Electric Generation Capacity and Regulation in South Carolina

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Office of Regulatory Staff Mission

The Office of Regulatory Staff represents the public interest in utility regulation by balancing the concerns of the using and consuming public, economic development of South Carolina, and the financial integrity of public utilities.



Office of Regulatory Staff Values

Excellence – Above all, we remain committed to excellence in our work, in our attitudes, and in our dealings with utilities, regulatory bodies, and the using and consuming public.

Respect – We respect the individual contributions of our employees and empower them to attain their professional and personal potential.

Innovation – We are innovative in the way we conduct our work, solve problems, and address challenges.

Responsiveness – We respond to all requirements, requests, and concerns with a sense of urgency and efficiency.

Professionalism – We uphold the highest standards of professionalism in our conduct, our work ethic, and our interactions with utilities, regulatory bodies, and the using and consuming public.

Integrity and Impartiality – We uphold the law in every action and interaction. We abide by our legislative mandate of impartiality as we strive to represent all facets of the public interest.



What are South Carolina Residents Paying for Electricity?



Monthly Residential Bill (Average customer using 1,000 kWh) **Utility Current Bill** Duke \$106.77* \$103.85* Progress \$130.64* SCE&G \$117.60[‡] National Average $$113.40^{\ddagger}$ South Atlantic Average

^{*} June 2012 data
[‡] Energy Information Administration data (March 2012)



What is South Carolina's Electric Generation Capacity?



Duke Energy Carolinas Generation Capacity

<u>2012</u>







Progress Energy Carolinas Generation Capacity





South Carolina Electric & Gas Generation Capacity



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S.C. Generation Capacity - 2012





S.C. Generation Capacity - 2022



Generation Trends in S.C.

- Unscrubbed Coal is expected to be almost completely eliminated.
- Scrubbed Coal is expected to be reduced from 31.0% to 27.0%.
- Oil/Diesel is expected to remain steady, although many of these units are co-fired.
- Natural Gas is expected to increase from 25.5% to 31.1%.
- Nuclear is expected to increase from 18.8% to 27.9%.
- Hydropower is expected to be reduced from 13.5% to 11.8%.
- Renewable Energy is expected to increase from 1.0% to 1.4%.



Renewable Energy National Perspective



Renewable Portfolio Standards

- 29 states, plus Washington, DC and Puerto Rico, have Renewable Portfolio Standards.
- 8 states have Renewable Portfolio Goals. Goals are not mandatory, but they may include preferential treatment for renewable generation.
- 13 states have neither a Renewable Portfolio Standard nor a Renewable Portfolio Goal.
- Of these 13 states, 9 are in the Southeast.



Thinking Beyond Renewables

Local Perspective



Non-Emitting Energy vs. Clean Energy

"Non-Emitting Energy" includes nuclear, hydropower and renewable energy.

"Clean Energy" is less well defined.

Legislation pending in the United States Energy and Natural Resources Committee would define *"Clean Energy"* as electric energy generated using *renewable energy*, *renewable biomass*, *natural gas*, *hydropower*, *nuclear power*, *or qualified waste to energy*.



Nuclear Energy

South Carolina has a significant commitment to nuclear energy:

- 12 nuclear units currently serve South Carolina customers
- 2 new nuclear units are actively under construction by SCE&G
- 2 new nuclear units proposed by Duke are undergoing preliminary NRC review

South Carolina has also passed legislation to help streamline funding for nuclear construction.



Base Load Review Act

The Base Load Review Act was enacted in 2007.

- Establishes a procedure allowing an investor owned electric utility to recover from ratepayers partial costs before project completion.
- Requires approval of an application with the Public Service Commission and ongoing review of capital costs throughout construction.
- Costs prudently incurred can be recovered through revised rates.
- Currently in use by SCE&G for construction of V.C. Summer Units 2 & 3.



S.C. Generation Capacity

<u>Type of Generation</u>	<u>2012</u>	<u>2022</u>
Coal (Scrubbed)	31.0%	27.0%
Coal (Unscrubbed)	9.5%	0.1%
Oil/Diesel	0.6%	0.5%
Natural Gas	25.5%	31.1%
Nuclear	18.8%	27.9%
Hydro	13.5%	11.8%
Renewables	1.0%	1.4%



S.C. Non-Emitting Generation Capacity - 2022





S.C. Clean Generation Capacity - 2022





Estimated Duke-Progress Merger Savings and Benefits

	<u>System</u>		South Carolina	<u>Notes</u>
Fuel Savings	\$ 650,000,000	\$	127,000,000	\$25.4 million annually for 5 years ¹ Estimated Allocation (19.52%)
Community Support & Charitable Contributions		\$	10,650,000	\$2.66 million annually for 4 years
Workforce Development & Low Income Energy Assistance	-	\$	3,750,000	\$3.75 million for 1 year
TOTAL Savings and Benefits	\$ 650,000,000	\$	141,400,000	

Additional Savings and Benefits

	<u>System</u>		South Carolina	<u>Notes</u>
Decrement Rider for Capacity Sales	\$ 64,600,000	\$	12,600,000	\$12.6 million spread over 35 months ²
Protection Provision	\$ 226,000,000	\$	44,000,000	Estimated Allocation (19.52%)
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TOTAL Additional Savings and Benefits	\$ 290,600,000	\$	56,600,000	
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Overall Savings and Benefits to SC Ratepayers		\$19	8,000,000	

Savings for Residential Customers using 1,000 kWh:

Duke Energy Carolinas:		Progress Energy Carolinas		
¹ Fuel Savings:	\$0.92	¹ Fuel Savings:	\$0.92	
² Decrement Rider:	<u>\$0.16</u>	² Decrement Rider:	<u>\$0.12</u>	
TOTAL	\$1.08	TOTAL	\$1.04	

