

Partner Update

U.S. Department of Energy • Office of Energy Efficiency and Renewable Energy

www.rebuild.org • DOE/EE-0248

May – June 2001

PCG Leads Rebuild America M&C Team



As of May 1, 2001, Potomac Communications Group, Inc., (PCG), a public relations firm based in Washington, DC, took over as the Marketing & Communications (M&C) Team Lead organization for Rebuild America. PCG has provided marketing communications services to Rebuild America since 1995.

In April of 2001, D&R International began a process of transferring or transitioning its responsibilities and Rebuild America files and materials to PCG and Aspen Systems Corp. The three organizations have maintained regular communications to ensure a smooth transition.

The following will give you an idea of how PCG will work with you as Rebuild America's new M&C Team Lead.

Partnerships in need of M&C assistance

Continued on page 10

CONTENTS

- 2 Profile: Blanche Sheinkopf
- 3 Students Battle for Windows
- 5 Henderson, NV Energy Training
- 6 Alternative Fuels
- 7 Housing Solutions for Cleveland

Rebuild Louisiana Targets EnergySmart Schools



Rebuild Louisiana, led by **Louis McArthur** of the Louisiana Department of Natural Resources, has launched a new program in an effort to boost the energy performance of K-12 schools statewide. The program brings together local universities, K-12 schools and the latest in energy-efficient software. The initiative, "Creating EnergySmart Schools in Louisiana," uses Federal Energy Decision Screening (Feds) to evaluate buildings deemed inefficient and

unproductive by U.S. Department of Energy/U.S. Environmental Protection Agency standards. The process is an exciting and innovative method of using new technology to incorporate the EnergySmart Schools program into Louisiana's ongoing conservation and efficiency efforts in an area where the need is critical, according to McArthur.

Feds is a fuel-neutral, technology independent, comprehensive method for quickly and objectively identifying building energy-efficiency improvements that offer maximum savings. The software works by estimating current energy consumption in a building and determining the minimum life-cycle-cost retrofits to existing systems.

Funding for the software's production was taken from petroleum violation escrow funds which have been frozen since the Carter administration. The Louisiana state government allocated a portion of the funds to be administered by Rebuild Louisiana to benefit K-12 schools.

The partnership has awarded over \$1.5 million in contracts to five universities including Louisiana State University at Baton Rouge, The University of New Orleans, Nicholls State University, Southern University and the University of Louisiana at Monroe. With the help of Pacific Northwest National Laboratories, engineers trained university program managers to use Feds to perform audits within the community at no cost. Elective courses were created to provide students with hands-on experience in conducting audits. Participants received credits for the audits they performed and stipends for their work. As a result, many Rebuild Louisiana private industry partners have recruited graduates of the program for employment after graduation.

The auditing process begins by benchmarking public schools to grade their level of efficiency. Schools falling short of an acceptable level of efficiency are targeted for

Continued on page 4

Taking A Grassroots Approach To EnergySmart Schools



Blanche Sheinkopf

February, Sheinkopf joined **Larry Schoff**, Rebuild America's K-12/EnergySmart Schools technical advisor, bringing a new dimension to Rebuild America's efforts to save energy in the nation's schools. Sheinkopf's focus is on promoting energy education, energy efficiency, and renewable energy in schools by providing resources and support for K-12 teachers and students.

Sheinkopf comes to Rebuild America with sterling credentials. Prior to joining EnergySmart Schools, she coordinated education and training programs at the Florida Solar Energy Center, where she developed award-winning education materials. She has been a K-12 classroom teacher, teacher trainer, science program coordinator, and curriculum development specialist for more than 20 years.

Through EnergySmart Schools, Sheinkopf is directing an energy education campaign at teachers, students and parents instead of approaching facility managers and others on the "building" side. "Teachers, parents and students are a largely untapped resource for Rebuild America's energy-saving efforts," Sheinkopf says. "We've adopted a grassroots approach to building awareness about energy efficiency and energy issues and to incorporating energy lessons into the curriculum and other school activities. This strategy is one that we'll be able to replicate nationally."

Sheinkopf makes EnergySmart Schools presentations to teachers, administrators, industry professionals and community groups whenever possible in an effort to build alliances and partnerships. Schools that offer an energy education component open up hands-on opportunities for students to learn about renewable energy and energy efficiency, according to Sheinkopf. She notes that EnergySmart Schools will help to develop and support an energy education program for schools that are actively pursuing energy retrofits to buildings as well as those that are not, since energy improvements may be implemented at some point.

"Our greatest challenge is to successfully and effectively get the word out," she says. "Many states mandate that energy

Rebuild America's EnergySmart Schools is evolving in new directions with the addition of **Blanche Sheinkopf**, a long-time educator with extensive experience in renewable energy education, as coordinator. Last

be taught, yet there isn't much in the way of current material to support this. I find that teachers are desperate for this kind of information. My role is to get materials to the schools so teachers are prepared to teach students about energy."

One of those tools is the newly released "Get Smart about Energy" CD. The CD is designed to help teachers incorporate energy education materials into their lessons.

Sheinkopf also views her new post as an opportunity to make other Rebuild America players active in the K-12 sector aware of the results that can be achieved by directing some of their efforts to teachers, students and parents, rather than focusing only on facility managers, business officials, and school boards.

Sheinkopf has been instrumental in developing four energy education curriculum units. Two of these units received Interstate Renewable Energy Council (IREC) Innovation Awards in 1999 and 2000. Sheinkopf herself was honored for her work in bringing solar energy to schools through projects and curriculum development at IREC's 2001 Solar Energy Forum on April 24.

A former educator who taught pre-kindergarten through sixth grade in Florida, New York, Pennsylvania and Maryland, Sheinkopf has served on the College of Education faculty at American University, The George Washington University and the University of Central Florida. She also was an educational consultant for the National Geographic Society's Solar Energy unit.

Sheinkopf serves on the Energy and Society Advisory Committee for Project Learning Tree, the Curriculum Committee of the National Energy Education Development Project and on the board of the Education Division of the American Solar Energy Society. She is also chair of an international conference on renewable energy education to be held in Orlando, FL next year.

Sheinkopf lives in Indian Harbour Beach, FL with her husband, Kenneth, who is associate director of the Florida Solar Energy Center and a nationally syndicated columnist on energy efficiency. She enjoys travel, bicycling, walking and spending time with their two sons, Adam and Jeff.

For more information, contact Blanche Sheinkopf at 321-779-3768 or bsheinkopf@aol.com.

"Our greatest challenge is to successfully and effectively get the word out."

— Blanche Sheinkopf

Donuts For Daylight: Students Win Battle For Windows

K-8 students at the Buist Academy in Charleston, SC had been living with windowless classrooms since the 1970s, when windows in the school were removed in a misguided attempt to keep the sun's heat out of the classrooms. The windows were replaced with metal glazing.

In addition to creating a bleak learning environment, the lack of windows created a whole host of problems that ranged from inadequate lighting to mold and mildew from high humidity and poor ventilation, says **Mel Goodwin**, executive director of the **Harmony Project**, a Rebuild America partnership.

But things are looking brighter at the school these days, with the installation of five new high-performance windows in one classroom, thanks to the efforts of a sixth grade class at Buist Academy and support from the Harmony Project and others in the community. It all started last September, when a class of 25 sixth graders at this school for gifted and talented students learned about the positive impact that daylit classrooms can have on academic

performance and health, and decided to embark on a class project to get windows installed in their classroom. Their efforts came to fruition on May 21 with the installation of new spectrally selective windows that let the light in while keeping the heat at bay.

How exactly, did a group of sixth graders make this happen? For starters, they had the dedicated support of their teacher, **Angela Blaylock**, to guide them. Mel Goodwin and Harmony Project served as a technical resource for the students, teaching them how to evaluate humidity, air flow and lighting conditions in their classroom and assisting them with the selection of glazing for the windows. One lesson they learned was that simply running a window air conditioner in the classroom was not enough to provide adequate air circulation, Goodwin says. Students discovered the science that confirmed what they already knew: that the physical condition of their



Metal glazing instead of windows: Sixth grade classroom at Buist Academy prior to window installation.

Continued on page 11



View From DC By Daniel Sze

All indications point to the fact that the nation's energy crisis will have a continuing and significant economic impact on communities. Earlier this year, the U.S. Conference of Mayors called for a 10 percent, across-the-board reduction in energy use in America's cities and communities. Can such community-based efforts to save energy actually make a difference? The answer is a resounding "Yes!" Rebuild America serves as a prime example.

Seventy-five percent of Rebuild America partnerships have reported the results of their efforts to save energy in their communities to the U.S. Department of Energy (DOE), and the news is good. In fact, the Rebuild America program has saved enough energy every year to power a city of 100,000 homes. Since the program's inception in 1995, through 2000, DOE's total investment of \$36 million in Rebuild America has resulted in:

- \$94 million in annual total energy savings
- \$428 million in capital investment
- energy-efficiency improvements to over 300 million square feet of floorspace
- an additional 450 million square feet in projects committed or underway will generate
 - \$600 million in new capital investment
 - \$140 million in annual savings
- 335 community partnerships in 51 states and territories.
- energy-saving efforts in over 1,000 schools
- annual energy savings of \$14.35 for every DOE dollar invested
- private investment of \$11.80 for every DOE dollar

Results such as these help demonstrate the economic impact that Rebuild America partnerships are having in their communities. Equally important are the environmental benefits that result in terms of avoided emissions whenever the demand to generate energy from the burning of fossil fuels is reduced. With the eyes of the nation focused on energy issues, there is no time like the present for Rebuild America partnerships to advance their energy-saving agendas and their outreach efforts to involve more segments of the community. Opportunity is knocking. Are you ready?

Daniel Sze is National Program Manager of Rebuild America.

Rebuild America and Henderson, NV Combat Energy Problems

With the energy crisis in California alarmingly close to home, Henderson, NV, one of the nation's fastest growing cities, hosted 21 employee training sessions on energy efficiency and awareness from May 2–4. The program was offered to 2000 city employees and focused on effective practices that conserve energy at the workplace and in the home.

The project also included an Energy Roundtable in which City of Henderson and Department of Energy officials and Rebuild America members addressed various energy issues such as high consumption rates and long- and short-term efficiency measures. "The success of the City of Henderson and its partnership with Rebuild America shows how we can tap resources of our various programs to meet the needs of major communities such as Henderson," said **Paul Johnson**, assistant director of DOE's Seattle regional office who participated in the Energy Roundtable. "These training sessions for city employees and the new programs being tried are truly unique. I applaud the mayor and city council for taking the steps to make the City of Henderson a leader in energy awareness."

The sessions and the Energy Roundtable discussion produced numerous ideas for conserving energy beyond the city's current energy assessments. Proposals addressed low-cost simplistic measures such as posting signs to remind people to turn off lights and appliances as well as more sophisticated procedures like auditing all city facilities for energy efficiency. In the long term, the City has committed

to developing a comprehensive strategic plan that encompasses all energy-saving and emergency plans. When complete, the plan will be presented to the Henderson City Council for adoption.

The Energy Roundtable and employee training sessions enjoyed impressive media attention from local press with stories appearing in *The Henderson View*, *The Henderson Home News*, *The Las Vegas Review Journal* and *The Las Vegas Sun*, and on television news stations including KVVU, KTNV and KINC. Business Partner Team Leader **Doug Avery** and Rebuild America Program Representative **Mel Powers** presented the energy training sessions to city employees.

Avery reports that five other communities in California have expressed interest in arranging similar training for their government employees. He is exploring opportunities for Rebuild America Business Partners to spearhead the next training sessions.

For more information, contact **Doug Avery** at davery@lbl.gov or 310-798-6927.



The Las Vegas Review Journal was among several Nevada newspapers covering the Henderson event.

Continued from page 1

Rebuild Louisiana Targets EnergySmart Schools

further assessment using the Feds software. The software offers specific suggestions for replacing building components and can be used as a guideline for preparing contracting proposals. After contractors are selected, Rebuild Louisiana provides alternative financing options and employs strategic business partners to successfully complete the project. Schools that exceed the benchmarked level of efficiency are provided with the engineering work necessary to apply for the ENERGY STAR® label for schools.

To date, Rebuild Louisiana is responsible for audits performed on 106 buildings representing 3.4 million square feet and energy-saving measures are being installed. Completed retrofits costing \$6.7 million are expected to yield

over \$1 million in savings. By providing schools free assistance with formulating an energy management action plan, the partnership expects to work with one new school per month over the next two years, according to McArthur.

Preliminary estimates of savings based on the average school in Louisiana suggest that the energy retrofits could result in a 20-to-25 percent reduction in energy consumption. McArthur points out that these savings could be used to increase teacher salaries, purchase educational supplies and strengthen core curriculums.

For more information, contact **Louis McArthur** at LouisM@dnr.state.la.us

Kingston City School District Improves Quality of Living And Learning

Kingston City School District's three-year partnership with Rebuild America, led by **Bob Cunningham**, has turned out to be a highly productive alliance. When *Partner Update* featured Kingston in the Fall of 1999, the school district had effectively implemented an in-depth, multi-phased project that saved over \$200,000 in utility costs, decreasing energy bills by over 20 percent in its first year alone.

The first step was a people-oriented conservation program, designed by Energy Education, Inc., of Wichita Falls, TX, which included hiring an energy manager, and thorough training of all district personnel. This education plan was followed and reinforced by the replacement or repair of existing energy systems in the district's 1.2 million square feet of space. The project was designed, financed and managed by the New York Power Authority (NYPA). This work involved completely replacing, or retrofitting old lighting systems, replacing four boiler rooms with pulse boilers, installing a digitally controlled energy management system to control HVAC systems, replacing steam traps and inefficient motors, and installing new high-efficiency windows in three buildings. Construction began in August of 1999 and proceeded ahead of schedule with substantial completion in November of 2000.

To date, \$6.9 million has been spent on upgrades and training with a cost avoidance of over \$1.1 million. The Energy Education program paid for itself in only 2-1/2 years, and the NYPA program will pay back in well under 10 years at present energy costs, according to Cunningham. Kingston City School District has saved 5.6 million kWh and 975 million Btu to date, reports Cunningham. The retrofits have also helped shave carbon dioxide emissions by over 5



A boiler room in the newly renovated Kingston School District

million pounds.

U.S. Senator **Hillary Rodham Clinton** has announced a bill based on Kingston School District initiatives to help schools become more energy efficient during a visit with school district officials and students on May 29.

"The Kingston City School District has established itself as a community leader in energy conservation and as a role model for other schools, businesses and families," says Assistant to the Superintendent for Business **Philip J. Sinagra**. "Students take an active interest in saving energy and bring this enthusiasm home to parents. The school district has saved energy and dollars, enabling us to redirect these savings to enhance school curriculums, materials and the overall learning environment."

The Kingston School District has been recognized in *American School Board Journal*, *Energy Manager* and *Energy User News*, and has received an ENERGY STAR® Business Partner of the Year Award for 2001.

For more information about the Kingston School District energy conservation program, contact Bob Cunningham at bcunningham@kingstoncityschools.org.

Rebuild America Briefs

The National Energy Education Development (NEED) Project, a Rebuild America EnergySmart Schools Strategic Partner that promotes energy education in K-12 schools, will honor student leaders across the country at its Annual Youth Awards Program for Energy Achievement on June 22-25 in Arlington, VA. Visit www.need.org for details.

Rebuild America is co-sponsoring a workshop on energy performance contracting for public housing authorities on June 25-29 in Chicago. Leading experts will present step-by-step active learning exercises and use a case-study approach to give participants the tools to implement a

performance contract in their housing authority. Contact **Mark Ternes** at ternesmp@ornl.gov.

Rebuild America formalized a Strategic Partner agreement with Public Technologies, Inc. (PTI) and its affiliate organizations on May 31. The signing ceremony recognized the working relationship between Rebuild America and PTI and its affiliates, including the **National League of Cities**, the **National Association of Counties**, and the **International City and County Managers Association**.

Partnerships Explore Alternative Fuels



The first E85 Pump was installed at the Speedway gasoline station in Hilliard, OH.

Rebuild Duke University

Facilities hasn't missed a beat in making it's campus one of the most energy efficient around. Having already completed 3.5 million square feet of lighting retrofits and taking measures to significantly conserve water supply, the partnership, with **Joe Jackson** as one of its leaders, has begun to explore alternative fuel sources for use in campus vehicles. Compressed natural gas (CNG) is a more efficient fuel that pollutes less than petroleum. Currently Duke has 16 CNG vehicles fueled on campus by a slow-fill

station that can fill two vehicles at a time, requiring 12 hours each. Plans are developing to construct a fast-fill station with a much larger tank and compressor. This new facility will power 20 vehicles a day which will take only five minutes per car.

Duke Facilities Management is finalizing the funding source for this project, and is occupied with other efficiency projects, such as reducing water consumption, updating steam plant operations, producing a chilled water plant and performing lighting retrofits.

Alternative Fuel in Ohio

Duke is not alone among partnerships in its exploration of alternative fuel sources for vehicles. **1500 Days: The Central Ohio Rebuild America Project**, led by **Glen Kizer**, has facilitated the installation of an E85 pump at a Speedway gasoline station in the Columbus suburb of Hilliard. E85, a renewable fuel that is 85 percent ethanol and 15 percent unleaded gasoline, is approved by the US Department of Energy, and in compliance with the 1992 Environmental Policy Act. It burns cleaner than traditional gasoline, has shown no ill effects on car performance or engine wear and costs about the same as the lowest grade of unleaded gasoline.

To date, the fuel primarily has been used in cars and trucks that are purchased by fleets, both government and private, according to Kizer. For example, the U.S. Post Office is buying thousands of E85 delivery trucks – basically Ford Explorers – for neighborhoods nationwide. Some post offices in Columbus are beginning to install their own pumps, but, in

Hilliard, the post office vehicles will fill up with E85 at the local Speedway. The next pump is to be installed near the Ohio State Department of Natural Resources where there are hundreds of compatible vehicles with no convenient fuel source, Kizer says.

“The hope is that many people will begin taking their personal cars and trucks to these stations to fill up on E85,” he says. Many well known commercial vehicles also accept the fuel, including the Ford Taurus, Ford Ranger, the Chevy S10 Pickup and the Chrysler Minivans.

Funds for this project were provided by the Ohio Corn Growers Association and Marathon Oil. The Ohio Energy Office and the City of Columbus Health Department provided technical assistance.

For more information about Rebuild Duke's CNG project, email Joe Jackson at joe.jackson@duke.edu. For more information about the E85 fuel, contact Glen Kizer at gekizer@columbus.rr.com.



Rebuild America in the News

The May 2001 issue of *Energy User News* featured a 3-page spread titled “Rebuild America: Partnerships for the Future.” The article by **Dan Sze** explores all aspects of Rebuild America, providing an overview of partnership activities in local and state government buildings, commercial buildings, public and multi-family housing, K-12 schools and higher education. Sidebar stories about Energy Champions focus on **Cyane Dandridge** and **Leanne Hoadley** and their work with **Rebuild Presidio** and on **Glen Kizer** of **1500 Days: The Central Ohio Energy Efficiency Project**. The story can be accessed on the Energy User News magazine web site: www.energyusernews.com.

Building America Finds Housing Solutions For Cleveland



A new kind of home can be found on E. 71st Street in Cleveland's Slavic

Village neighborhood. From the outside it looks like many of the other wood-frame homes in the neighborhood. But once inside, one can see the special design features that make it the city's first affordable "green" home – a home that can heat for less than \$300 a year and that provides a remarkably healthy indoor environment for its owners.

The 2,200-square-foot home was constructed recently by GreenBuilt Homes, Ltd., a local partnership comprised of **Jim LaRue**, **Phil Davis**, **Carlton Rush** and Tesco Builders, Inc. **Building Science Consortium** designed the building with support from the Building America program of the U.S. Department of Energy.

The house features:

- A tight building envelope to seal cracks and minimize heat gain or loss. Details include a well-insulated outer wall and high-efficiency windows with double glazing.
- Energy-conserving insulation, including insulated subslab and foundation walls under the house and a roof with R-30 insulation between the rafters, R-5 styrofoam insulation on the inside of the rafters, and R-38 cellulose insulation in the collar beam area.
- Healthy building materials, such as kitchen countertops made of straw bonded together with resins that don't emit hazardous volatile organic compounds. Low-toxic

paints were used throughout the house, and materials made of particle board were sealed to reduce chances of chemical emissions.

- Water-saving devices installed on sinks, showers, and bath tubs.
- Energy-efficient, compact fluorescent lighting throughout the house
- Roof with a southern exposure, not visible from the street, that has been designed for future installation of photovoltaic panels
- Wiring for phone and cable service in each room for maximum space flexibility
- Recycled materials, including carpeting made of recycled plastic bottles and siding made of 90 percent recycled vinyl

The Building Science Consortium reports that the house is so well insulated and efficient that it can be heated by the hot water tank. Total energy consumption for heating is less than a third of a conventional house. Yet the rooms are spacious and flooded with natural light.

Two additional GreenBuilt Homes based on these design features are underway in the Detroit Shoreway neighborhood as part of the Cleveland EcoVillage project. The Detroit Shoreway Community Development Organization, with technical support from the Building Science Consortium, is also designing a 20-unit housing development along W. 58th Street for the EcoVillage's first major housing initiative. EcoCity Cleveland received funding from the George Gund Foundation and the Cleveland Foundation assisted with the design of the development.

For further information contact Building Science Consortium, www.buildingscience.com/buildamerica.html or EcoCity Cleveland, www.ecocleveland.org; phone 216-932-3007.

Portions of this article reprinted with permission from the EcoCity Cleveland Journal

Partnership Leaders in the News

Rebuild America Energy Champion Award recipients were interviewed by seven hometown radio stations, including several National Public radio affiliates, during the Rebuild America National Forum in Atlanta. Here is a roundup of quotes from those interviews:

"I want young people to encourage their parents that energy efficiency is the right thing and the most economical thing to do... I realized that fourth and fifth graders could do my job and perform energy audits. So I started teaching

Continued on page 11



John Root takes to the airwaves at the National Forum in Atlanta.

"Learning from Light": An Ohio Success Story



Photovoltaic panel arrays at Worthingway Middle School in Worthington, OH.

"Learning from Light/Ohio Schools Going Solar" project blends energy efficiency and education by teaching students how to read the energy output of solar photovoltaic arrays and monitor the energy consumption of their own schools. The Foundation for Environmental Education, led by **Glen Kizer** of the **1500 Days Central Ohio** partnership, spearheads the project which is co-sponsored by the Ohio Department of Development's Office of Energy Efficiency (ODOD/OEE) and the **Ohio Energy Project**, all partners of **Rebuild Ohio**.

Participating schools receive a \$3,000 grant from the ODOD/OEE which covers about one third of the complete installation costs of a 1-kilowatt photovoltaic (PV) array that ties into the schools' utility grid, according to **Tom Maves** of ODOD/OEE, who leads this effort with **Elaine Barnes**, formerly of the Ohio Energy Project (OEP) and now with ODOD/OEE. The remaining funds needed are generated by community fundraising.

Students participating in "Learning from Light" use electronic monitoring equipment that feeds data into computers, purchased as part of the

solar array to read the output of their particular array. Twelve schools currently participate in the project, with 20 others in the planning stages to install PV arrays before December 2001, Maves says.

Creating Excitement about Learning

"Learning from Light" also teaches children tips about energy efficiency and enhances the physical science programs for teachers in the lower and middle school levels, Barnes says. "Teachers can more easily integrate solar and other forms of energy into their existing curriculum while learning about solar photovoltaics and generating reports from the monitoring equipment," she says. "The array invigorates teachers and students, providing innovative ways to introduce modern technology and physical science into the science classroom. This has created excitement among students about science and has led to an increase in student performance in the science portion of the Ohio Proficiency Test."

The program incorporates three stages to ensure that the progress is ongoing. The first stage focuses on creating awareness among students

about what a solar array is, what it does, and how it functions in their school. This is enforced in the second stage through curricula that incorporate materials about what can be done with solar energy. Finally, teachers collaborate with OEP to create tailored activities that tie solar energy concepts into mainstream curriculum areas where teachers may be searching for new ideas and activities.

"Learning from Light" has been well received by participating communities and has prompted a significant level of public awareness of the value of solar and other alternative energy sources. Six celebrations for completed installations are scheduled for this fall. The community has taken notice and followed the lead set by "Learning from Light" as well. The **City of Cuyahoga Falls** partnership has installed eight decorative bus stops with integrated solar powered lights between their city and Akron.

In March, Rebuild America recognized the Ohio Energy Project with an Energy Champion Award for its first-rate efforts to save energy in Ohio's K-12 schools. And in April, the Foundation for Environmental Education received a 2001 Innovation Award from the Interstate Renewable Energy Council (IREC) for this program.

For more information about the "Learning from Light," project, contact Elaine Barnes, ebarnes@odod.state.oh.us or Tom Maves, tmaves@odod.state.oh.us.

"The (photovoltaic) array invigorates teachers and students, providing innovative ways to introduce modern technology and physical science into the classroom."

– Elaine Barnes

Solar Patriot Unveiled For Earth Day



The Solar Patriot was unveiled in Washington, DC for Earth Day and moved to its permanent residence in Leesburg, VA in April.

“The Solar Patriot,” the country’s first solar modular home, occupied a high-visibility locale on the Mall in Washington, DC during Earth Day festivities in April. The featured home was a highlight of the Sustainable Buildings Industry Council’s (SBIC) *Forum 2001, Solar Energy: The Power to Choose*, which was sponsored by the U.S. Department of Energy, BP Solar and Duke Solar.

The home showcases high-performance windows, energy-efficient space conditioning equipment, passive solar design strategies, an integrated photovoltaic (PV) system, a domestic solar hot water system, high-efficiency lights and appliances, and a host of sustainable, market-ready components and systems. The Solar Patriot operates on two different PV systems – building integrated photovoltaic shingles and low-

profile solar panels that provide enough power for the home to produce more electricity than it uses, on average. (Note: The home can’t operate independently of the grid unless a large battery storage system or a propane backup generator or both are added to the home. The PV only produces electricity during sunny conditions.) The Building America and ENERGY STAR® programs will monitor the Solar Patriot’s performance at its permanent site in Leesburg, VA.

The two-story, four-bedroom, 3,000 square-foot house has 6 kilowatts of PV modules which produce enough power to support the demand for all electricity usage in the home, according to SBIC. A solar hot water system provides hot water for the home. And though it costs more to install insulation in the Solar Patriot compared to a traditionally constructed house, the increase usually pays for itself in a few years. The energy-efficient lighting and appliances work with the “whole building design” to cut the home’s overall energy consumption by 40 percent.

A benefit of this energy-producing home is that its owners can sell unused solar energy back to the utility for use in the clean power market. Thirty-two states have already passed legislation enabling net metering for individual homeowners who produce their own power. Other renewable energy and sustainable design features of the Solar Patriot are:

- Double pane low-E windows that provide maximum insulation to hold heat in the winter and air conditioning in the summer
- Highly efficient ENERGY STAR® appliances
- Energy-efficient lighting
- Solar electric roofing shingles
- Electric grid interconnection and inverters
- High-performance ground-coupled heat pump

For more information about The Solar Patriot, contact the Sustainable Buildings Industry Council at swamedia@swinter.com. Visit the Building America web site at www.eren.doe.gov/buildings/building-america.

Rebuild Buffalo-Niagara Joins Earth Day Event

Rebuild America joined 65 groups providing educational information to participants at the Western New York Earth Day 2001 celebration held at the Buffalo State College Sports Arena on April 22. The event drew 1,500 participants. The **Erie County Department of Environment and Planning**, partner of **Rebuild Buffalo-Niagara (NY)**, was a local sponsor of the event. Other sponsors included Buffalo State College, Center for Great Lakes Environmental Education, the City of Buffalo, Clean Communities of Western New York, Great Lakes United, New York Public Interest Group, New York League of Conservation Voters, New York State Department of Environmental Conservation, and Western New York Land Conservancy.

The theme for the event was “Our Water, Our Future.” Milwaukee, WI, Mayor **John Norquist** delivered a keynote address about revitalizing America’s cities. **Isabell Berger** and **Mark Mitskovski** of the Erie County Department of Environment and Planning and Rebuild Buffalo-Niagara, reported that they spoke with scores of people throughout the day-long celebration about available energy-efficiency and conservation opportunities. Educational materials, ranging from energy-efficient lighting catalogs to specific New York State Energy Research and Development Authority program opportunities, were distributed. Topics such as Green Design, Flex Tech Services, EnergySmart Schools, Alternative Fuel Vehicles and Building Community Support for Energy Efficiency were addressed.

For more information about the event, contact Isabell Berger at bergeri@bflo.co.erie.ny.us

Peer Exchange In Austin Draws 50



William "Dub" Taylor

The Denver Regional Peer Exchange, held May 7-9 in Austin, TX, drew 50 participants including local community and state leaders. **Rev. Marvin C. Griffin**, chairman of the East Austin Economic Development Corp., lead organization of **Rebuild Austin**, opened the session with a prayer for a fruitful meeting to bring about environmentally responsible community energy-efficiency solutions. Austin City Council

Member **Danny Thomas** addressed Austin's commitment to energy efficiency and to building upon the successes of Rebuild Austin, Rebuild America's celebrated 250th partnership.

Texas State Energy Conservation Office (SECO) Director **William "Dub" Taylor** addressed SECO's role as a statewide promoter of energy efficiency and provider of energy management services. SECO is the lead organization in **Rebuild Texas**. Rebuild America Program Representative **Cyane Dandridge** of **Strategic Energy Innovations** kept the energy level up, information flowing and the pace moving as Peer Exchange facilitator.



From left: Peter Alexander, Rebuild New Mexico; Gene Bustamante, Rebuild Central New Mexico; Cyane Dandridge, facilitator; and George McLean, College Station ISD

Denver Regional Office Team Leader **Dave Waltzman** and **Jim Ploger** of the Kansas Corporation Commission, supported by a panel of four partnership leaders, probed how state and community partnerships can effectively tap into Rebuild America resources. Another panel explored the services provided by Rebuild America Strategic Partners, Business Partners, Marketing & Communications and Customer Service, while another tackled Partnership Challenges and Solutions. Special thanks go to **Deborah Lamm** of Aspen Systems for her skillful behind-the-scene coordination of event logistics.

For more information, contact **Cyane Dandridge** at cyane@cyane.com or 415-507-1623.

Continued from page 1

Potomac Communications Group Leads Rebuild America M&C Team

are encouraged to contact their representatives first. Program Team representatives, including program, state, regional and Management Team representatives, should contact PCG directly with requests for assistance. Direct your requests to PCG Program Director **Elise G. Rand**, who is managing the M&C Team: erand@pcgpr.com or rebuildamerica@pcgpr.com. Phone 202-466-7391 ext. 1125.

When PCG receives a request, we will:

- Log in the request to enable us to track it and ensure that appropriate action was taken
- Respond promptly
- Assign appropriate staff to assignment, based on skills set
- Deliver required services
- If we cannot help you, we'll make every effort to direct you to a resource that can
- For materials and guidebooks, continue to contact the Energy Efficiency and Renewable Energy Clearinghouse (EREC): 1-800-363-3732.
- PCG will maintain a small supply of materials and guidebooks to accommodate urgent requests for quick turnaround items

Types of Marketing & Communications Assistance:

- Editorial/Writing
- Graphic Design and Production
- Partnership Close-Ups
- Brochure and Guidebook Development
- Media Relations
- Media Training
- Web Site Support
- Event Support
- Conference/Exhibiting Materials
- Presentations
- Marketing Support
- Public Relations Counsel
- Special Assignments

PCG will continue to produce *Partner Update*. We are also producing the *Flash Report* on a biweekly schedule. Please send news items and photos for *Partner Update* and material for the *Flash Report* to **Maureen O'Brien** at mobrien@pcgpr.com. Phone: 202-466-7391 ext. 1139.

PCG is excited about this opportunity and looks forward to working with you!

Potomac Communications Group, Inc. • 2025 M Street, NW, Suite 350, Washington, DC 20036 • Phone: 202-466-7391 Fax: 202-429-0365 • Email: rebuildamerica@pcgpr.com

Continued from page 3

Donuts for Daylight: Students Win Battle for Windows in Classroom



Window installers let the light in at Buist Academy.

classroom was substandard and that the installation of windows could go a long way toward improving conditions.

In addition to learning about the science of indoor air quality and the role windows can play, the students learned important lessons about fundraising, marketing and perseverance. The students spearheaded a “Donuts for Daylight” campaign to help raise the funds needed for the new windows. **Jack Hoey** of Coastal Glass Distributors in Charleston, gave a big boost to their efforts by donating the window glazing and materials and matching the funds raised by the students. The students also produced a PowerPoint presentation about their project and presented it to a local women’s club, which in turn, contributed to the window campaign.

Goodwin notes that the new windows will result in a greatly improved and healthier learning environment for the students. Two of the five windows installed are operable, which will help alleviate air flow and ventilation problems, he says.

The students’ success in getting windows in their classroom has been motivational for other students at

Buist, who are eager to replicate the success of the sixth graders and have windows installed in their classrooms as well.

The Harmony Project in Charleston is a nonprofit advocate for sustainable development and high-performance buildings. Improving the deteriorating condition of Charleston County public schools is a special focus of the Harmony Project, a proponent of healthy learning environments for children.



Sixth graders acclimate to their new windowed environment.

For more information contact Mel Goodwin at 843-577-2103 or email mgoodwi8@bellsouth.com.

Continued from page 7

Partnership Leaders in the News

them. By sharing the work with students, we can cover the whole community.” – *John Root, Rebuild Muscatine, IA, interview with KWPC-AM radio.*

“We teach teachers and students about energy efficiency. Sometimes we work with the engineers who are doing the repairs. In some cases we work with the students to recommend repairs... We also work with students in a Gifted and Talented Program in Columbus Public Schools. We teach them about energy efficiency and they teach the other kids in the school. They learn what goes into an energy-efficient building and compare the schools that have made in improvements with ones that have not.” – *Elaine Barnes, representing the Ohio Energy Project in an interview with WTVN-AM radio.*

“We are making energy-efficiency improvements to 81 buildings and using the savings to self fund a central plant for water distribution...once people head down this path and see how they can control their facilities, wonderful things can happen.” – *Brett Hunter, CMS Viron Energy Services, ESCO for University of Utah, interview with KUER-FM radio.*

“We’re funding all the improvements without increasing the budget. While energy costs are rising, we’re getting more efficiencies in place and seeing a tremendous decrease in consumption.” – *Bernell Loveridge, Utah Office of Energy Services, joint interview with Brett Hunter on KUER-FM radio.*

“The County Executive has endorsed this partnership between NYSERDA and Rebuild America to improve municipal and private sector buildings. We’re doing this for reasons that have to do with quality of life, because it is ecologically and environmentally beneficial to save energy in buildings.” – *Mark Mitskowski, Rebuild Niagara Frontier, interview with WBFO radio.*

Upcoming Events

June

25-29 Energy Performance Contracting Workshop, Chicago, IL. Visit www.uic.edu/sph/glakes/ce.

July

1 Renewable Energy 2001, Stakis Brighton Metropole Hotel, Brighton, UK. Visit www.reedexpo.com.

8-11 Southeastern Regional Council of the National Association of Housing & Redevelopment Officials Annual Conference, Harbor Beach Marriot, Fort Lauderdale, FL. Visit http://www.serc-nahro.org/public_pages/fall_conference.asp.

16-17 Fuel Cells for Transportation: Developing Viable Fuel Cell Product and Hydrogen Infrastructure, Allerton Crowne Plaza, Chicago, IL. Visit www.iqpc.com/NA-1558-01/NHP-TM.

22-24 "Moving Beyond Boundries," The Association of Higher Education Facilities Officers (APPA) 2001 Educational Conference and 88th Annual Meeting, Queen Elizabeth Hotel & Palais des Congres de Montreal, Montreal, CA. Visit [stet://www/appa/org/education/calendar.html](http://www/appa/org/education/calendar.html).

To submit news or story ideas, contact: Maureen O'Brien, 202-466-7391, or email mobrien@pcgpr.com

New Partnerships for 2001

Andrews County, TX
Annapolis Housing Authority, MD
Boise City, IA
City Cafe & Billiards, Inc., MS
City of Jackson, MS
City of Marianna, MS
Deschutes County SWEEP, OR
Energy Efficiency in Education, AL
Hagerstown Housing Authority, MD
Historic Hattiesburg Downtown Association, MS
Housing Authority of the City of Springfield, MO
Independent School District 728, MN
Inter Tribal Council of Arizona, Inc., AZ
Jasper County Industrial Foundation, IN
Lakeland School Corporation, IN
Main Street Columbia, Inc., MS
Marion County Public Schools, FL
Mississippi Band of Choctaw Indians
Newport News Redevelopment and Housing Authority, VA
Rebuild Alzheimer, AR
Rebuild Caldwell School District, OH
Rebuild Gentry, AR
Rebuild Houston, TX
Rebuild Rahway Housing, NJ
Rebuild the Dalles Schools, OR
Rebuild USAO, OK
Rebuild West Contra Costa USD, CA
Roanoke County Schools, VA
Rockdale County Public Schools, GA
San Antonio Public Housing Authority, TX
Sheldon Jackson College, NV
Somersworth Housing Authority, NH

Check Us Out: www.rebuild.org or 1-800-DOE-3732



Rebuild America is a network of partnerships – focused on communities – that save money by saving energy. These voluntary partnerships choose to improve the quality of life where they live, work and play through energy efficiency. Rebuild America supports them with customized assistance backed by technical and business experts and resources.

Published bimonthly by the U.S. Department of Energy to report on Rebuild America activities, *Partner Update* now incorporates news from Building America and High Performance Buildings, energy-efficiency initiatives of the Office of Building Technology, State and Community Programs.



High
Performance
BUILDINGS

REBUILD AMERICA
Office of Building Technology,
State and Community Programs
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585-0121

U.S. DEPARTMENT OF
Energy



Address Correction Requested