.2 – 0.5% in their first full program year.

For perspective, national leaders are saving 1-2% of their sales with energy efficiency programs.

- *California*: > 1% of state electricity demand saved in 2009
- *Minnesota and Iowa*: > 1.5% state energy savings requirement
- *Efficiency Vermont*: >2% state electricity demand saved in 2010

# Savings achieved through successful program implementation

## Top Residential Activity: Duke Residential Lighting

- **Duke Residential Smart Saver Program**
  - CFL bulbs
  - High efficiency HVAC
- **Free CFLs**
  - Coupons
  - Reply cards (low response)
  - Online bulb request
- **Independent verification**
  - Coupons highly successful
  - 107 bulbs installed for every 100 free bulbs (during verification, the program is credited for purchases beyond the coupon limit)
  - Online bulb request study not completed

## Top Commercial Program: Progress EE for Business

- Available to commercial, industrial, government, and educational customers
- **Incentives offered**
  - Standard rebate
  - Custom rebate
- **Typical incentive**
  - Replace T12 with T8 florescent light fixture
  - Rebate: \$6-8 per fixture
- **Minimal paperwork**
- **Verification not yet available**

# Off to a good start, but more efficiency opportunities exist

How can Duke and Progress deliver greater energy efficiency opportunities to their customers in the Carolinas? SACE has highlighted program improvement opportunities. Here are a few ideas we'd like to see them adopt.

Program	Description	Examples
<b>Small business efficiency program</b>	Small businesses often have not implemented energy efficiency measures because of time, cost and other market barriers. While Duke and Progress make program offers available to small businesses, best practice utility programs target small businesses with market niche specific solutions.	<ul style="list-style-type: none"> <li>• <i>Arizona Public Service</i> – Small Business Program</li> <li>• <i>Xcel Energy Minnesota</i> – One-Stop Efficiency Shop</li> <li>• <i>Xcel Energy Colorado</i> – Small Business Lighting</li> </ul>
<b>Commercial new construction</b>	New construction is an important time to install energy efficiency measures because many savings opportunities exist with low incremental costs that are not cost-effective as a retrofit. Progress Energy Carolinas offers incentives for energy efficient new construction, but not a complete design-to-commission program.	<ul style="list-style-type: none"> <li>• <i>Progress Energy Carolinas</i> – EE for Business</li> <li>• <i>Interstate Power &amp; Light</i> – Commercial New Construction</li> <li>• <i>MidAmerican Energy</i> – Commercial New Construction</li> </ul>
<b>Residential reflective roofs “upstream” incentives</b>	High quality, reasonably priced residential “cool roof” products have been available for many years. Studies suggest residential customers have a low response rate to rebate offers for cool roof shingles. Utilities have demonstrated that response rates to so-called “upstream” (distribution channel) incentives can be higher for measures that require a trusted installer.	<ul style="list-style-type: none"> <li>• <i>California</i> – Upstream HVAC incentive program operated by Energy Solutions</li> <li>• <i>Xcel Energy Colorado</i> – Upstream CFL program</li> </ul>