

# Coastal Conservation League

## South Carolina's **ENERGY SECRET**





COASTAL  
CONSERVATION  
LEAGUE

Fall 2009 Vol. 20 No. 3

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# Priming the Efficiency Pump

## From The Director

What do mountaintop destruction in West Virginia, the coal plant (now cancelled) on the Pee Dee River, and rural poverty have in common? They all converge around one of the most common fixtures of the South Carolina landscape, the manufactured or “mobile” home. Manufactured homes are notorious energy wasters, typically with little wall or ceiling insulation and heating units with the technological sophistication of a toaster oven.

While they are less expensive to purchase than standard “stick built” homes, manufactured homes are more costly to operate, saddling a family with a lifetime of high electric bills. The high percentage of manufactured homes in South Carolina is one reason the state ranks fourth in electricity consumption per capita, and why utilities have historically had to invest billions of dollars in new power plants.

Corresponding to this wasteful inefficiency, our rural areas have for years seen jobs disappear, downtowns evaporate and family income decline. Schools have been underfunded because of anemic tax bases. Public health has suffered from a lack of adequate resources. Meanwhile, month after month, excessive electric bills consume money that would otherwise be put to productive civic and personal use.

Now we can look at manufactured homes, and rural housing generally, as a gold mine of opportunity – a silver bullet for rural economic progress. Think of the heat that escapes through poorly insulated walls and ceilings as a river of money. And think of redirecting that river into the bank accounts of rural families and business owners, and then imagine hundreds of thousands of streams flowing to businesses, farms, school districts, health departments and savings accounts. Think of using the wasted heat and electricity to recapitalize and reinvigorate rural communities statewide.

The potential is mind-boggling. And the beauty is that these upgrades pay for themselves. They are, in the terms of the recent McKinsey Report on energy efficiency, “net present value positive.” That means they are good investments, better, say, than a six-month CD at your local bank.



Nowhere would such a strategy yield greater results than in South Carolina’s rural areas. The low-hanging fruit isn’t just low hanging, it’s on the ground, ready to be gathered. If the average rural home were only as efficient as the average suburban home, billions of dollars could be redirected into rural economies.

*iStockPhoto.com/Trifonov, Ukraine*

What's needed is a mechanism to prime the pump - to facilitate the flow. Although it makes sense to install a high efficiency heating and air system, or an energy saving refrigerator, or a solar hot water heater, most people don't do it. There are a variety of reasons for this, reasons that fall under the category of "transaction costs."

First, is simply a lack of knowledge. A utility bill typically has one amount on it (or two, if your house runs on electricity and natural gas), the monthly charge. There is virtually no way for the average consumer to understand what she is paying to operate her refrigerator, much less what she would save by purchasing a new one.

Multiply that ten-fold for all of the major energy consumers in a house - heating and air systems, hot water heaters, dishwashers, washing machines, lighting, etc. and you would need engineering and finance degrees to calculate your energy saving options.

Vendors and contractors aren't much help. The typical vendor contact involves a crisis, like an AC unit that breaks down in July. Time is at a premium and comparison shopping and research are difficult. Less expensive typically looks better than more expensive, especially when cash is tight.

This brings up another transaction cost. An appliance should last a decade or more, so it would be reasonable to finance such an investment. But financing is often not available, or difficult to find, or too expensive. So the default is to buy the cheapest model available and ignore the operating costs. It's simple, straightforward, and financially foolish. Priming the efficiency pump means reducing transaction costs, including providing financing for major upgrades, to make home energy management understandable and achievable.

Nowhere would such a strategy yield greater results than in South Carolina's rural areas. The low-hanging fruit isn't just low hanging, it's on the ground, ready to be gathered. If the average rural home were only as efficient as the average suburban home, billions of dollars could



The manufactured or "mobile" home can become the symbol for the promise of a new energy future. We need to begin to assemble the delivery system now.

be redirected into rural economies.

What, then, is the delivery mechanism? To start with, we should evaluate the current energy efficiency programs operated by South Carolina utilities and rural cooperatives. Electric providers are the first point of contact with home and business owners on the subject of energy. There is some worthy work being done, but it's not nearly enough.

We need to implement energy efficiency 2.0. This means guaranteeing that homeowners receive complete, up-to-date information when they are ready to buy new appliances, and that they understand the high returns from home improvements like insulation, weather stripping, tree planting and such.

It also means providing financing at reasonable rates with convenient repayment, most likely on utility bills. A state sponsored revolving fund for major home improvements could provide funds to be used over and over again to fuel efficiency gains.

What's the payback? First, local manufacturers, distributors, hardware stores, contractors and construction workers would see dramatic increases in business. Unlike new power plants, where fuel, parts, and often labor must be brought in from outside, the benefits of efficiency investments are almost entirely local.

Second, the most economically disadvantaged people in South Carolina would be left with more disposable income, to spend in local stores, to deal with health and education, or to save.

Third, because efficiency is the least expensive way to meet new energy needs, rate payers would benefit when new expensive, rate-increasing power plants could be avoided.

And then there's the environment. Lower emissions from coal plants would mean less mercury in South Carolina rivers, less soot and toxics in the air, fewer cases of lung and heart disease, and reduced CO2 emissions.

It almost sounds too good to be true, and no one should underestimate the logistical challenges of improving the energy efficiency of rural South Carolina on a scale that really makes a difference for the economy, the environment and people's lives. But no other strategy comes close to efficiency in the potential benefits per dollar invested. Indeed, the manufactured or "mobile" home can become the symbol for the promise of a new energy future. We need to begin to assemble the delivery system now.

*Dana Beach*

## From Carbon to Efficiency

**MAKING THE TRANSITION IS EASIER THAN YOU THINK**

*An Interview with Mike Couick, President and CEO of the Electric Cooperatives of South Carolina*

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*We Have the Tools & Technology – Proper insulation and sealing of ductwork, walls and windows produce substantial savings in energy.*

### Who are the Electric Cooperatives of South Carolina?

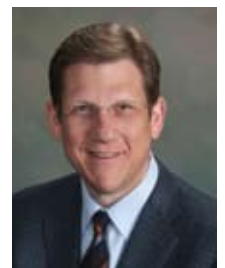
**T**he Electric Cooperatives of South Carolina, Inc. (ECSC) is the not-for-profit service and trade association for electric cooperatives in South Carolina. ECSC includes 18 independent consumer-owned electric cooperatives, Central Electric Power Cooperative — our wholesale power aggregator — and two materials supply or service cooperatives. Together, they operate the largest electric distribution system in the state. More than 1.5 million South Carolinians – out of a total population of 4.5 million – use electricity from electric cooperatives. We work — and advocate — for the people who use the power we provide, for our member-owners.

### What have the Electric Cooperatives studies revealed in recent years about energy use in South Carolina?

**I**t is often quoted, and correctly so, that South Carolina has the fourth highest electricity consumption per capita in the nation. We have some of the lowest electricity rates, but electricity is going to cost us all more in the future. That's why it is so important now to tap into the cheapest, most accessible source of power available – energy efficiency.

A study that Central Electric conducted in 2007 revealed that South Carolina could realize savings of 20 percent in the amount of energy we use over the next ten years through a coordinated effort to achieve greater home efficiency – things such as

weatherizing walls, attics, pipes, ductwork and windows with insulation and sealants; investing in Energy Star appliances, and upgrading to more efficient heating and cooling systems.



*Mike Couick*

The 20 percent savings achieved through efficiency means we would have more energy available for the state's future power needs, and South Carolinians would have more disposable income to invest in their families and communities. Furthermore, investing in energy efficiency is generally much cheaper on a kilowatt-hour basis than building nuclear, coal, gas-fired or even renewable generation.

## So Where do We Start?

**W**e have done thousands of on-site energy audits over the years across the state, and do you know how many folks practice energy efficiency at home? Fewer than 10 percent. And it's not necessarily their fault. Many of our members simply do not have the resources — the knowledge or the available cash — to invest in long-term efficiency measures. And to date, existing incentives and paybacks are not sufficient to do the job.

In fact, 22 percent of South Carolina households served by cooperatives have incomes of \$25,000 or less. Twenty-five percent live in manufactured homes. With a modest amount of help, these same families, by simply sealing air ducts and weather stripping their houses, could reap dividends for themselves by lowering their power bills, and big dividends for the state in terms of fewer new power plants. Homeowner investments in more efficient heating and cooling systems can produce even bigger gains.

Here's another example. Upgrading from strip resistance heat (which essentially operates like a toaster oven) to a more efficient heat pump system will cost the homeowner somewhere around \$5,000. Many of our members do not have that kind of up-front capital. And yet buying that more expensive HVAC system will save a homeowner \$5,000 or more in heating and cooling bills within just a few years. It also frees up those unused kilowatts for future uses and reduces the environmental and financial footprint of new power generation.

So, we as a state and a nation need to jump-start this transition from inefficiency to efficiency, transforming our economy from being carbon-intensive to one marked by carbon constraint. To do this, we're going to need to direct dollars to homeowner education, weatherization grants and loans, Energy Star appliance incentives, HVAC efficiency rebates, technical school training, and a whole host of readily available tools.

*(continued on page 18)*

# NEARLY 20%

OF ALL SOUTH CAROLINIANS LIVE IN MANUFACTURED HOMES



## How Many Manufactured Homes are there in South Carolina?

- In 2006 there were 378,366 manufactured homes in S.C.
- The projected annual growth in manufactured home sales is 2,700 per year
- 18.7% of housing units in S.C. are manufactured homes

## Who Lives in Manufactured Homes?

- S.C. leads the nation with 18.2% of its population residing in manufactured homes compared with the national average of 6.7%
- Annual 2008 household income of residents in manufactured homes:
  - Less Than \$10,000: 5%
  - \$10 000 – \$19 999: 14%
  - \$20,000 – \$29,999: 21%
  - \$30 000 – \$39 999: 18%
  - \$40,000 – \$49,999: 16%
  - \$50 000 and over: 27%



## How Energy Efficient are Manufactured Homes?

- Energy usage of manufactured homes built to HUD standards: 23,152 KWH/home/year
- Energy savings for an ENERGY STAR certified manufactured home: approx. 35%
- Average annual bill savings for an ENERGY STAR certified manufactured home relative to HUD standards: approx. \$850
- Current market penetration of ENERGY STAR certified manufactured homes: 0.19%
- Average Sales Price in 2004 of a Manufactured Home in South Carolina: \$54,300/home
- Incremental/Additional Cost of an ENERGY STAR-Manufactured Home in 2006: \$2,600/home

# Santee Cooper Suspends Pee Dee

## ECONOMIC AND POLITICAL REALITIES COMPEL BOARD TO BACK OFF OF COAL

At midday on Monday, August 24th, the emails and messages began flowing in from Santee Cooper's Wampee conference center on Lake Moultrie, where the public utility's board was holding their August meeting. Representatives from most of South Carolina's major environmental groups as well as from the Central Electric Power Cooperative (a consortium of rural and suburban cooperatives) were present.

Just after 12noon, the first messages came over the email waves: "Live Update from Santee Cooper Board Meeting – Coal Plant Suspended!" (from John Ramsburgh of Conservation Voters of SC), followed by "It's Official – Santee Cooper Board just unanimously voted to indefinitely suspend the Pee Dee coal plant!" (from Ben Moore, Energy and Climate Director for the Coastal Conservation League). Immediately after the meeting, Santee Cooper Board Chairman O. L. Thompson acknowledged that the utility's action made it unlikely the plant would ever be built.

The next day, the League's Ben Moore elaborated on Santee Cooper's change of heart: "Among the principal reasons given by the Santee Cooper Board were – the impact of the economic recession; pending climate

change legislation; a possible national renewable energy standard; fluctuations in financial markets, and the timing and cost of future power generation – the very reasons that the Conservation League and its coalition partners have been citing for the last two years."

What turned Santee Cooper around? Nancy Cave, North Coast Office Director for the Conservation League and a leader of the "SC Says NO" coalition, responds, "To the Board's credit, they were actively engaged in direct dialogue with customers from all across their service area. They read the reports and heard their constituents, both at the permit hearings and the rate hearings."

Moreover, the utility's biggest customer, Central Electric Power

Cooperative, recently entered negotiations to buy electricity for five of its upstate cooperatives from Duke Energy in North Carolina, which would result in the transfer of 1,000 megawatts from Santee Cooper's system to Duke Energy beginning in 2013. If approved, the transfer would reduce Santee Cooper's power generation demands and reduce its need for a new coal plant. Santee Cooper relies more heavily on fossil fuels than does Duke Energy.

Cave also points to the release of the Synapse Energy Report at an April 22nd press conference in Columbia as a turning point. Commissioned by the Conservation League, the study concluded that Santee Cooper had failed to account for reduced energy use, higher coal plant construction costs, the



Gretta Kruesi

Celebration at Bostic Landing – Seated (l-r): Frank Brown and Joey Cook. Standing (l-r): Mike King, Dana Beach, Nancy Cave and Terry Cook.

# Coal Plant

potential for energy efficiency to reduce demand, and reasonable estimates on carbon emissions.

Last May, Santee Cooper issued a \$366 million bond offering to help pay for the proposed coal plant. The state-owned utility also announced plans to raise electric rates 15% over two years for residential customers. Seven public hearings were held in June on the planned rate hikes and Board members listened to citizens' concerns about the true costs of coal, both financial and environmental. The Conservation League held press conferences and attended all the hearings, focusing its message on the need for energy efficiency, not a new coal plant.

The Santee Cooper rate hearings included a public comment period at the Board's July 27th meeting in Myrtle Beach. Dozens of attendees



Dana Beach

**Champions of the Pee Dee** – Front row (l-r): Peggy Brown, Susan Corbett, Mary Edna Fraser, Barbara Zia, Pam Creech, Bo Ives, Mike King (kneeling), Sally King, Terry Cook, Nancy Cave; Back row (l-r): Joey Cook, Frank Brown, Randy Stone, John Sperry, Hamilton Davis, Blan Holman and Gretta Kruesi.

spoke in favor of energy efficiency and Board members listened attentively for more than two hours. Then Chairman Thompson revealed that he was asking Santee Cooper staff to review the power generation plan in light of decreased energy demand and pending federal limits on carbon emissions, in addition to the potential imposition of a renewable energy standard for South Carolina.

Two days later on July 29th, McKinsey and Company – the global management consulting firm –

released a report entitled, *Unlocking Energy Efficiency in the U.S. Economy*. The report concluded that by 2020, the United States could reduce annual energy consumption by 23% through such strategies as launching energy efficiency programs on the national and regional levels; providing funding to capture energy efficiency; forging better alignment between utilities, regulators, government agencies, manufacturers and consumers; and fostering innovation in next generation energy efficiency.

The McKinsey Report was a huge boost to the energy efficiency message and the Conservation League made sure that each Santee Cooper Board member received a copy. Meanwhile, Santee Cooper staff was preparing a report on its in-house review of the plant proposal, to be presented at the Board's next meeting on August 24th. It was at that meeting that the Santee Cooper Board made their landmark decision to suspend plans for a new coal plant – more than three years and \$242 million later since it was first announced on April 21st, 2006.

The following time line (on pages 8 and 9) traces the evolution of the coal plant proposal and the battle waged by the Coastal Conservation League and its many coalition partners.



J. Henry Fair

**No New Coal Plant** – Pictured above is Santee Cooper's coal fired power plant in Cross, South Carolina.

## The Coal Plant Battle A Time Line

**April 21, 2006:** Santee Cooper announces plans for a 1,320-megawatt pulverized coal plant to be built on a 1,245-acre site along the banks of the Pee Dee River at an estimated cost of \$984 million.

**May 22, 2006:** The proposed completion date is cut by two years – putting the expected completion date at 2012 and increasing the price tag for the plant to nearly \$1 billion

**Oct. 7, 2006:** Santee Cooper begins submitting permits in the hopes of clearing the land at the proposed site in Kingsburg

**December 2006:** Coastal Conservation League initiates meetings with state legislators to express its opposition to the proposed coal plant, based on the lack of public need, the environmental impacts of CO2 and mercury, and the preferred alternatives of energy generation from efficiency and renewable sources

**March 20, 2007:** The Coastal Conservation League and the Southern Environmental Law Center formally oppose the proposed coal plant



Columbia — Citizens protest DHEC's approval of an air permit for the proposed coal plant.

**March 21, 2007:** Santee Cooper extols the need for more power in South Carolina, saying the company will be 385 megawatts short of the amount needed to power homes in the region if the plant is not built by 2012

**July 12, 2007:** The S.C. Department of Health and Environmental Control (DHEC) hosts an informal public meeting to answer questions about the proposed facility

**Sept. 27, 2007:** U.S. Army Corps of Engineers hosts two public scoping meetings to hear the concerns of residents affected by the proposed coal plant

**September 2007:** S.C.'s Electric Coops release study stating that South Carolina could save 20% on energy use through efficiency alone, negating the need for a new coal plant

**October 2007:** DHEC issues a draft air permit for the proposed plant, before a full Environmental Impact Statement (EIS) – as required by law – was completed

**October 2007:** Charleston *Post and Courier* publishes series of articles on "The Mercury Connection"

**Oct. 25, 2007:** Members of the Coastal Conservation League, the S.C. Wildlife Federation, the Southern Environmental Law Center, the S.C. Sierra Club, the Southern Alliance for Clean Energy, and residents of the Pamplico and Kingsburg areas gather at the State House in Columbia to protest the proposed plant

**Oct. 31, 2007:** Health care professionals in the Pee Dee region stage a protest, citing a variety of health issues that should compel DHEC to deny the draft air permits

**Nov. 8, 2007:** DHEC hosts a public hearing in Pamplico on the draft air permits. Santee Cooper buses in employees and packs the room with representatives of some of their largest customers – Nucor Steel, Alcoa Aluminum and the electric cooperatives. But the opponents end up equaling the proponents, speaking passionately about the impact of the proposed plant's toxic air emissions on health, community and the environment

**Dec. 13, 2007:** Santee Cooper releases a study it commissioned from Francis Marion University professors, using Santee Cooper data, stating that the proposed plant would cost about \$998 million to build and would inject \$893 million into the South Carolina economy and create more than 9,000 jobs

**Jan. 22, 2008:** The Southern Environmental Law Center, on behalf of the Conservation League and six other conservation organizations, submits a 138-page letter to DHEC articulating the failure of the agency to meet Best Available Control Technology standards for permitting the proposed plant, as required by law. DHEC receives more than 700 comments on the draft air permit.



Florence — (l-r) Rev. Leo Woodberry and Rev. Michael McClain discuss an analysis of the economic impacts of the proposed coal plant, refuting Santee Cooper's claims.

**Jan. 29, 2008:** Attorneys General from 8 states urge DHEC to reconsider draft plant air permits

**Feb. 8, 2008:** The federal court rules that the Environmental Protection Agency violated the Clean Air Act by removing coal and oil plants from the list of hazardous air pollution sources

**March 27, 2008:** Santee Cooper announces plans to increase the cost of the proposed coal plant from \$998 million to \$1.25 billion, citing growing costs of gasoline and building materials

**April 11, 2008:** The Eastern Carolina Development Corporation and the Conservation League release a report prepared by Moore Data, LLC using

# Victory Over Coal

third-party open data that refutes the Francis Marion/Santee Cooper economic study. The Moore analysis reveals that the plant will cost \$1.35 billion, will provide average yearly local employment of only 228 direct jobs, and will generate local investment of \$432 million, less than half of what Santee Cooper had claimed.

**July 13, 2008:** Santee Cooper CEO Lonnie Carter submits op-ed to the Charleston *Post and Courier* dismissing health concerns regarding mercury fallout from the proposed plant

**July 31, 2008:** Physicians for Social Responsibility join with physicians in Florence and Columbia to refute Santee Cooper CEO Lonnie Carter's claims about mercury

**Sept. 2, 2008:** James Hansen, Director of the NASA Goddard Institute for Space Studies, publishes letter in *The State* and the *Post and Courier* chastising Santee Cooper – a state-owned utility – for pursuing outmoded energy strategies that exacerbate global warming at a time when most other utilities are ratcheting down their carbon emissions

**Sept. 22, 2008:** Residents from across Darlington County attend a meeting organized by local community activists at Mayo High School to learn more about the proposed plant

**Oct. 23, 2008:** Hundreds of people pack the Hannah-Pamplico gymnasium to make their voices heard during DHEC's public hearing about the proposed plant



Conway & Florence – *At ACOE hearings in September 2007, seventy-seven attendees spoke against the proposed coal plant; six spoke in favor.*

**Dec. 10, 2008:** The S.C. Small Business Chamber of Commerce and the S.C. Wildlife Federation meet in Columbia to ask the Santee Cooper Advisory Board to take a closer look at plans for the utility's proposed coal plant and consider the opinions of local community members

**Dec. 16, 2008:** DHEC announces its approval of the air quality permit for the proposed plant

**Dec. 31, 2008:** The Conservation League joins with 20 other organizations and individuals in appealing DHEC's issuance of an air quality permit

**Jan. 7, 2009:** At a press conference in Columbia, "SC Says No" announces its formation of a statewide coalition of environmental, business, student, religious, civic, and medical organizations and individuals opposed to the proposed coal plant

**Feb. 6, 2009:** John Frampton, Director of the S.C. Department of Natural Resources sends letter to DHEC opposing coal plant, citing environmental consequences and risks

**Feb. 11, 2009:** Governor Mark Sanford announces his opposition to the proposed facility

**Feb. 12, 2009:** The DHEC Board holds final review conference on air permit and denies request for review, approving DHEC staff's issuance of air permit for coal plant

**March 2009:** Charleston *Post and Courier* publishes series of articles on the impacts of coal ash waste and its disposal

**April 8, 2009:** Sierra Club conducts hair tests at Ray's Barbershop downtown to document elevated mercury levels among local residents

**April 13, 2009:** The Southern Environmental Law Center files an appeal on behalf of the Conservation League, the Environmental Defense Fund, the League of Women Voters of SC, the S.C. Wildlife Federation and the Sierra Club asking the courts to rescind the air permits issued by DHEC

**April 22, 2009:** The Conservation League releases a Synapse Energy Report documenting that Santee Cooper failed to account for reduced energy use, higher coal plant construction costs, the potential for energy efficiency to reduce demand, and reasonable estimates on carbon emissions in their proposal for a new coal plant



Pamplico – *Peggy Brown, League of Women Voters board member and Florence activist against the coal plant, celebrates the victory.*

**May, 2009:** Santee Cooper issues a \$336 million bond offering to help pay for the proposed plant and announces plans to raise electric rates 15% over two years for residential customers

**May 7, 2009:** A summarization report is released by the Environmental Integrity Project and Earthjustice showing that EPA never released the results of a safety study done on coal fired power plants

**July 27, 2009:** Santee Cooper's Board meets in Myrtle Beach where dozens of attendees speak in favor of energy efficiency over coal

**July 29, 2009:** McKinsey and Company releases report entitled *Unlocking Energy Efficiency in the U.S. Economy* that concludes the U.S. can reduce energy consumption by 23% by 2020 through efficiency, conservation and renewables

**August, 2009:** Central Electric Power Cooperative enters negotiations with Duke Energy to buy 1,000 megawatts for its upstate coops, reducing the need for a new Santee Cooper coal plant

**August 24, 2009:** The Santee Cooper Board votes unanimously to suspend permitting of the proposed coal plant

# Mining

# Efficiency & Renewables

by Hamilton Davis,  
Director of the  
Conservation League's  
Energy and  
Climate Program



South Carolina's energy future has yet to be determined, but the decisions we make in the next few years regarding power generation will have long lasting implications for public health, our economy, and our environment. There are those who believe the status quo should be embraced and defended. And fortunately, there are others who recognize the opportunities within our state to produce energy from clean, renewable resources that also stimulate our local economy.

## Held Back by the Status Quo

Presently, South Carolina is nearly 100% dependent on energy supplies that come from other states and other countries. We have no coal, no uranium, and no natural gas. The available studies from the U.S. Department of Energy suggest potential offshore fossil fuel resources are not economically recoverable. With more than 60% of our electricity production coming from coal and more than 30% coming from nuclear, we are currently sending well over a billion dollars per year out of state. Many state leaders and utilities defend this situation as being in the long-term best interest of South Carolinians.

To take this position is to ignore the rapidly rising costs of fossil fuels resulting from their limited supply in the face of increasing demand, especially to meet energy needs in places like India and China. Furthermore, relying on fossil fuels ignores the national security risks that come along with foreign dependency

for our energy supplies. Defending this dependency also ignores its negative impacts on South Carolina's public health and natural resources.

Moreover, dramatic price increases in key commodities markets, the likelihood of federal climate legislation, and projected economic conditions over the near- to mid-term argue for a re-examination of the state's disproportionate reliance on coal to meet its power needs. Indeed, due to coal's increasing financial risk to utilities and ratepayers, as well as its prominent role in degrading the environment and its strong linkage to public health concerns, South Carolina should move away from coal as a fuel source as rapidly as possible.

In fact, South Carolina's investor-owned utilities are beginning to view coal in a new light. South Carolina Electric & Gas has publicly stated that new coal facilities are "off the table." Progress Energy has enacted a moratorium on new coal plant construction. Duke Energy has vowed never again to build a coal plant in

the Carolinas. And recently, the state's public utility – Santee Cooper – has shelved plans for a new coal plant on the Pee Dee River. Now is the time for South Carolina to embrace these trends and begin moving our state toward a more secure energy future.

To look at it another way, maintaining the status quo of an outdated and narrow power generation mix is to ignore the massive potential for South Carolina to save money through energy efficiency, and equally important, to create jobs and generate revenue by developing our abundant renewable resources. We now have a window of opportunity to rethink not only *how* we use energy, but also *where* that energy will come from.

## Efficiency as a Source of Energy

Energy efficiency and renewable energy – resources that can be tapped into here at home – are currently under represented in South Carolina's energy portfolio. The state can and should correct this situation immediately by developing a comprehensive energy policy that reduces our reliance on risky energy supplies and increases our utilization of clean, homegrown, and affordable energy resources. A comprehensive approach needs to include ambitious efficiency and conservation programs while also promoting the state's bio-energy, small hydroelectric, wind, and solar potential.

Energy efficiency is less expensive, yields larger economic benefits, results in greater social benefits, and promises superior environmental performance as compared to any other energy resources available in the United States or South Carolina. It is also a resource that has been consistently demonstrated in the marketplace. This alternative can feasibly meet the majority of the state's future energy needs; therefore, it should be the centerpiece of any comprehensive state energy policy.



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## Efficiency = Energy

*Energy efficiency represents the cheapest known way to meet energy needs, costing 3 to 10 times less than all other resources, including renewables.*

Energy efficiency represents the cheapest known way to meet energy needs, costing 3 to 10 times less than all other resources, including renewables. In addition, energy efficiency programs benefit substantially from economies of scale. The cost of the resource can be substantially lower in programs that save more energy. As a result of the ability of energy efficiency to lower the cost of delivering reliable energy services, and the potential for programs to lower participants' energy bills, energy efficiency should be viewed as a key tool to safeguard the economic health of the state.

Energy efficiency decreases demand, reducing or eliminating the need for new generation facilities and their associated expense. This not only lowers electricity prices, it also encourages new markets and jobs. Studies show that reducing energy demand by a mere 15% in South Carolina by 2020 would save ratepayers \$3.1 billion and create more than 4,000 jobs. Duke Power,

Santee Cooper, and the S.C. Electric Cooperatives have all commissioned efficiency studies that conclude demand reductions around this level are readily achievable.

## Debunking Myths About Renewables

A popular myth in South Carolina maintains that we simply do not have enough renewable energy potential to substantially change our situation. Yet, study after study has shown this to be untrue. In fact, biomass has begun to gain traction and we are seeing a steady increase in energy production from this sector. Capturing methane from landfills, co-firing traditional generation plants with forestry byproducts, and the growing of biofuels like switch grass all hold promise and are demonstrating themselves to be a viable part of a more diverse energy portfolio.

Currently, Berkeley County is exploring options to capture methane from the county landfill as well as developing an anaerobic digester to turn waste into natural gas, a biomass power plant to make electricity from sewer sludge and wood waste, and a system to convert restaurant grease into pellets that can be burned for electricity. All of this will result in jobs and investment in the local economy while offsetting the use of traditional energy supplies.

Solar power offers yet another opportunity for South Carolina in the realm of renewable energy. While utility-scale solar power production is unlikely in this state, vast opportunities exist for homeowners and businesses to reduce their dependence on the electric grid by installing a solar array. Solar is now becoming competitive with traditional energy sources and offers protection from future volatility in energy markets.

A number of solar installers are now working in the Lowcountry and across the state (*see pages 14 and 15*). Investing in this form of alternative energy keeps

dollars and jobs within our borders. But as with efficiency, better policy at the state level will be required if South Carolina is to realize the full potential of solar power for its citizens.

## Wind is For Real

The most promising and substantial renewable energy opportunity in South Carolina is our offshore wind potential. The U.S. Department of Energy has estimated that a robust offshore wind industry in our state could result in 10,000 to 20,000 new manufacturing jobs and upwards of \$80 billion in revenue generation by 2030.

Currently, officials from every state and federal regulatory agency involved with the permitting of wind farms, representatives from a number of environmental groups, public and private utility providers, industries, scientists, wind experts, private investors, and researchers from our state universities and colleges are actively engaged in promoting the development of South Carolina's substantial offshore wind



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## A Growing Business Sector

*General Electric manufactures about 15% of all wind turbines on the planet and a large proportion of those parts are currently produced in Greenville, S.C.*

potential. For example, General Electric is collaborating with Clemson University and the university's Restoration Institute to conduct research on both wind energy and bio-energy.

Meanwhile, Coastal Conservation League staffers sit on the Legislative Offshore Wind Study Committee and the S.C. Energy Office Offshore Regulatory Wind Task Force. Both of these groups are compiling recommendations about how the Palmetto State can advance an offshore wind agenda, recommendations that will be considered by the S.C. General Assembly in their upcoming session.

Even Santee Cooper has initiated a Palmetto Wind project that is studying offshore wind resources from Georgetown north to Myrtle Beach. The results of that study should be forthcoming and Santee Cooper is expected to move forward with a wind farm in the relatively near future.

General Electric manufactures about 15% of all wind turbines on the planet and a large proportion of those parts are currently produced in Greenville. GE's wind manufacturing plant there now employs 1,500 engineers and 1,500 production workers. In addition, Fluor Daniel and Tempkin are also manufacturing wind components in South Carolina.

We are in prime position to embrace and advance all of these initiatives. Our shallow coastal waters, viable ports and coastal population centers are ideal for expanding the manufacturing of offshore wind components and developing offshore wind farms that are capable of supplying a substantial portion of our current and future electricity demand. No comprehensive state energy policy would be complete without provisions to fully develop this resource in South Carolina.

## Conclusion

The question is not, "Do we have opportunities to secure our energy future?" The question is, "Are we going to take advantage of these opportunities?" In the near future we will be forced to make changes and will be compelled to pursue alternative strategies. There is little doubt that twenty years from now energy efficiency will be a top priority in South Carolina and development of our renewable resources will be embraced and touted as an economic boon for this state.

But if we do not move quickly, critical opportunities will be lost: near term job creation and economic development; a smooth transition into a new energy reality, and preservation of the health of our natural resources and residents. Citizens and businesses must communicate with their elected officials and utilities about the necessity for a secure and prosperous energy future, and how we can get there . . . now.

### Here are a few statistics about the wind industry nationwide that are worth noting:

- Wind represented 35% of new power generation in 2008 in the U.S.
- The price of wind energy decreased by 80% from the 1980s to the 1990s and continues to drop
- The wind sector supports more than 500,000 jobs and directly employs more than 150,000 workers in manufacturing, construction, and operations across the U.S.
- Experts project \$9 billion in annual industry revenue nationwide

## S.C. CLEAN ENERGY Jobs Grow By 36%

Jobs in South Carolina's clean energy economy grew more than 16 times faster than overall jobs between 1998 and 2007, according to a report by the Pew Charitable Trusts. In its report, *The Clean Energy Economy: Repowering Jobs, Businesses and Investments Across America*, Pew conducted the first-ever hard count across all 50 states of the actual jobs, companies, and venture capital investments that are supplying the market for environmentally friendly products and services.

Pew's analysis found that between 1998 and 2007, jobs in South Carolina's clean energy economy grew at a rate of 36.2%, while the overall number of jobs in South Carolina grew by 2.2%. "South Carolina's clean energy economy is growing quickly," says Heyward Bannister, S.C. representative for the Pew Environment Group. "South Carolina's program, which provides low-interest loans for building renewable energy

facilities – including those powered by wind and solar – should help the state expand its clean energy economy."

South Carolina was part of a national trend that saw job growth in the clean energy economy outperforming overall job growth in 38 states and the District of Columbia over the same period. Nationally, while jobs in the clean energy economy grew at a rate of 9.1% between 1998 and 2007, total jobs grew by 3.7%.

In 2007, South Carolina's clean energy economy had nearly 11,300 jobs. The report finds that the emerging industry is creating jobs as diverse as engineers, plumbers, administrative assistants, construction workers, machine setters, marketing consultants and teachers, with annual incomes ranging from \$21,000 to \$111,000.

Federal and state lawmakers see the sector as helping to spur America's economic recovery and helping to protect the environment. The effort will receive a boost from the American Recovery



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and Reinvestment Act, which allocates nearly \$85 billion nationwide in direct spending and tax incentives for energy and transportation related programs. South Carolina also provides financial incentives for clean energy, such as the Renewable Energy Grants and Loans Program.

## COUNTY SAVES \$350,000 WITH CONSERVATION/EFFICIENCY PROGRAM

Charleston County saved about \$350,000 in the second half of the last fiscal year by implementing a new internal initiative called the Energy Conservation Program.

The program was put in place in March with a goal of reducing the county's electricity consumption by 10 percent by the end of fiscal year 2010 (July 1, 2009 - June 30, 2010), compared with fiscal year 2008.

Says Dan Chandler, Director of the county's Facilities Department, "We've not only stopped the upward trend in electricity use, but also used nearly 7% less kilowatt hours than the year before."

Because of the program's success, the

county is continuing with its initiatives during fiscal year 2010 and staff is continuing to look for new ways to cut costs. So far, some of the biggest cost savings measures have been:

- Ensuring that office lights and equipment are turned off in the evenings and when rooms are not in use.
- Setting temperatures in county buildings at a minimum cooling level of 74 degrees and a maximum heating level of 70 degrees.
- Turning off or reducing heating and cooling systems in all non-emergency and non-critical facilities during off hours.
- Replacing magnetic fluorescent ballast lighting with electronic ballast lighting as needed. This results in energy savings of 39% per fixture.
- Replacing incandescent light bulbs with compact florescent bulbs as they burn out; this results in an energy savings of approximately 35% per bulb replaced.



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## home AT HOME

### Mount Pleasant Couple Adopts Solar plus Efficiency

Last April, retired meteorologist **John Townsend and his wife Kay** – long time Conservation League members – contracted with **Solar TEK Energy** of Charleston to install 15 black solar panels (photovoltaic) on the roof of their Mount Pleasant home. The goal was to produce 1/3 of their energy supply from the sun. So far, the panels have done their job. But the Townsends quickly realized that they could do even more to reduce their carbon footprint with some very simple technologies.

Kay, who grew up in apple orchard country in Yakima, Washington, will tell you that they have an advantage – due to her conservative, farm girl sensibilities as well as the fact that their 25-year old house is inherently efficient, with its thick walls, ample roof overhang, and an attic that can be vented in the summer.

“When we installed the solar panels,”



Home Is the Place to Start – *Solar panels adorn the roof of Kay and John Townsend's home in Mount Pleasant.*

explains Kay, “it prompted us to think about what else we could do. First, we went through the house and looked at what we could unplug – multiple phone chargers, four computers, lights, TV and other appliances. It’s amazing how much energy is used by these gadgets, even when they are in their ‘sleep’ mode.”

Then Kay and John addressed their attic, where significant energy savings can be realized in most homes. They blew in additional insulation – comprised of shredded paper treated

with fire retardant– to retain more heat and cooling. Over top of the insulation, they laid down a reflector material, which they even ran up the walls. The additional insulation in the attic has reduced their heating and cooling bills.

According to Kay, she and John will continue to experiment with ways to become more efficient. Their next project? Install a rain barrel along the back side of the house for catching rainwater from the gutters to water plants.

## work AT WORK

### South Carolina's First LEED Platinum Building

**Beezer Molten**, owner of the **Half-Moon Outfitters** stores and long time Conservation League supporter, has transformed a former grocery store and transmission shop into a “green” distribution center. The 9,600-square-foot building is located in the Park Circle neighborhood of North Charleston. A model for energy

efficiency and conservation, the building was South Carolina’s first to achieve the highest LEED platinum rating.

What was once an unadorned concrete building with few windows and an oversized parking lot has evolved into an attractive and welcome location with photovoltaic panels on the roof, rainwater collection tanks in back, extensive native vegetation, and a brightly lit interior finished almost entirely of locally harvested wood, salvaged materials, and rapidly renewable agrifiber boards.

According to Molten, “The building

was perfectly situated to rebuild in the most green way possible,” with an east-west orientation, which facilitates both passive and active solar energy collection. The flat white membrane roof keeps the roof cool while directing all rainwater to two 1,550-gallon storage tanks. Water efficiency fixtures combined with the use of rainwater to flush toilets results in the building using 78% less domestic potable water than a conventional building. After the first year, the native landscaping requires no irrigation, further reducing potable water demands.

Extra insulation was added

## Beaufort and Georgetown Members Go Solar

**K**atie and Matt Baas (below), League members in Beaufort, have gone solar with ten 224-watt solar panels installed in their backyard by **Argand Energy Solutions** as part of the **Palmetto Clean Energy Program (PaCE)**. The Baases can sell what they generate from the solar panels to SCE&G for 9.3 cents



per kilowatt hour. PaCE will give them an additional premium of 15 cents per kilowatt hour. Those returns are expected to reduce the Baases' utility bill 30 to 40 percent.



Former Conservation League board member **Billie Houghton and her husband Alan** (above) have placed 20 flat black solar panels on the roof of their Pawley's Island home. Installed by **Carolina Solar**, the panels can generate up to 3,300 watts of electricity, enough to power the couple's lights, appliances and hot water tank. The Houghtons were the first to obtain such a system through Santee Cooper's Solar Homes Initiative.

## WHITE ROOFS REDUCE COOLING COSTS

**R**elying on the centuries-old principle that white objects absorb less heat than dark ones, homeowners in California are embracing "cool roofs" as a way to beat the heat and reduce air conditioning needs. Studies show that white roofs reduce cooling costs by 20% or more in hot, sunny weather. Sounds like a good prescription for sunny South Carolina.

## SHARE YOUR ENERGY EXPERTISE

**I**f you have ideas about how to become more energy efficient at home or at work, email League Communications Manager Gretta Kruesi at [grettak@sccl.org](mailto:grettak@sccl.org). We hope to feature more members of the League and how they are reducing their carbon footprint.

throughout the building to dramatically reduce HVAC loads and allows the 4,900-watt photovoltaic solar system to offset a more significant portion of total energy needs. With the help of his engineering team, **DWG Inc.**, Molten elected to go with a newly introduced 19-SEER Lennox heat pump system that rivals the efficiency of a geothermal HVAC system that the team had considered.

**For more on What's Working, see page 18.**

*Air and Sunlight Work Just Fine  
A simple clothesline can leave your clothes  
fresh and dry at no cost.*



Jane Lareau

## Clean Energy & Efficiency: A Winning Combination

### A New and Improved State Energy Policy

The Coastal Conservation League has been leading an effort to enact substantial improvements to the state's energy policy. These priorities include a number of major changes in state law to increase utilities' role in energy conservation and efficiency, improve residential building codes for energy savings, support utility development of renewable energy projects, finance renewable energy entrepreneurship across the state, spur state government to adoption of renewable energy technologies in its operations, and broaden the state's residents' access to solar energy technologies.

Many of these priorities were derived directly from the recommendations of the Governor's

Climate Energy and Commerce Advisory Committee (CECAC), which convened over a year ago to assess the impacts of global climate change on South Carolina and to formulate strategies to address those impacts.

The League has chosen to first move forward those recommendations that achieve the greatest reduction in greenhouse gas emissions at the lowest cost (or the greatest benefit) to the state's economy. Accordingly, the priorities that the League derived from the CECAC process focus on aggressive energy efficiency proposals. Other priorities were derived through collaboration with groups like the State Energy Office and address immediate needs of the nascent renewable energy market in South Carolina.



The Conservation League has chosen to first move forward those recommendations that achieve the greatest reduction in greenhouse gas emissions at the lowest cost (or the greatest benefit) to the state's economy.

## Updated Energy Efficient Building Codes Become Law

The Conservation League's main priority – an update of the state's residential building energy code – was accomplished, after reaching a compromise with investor owned utilities, the S.C. Home Builders Association, the S.C. Electric Cooperatives, and the North American Insulation Manufacturers. The compromise ensures that the state's 30-year old energy standards will be removed from the code and replaced with the 2006 International Energy Conservation Code standard.

Due to a foreshortened legislative cycle preoccupied with the state budget crisis, some of our legislative priorities were held over to the 2010 session. These proposals include: (1) S.547, introduced by Senators Leventis, Land, Malloy and Reese, which proposes a goal to reduce our state's total electricity and natural gas use, and (2) H.3628, introduced by Representative Joan Brady and thirteen other conservation-minded House members, which would make it easier to install solar equipment, encourage utility investment in renewable energy, and reinstate the South Carolina Renewable Energy Infrastructure Development Fund.

The Conservation League is now in the process of preparing its legislative priorities for the 2010 session, in cooperation with the state's other leading conservation organizations. Presently, the League plans to push for subcommittee hearings on the proposals that were held over, as well as introduce a number of new proposals aimed at encouraging greater utilization of the state's renewable energy resources.



## Energy Efficiency Regulation

### Utilities Must Play Critical Role in Achieving Energy Efficiency

The Coastal Conservation League, in partnership with other conservation advocates, has intervened in regulatory proceedings at the South Carolina Public Service Commission (PSC) in order to improve the energy efficiency plans of Duke Energy, Progress Energy and SCE&G.

The Conservation League, the Environmental Defense Fund, the Natural Resources Defense Council, Southern Alliance for Clean Energy, and the Southern Environmental Law Center were able to reach an agreement in principle with Duke Energy, under which the company will meet an aggressive energy savings target and cap earnings from energy efficiency programs at levels that protect customers'

interests in fair rates while still encouraging strong performance. This is a precedent-setting agreement for the entire Southeast region.

The League's efforts to improve utility energy efficiency programs will have a significant impact on energy efficiency policy in the state and the Southeast. Utility energy efficiency proposals that lack social equity and sufficiently aggressive goals will meet resistance both from advocates, regulators and ratepayers. Through this effort, conservation organizations have demonstrated themselves as constructive and incisive participants in utility regulation.



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## Energy Priorities for 2010

### Energy Efficiency Resource Standard

- Requires 1% annual reduction in electricity and natural gas consumption by 2015
- Public Service Commission (PSC) to establish "Efficiency Utility" to meet targets, funded via rate surcharge
- Utilities can "opt-out" by providing PSC-approved efficiency services directly to their customers

### Renewable Portfolio Standard

- 12.5% by 2021 (Investor Owned Utilities)
- 10% by 2018 (Santee Cooper, Coops & Municipalities)
- Eligible resources: solar, wind, hydropower, geothermal, ocean current or wave, biomass, and energy efficiency (limited 25% of target)
- Carve-out for solar

### Energy Efficiency & Renewable Energy Municipal District Financing

- Authorizes S.C. municipalities to establish voluntary Energy Efficiency (EE) / Renewable Energy (RE) finance districts
- Municipalities issue bonds to finance residential and commercial EE / RE improvements
- Property owners repay municipal loan via lien on the property
- Assessment transfers with property

### Renewable Energy Package

- Reinstate Renewable Energy Infrastructure Fund
- Make prohibitions of solar energy collectors unlawful
- Permit Renewable Energy Demonstration Projects (Utilities invited to submit up to 100 MW each of "reasonable & prudent" renewable energy projects to PSC annually)

## 2009 LEGISLATIVE Successes

- New Energy Efficient Building Codes Become Law (H.3550, Cato) **Approved**
- State Energy Policy (S.232) **Approved**
  1. Amended to require state agencies to conduct an audit to consider energy, water and wastewater use. Conservation measures must be implemented if they are cost effective.
  2. Defeated efforts to include nuclear reprocessing.
- Improved State Solar Tax Credits (budget amendment) **Approved**
- Restoration of \$2.25 million to the S.C. Conservation Bank **Approved**
- Passage of Protective Landfill Regulations **Approved**

continued from page 15

## CHARLESTON PROPOSES EFFICIENCY PLAN

The City of Charleston has proposed a plan to reduce climate damaging emissions by 30%, primarily by focusing on helping homeowners and businesses improve the energy efficiency of their buildings, which account for 40% of energy use.

The current proposal would create a nonprofit hub for everything energy efficient, from contractors to financing, with a focus on a reusable pot of money loaned out to homeowners and businesses looking to make cost effective improvements. The financing mechanism is a key component because it would remove the up-front costs associated with many home improvements that produce energy savings.

Serrafix, a Boston consulting company, is designing the plan for Charleston that is being funded by the collaborative efforts of the Charleston Green Committee, the city, and the Coastal Conservation League.

continued from page 15

## TRIDENT TECHNICAL COLLEGE DEVELOPS NEW PROGRAMS IN EFFICIENCY AND SUSTAINABILITY

Trident Technical College (TTC) President Mary Thornley has announced that all three of TTC's campuses in metropolitan Charleston are developing curricula to prepare students for careers in clean energy, green building construction, and engineering technology and management.

Two federal initiatives are giving a boost to technical and community colleges across the nation – the \$12 billion “American Graduation Initiative,” which focuses resources on career training in the energy industry and the



iStockPhoto.com/George Peters

Veterans Green Jobs program, which is funding education and career assistance in the emerging fields of sustainability and efficiency to military veterans.

## The Path to Efficiency

continued from page 5

### How Does the Manufactured Home Fit into All This?

As I noted earlier, 25 percent of the South Carolinians served by our electric cooperatives live in manufactured housing, where inefficient resistant heating is the norm and the cost of retrofitting energy efficient heat pumps, even with rebates and other incentives, typically is prohibitive. Combined with the fact that 35 percent of these manufactured homes were built before 1990 and 54 percent were built before 1995, we are dealing with a housing stock that is largely devoid of any of the modern efficiency technology that has been developed in the last decade.

To harness the energy being lost through inefficiency, Central Electric has set a goal to weatherize 150,000 homes (or 25 percent of electric cooperative-served homes statewide) by 2020. The technology to accomplish this goal is simple and readily available, and the delivery system is already in place through our local coops. But such a program will depend on the availability of “carbon dollars” and government incentives and loans, investments that will produce far greater returns than our traditional coal-based portfolio.

Not only will we transform homes and energy use, we will transform lives – providing education and choices especially to our lower income customers, choices that will provide them long-term money savings, and a measure of certainty and permanence for the future.

### What can State Government Do?

First of all, I want to congratulate and thank the S.C. General Assembly for their passage of Energy Efficient Building Codes legislation last year. This new legislation ensures that our state's building codes will adhere to the 2006 International Energy Conservation Code standard. I'd also like to see a statewide certification and licensing program put in place for the moving and installation of manufactured housing. This will go a long way towards improving the placement and setup of manufactured homes to optimize energy efficiency.

In addition, as national climate legislation becomes a reality, it is critical for South Carolina to be prepared to use the federal allocations effectively and quickly to make the required transition away from a carbon based energy platform. We will have a relatively brief window in which to make this happen – by 2030 – and we need to be ready.

## Welcome New Board Members



**Andrea Ziff Cooper** has joined the Coastal Conservation League Board after many years as an avid supporter and volunteer. She is a graduate of the University of Colorado and has a CPM from the Institute of Real Estate Management. She spent nine years working at Ziff Properties as a

Property Management Specialist, Director of Acquisitions, and Director of Leasing. Andrea has served on many boards, including Ziff Properties, Center for Women, and Operation Home. She was the Wellness Committee founder at Charleston Day School and served as the President of the Board at the Children's Garden School. Her husband, Edwin Cooper, is the Chairman of the Charleston County Greenbelt Bank Board. They have two young sons.



**Harriet Smartt** has been a resident of the Charleston area for the past 14 years, having previously lived in Fairfax, Virginia where she was a career consultant in the Career Center at George Mason University. She and her husband, Dick, moved to the area because of the natural

beauty here and the thriving arts community. Since living in the Lowcountry, her interests have been in the realm of volunteerism and advocacy for the visual/cultural arts, and grassroots political activism related to the arts and environmental concerns. Currently, Harriet serves on the Board for the Carolina Arts Association (the Gibbes Museum) the Advisory Board at the Halsey Institute, the Arts Council at the School of the Arts at the College of Charleston, and the S.C. Arts Alliance.

## Hello World!

Welcome to the newest member of the Conservation League family – **Kellen Thomas Desrosiers**, son of Megan and Michael Desrosiers and little brother of Luca. Kellen was born on June 14th and weighed in at 9 pounds, 10 ounces, measuring 22 inches.



## Thank You Summer Interns!



*(l-r) Jacob Nussbaum, Matt Poti, Conor Farese, Victoria Nagel, Russell Teeter, Rob Allen, Hollis Inabinet and James Williamson (not pictured: Alden Humphries)*

## Welcome New Staff



A Lowcountry native, **Dana Moorer** has joined the Conservation League staff as a Development Associate, working with Development Director Nancy Cregg and Director of Administration Cathy Forrester. Prior to coming to the League, Dana worked for ten years as a technical writer in the Products division of Blackbaud, Inc. Prior to Blackbaud, she worked for several years as a documentation specialist in the Products division of Grolier, Inc. Dana graduated magna cum laude from Western Connecticut State University.



Project Manager **Kate Parks** joined the Conservation League in June 2009 after graduating cum laude from Clemson University with a BS in Environment and Natural Resources with a concentration in Conservation Biology. The summer of 2008 peaked Kate's interest in land use when she studied as a NOAA Ernest F Hollings Scholar with the NOAA Chesapeake Bay Office in Maryland, focusing on land use and coastal development. A former part-time naturalist and local Sea Turtle Patrol volunteer, Kate enjoys kayaking, running and spending time outdoors.

## LIVE OAK SOCIETY

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*The Coastal Conservation League works very hard to ensure that all donor names are listed correctly; however, occasional mistakes do occur. Please contact Membership Director Alison Geer at (843) 725-2066 with any questions or corrections.*



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The Coastal Legacy Society honors those who have provided for the Coastal Conservation League through their wills or estate plans. By making a gift to the Coastal Legacy Society, you will join this group of extraordinary individuals in their commitment to protect the Lowcountry for generations. If you are interested in finding out more about naming the Coastal Conservation League in your will or estate plans, please contact Development Director Nancy Cregg at (843) 723-9895.

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## GIFTS OF MEMBERSHIP

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 Mr. and Mrs. M. Lane Morrison for  
 Mr. and Mrs. Rick Kurz  
 Mr. Louis M. Smith for Mr. John P. Smith

## HONOR/MEMORIALS

*In Celebration of Mr. and Mrs. Mike Antkowiak*  
 Mrs. Kathryn Wozniak

*In Memory of Mrs. Patti Armstrong*  
 Margaret K. Brinkley

*In Memory of Dr. Julian R. Harrison*  
 Mr. and Mrs. James K. Dias

*In Honor of Gillian and Peter Roy*  
 Ms. Molly Beacham

*In Memory of Mr. Sidney Scott, Jr.*  
 Ms. Catherine G. Rogers

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 Kiddoo Fund  
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