

## Legislative session includes victories for renewable energy, energy efficiency, alternative transportation

2008 has been another good year for energy legislation in South Carolina. The demand for clean energy and improved energy efficiency around the state was evident as seven major energy bills passed out of the State House.

These legislative measures continued to improve incentives for renewable energy, created new energy efficiency and vehicle purchasing requirements for state agencies, provided incentives for consumers who make smart energy purchasing decisions, and made the roads safer for bicyclists. Additionally, several new roles were created for the South Carolina Energy Office (SCEO) including regulatory oversight and staffing roles for two energy committees.

The highlights of the 2008 legislation include:

### Renewable Energy

- Enhances existing incentives for **biomass energy** development by removing legislative caps on tax credits for biomass energy equipment, biodiesel and ethanol production, and other alternative energy incentives.

Additionally, removes caps on incentive payments for alternative fuel retailers and biomass energy producers. (H.3649)

- Requires the S.C. Office of Regulatory Staff (ORS) and the SCEO to write a report about state **net metering** policies by January 2009 and provide recommendations about how to improve net metering and interconnection policies. (H.3395) *For more, see page 6.*

- Allows S.C. gas suppliers to continue to blend fuel with **ethanol** instead of buying a pre-blended version from national oil companies. (S.1143)

- Requires the SCEO to report on agency progress towards goals and staff the Wind Energy Production Farms Feasibility Study Committee, which will release a report by January 2010. (H.4766)

### Energy Efficiency

- Requires state agencies to prepare Energy Conservation Plans in order to meet an energy consumption reduction goal of 20 percent by 2020, using 2000 as a baseline year. (H.4766)

- Beginning in 2009, creates a **sales**

**tax holiday for ENERGY STAR®** appliances and products during the month of October. (S.1143)

- Beginning in 2009, creates a new sales tax rebate program for **ENERGY STAR manufactured homes**. Amends the state solar tax credit to include credits for **small hydropower and energy efficient products** worth up to 25 percent of the cost of the purchase and installation, with a maximum of \$3,500 per year for up to 10 years. (S.1141)

### Transportation

- Requires the State to give purchasing preference to **hybrid, plug-in hybrid, biodiesel, hydrogen fuel cell and flex-fuel vehicles** when the performance, quality and life cycle costs are comparable to other available motor vehicles. (S.368)

- Amends existing law related to road **bicycle safety** and increases fines for drivers who harass or injure bicyclists. (H.3006)

- Creates a study committee charged with reviewing all **mass transit systems** in South Carolina. (H.3279)



Columbia-area elementary students participate in the PaCE press conference in early April.

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## Opportunity knocks, but how will we respond?

John F. Clark  
Director, South Carolina Energy Office

Recently, I accompanied a small climate change fact finding mission to the United Kingdom, hosted by the British government. The Brits are zealous about this issue, believing that life as they know it today will drastically alter for the worse if they and the rest of the world do not respond immediately and effectively.

Their evidence is quite convincing. The ocean is encroaching on the coastline on all sides, and computer models of future encroachment are downright scary. Tidal flooding of the Thames River has quadrupled in recent decades, although flooding of London has been prevented by means of a huge movable gate across the river. More barriers are planned. Oceanographic models indicate that differentiation between cold deep water currents running in the Atlantic and the warm surface water of the Gulf Stream will, in the next few decades, cause the Gulf Stream and its warming effects to u-turn before they reach Britain, plunging the area into temperatures akin to those of Labrador, located at a similar latitude across the Atlantic.

The British don't waste time arguing about fault. They say the important thing is, well, it is what it is, and we all need to respond. Responses are: (1) mitigate, to reduce greenhouse gas emissions and slow down climate change, and (2) adapt to change, which will happen at some level no matter what we do at this point. River barriers, coastline setbacks for construction, and alteration of construction materials to withstand warmer, dryer temperatures are among numerous adaptation strategies.

Will climate change mitigation cost money? Yes, the Brits say -- about one percent of Gross Domestic Product. On the other hand, non-action will cost five to 20

percent of GDP. Most impressive was the unanimity of opinion regarding need for response. The Confederation of British Industry has an ambitious mitigation program; the largest reinsurance company in the world says mitigation is necessary if affordable natural disaster insurance is to survive; private investment firms are clamoring to finance sustainable energy projects; and one of London's most conservative suburbs is well on its way to clean energy self-sufficiency.

Hopefully, the U.S. will not miss the economic development opportunities presented by the global shift to sustainable energy and environmental technologies, although we are already falling well behind Japan and Europe in such big-money spheres as photovoltaic solar and offshore wind. Leadership in these technologies, along with biomass, wave action and river turbine energy, could be a boon to South Carolina's economy.

The U.S. and China are the world's largest producers of greenhouse gases, and the world's most stubborn obstacles to climate change mitigation. We are not in good company.

When one observes the disastrous results of American carmakers' decades-long resistance to gas mileage improvements, one wonders if it will happen all over again with resistance to climate change mitigation technologies. Locally, we will soon have an opportunity to shed our lethargy. The South Carolina Climate, Energy and Commerce Advisory Committee will soon issue recommendations for a Palmetto State path forward. It is essential that enlightened players in our state's future seize this opportunity and move us forward to join the rest of the developed world in a sustainable 21st century.

## 2008 U.S. farm bill has renewable energy focus

In May, U.S. Congress overwhelmingly passed the Food, Conservation and Energy Act of 2008, a bill which would provide \$1 billion in funds specifically for renewable energy programs and initiatives over the next five years. In total, the measure would provide \$289 billion for commodity, rural development, nutrition, conservation and energy programs. These programs will benefit both rural and urban communities.

As it pertains to renewable energy, the bill:

- Reduces the tax credit for corn-based ethanol by six cents to 45 cents a gallon beginning in '09; creates \$1.01 gallon credit for cellulosic ethanol through 2012; and extends the 54-cent import tariff on ethanol through 2010.

- Provides \$320 million in loan guarantees for the construction of commercial-size plants producing advanced biofuels.

- Provides \$300 million in mandatory funding for payments to support production of advanced biofuels including cellulosic ethanol and biodiesel.

- Provides \$250 million in grant and loan guarantees for renewable energy and energy efficiency systems for agriculture and rural, small businesses.

- Provides \$70 million in mandatory funding for 2009 - 2012 for a new program to pay farmers who experiment with biomass crops near biorefineries.

The bill also reauthorizes several programs, including grant and loan guarantees for rural communities and farmers to install renewable energy and energy efficiency systems; feedstock diversification and production; and biomass research and development.

## Palmetto Clean Energy program launched in April



**LEFT:** *Hootie & the Blowfish drummer Jim Sonefeld speaks at the PaCE press conference in April.*

South Carolinians now have a whole new way to “go green.”

The new Palmetto Clean Energy (PaCE) program is a collaboration among the CEO, Duke Energy Carolinas, Progress Energy Carolinas, South Carolina Electric & Gas Co. (SCE&G) and the South Carolina Office of Regulatory Staff (ORS). The program, one of the first multi-utility programs in the nation, allows utility customers to purchase blocks of electricity generated from renewable or “clean” sources such as wind, solar and biomass, while allowing producers to sell green power back into the grid.

The program formally kicked off in early April at a press conference in Columbia. Speakers included CEO Director John Clark, a member of the PaCE Board of Directors, and Hootie & the Blowfish drummer Jim Sonefeld.

“Every watt of renewable energy we generate here is money we don’t send out of state, and emissions we don’t send into the air. The CEO expects PaCE to provide a significant boost to our efforts to promote the development of renewable energy in the state,” said Clark. “We are very grateful for the effort put forth by South Carolina’s investor-owned utilities to create this program, and

we’re pleased to be a part of it.”

Customers of the state’s investor-owned utilities can support Palmetto Clean Energy, an independent non-profit organization, through voluntary tax-deductible contributions on their monthly bills. All contributions are passed through to PaCE. Each \$4 contribution purchases a 100 kilowatt-hour block of “clean” energy from renewable or alternative energy sources that will be placed on the state’s power grid. A one-time, tax-deductible contribution can also be made by anyone wanting to support PaCE.

The process of supplying renewable energy for the PaCE program is relatively straightforward: utilities collect customer contributions and forward the funds to PaCE, while PaCE works with renewable energy suppliers and has them sign power purchase agreements (PPAs) to begin supplying power to the grid.

PaCE’s first supplier is a residential solar provider in the Charleston area. Others interested in supplying green power to the PaCE program can fill out an application on the PaCE Web site or call the CEO’s Trish Jermain at (803) 737-8030. For more information, or to sign up to purchase green power from PaCE, visit [www.palmettocleanenergy.org](http://www.palmettocleanenergy.org).

## Santee Cooper kicks off solar rebate program

Think of it like the lottery, but in this case, the prize isn’t millions of dollars.

It’s solar energy.

Coastal green power partners and business community members joined with state-owned utility Santee Cooper in March to launch the Solar Homes Initiative – a solar panel rebate program that, together with federal and state tax credits, will offset up to \$17,500 of the cost of solar panels and installation for 10 specially-selected residential customers.

The 10 customers were chosen out of a pool of several hundred applications.

“New and enhanced ways of encouraging our customers’ participation in energy-saving programs, like the Solar Homes Initiative, will help us to expand the impact of our environmental efforts,” said Santee Cooper President and CEO Lonnie Carter. “While solar power, even when combined with other conservation and renewables, cannot yet completely offset the rapidly increasing need for electricity in South Carolina, we will continue to work toward as much renewable energy as possible while keeping the lights on in a low-cost manner.”

Currently, solar panels are eligible for federal and state tax credits up to as much as \$5,500. The Santee Cooper rebate offers up to \$3 per watt (1000 watts = one kilowatt), for a maximum of \$12,000 (not to exceed the total cost for the solar panels and installation).

A 10-year zero-interest loan is also available to help finance the solar panel investment. Santee Cooper plans to conduct ongoing monitoring of the homes with advanced metering technology. Meanwhile, utility representatives will work with recipients to maximize energy use and conservation throughout the entire home in order to optimize the energy produced by the new panels.

## \$2.3 million awarded for renewable energy projects in South Carolina

Renewable energy initiatives that could lead to ethanol from switchgrass and electricity from chicken litter were among the first projects funded by state programs established last year to fund renewable energy research, development and production.

In June 2007, the South Carolina General Assembly established a grant and low-interest loan program called the South Carolina Renewable Energy Infrastructure Development Fund. Currently, the South Carolina Department of Agriculture works in collaboration with the SCEO to administer the program. The program's first two award periods have been finalized, and over \$2.3 million in grants have been awarded to help finance renewable energy research and demonstration projects with \$5.1 million in cost share from applicants and partner organizations.

Research and Development Grants have been awarded for the following projects:

- **Offshore wind research project**, Georgetown County - *South Carolina Institute for Energy Studies*
- **Compacted wood fuel**, Allendale and Clarendon Counties - *Carolina-Pacific, LLC*
- **Switchgrass study**, Pee Dee Research Center in Florence County - *Clemson University*
- **Sweet potatoes and sweet sorghum to produce ethanol**, Darlington, Clarendon and Charleston Counties - *CAREnergy*
- **Benefits of solar water heating**, Greenville - *Furman University*
- **Solar heating and cooling project**, Florence County - *Roche Carolina*
- **Bio-butanol, algae-derived biodiesel and syngas from biomass research at a new Bio-Energy Institute**, Orangeburg - *Organic Bio-Energy, Inc.*

Demonstration Grants have been awarded for the following projects:

- **A biomass energy demonstration**, Williamsburg County - *South Carolina Institute for Energy Studies and Santee Cooper*
- **Poultry litter for on-farm energy production**, Darlington County - *Green Energy Solutions and Collins Chick Farm*
- **Bio-gasification educational room and curriculum**, Columbia - *University of South Carolina*
- **Poultry litter gasification project**, Darlington County - *Pee Dee Resource Conservation Council*
- **Torrefied wood chips project**, Sumter National Forest - *Agri-Tech Producers, LLC*
- **Carbon dioxide testing on sweet potato productivity**, S.C. coastal plain - *Beacon Tech Net*

**NOTE: On June 23, 2008, the South Carolina Supreme Court issued a decision invalidating the legislative method used in June, 2007 to enact the S.C. Renewable Energy Infrastructure Development Fund. The status of grants awarded prior to June 23, 2008 was unclear at press time.**

Additionally, small planning grants have been awarded for the following projects:

- **Switchgrass research**, Pee Dee Research Center in Florence County - *Clemson University*
- **Biomass to hydrogen research and development**, Columbia - *Palmetto Fuel Cell Technologies, LLC*
- **Development of ethanol facility**, Williamsburg County - *Biofuels of the Carolinas*
- **Palmetto Clean Energy**, statewide
- **Small-scale biodiesel production using waste vegetable oil**, I-95 corridor - *Ampa BioFuels*
- **Renewable energy workforce development program**, Williamsburg County
- **Renewable energy workforce development program**, *Orangeburg-Calhoun Technical College*
- **Organic Bio-Energy Institute**, Orangeburg - *Organic Bio-Energy, Inc.*
- **Cold tolerant strain of sugarcane**, Orangeburg - *Clafin University*
- **Energy production on small hog farms**, Orangeburg County - *Boynton Environmental*



Site preparation for the Pee Dee Research Center's switchgrass project began in 2007.

## ***It's hot out there!***

**Staying cool during the summer can be tricky. Below are some useful household tips to help you beat the heat.**

- Use ceiling fans. Studies have shown they make you feel about four degrees cooler. But remember to turn them off when you leave the room; the fans are cooling you, not the air.
- Close shades and windows during the day.
- Set your thermostat at 78° or higher. You save anywhere from three to five percent on your air conditioning cost for each degree you raise the thermostat.
- Check your air filter monthly or as recommended by the manufacturer. Clean or replace it as needed.
- Install a programmable thermostat and make sure it's programmed to automatically turn down the cooling when you're not at home.

Source: Project Energy Savers

## **Nine South Carolina schools to receive almost \$100,000 for energy education**

Charleston area students will soon build solar golf carts and electric vehicles as well as write and produce skits about various forms of energy production, thanks to funding provided by BP's A+ for Energy education program.

While nine teachers were specially chosen to receive the funding, the program will directly benefit almost 300 educators and 5,000 students across several grade levels at nine different schools.

Teachers were asked to submit application entries explaining what they would do with the extra funds. To select the winners, two independent panels of experts in education, science and environmental fields, including a representative from the SCEO, reviewed 47 qualified submissions from South Carolina teachers.

The winning teachers from Berkeley County School District and Charleston County School District #2 will receive almost \$100,000 in funding for use on energy education projects and materials in their classrooms.

Darleen Pope, Human Resources Manager for the BP Cooper River Plant and local A+ Program Director said, "BP is thrilled to partner with some of the area's best teachers to help South Carolina school children learn how broadly energy affects our daily lives. Thanks to the creativity and hard work of the winning teachers, hundreds of students in and around the Charleston area will learn about the importance of energy conservation and the development of alternative energy."

## **South Carolinians honored at national hydrogen conference**

Three South Carolinians were honored at the National Hydrogen Association's annual conference in March, where the new South Carolina Hydrogen and Fuel Cell Pavilion was unveiled and the winners of a student design contest were announced. The pavilion is a traveling exhibit that the South Carolina Hydrogen and Fuel Cell Alliance (SCHFCA) will use at future outreach events, and the design contest focused on how to implement hydrogen technologies at the Columbia International Airport.

At this year's event, Sen. Lindsey Graham (R-S.C.), Rep. Bob Inglis (R-S.C.) and Columbia Mayor Bob Coble were each granted honorary memberships to the National Hydrogen Association (NHA). Jim Gambrell, Director of Economic Development for the City of Columbia, was on hand to accept Mayor Coble's award.

Sen. Graham and Rep. Inglis chair the Senate and House Hydrogen and Fuel Cell Caucuses, and Mayor Coble guided the City of Columbia to unanimously pass a resolution establishing the city's objective to become a leader in fuel cell innovation.

More than 20 leading business delegates from across South Carolina attended the conference in Sacramento, CA, which showcased South Carolina's assets to more than 1,500 national and international stakeholders.

Columbia will host the 2009 National Hydrogen Association Annual Conference at the Columbia Metropolitan Convention Center on March 30 – April 3, 2009. An estimated 1,500 attendees and 100 exhibitors are expected to attend, with the total economic impact of the event estimated at \$1 million in addition to any pre- and post-conference events around the state.

"It's encouraging to see the attention South Carolina is receiving as the result of a growing interest in hydrogen fuel cell technology," said the SCEO's Richard Horton.

"South Carolina's high visibility at the nation's largest hydrogen conference not only allows us to showcase our long-existing hydrogen and fuel cell capabilities, but it also puts our state's business leaders in close

contact with national and international hydrogen and fuel cell industry members," said Shannon Baxter-Clemmons, executive director of the South Carolina Hydrogen and Fuel Cell Alliance.

The Hydrogen Student Design Contest challenged student teams to use a budget of \$3 million to design the most effective airport hydrogen system that would address the three main challenges of airports today: noise, air pollution and groundwater contamination. Designs were based on the Columbia International Airport but were made to be applicable to other airports worldwide. A team of students from the Missouri University of Science and Technology took home the grand prize.

"Not only could Missouri S&T's design benefit the Columbia Airport, but it could also benefit all of South Carolina," said Baxter-Clemmons. "Hydrogen and fuel cell technologies have the ability to reduce our environmental impact, lessen our dependence on foreign oil and create jobs for our state's citizens."

# Net metering moves forward in South Carolina

Net metering has taken huge strides in 2008 which could lead to the widespread generation of solar and other renewable energy throughout the state.

Santee Cooper and the electric cooperatives have announced their own net billing programs, while Duke Power, Progress Energy, and SCE&G have recently been instructed by the S.C. Public Service Commission to provide a time-of-use and a flat rate net metering option for customers beginning July 1, 2008.

Essentially, net metering allows utility customers to generate electricity for personal use from renewable energies such as solar, small hydropower and wind, and then sell any unused energy back to the electric utilities to receive credits. Then, when the customer is not producing energy, they can use their credits to acquire electricity

from their utility company for free.

Interconnection varies widely from one utility to the next, however, and the process is not as straightforward for the average S.C. homeowner as

development of small scale, customer-generated green energy.

In order to address these concerns, the South Carolina General Assembly passed H.3395 in May requiring that the SCEO

regarding the “process and procedures for establishing net metering programs at all distribution electric utilities in South Carolina, including investor-owned electric utilities and the South Carolina Public Service Authority.” In preparing the report, the SCEO and ORS will work with state government, utilities and regulatory agencies to clarify and if necessary, recommend improvements to existing net metering policies.

Industry experts believe the bill will open many doors in the renewable energy sector allowing South Carolina to participate in the fast-growing industry, creating new jobs and providing a boost to the state’s economy. However, this report is only a start and any recommendations must include policies that are fair and simple to understand while remaining beneficial to both consumers and utilities.



*State energy officials hope that energy from solar panels like these, which sit atop the University of South Carolina’s West Quad, will soon be able to be sold back into the grid.*

it is in some other states. For many customers, the process is confusing and presents a barrier to the

and ORS provide a report to the General Assembly by January 1, 2009 with recommendations

## Learn more about the S.C. Renewable Energy One-Stop Shop

In an effort to streamline the process for renewable energy companies interested in locating facilities in South Carolina, the SCEO began an initiative known as the “S.C. Renewable Energy One-Stop Shop.”

The One-Stop Shop is a monthly meeting of representatives from various organizations and agencies including the: S.C. Department of Health and Environmental Control (DHEC), S.C. Department of Commerce, S.C. Department of Agriculture, S.C. Department of Revenue (DOR), State Fire Marshal, S.C. Forestry Commission, S.C. Research Authority, New Carolina/Carolina Competitiveness Council, Rural Development Council, Clemson Institute for Economic and

Community Development (CIECD), Norfolk Southern, U.S. Department of Agriculture-Rural Development Office, Palmetto State Clean Fuels Coalition, S.C. Biomass Council and the S.C. Solar Council.

Slots are limited to nine one-hour appointments during the meeting and are available on a first-come, first-serve basis. To date, three meetings have been held since November 2007. Future meeting dates will be posted on the SCEO Web site ([www.energy.sc.gov](http://www.energy.sc.gov)) under the Renewable Energy section. To schedule an appointment, please contact Erika Hartwig at (803) 737-8030.

## EEP boasts impressive energy-saving numbers

It all adds up.

After 10 years, the South Carolina Environmental Excellence Program (EEP) has built an impressive track record of environmental success. The program was established in 1998 to provide recognition for firms that demonstrate superior environmental performance through pollution prevention, energy and resource conservation and the use of an environmental management system.

Over the 10-year life of the program, participants collectively reduced their energy use by more than 5.4 trillion BTUs, maintained a 64.4 percent average recycle/reuse rate and significantly reduced their use of hazardous materials and water. At the same time, they slashed their air emissions by a total of 84,750 tons.

International Paper's Georgetown Mill is one member company demonstrating a significant dedication to energy reduction. Over the past five years, the plant reduced its energy use by 2.1 trillion BTUs. The mill uses formerly-landfilled organic material which it then dries and burns in recovery boilers. This process supplies half of the mill's energy needs.

The SCEO has been represented on the EEP Advisory Committee since its inception and initially encouraged organizers to include energy conservation in the membership criteria. SCEO was also one of several state agency sponsors of the program's recent 10th anniversary celebration.

The EEP currently has 28 active members, ranging from small businesses like National Beverage Screen Printers, Inc., of Williston to corporate giants like Michelin, BMW and Caterpillar.

For more information, call (803) 896-8986 or go to [www.scdhec.gov/sceep](http://www.scdhec.gov/sceep).

## Camp Long implementing energy improvements based on SCEO audit



**LEFT:** The SCEO's Tom Hudkins inspects one of Camp Long's many air conditioning units. SCEO staff members have visited the facility several times over the course of the past year to perform a comprehensive energy audit.

Officials with Camp Long, an Aiken County facility that serves at-risk youth, are busy reviewing a comprehensive energy audit performed by the SCEO.

The project hit the ground running in late 2007 when the camp, with help from the SCEO and Aiken Electric Cooperative, replaced 625 incandescent bulbs with more efficient compact fluorescent lamps (CFLs). CFLs use 75 percent less energy than a standard bulb, and they last up to 10 times longer.

"We believe that the CFLs could save the site as much as \$7,400 per year based on an eight hour per day use," said the SCEO's Tom Hudkins, who helped perform the audit.

The audit's findings also guided Aiken Electric in re-mapping the facility's security lighting for additional monthly savings. Signs were also posted around the camp with energy-saving reminders for staff and program participants who work and live there year-round.

Moving forward, camp officials

hope to incorporate solar and small-scale hydroelectric energy features and installation to make the site even more energy efficient.

A greater focus on energy efficiency at the camp "not only demonstrates [to campers] the importance of being good stewards of our energy resources, but it lets them know people care about them too," said Jorge Calzadilla, the camp's executive director.

If Camp Long were to implement all of the SCEO's recommendations, energy consumption could be reduced by over 11 percent with a projected cost savings of over \$19,000 per year.

Recommended measures include: caulking and installation of weather-stripping around windows and doors; chinking (a process that plugs air leaks) for all log cabins on the site; installation of a solar water heating system at the dining hall; and restoration of a grist mill facility on the site to generate hydroelectricity.

## Spring conference focuses on energy efficiency, energy management

Hundreds of energy professionals from across the state attended the 2008 State Facilities Tri-Association spring conference, held from March 8-11, 2008 at Ocean Dunes Resort in Myrtle Beach.

Covered topics included energy efficiency, building maintenance and improvement, as well as discussions on energy management, building moisture, campus emergency preparedness, preventive electrical maintenance, alternative fuels and a special update from the SCEO and the State Engineer's Office on workplace motivation.

The State Facilities Tri-Association includes ASCEM (Association of South

Carolina Energy Managers), ASPACO (South Carolina Association of State Planning and Construction Officials) and SCAPPA (South Carolina Association of Physical Plant Administrators).

ASCEM is currently planning its fall conference, which will be held later this year in the Midlands. In related news, S.C. Accredited Energy Manager (SCAEM) training is to be held September 30 and October 1-2 in Columbia.

### About ASCEM

ASCEM provides information to members to foster a common energy management philosophy to respond to the needs of the State of South Carolina. The purposes of ASCEM are to provide a consolidation of



Conference organizers work diligently to check in attendees at this spring's conference.

experience, knowledge and interest in the field of energy management; to serve as an instrument for the dissemination of information; and to share strategies for the funding and implementation

of energy efficiency projects.

If you have any questions about ASCEM or would like to join, please contact ASCEM Secretary Julia Parris at [jparris@energy.sc.gov](mailto:jparris@energy.sc.gov) or (803) 737-9825.

## Building directory counted on to become valuable resource

For consumers interested in adopting a greener lifestyle, there is always one question asked more than any other:

"How do I get started?"

Enter the North Charleston-based Sustainability Institute which, with the support of the SCEO and others, launched a new on-line service in April designed to connect consumers to the rapidly growing green building industry in South Carolina. It can be found at [www.scgreenbuildingdirectory.org](http://www.scgreenbuildingdirectory.org).

The directory is the first online resource of its type to allow consumers instant access to information on local sustainable prod-

ucts and services. The listing service is currently free-of-charge to businesses and non-profit organizations.

Three South Carolina state government agencies – S.C. Department of Health

and its state agency partners are proud to offer the Green Building Directory as a cutting-edge tool to the building industry," said Bryan Cordell, executive director of the Sustainability

companies offering sustainable products and services in a unique way that stimulates green commerce."

The directory has space for hundreds of companies to exhibit information on their products and services, creating free marketing for the regional building industry.

"For building professionals, the directory will offer the highly sought-after ability to search for products by type, applicability to Leadership in Energy and Environmental Design (LEED) credit, Construction Specifications Institute (CSI) Division and proximity to site location," said Sustainability Institute Program Manager Niall Cytryn.

## The Sustainability Institute

and Environmental Control (DHEC), the S.C. Department of Revenue (DOR) and the SCEO – are supporting the project through project funding.

"The Sustainability In-

Institute. "We believe that it will become a valuable tool to building industry professionals across South Carolina and the rest of the Southeast. The directory will connect customers with

## South Carolina selected for Wal-Mart clean energy project



**LEFT:** DHEC's Sims Aycock building is one of the facilities targeted for an upcoming clean energy audit.

South Carolina has been selected as one of 20 states to receive clean energy audits as beneficiaries of the Greening State Capitols initiative, a partnership between the National Governors Association (NGA) and Wal-Mart.

South Carolina Governor Mark Sanford's application targeted three government buildings for the audit: the S.C. Department of Health and Environmental Control's (DHEC) Sims Aycock building, as well as facilities belonging to the S.C. Department of Mental Health and the S.C. Department of Archives and History.

Wal-Mart will send engineering experts to 20 states throughout 2008 and 2009 with the goal of identifying energy efficiency improvements that will provide a return on investment within five years. In addition, the experts will calculate the anticipated cost savings and carbon dioxide reductions each state could experience by implementing the recommended improvements.

The Greening State Capitols partnership shows how governments and the private sector can work together to address issues of importance to all Americans, like increasing energy efficiency and decreasing greenhouse gas emissions.

## Williamsburg jail solar system receives much-needed refurbishing

Thanks to an SCEO project resulting in the installation of a solar water system at the Williamsburg County jail in Kingstree, taxpayers have saved over \$60,000 in utility bills.

And the savings just keep on rolling in.

The SCEO awarded a grant in 1990 for installation of an active solar water heating system with thermal storage at the county's 180-bed facility. The closed-loop, 10-collector array was arranged to pre-heat 500 gallons of water for showers and bathrooms.

However, SCEO staff recently returned to the site only to find that the system needed some serious refurbishing. The setup was not holding pressure in the collector lines, indicating there was a leak; the fiberglass pipe insulation had deteriorated and therefore needed to be completely replaced; and, the mounting brackets were rusting and in need of new paint.

Considering the system provides one-third of all hot water used at the facility - saving the county over \$3,900 every year - the repairs were deemed urgent.

Therefore, SCEO staff identified problem areas and set solutions in motion. Jail inmates were able to repaint the mounting brackets and remove all the old pipe insulation, replacing it with new foam pipe installation which included a silver tape wrap to protect it from the sun. In addition, leaks were found and repaired, and the system was recharged. In the end, temperature readings at the collector were recorded at 170°F, with the temperature in the water storage tank remaining above 130°F.

In other words: the system was as good as new.

"With proper maintenance, the Williamsburg County jail system should provide another \$40,000 in cost savings to local taxpayers over the next 10 years," said SCEO solar consultant Jean-Paul Gouffray.

The SCEO also trained personnel at the site to ensure that the system receives regular maintenance.



Support renewable energy in S.C. and sign up for PaCE today!

Special thanks to Libby Smith of the Charleston area for becoming the first supplier of solar energy for PaCE.

Visit [www.palmettocleanenergy.org](http://www.palmettocleanenergy.org) for more details

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## Upcoming Events

### **Saving More than Money: Energy Efficiency in the Home**

**August 28 1:00 pm – 6:00 pm**  
**Barrett Room - Spartanburg Public Library**

A half-day workshop sponsored by Upstate Forever and the SCEO, along with the U.S. Green Building Council, designed for realtors, builders, homeowners and renovators covering:

- A glossary of "green terminology" important to anyone working with residential real estate.
- The range of green residential options, with testimonials from upstate residents who have built various green homes.
- Greening options for renovators.

Participants are eligible for 4 AIA Continuing Education Units or Engineering Professional Development Hours. Registration is free. Attendees must pre-register by calling

Upstate Forever at (864) 327-0090 or emailing Angela Viney at [aviney@upstateforever.org](mailto:aviney@upstateforever.org).

### **Developing Affordable and Energy Efficient Housing**

**September 17-18**  
**Ndoki Lodge, Riverbanks Zoo**

A conference sponsored by HUD, SCEO, the S.C. State Housing Finance & Development Authority and the City of Columbia, among others, will focus on those who design, build, fund or promote affordable housing in South Carolina. Registration is free at [www.hud.gov/local/index.cfm?state=sc](http://www.hud.gov/local/index.cfm?state=sc).

*Check our calendar at [www.energy.sc.gov](http://www.energy.sc.gov) for a full listing of upcoming events.*

Director John F. Clark  
Editor Elwood Hamilton

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