

SCEO Recognized for Leadership in Green Building



Public Sector Award presented to the South Carolina Energy Office by the South Carolina Chapter of the U.S. Green Building Council.

The South Carolina Energy Office (SCEO) was one of four recipients of the 2007 Leadership in Green Building awards from the South Carolina Chapter of the U.S. Green Building Council (USGBC) at its second annual awards dinner, in Columbia on October 18. The Leadership Awards recognize outstanding individuals and organizations that have shown vision, leadership and commitment to the advancement of green building and construction in South Carolina.

SCEO received the Public Sector Award for its long-term commitment to green building, through both financial support and services to the Chapter and to individuals and businesses interested in energy efficiency and green building. The organizational meeting of what became the USGBC South Carolina Chapter was held in the offices of SCEO, and the relationship has remained strong ever since.

Other award recipients include Senator Jim Ritchie of Spartanburg, who was awarded the Individual Leadership Award for his efforts in promoting energy independence and sustainable construction in the Palmetto State; Coastal Carolina University, which was recognized with the Leadership in Education Award for offering models of green energy and sustainability to its students, faculty, staff, and the surrounding community; and Craig Gaulden Davis, a Greenville-based architecture firm that received the Private Sector Award for a commitment to green building that predates the establishment of LEED standards, as well as for a commitment to staff education. To learn more, please visit www.usgbcsc.org.

Palmetto Clean Energy “Sets the Pace” for Renewable Energy in South Carolina

Beginning next year, customers of SCANA, Duke Energy Corp. and Progress Energy Inc. will be able to purchase “green power” generated from renewable energy sources through their utility bills. The transactions will be facilitated through a nonprofit group established by a consortium of investor owned utilities, the South Carolina Office of Regulatory Staff and the South Carolina Energy Office (SCEO). Called Palmetto Clean Energy (PaCE), the non-profit entity will encourage the development of new renewable power sources and match them with the appropriate utility service district.

Green power will be sold in blocks of 100 kWh, enough to run a refrigerator for a month. Although the cost of a block of green power has not yet been finalized, it will be in the range of \$4.

PaCE will purchase energy from new renewable sources including solar, wind, and landfill gas installations, as well as biomass. Biomass may be derived from agricultural and other animal waste, as well as woody and cellulosic sources.

Continued on Page 2

Solar Rebates Available for Green Homes

The South Carolina Energy Office is offering a limited number of \$1,000 solar water heater rebates for installation in certified green homes. The program, originally designated for EarthCraft home builders, has been expanded to include home owners and home remodelers, as well as additional green home designations including ENERGY STAR, LEED for Homes, and the National Association of Home Builders green home standards.

To apply for the rebate, download the State Residential Initiative Application from www.energy.sc.gov, under the Funding Opportunities/State Grants & Loans section.



Environmental Costs are Real Costs

John F. Clark, Director,
South Carolina Energy Office

As public concern about global warming, other air pollution and energy costs continues to grow, electric utilities are increasing their consideration of demand-side options (conservation and efficiency) as a major means to reduce the need for construction of new power plants. In doing so, utilities engage in cost-benefit analyses to determine which demand-side options are cost-effective in comparison to traditional supply-side alternatives. Key to such analyses, however, is the methodology.

When considering supply-side options, utilities should consider all costs to society, not just price per kilowatt hour charged to ratepayers. The true cost of providing power from a coal-fired power plant is more than the cost of building, operating, maintaining and fueling the plant. It is also the increased health cost to citizens resulting from airborne emissions; it is the cost to forest owners from acid rain; it is the cost of lost value to citizens of lakes and rivers contaminated by mercury; it is the incremental cost to society of global warming.

All of these costs can be quantified, and they should be quantified when comparing supply-side options to demand-side options. Demand-side options are attractive precisely because they have few societal costs and many societal benefits. Environmental costs to society should not be excluded. Only when all costs are considered is it fair and reasonable to compare costs of supply-side options with costs of demand-side options.

When considering costs of supply-side options, utilities should also adequately consider a full range of life-cycle cost scenarios, including costs of constructing power plants, building necessary transmission infrastructure, operating the power plants, maintaining the power plants and transmission infrastructure, and buying fuel for the expected lives of the power plants. Utilities should obtain analyses of all reasonable possible scenarios relating to future costs of coal-fired power production, including likely future emissions standards and penalties for carbon emissions. Because of increased concerns about greenhouse gasses, it is unlikely that past patterns of costs of power production from coal will be accurate predictors of future costs of production of power from coal.

South Carolina produces no coal, no natural gas, and no uranium. Every dollar diverted from purchase of fuels for conventional power plants could be used for other consumption and expenditure options that are more beneficial to the economic well-being of the citizens of South Carolina.

PaCE, continued from Page 1

The program will reach approximately 1.3 million homes and businesses served by the three investor owned utilities. Customers of state-owned Santee Cooper and most electric cooperatives can already purchase green energy, produced by Santee Cooper in a program that began in 2001.

PaCE should not be confused with “green tags”—credits sold by companies around the country as well as here in South Carolina, which allow purchasers to offset their energy use by buying a like amount of renewable electricity to be fed onto the grid elsewhere in the country. The firms use the money to build or subsidize renewable energy projects, frequently wind farms in other parts of the country. According to John Clark, Director of SCEO, “It doesn’t make sense to send South Carolina dollars to projects on the other side of the country. The beauty of PaCE is that our money stays here to grow our region’s economy.”

PaCE will be modeled after North Carolina Green Power, launched four years ago. To date, approximately 12,000 homes and businesses in that state pay a slight premium to purchase green power. This equals the carbon reduction accomplished by planting 4.2 million trees or not driving 65.7 million miles. For more information about the PaCE program, please visit: www.palmettocleanenergy.org.



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City of Columbia Leads the State in Addressing Energy Use

To kick-off its new green business program, the Climate Protection Action Committee (CPAC) of Columbia held the “Green is Good for Business” Conference on September 24. The event, supported by sponsors such as the South Carolina Energy Office, Waste Management, Amaresco, SCANA and others, was held at the Columbia Convention Center, where information on the benefits of environmental-savvy businesses was emphasized through various presentations.

Mayor Bob Coble, S.C. Sen. John Courson, R-Richland, and U.S. Sen. Lindsey Graham, R-S.C., spoke at the conference. Businesses ranging from large (Milliken) to small (Cox and Dinkins) offered examples of why “green” has been good for their business, and Jim Herritage, of Energy Auditors Inc. offered the “Top Ten Things You Can Do to Reduce Energy Use in your Business.” Michael Juras, CPAC member and a South Carolina Department of Health and Environmental Control (DHEC) employee reported that at least one participant said he “could use eight of the ten tips immediately.”

The conference is a direct result of the U.S. Conference of Mayor’s Climate Protection Resolution, which Mayor Bob signed in October 2006. As a first step to fulfill the resolution, City Council created CPAC. Chaired by Council member Anne Sinclair, CPAC unites community volunteers and city officials to determine how Columbians can work together to reduce greenhouse gases. The committee’s initial focus was to develop an action plan for City government.



Participants browse the information booths at the conference.

Once the City’s action plan was developed, CPAC turned its attention to businesses within the greater Columbia area. CPAC established a green business program, which recognizes companies committed to greening their operations and suggested actions for businesses in various sectors of the economy. The SCEO has offered to assist businesses in the program seeking advice about energy efficiency and conservation. (See “City of Columbia Green Business” article for more information.)

For more information about CPAC and to view Columbia’s Climate Protection Action Plan, please visit www.coccpa.com.

Electric Cooperatives Invest in Energy Efficiency and Conservation

South Carolina’s electric cooperatives plan to invest up to \$10 million annually toward renewable energy and energy efficiency measures. This record investment will offer a net-metering program to customers who produce their own electricity through solar and other forms of renewable energy, encourage the installation of compact fluorescent light bulbs, and establish a commitment to reduce emissions from coal-fired power plants.

These initiatives follow two major studies commissioned by electric cooperatives in South Carolina. The first study explored the potential in South Carolina for producing power from renewable energy sources. The second study researched the amount of energy that cooperatives and their members could save by using energy efficiency measures.

“These studies are meant to find opportunities, not to find an excuse for inaction as it relates to environmental responsibility,” said Mike Couick, chief executive officer of the Electric Cooperatives of South Carolina Inc. “We purchase power from other sources. This gives us a yard stick to measure those generation sources’ environmental impact. We can’t hold them to an impossible standard, but we need to hold them to the highest standard.”

The Electric Cooperatives of South Carolina Inc. is the statewide trade association for the state’s 20 consumer-owned electric cooperatives, three wholesale power supply cooperatives and one materials supply cooperative. The cooperatives have about 1.6 million customers across the state, about 600,000 of those residential customers.

For more information, please visit the Electric Cooperatives of South Carolina Inc.’s website at www.ecsc.org.

South Carolina Receives Funding for State Industrial Assessment Projects

The South Carolina Energy Office (SCEO) and the South Carolina Manufacturers Extension Partnership (SCMEP) recently received a \$50,000 grant from the U.S. Department of Energy's (DOE) Save Energy Now initiative to perform industrial plant assessments at local facilities. Through Save Energy Now, DOE's Industrial Technologies Program (ITP) seeks to accelerate partnership with states and local energy efficiency groups, utilities, academic institutions and nonprofit organizations in meeting industrial energy efficiency challenges.

The award will enable South Carolina to improve its participation in the movement to reduce national total energy use and industrial carbon emissions. SCEO and SCMEP are partnering with DOE to conduct plant energy assessments that help manufacturing facilities identify immediate opportunities to save energy and money, primarily by focusing on energy-intensive systems, including process heating, steam, pumps, fans, and compressed air. Facilities interested in an assessment should contact Tom Hudkins of the SCEO at 803-737-8285, or at thudkins@energy.sc.gov.

Save Energy Now is helping American industry, the most energy-intensive section of our economy, save money and improve air quality. Many companies have already benefited from assessments provided by energy experts using DOE software tools and technical information. Nationally, Save Energy Now has completed 388 large plant assessments, implemented annual energy-saving improvements of nearly \$83 million, identified natural gas savings of nearly 57 trillion Btu per year, and reduced total potential CO₂ emissions by approximately 5 million tons per year since its inception in 2005.

For more information regarding DOE's Industrial Technologies Program and the Save Energy Now program, please visit www.eere.energy.gov/industry/saveenergynow.



Biodiesel Fuel Quality a Priority

The Palmetto State Clean Fuels Coalition (PSCFC) hosted a statewide biodiesel symposium on September 19. The South Carolina Biodiesel Fuel Quality Symposium, held at the Columbia Metropolitan Convention Center, hosted over 150 participants, including petroleum marketers, fleet managers, government representatives, and other interested parties. Participants learned about biodiesel fuel quality and ideal management practices from a wide-range of speakers including the National Biodiesel Board, the South Carolina Energy Office (SCEO), Department of Agriculture, and Department of Health and Environmental Control. SCEO helped to plan the event and was a major sponsor.

The PSCFC was selected for a \$10,000 grant to host the workshop. The program was part of a collaborative between the U.S. Department of Energy's Clean Cities Program and the National Biodiesel Foundation.

While always an important issue, fuel quality has become vital for the rapidly expanding biodiesel industry. Assuring that stringent quality control standards are met throughout the supply chain is essential for the industry to enjoy further growth for this valuable product.

SCEO Aims for Energy Conservation

The South Carolina Energy Office (SCEO) joined a host of recreation and conservation organizations in celebrating National Hunting and Fishing Day on September 22. The South Carolina Wildlife Federation-sponsored event featured shooting, casting, hunters' safety, and wildlife programs, as well as the eco-minded "Conservation Lane," where the SCEO educated visitors about the importance of energy conservation and efficiency.



South Carolina Energy Office mascot, E2L, and some of his friends take a stroll down Conservation Lane.

South Carolina Receives First Plug-in Hybrid School Buses



The Plug-in Hybrid School Bus is unveiled.

South Carolina's first two plug-in hybrid diesel-electric school buses were delivered on October 11th to Rock Hill School District Three and Richland School District Two, marking an important step in the state's effort to curb diesel exhaust and soot levels which pose risks to children's health while idling.

Large battery packs under the bus will supply electric power. When charged overnight these batteries can provide energy during the driving cycle. The system also recovers kinetic energy during braking and assists the bus during acceleration. The plug-in hybrid buses are expected to get more than 12 miles per gallon - over 40 percent more efficient than a standard diesel bus.

The buses are a part of a national initiative called the Plug-In Hybrid Electric School Bus Project, led by Advanced Energy, a non-profit corporation based in Raleigh, NC. The Project donated the two buses to South Carolina.

State Education Department Transportation Director Don Tudor said that through efforts like this, the state is actively cleaning up the bus fleet's exhaust emissions. The department is currently using U.S. Environmental Protection Agency funds to purchase emission control devices for older buses. The fleet is also using a blend of biodiesel with ultra-low sulfur diesel to reduce emissions by about 10 percent from standard diesel.

City of Columbia Green Business Awards First Seal of Approval

Since achieving Leadership in Energy and Environmental Design (LEED) certification for their office building in 2003, the engineers and surveyors of Cox and Dinkins have been recognized for their commitment to upholding environmentally-friendly business practices. For the organization's continued role as a green leader in the community, Cox and Dinkins was awarded the City of Columbia's first Green Business Member seal of approval.

The City of Columbia Green Business is a voluntary membership program that encourages businesses to take proactive steps that are good for the environment and bottom line. The program is a partnership of public and private agencies that promote, recognize and provide support to local business that operate or are interested in operating in an environmentally responsible way.



Senator Lindsey Graham shakes hands with Green Business Member Gene Dinkins of Cox and Dinkins.

"Cox and Dinkins was chosen for its leadership and design of its home office, which is a high performance LEED Certified building," said Councilwoman Anne Sinclair. "We encourage other businesses to see how greening up their business strategies can position them to operate more efficiently and competitively."

By definition, a Green Business conserves resources, prevents pollution, minimizes waste, protects environment and public health, strengthens its bottom-line through operating efficiencies, creates a marketing edge over the competition, and is a recognized as a business leader.

If your organization is interested in becoming a City of Columbia Green Business Member, visit www.coccpac.com and click on the "How Can My Business Go Green?" section. There, you can begin the four-step application process and request assistance through various green business resources, including the South Carolina Energy Office.

SC Renewable Energy One-Stop Shop

In an effort to streamline the process for renewable energy companies interested in locating facilities in South Carolina, the South Carolina Energy Office (SCEO) began an initiative known as the "SC Renewable Energy One-Stop Shop".

The One-Stop Shop is a monthly meeting of representatives from various organizations and agencies including the: South Carolina Department of Health and Environmental Control, Department of Commerce, Department of Agriculture, Department of Revenue, State Fire Marshal, Forestry Commission, South Carolina Research Authority, New Carolina/Carolina Competitiveness Council, Rural Development Council, Clemson Institute for Economic and Community Development (CIECD), Norfolk Southern, US Department of Agriculture-Rural Development Office, Palmetto State Clean Fuels Coalition, South Carolina Biomass Council, and the South Carolina 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, two meetings have been held on November 6th and December 5th, 2007. Future meeting dates will be posted on the SCEO website (www.energy.sc.gov) under the Renewable Energy section. To schedule an appointment, please contact Erika Hartwig at (803) 737-8030.

Don't Miss the Deadline! SC Renewable Energy Grants Available

The South Carolina Renewable Energy Grant Program provides demonstration project and research and development grants to private and public entities located in the state.

Application information is available in the Solicitation for Preliminary Proposals. The deadline for Round Two applications is January 4, 2008.

For more information, please visit the South Carolina Energy Office website (www.energy.sc.gov), click on "Funding Opportunities," and then follow the link to State Grants & Loans: SC Renewable Energy Grant Program.

Now Available Online ...

The 2007 South Carolina Energy Office Annual Report!

To view the report, please visit www.energy.sc.gov, and select the report from our publications list.

Landfill Gas to be used for Diapers

*Excerpt from article by Jim Johnson
Reprinted from Waste News Magazine, November 12, 2007*

A new project in Aiken County, S.C., will connect the Three Rivers Regional landfill in Jackson with Kimberly-Clark Corp.'s Beech Island manufacturing plant through a 15-mile pipeline that will transport methane gas.

Once at the Kimberly-Clark plant, the landfill gas will be used to produce steam to help power the manufacturer of diapers, training pants, bathroom tissue and facial tissues.

"The Beech Island facility is an ideal site for this project, since it is one of the most technologically and environmentally advanced mills within Kimberly-Clark and is also the largest manufacturing facility in North America," said Tom Colgrove, senior director of family care product supply in North America.

The Three Rivers Solid Waste Authority has struck a 15-year supply agreement with Kimberly-Clark to supply the gas, a move that will reduce greenhouse gas emissions from its disposal site.

The project will provide 1,800 cubic feet to landfill gas per minute to steam boilers at the Kimberly-Clark site.

Colgrove also said the Beech Island facility also has reduced the use of river water by 60 percent and has a goal of pushing that number to 80 percent.

"In addition, the facility has nearly eliminated landfilling of its manufacturing waste," he said.

"We recognize that we must contribute to reducing greenhouse gas emissions through increased energy efficiency and use of cost-effective renewable and alternative energy sources," Colgrove said. "Landfill gas will provide our site with a reliable, carbon-neutral source of clean energy at a lower cost than conventional natural gas."

Palmetto State Celebrates Energy Awareness Month

Energy Awareness Month (EAM) was kicked off in the Palmetto State this October when Governor Mark Sanford signed a proclamation urging “all South Carolinians to learn more about ways to practice energy efficiency at home, at work, and when traveling.” The South Carolina Energy Office (SCEO) promptly responded to the Governor’s call for action.

On the first of the month, SCEO joined the 2007/2008 ENERGYSTAR Change a Light, Change the World Campaign as a Pledge Driver. SCEO set the goal of collecting 1,000 pledges from South Carolina citizens who are ready to save energy and reduce the risks of global climate change by replacing at least one light their homes with an ENERGYSTAR qualified one. (If you have not yet made your pledge, please visit www.energystar.gov and join the campaign!)

In the community, SCEO participated in programs geared toward energy conservation in both the home and at work. First, at the South Carolina State Museum’s Home School Fridays! program, where students and their parents learned about new energy technologies and how to conserve energy around the house, and then at South Carolina Department of Health and Environmental Control (DHEC)’s South Carolina Resource Conservation Challenge Workshop, where public sector professionals from across the state discovered new and improved ways to conserve natural resources, protect the environment, and save money. (To learn more, please see S.C. Challenge article.) At both events, SCEO distributed posters, calendars, notepads, and room temperature cards with this year’s EAM theme, “Clean and Green for a Secure Energy Future.”

Energy Awareness Month has been observed nationally since October 1991, when the first EAM proclamation was signed by President H.W. Bush. Since then, the U.S. Department of Energy has been conducting EAM campaigns that promote the wise and efficient use of our nation’s energy.

SCEO Plays Key Role in South Carolina Resource Conservation Challenge

During the South Carolina Challenge Workshop, sponsored by South Carolina Department of Health and Environmental Control (DHEC) on October 24 at the South Carolina State Museum, the South Carolina Energy Office (SCEO) was on hand to assist the nearly 100 participants from various public sectors in discovering innovative methods of conserving energy and saving money.

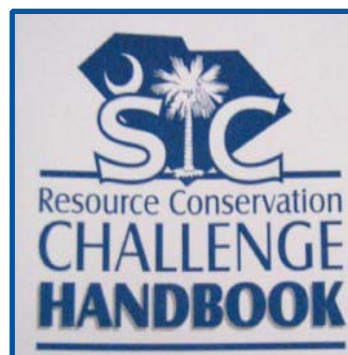
In addition to answering questions and handing out energy-related materials, SCEO staff also led presentations on how to create model energy conservation plans and save money through utility bill analysis and also contributed in sharing information and offering solutions during the workshop’s general discussion session.

The Resource Conservation Challenge is a national effort established by the U.S. Environmental Protection Agency to conserve natural resources and energy by managing materials more efficiently. Closer to home, the South Carolina Resource Conservation Challenge focuses on new and improved ways for state agencies, colleges/universities, local governments, schools and school districts to conserve natural resources, protect the environment – and save money in the process.

For more information about the South Carolina Challenge, please visit www.scdhec.gov/lwm/rcc.



SCEO staff guides attendees through the process of creating an energy conservation plan.



Download the SC Resource Challenge handbook for easy-to-follow programs and ideas to save money while also protecting the environment.

www.scdhec.gov/lwm/rcc

ASCEM News and Updates



The Association of South Carolina Energy Managers (ASCEM) provides information to members to foster a common energy management responsive to the needs of the State of South Carolina. The purposes of ASCEM are to provide a consolidation of 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 or 803-737-9825.

ASCEM and SCEO Offer Certified Energy Manager Training

The Association of South Carolina Energy Managers (ASCEM) and the South Carolina Energy Office (SCEO) coordinate Certified Energy Manager (CEM) training classes each July to prepare qualified energy managers for their certification examinations. All individuals wanting to take the CEM training classes must meet the eligibility requirements of the Association of Energy Engineers (AEE) and be a member of ASCEM. Information found at www.aeeecenter.org will assist you in qualifying for the course. Class size is limited, so those interested should contact Leslie J. Walker, Certification Director, at leslie@aeeecenter.org or (770) 447-5083, ext. 218.

The CEM designation is recognized by the U.S. Department of Energy and the Office of Federal Energy Management Programs, as well as numerous state energy offices and major utilities. It has gained industry-wide acceptance as the standard for qualifying energy professionals in America and abroad. Currently, there are over 5,000 Certified Energy Managers in 48 states and 22 countries serving industry, business and government.

Congratulations to South Carolina's Newest Certified Energy Managers!



Lonnie Russell,
Facilities Engineer, AAI Services Corporation

Not pictured: David Wach,
Manager of Utilities Department & Energy
Management, Roche Carolina, Inc.

ASCEM and Partners Hold Fall Facilities Conference

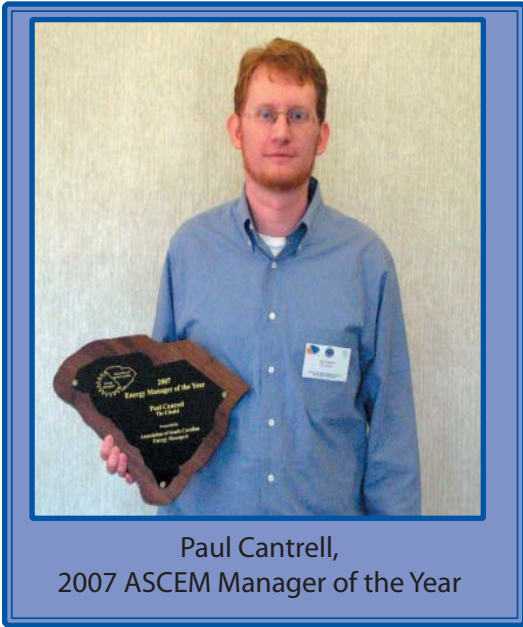
The Association of South Carolina Energy Managers (ASCEM), Association of State Planning and Construction Officials (ASPACO) and South Carolina Association of Physical Plant Administrators (SCAPPA) joined together to host the South Carolina Tri-Association of Facility Managers Fall Conference November 6 at the Madren Center on the Campus of Clemson University. Over 170 attendees represented various school districts, state and local governments, and colleges and universities from throughout the state.

Informative sessions offered to participants included procurement code updates from the State Engineer's Office, featured projects and lectures from Winthrop University, Clemson University, and the University of South Carolina, as well as a LEED overview and new legislation presentation by Trish Jerman of the South Carolina Energy Office (SCEO). The SCEO also maintained an exhibit booth, along with a number of other facilities services providers.

The next SC Tri Association of Facility Managers Conference is scheduled for March 8-11, 2007 at the Ocean Dunes/Sand Dunes Resort in Myrtle Beach, SC. Like the fall conference, the spring conference sessions will include a variety of energy efficiency and building maintenance and improvement topics. For more information, please contact ASCEM Secretary Julia Parris at jparris@energy.sc.gov or (803) 737-9825.

Cantrell is 2007 ASCEM Energy Manager of the Year

Paul S. Cantrell was recognized as the 2007 ASCEM Energy Manager of the Year for his services as Energy Manager at The Citadel, where he has not only instituted several measures to reduce energy consumption, but has also developed awareness and influenced individual behaviors regarding energy conservation.



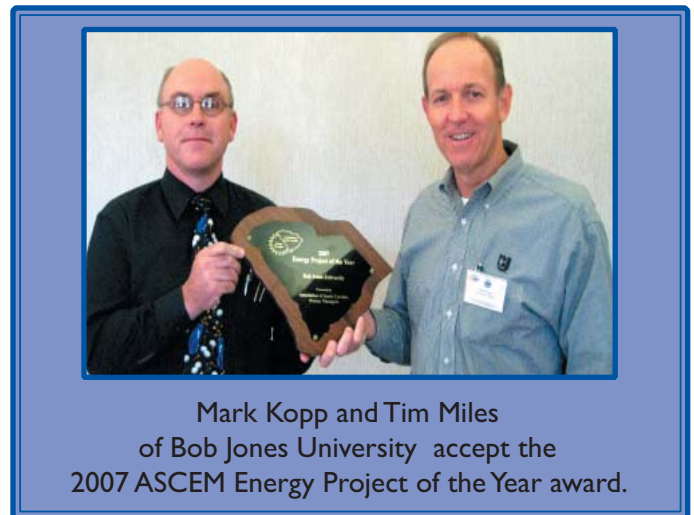
“Paul has significantly contributed to the operating success of the Utility Division of the Physical Plant and The Citadel with his initiative and foresight,” said Juan Santiago, Jr., Chief of Utilities Division at The Citadel. One of Cantrell’s most impressive achievements includes a reduced on-peak summer demand by 101 kilowatts below the previous year through load shedding and energy efficiency, despite an increase of conditioned square footage on campus. Because of his efforts, annual peak demand cost will be reduced by approximately \$10,500.

Other contributions to the college include Cantrell’s efforts to eliminate incandescent light bulb use in non-dimmed fixtures in favor of Compact Fluorescent Light bulbs, to utilize a \$2,500 energy grant by means of bringing solar technology to campus, and to secure a \$5 million energy performance contract that will carry out \$5 million of energy efficiency and water conservation measures through 28 different projects. Cantrell also publishes a semi-annual newsletter that provides advice and antidotes about energy conservation and savings for the faculty, staff and students at The Citadel.

Bob Jones University Awarded 2007 ASCEM Energy Project of the Year

The 2007 ASCEM Energy Project of the Year was awarded to Bob Jones University (BJU) for the school’s numerous energy efficiency projects that have saved the University thousands of dollars, including lighting retrofits, chiller replacements, and upgrades to the chilled water loop on campus. Project highlights include:

Founders Memorial Auditorium Chill Water Retrofit: The HVAC system in this building was over 30 years old, posing several factors that led to the decision to upgrade the system. First, there was an overload of HVAC work orders called in daily, as well as many service calls to Trane specialists. Even then, there was a lack of comfort due to the down time in the auditorium that seated 5,000 students. Second, BJU needed to comply with EPA standards to refrain from being fined due to R22 leaks. The third and best reason, according to BSU staff, to upgrade was the obvious savings derived from converting this system to chill water from the leaky DX system. The cost of the project was over \$582,000 with a pay back of five and a half years.



Davis Field House Flat Plate Heat Exchanger: The central central plant on the BJU campus houses a 1200 ton Trane centravac that runs throughout the year. Utility workers report a cooling load of up to 800 tons in the winter to carry a large printing division that operates around the clock. The chill water system in the plant was installed five years ago and was hooked to 1500 tons of cooling tower to keep condenser temperatures down. Then, a flat plate heat exchanger was added to BJU’s Field house chillerplant. With a .60 KW to a .70 KW per ton energy cost to run the chiller, BJU discovered that 1200 tons of cooling could be gathered from the cooling towers with a flat plate heat exchanger every time the outside temp dropped under 45 degrees. The extra capacity in the cooling towers allowed BJU to implement this upgrade with little cost. The total project cost around \$70,000 with a pay-back in nine and a half years. Conservatively, BJU estimates that for three months, 10 hours per day equals over \$34,560 savings, which is equivalent to \$11,520 a month of free cooling with the new flat plate heat exchanger.



Reader Reminders . . .

Sign-Up for the Electronic Version of the Energy Connection!

Did you know that commercial and residential paper waste accounts for over 40 percent of waste currently being landfilled? What are you waiting for!?!?

If you are not already receiving this copy via email, please get to the nearest computer and send your name and email address to energy@energy.sc.gov.

And please remember to recycle this copy of the Energy Connection!

Conserve energy &
save money at
www.energy.sc.gov

Join the South Carolina Energy Office in the 2007/2008 ENERGY STAR Change a Light, Change the World Campaign!



Simply visit www.energystar.gov, choose SCEO from the list of Pledge Drivers, and then make your pledge to replace at least one standard incandescent light bulb in your home with an ENERGY-STAR qualified Compact Fluorescent Lightbulb (CFL).

SCEO has set the goal of collecting 1,000 Pledges, which will save 282,000 kWh of energy and prevent 409,000 pounds of greenhouse gas emissions. Please help us meet our goal!

Director John Clark

Editor Whitney Wurzel

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