

# Partner Update

November – December 1999

Office of Energy Efficiency and Renewable Energy

## Profile



Syed F. Hashim

### **Idaho State Creates an Energy-Efficient Campus**

The **Idaho State University (ISU)** partnership views its campus-wide energy conservation program as a

vehicle for providing safe and useable space to support the university's educational mission. What sounds good in theory is also working in practice. The program has enabled the university to achieve substantial savings, freeing up financial resources to commit to education.

ISU has completed the lighting retrofit of more than 1.1 million square feet of academic building space — about 80 percent of the work planned for the academic buildings — and is presently upgrading an additional 219,000 square feet of student housing and auxiliary buildings on the 1,000-acre campus.

ISU is “guided by a realistic vision” to improve the monitoring and measuring of energy use and reduce coal, water, natural gas, and electricity consumption on campus, says Campus Engineer **Syed F. Hashim**, noting that the Idaho Department of Water Resources and other university departments are important partners in this effort.

ISU's focus is on four areas of energy

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## Removing Barriers to Implementation

Consider this scenario. A Rebuild America partnership is stirring to life. It spreads its fledgling wings and makes steady progress in the partnership formation stage, gaining support from the mayor, key school districts, nonprofit community groups and members of the business community. The partnership identifies potential target buildings and turns its attention to hammering out an action plan. The state energy office then provides some seed money to conduct a first round of building assessments. A well-attended promotional event marks the transition to “action.” As the partnership moves closer to implementing building retrofits, however, a series of setbacks delay plans. Finally the partnership that had such a promising start seems to lose all steam and stalls.

What went wrong? How can the partnership get its momentum back? What can partnership leaders do to head off scenarios like this one?

We asked various Rebuild America representatives to weigh in on identifying and overcoming barriers to implementing building energy retrofits. **Cyane Dandridge (Strategic Energy Innovations)**; **Sue Seifert** and **Ken Baker (Idaho Department of Water Resources)**; **Ray Carr (Rebuild Hawaii County)**; **Glenn Sato (Rebuild Kauai County)**; **Eileen Yoshinaka (DOE Seattle Region)**; and **Toby Benson (Montana Department of Environmental Quality Rebuild America Program)** all shared their experiences.

### **Do's and Don'ts of Moving to Action**

**Find a champion.** Sato notes that “You need a champion with connections to the top decision makers. It also helps to hire a very knowledgeable consultant to help with the RFP process and to convince the mayor and council that this is a very good program.” Carr concurs: “You need someone who has the energy efficiency

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# Kingston Schools Poised For Improvements

Working with the New York Power Authority (NYPA), the **Kingston School District** (NY) partnership has put together a \$6.9 million energy saving program to upgrade lighting, heating and other systems throughout its schools.

Because the project will be designed, constructed and financed through the NYPA's Energy Services Program -- up and running for the past year -- taxpayers will bear no upfront costs.

"They say you can't get something for nothing, but with the cost of energy savings these days, and the new, energy-efficient equipment available, it all works out," says **Philip J. Sinagra**, Kingston School District assistant to the

superintendent for business. Sinagra says NYPA stands behind the program as part of its mandate to lower government and institutional energy use throughout New York State.

The retrofits will transform the school district into a state-of-the-art model of energy efficiency, according to NYPA Senior Vice President **Robert L. Tscherne**.

The school district obtained funding for this project from several sources including a \$1 million grant from the Petroleum Overcharge Restitution Fund that State Senator **William Larkin's** office and the NYPA helped secure. The district procured another \$50,000 grant through the New York State Energy Research and Development Authority. The New York State Education Department aid will pay for approximately 57 percent of the project costs. The remainder will be paid with energy savings generated by the new equipment over a 10-year period. District Energy Manager **Bob Cunningham** estimates that the school district will save approximately \$325,000 in energy costs.

As part of NYPA's plan -- which will take about 18 months to complete -- lighting throughout the entire district will be upgraded to a higher quality light that lasts longer and is far cheaper to operate than the 96-watt fluorescent fixtures currently in use. State-of-the-art "pulse" boilers will replace four heating plants and the remaining heating equipment will be refurbished. Computerized energy management systems will be installed at all schools and windows will be replaced at three schools.

Kingston will be fulfilling Rebuild America's mission to help



*Building engineer works on an energy-efficient boiler at Chambers Elementary School in Ulster, NY.*

Photo: Bob Haines

## View from DC

By Mark Bailey

With the year 2000 just a few short weeks away, it's a good time to take stock of where Rebuild America has been and where we're going. The program has made great strides since its inception five years ago and is positioned to make a greater impact during the next five years. Here are a few of the highlights:

- The schools component of Rebuild America is steadily evolving and Rebuild America is currently working with an estimated 200 school districts to help make schools more energy efficient.
- The program has made significant progress at the local and state levels: Approximately 40 percent of partnerships are led by municipalities and 17 percent are headed by state governments.
- More than 30 Rebuild America partnerships are active in efforts to revitalize public and assisted housing.
- Nearly 40 Rebuild America partnerships are working to improve energy efficiency on university and college campuses across the country. (*See higher education Market Sector column in this issue.*)
- Rebuild America is reaching out to partner with the Environmental Protection Agency, Health and Human Services, the U.S. Department of Housing and Urban Development, the National Historic Trust and others to work with programs and initiatives such as ENERGY STAR®, Million Solar Roofs, Clean Cities, Head Start, and Main Street.
- Those who access Rebuild America services also open the door to other DOE services designed to enhance community participation in energy-saving initiatives.
- Many partnerships have expanded their community improvement efforts into other areas including renewable energy, efficient

# DOE Urges Clean Energy for the 21<sup>st</sup> Century

by **Dan Reicher**

At the dawn of the new millennium, the Department of Energy (DOE) is leading an effort to get Americans to view energy production and consumption in a new way. In the Department's Office of Energy Efficiency and Renewable Energy we've begun using a new theme – *Clean*

*Energy for the 21st Century* – to increase public awareness of new technologies and clean energy sources that save energy and dollars and reduce pollution in our communities.

Clean energy refers to: 1) energy-efficient products and practices that consume less energy; and 2) renewable energy and natural gas, which are cleaner and less polluting methods of generating power and heat. Readily available renewable energy sources include biomass, wind, solar and geothermal energy, and hydropower.

A shift to clean energy technologies means more efficient industries, greater use of renewable energy technologies, increased energy savings in homes, schools, offices and government buildings, and super-efficient cars that have triple the fuel economy of those on the road today.

Rebuild America partnerships provide an important community link for DOE in our efforts to research, develop and



deploy clean, efficient and renewable energy technologies. Partnerships reinforce the message of *Clean Energy for the 21st Century* when they encourage building owners and management to retrofit their buildings with energy-efficient and renewable technologies. Partnership literature, workshop presentations and media outreach efforts present additional opportunities to reflect the clean energy message. Partnerships that have adopted both energy-efficient practices and renewable technologies such as photovoltaic roof panels and geothermal heat pumps can stage events to showcase their projects, communicate the clean energy theme, and focus public attention on the importance of saving energy and reducing pollution in their communities.

New DOE resources that highlight the energy efficiency and renewable energy research and development programs and activities include a *Clean Energy for the 21st Century* brochure and poster, both of which are appropriate for display at energy-related events. The poster is available now and brochure will be soon. For information about how to order these resources and to keep updated on the *Clean Energy for the 21st Century* campaign, visit [www.eren.doe.gov/cleanenergy](http://www.eren.doe.gov/cleanenergy).

Contact the Rebuild America Team Leader in your DOE regional office for more information about how your partnership can strengthen its outreach efforts using the *Clean Energy for the 21st Century* approach.

*Dan Reicher is the assistant secretary for Energy Efficiency and Renewable Energy at the U.S. Department of Energy.*

## Bridgeport Kicks Off Efficiency Projects

The **City of Bridgeport** (CT) partnership participated in an event on October 7 that announced the implementation phase of the City's efficiency projects and kicked off Energy Conservation Month in Bridgeport. The event highlighted Bridgeport's role in the Rebuild America and ENERGY STAR® Buildings programs. The partnership used the occasion to display DOE's energy awareness materials, which was

especially timely given that DOE had designated October as Energy Awareness Month, notes **John Ruckes**, Rebuild America program representative for Connecticut.

Ruckes presented Rebuild America Certificates of Appreciation to Mayor **Joseph Ganim**, Public Facilities Director **John Marsilio**, and the City of Bridgeport, in recognition of their active support. Partnership leader **Iris Molina**

accepted a Certificate of Accomplishment on behalf of the entire Total Quality Management energy team for its role in completing and implementing an action plan. Each team member received a Rebuild America lapel pin and hat. Ruckes also presented the City of Bridgeport with an Action Plan Award. Following the formal ceremony, an ENERGY STAR® workshop was held.

## Market Sector

# Can Campus Buildings Make the Grade?

by **Mike MacDonald**

Higher education institutions are an important part of communities and of the population of buildings in the commercial sector. Close to 40 Rebuild America partnerships include some type of focus on college and university buildings, and some partnerships are led by universities. (See previous articles in Partner Update: University of Las Vegas, NV (Jul-Aug '98); Rebuild Duke University Facilities (Nov-Dec '98; Aug-Sept '99); and University of Maryland, Baltimore and University of Utah (Mar-Apr '99).

The total energy bill for higher education is approximately \$6.5 billion per year for 4 billion square feet of floor area, and because of institutional disincentives limiting energy efficiency improvements, savings potential is also high, over \$1 billion and possibly as high as \$2 billion per year. The major disincentive for publicly owned institutions centers on budget and accounting practices that "take back" any savings realized by putting them in a general fund, or that reduce the budget for the next year. This practice does not allow projects to "pay back" and anyone who takes steps to save money, will lose that money in the next budget cycle.

Two key criteria affect the ability of colleges and universities to pursue facility improvements: small vs. large and public vs. private. The size of an institution affects its decision-making ability and the scope of its internal resources. Those that are small will have fewer internal resources but may be able to act more quickly, while larger institutions will have

more internal resources but may require more time to

decide to do something new.

Public institutions typically have many existing budget, accounting, capital improvement, and other processes that inhibit energy-efficiency options. Private institutions, on the other hand, usually have more flexibility to change processes quickly if needed to foster efficiency improvements.

### Statistics and Conditions

A few statistics provide some insight into the potential impact that wide-scale energy-efficiency improvements could have on energy consumption in the higher education sector.

- The nation has approximately 4,000 higher education institutions.
- This sector serves a student population of between 15 and 20 million and employs over 2 million people, including some 900,000 faculty members.
- Higher education facilities account for an estimated 4 billion square feet located in 300,000 buildings.
- Eighty percent of this space was built before 1980 and the median age of facilities is 28 years.
- The value of the facilities portfolio is \$500 billion.

Because of funding practices that favor new construction over maintaining existing facilities, many campus buildings are deteriorating. This situation is typical for most institutions, whether public or private, large or small. Concern about rectifying this situation has attracted significant attention from many quarters, including the Association of Higher Education Facilities Officers (APPA),



The Duke University Chapel is part of a campus-wide program to energy retrofit 3.2 million square feet.

which is a Strategic Partner of Rebuild America ([www.appa.org](http://www.appa.org)). APPA, in concert with the National Association of College and University Business Officers (NACUBO) and Sallie Mae, have published a study on the condition of higher education facilities. (*A Foundation to Uphold*, APPA, 1996).

### Strategic Alliance with APPA

The strategic alliance with APPA is aimed at improving the quality of facilities while at the same time increasing energy efficiency. NACUBO, EPA, and Electric Power Research Institute are also participating. Energy efficiency is typically not as big a motivator in this sector as is the need for facilities improvements. A change in the present system that would allow energy savings to pay for critical facility improvements would be a big step in the right direction.

Rebuild America and APPA are working together to promote positive changes. The current, major focus of this alliance is on state-by-state briefings

# Partnerships Help Building Owners with Financing

Rebuild America partnerships across the country have found ways to make it easier for building owners to upgrade their buildings.

“Many partnerships have implemented innovative statewide approaches that are really getting projects financed and implemented,” says to **Patrick Hughes**, manager of Rebuild America Financial Services.

These approaches include specialized energy loans, business tax credit programs, pre-arranged financing, money back guarantees for performance contracting audits, instructional workshops, and assistance in finding contractors and energy service companies to complete projects. Presented here are some highlights—these partnership programs may serve as a model for your community or state-based partnership.

The contacts provided can share information about solutions that worked for their partnerships. Rebuild America Financial Services representatives are ready to help you tailor statewide project financing and implementation programs to fit your needs. *Contact your program representative or EREC at 800-DOE-EREC to find out more.*

## **The New York State Energy Research and Development**

**Authority’s (NYSERDA)** performance contracting programs help K-12 schools, local and state government organizations, and health care facilities in New York upgrade their buildings (Sept-Oct ’99 Partner Update). The NYSERDA programs provide the following: pre-screened lists of both energy service companies (ESCOs) and advisors to assist organizations working with ESCOs; pre-arranged financing; and a money-back

guarantee on financial-grade energy audits for organizations. NYSERDA charges the beneficiaries a small percentage of the project cost in order to sustain the program. Over the last three years, this program has supported 70 major energy performance contracting projects with a total project investment of \$320 million that will result in over \$37 million in annual savings.

NYSERDA has a stream of new retrofit

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**“NYSERDA is really making a big contribution to making it easy for building owners to get projects done.”**

– Michael Army

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projects in the works including 16 correctional facilities and several hospitals and municipal buildings. Enhancements planned for NYSERDA projects include installing advanced metering for electronic data acquisition. “NYSERDA is really making a big contribution to making it easy for building owners to get projects done,” **Michael Army** of Rebuild America Financial Services notes.

*For additional information, contact **Tom Barone** at 518-862-1090 or email [trb@nyserda.org](mailto:trb@nyserda.org).*

## **Iowa Energy Bank**

The Iowa Energy Office provides valuable assistance to **Rebuild Iowa** communities through programs such as

the Iowa Energy Bank Program (*May-June ’99 Partner Update*). The Energy Bank Program provides technical assistance to public and nonprofit sector facilities for implementing energy improvements and removes the barrier of limited funds by arranging financing for energy projects approved by the Department of Natural Resources (DNR). DNR-designated engineering/architectural firms perform comprehensive energy analyses on candidate buildings following established guidelines. Financing for identified improvements is available through a regional lender, or building owners may work with the financial institution of their choice.

Since November 1997, the Rebuild Iowa Program has identified or implemented \$6.3 million in energy-efficiency improvements including lighting retrofits, heating and cooling system upgrades, motor replacements, and ground-source heat pumps, with an annual savings of over \$600,000. *For more information on this or on performance contracting model documents, contact Kimberly Baxter at 515-281-6486 or [kbaxter@max.state.ia.us](mailto:kbaxter@max.state.ia.us).*

## **Incentives in Oregon**

The **Oregon Office of Energy’s Small Scale Energy Loan Program and Business Energy Tax Credit Program** have helped businesses, schools, counties, cities, hospitals, and even federal facilities to finance a wide variety of energy-efficiency retrofits and new construction programs (*Nov-Dec ’98 and Sept-Oct ’99 Partner Update*.) The Oregon Office of Energy web site (<http://www.energy.state.or.us>) gives detailed information on these and

# Rebuild America in NY Finds Partner in ENERGY STAR®

The New York State Energy Research and Development Authority (NYSERDA) is tapping Rebuild America and ENERGY STAR® in an effort to improve energy efficiency throughout the state under a new initiative, **Rebuild New York's Communities**. This coordinated effort will champion the ENERGY STAR® label as a simple way for consumers to identify energy-efficient products and services. The initial effort is focusing on the cities of Buffalo, Albany, Syracuse, Binghamton, Poughkeepsie and surrounding areas. Each of the participating regions, which collectively represent 36 percent of the state's population, are joining Rebuild America and developing action plans.

Rebuild New York's Communities will serve as an umbrella for NYSERDA initiatives designed to raise local awareness of energy issues and to stimulate demand for energy efficiency at the community level. **Rebuild Niagara Frontier**, which encompasses the eight western-most counties of the State, including Erie County and the City of Buffalo, is the first of New York's Communities to embrace the Rebuild America program. The effort has generated widespread support from city and county officials such as Buffalo Mayor **Anthony M. Masiello** who views the Rebuild America partnership as an opportunity to "meet a most critical need -- reducing high energy costs in order to stabilize our neighborhoods, create jobs, stimulate economic growth and protect the environment in the City of Buffalo."

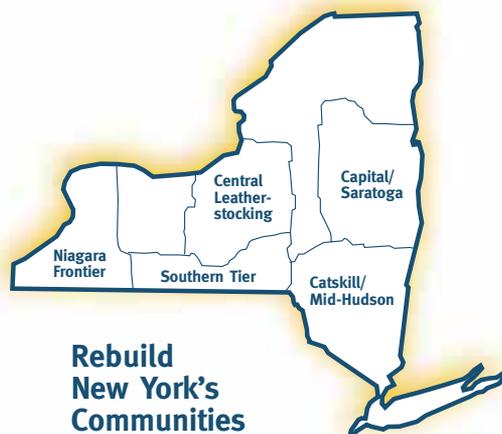
The ENERGY STAR® Public Awareness Campaign and

market transformation program are leading a high-profile launch of the Rebuild New York's Communities effort in each region. Gov. **George E. Pataki** has recorded radio and television public service announcements to promote the program. The ENERGY STAR® campaign is up and running in Buffalo and Albany, and is scheduled to begin in Syracuse and Binghamton this fall.

This \$12 million statewide effort promotes consumer recognition, understanding and demand for the ENERGY STAR® label, and assures the availability of these products to consumers. Numerous retailers have signed up to be ENERGY STAR® partners and will participate in special events and promotions surrounding the project. In addition, NYSERDA will use its considerable expertise in the residential sector to link the ENERGY STAR® Homes label with their upcoming Residential New Construction Program in an effort to broaden the scope of Rebuild America efforts in New York.

The Rebuild America and ENERGY STAR® programs are helping NYSERDA by working with local communities, businesses, and institutions statewide to implement sustainable technologies and programs based on energy efficiency and renewable energy.

NYSERDA reports that the initial response to Rebuild New York's



## Rebuild New York's Communities

Communities has been highly favorable and that individuals and groups outside the targeted regions have expressed interest in participating. This bodes well for Rebuild America efforts to make an impact in New York State.

*For more information, contact Margaret Neville of NYSERDA at [man@mailgate.nyserdera.org](mailto:man@mailgate.nyserdera.org) or phone 518-862-1090 (ext. 3368).*

## Bridgeport Efficiency

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The first phase of the City of Bridgeport's retrofit plan targets seven buildings comprising 400,000 square feet. A successful lighting project in the 52,000 square-foot Health & Welfare Building has been completed. The City has also achieved significant savings with the installation of LED traffic signals.

## Removing Barriers

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program as a top priority... Select a program manager with the right attributes and record of getting things done on the ground. Try and keep that person in position until objectives are actually accomplished – usually a multi-year process.”

**Keep the lines of communication open.** Fundamental, yet often overlooked. A failure to communicate properly can trigger a host of problems. Make sure participants understand their role and that of the other partners from the start. This helps motivate them to get with, and stay with, the program, according to Dandridge.

**Don't give out assignments.** Lead toward decision and action. Dandridge goes around the table at the end of a meeting and participants voice the commitments they are willing to make. People rise to the occasion and nothing goes “unclaimed,” she says.

**Don't overlook any key players.** A partnership that hasn't covered the bases by bringing in partners with the expertise, resources and contacts that add value to its mission, may find itself stumbling out of the starting blocks when it tries to move to action. Getting a utility company on board can go a long way toward advancing your partnership's agenda. Tapping a national lab for assistance may also be beneficial.

**Pay careful attention to planning.** Dandridge maintains that the key to successful implementation is planning. “Look at all barriers and have solutions in place before an issue arises,” she suggests. Make sure the community understands their options and is involved. Identify the resources you need – not just the financial aspects -- and make sure they're in place.

**But don't overplan.** Like the perennial college student who never gets a degree, partnerships can get caught in a web of planning activity and never proceed to implementation. Keep focused and keep moving.

**Get “buy-in” from upper management early on.** Seifert and Baker recommend meeting with the department head first, and working on getting buy-in and the active participation of upper management so a project can advance. Programs can stall if upper management isn't part of the action plan development.

**Open doors by starting small.** **Rebuild Hawaii County** started with a small lighting retrofit project in the mayor's office in the county building that showed the benefits of a new, high-efficiency lighting system and the ease with which it could be accomplished. Next, the partnership got the go-ahead to retrofit

the entire county building. “This successful project really provided the 'clincher' in regards to the benefits of the program and subsequently there were minimal problems in extending the retrofit program to the entire inventory of county facilities,” says Carr. “Patience and perseverance paid off in the end.”

**Make the case for energy savings by doing your homework.** When the Montana Department of Environmental Quality partnership encountered resistance from school districts that feared proposed energy retrofits wouldn't be cost effective, Benson looked to his Rebuild America peers for input. He is now getting better results by using “reasonableness” as a yardstick to assist partners in selecting the improvements that make the most sense. He is developing a Tool Kit of resources to provide data about the potential results partners can expect from proposed improvements to help them make informed decisions and move to action.

**Appoint a project manager for each retrofit project.** When working with a City government or agency, Dandridge says, arrange for someone on their staff to oversee the project. A nonprofit group may fulfill this role for a small business.

**Don't make assumptions about technical expertise.** A lack of knowledge about sophisticated energy management systems may cause a facility manager to pull back and can delay or prevent the installation of energy-efficiency improvements. Such fears are not unfounded. Nightmarish scenarios have developed when unprepared building staff are left to grapple with advanced energy management systems. Get a commitment in writing that the installer will provide sufficient training and followup support. Some associations, such as the Northwest Building Operators Association, provide good training in this area, Seifert notes.

**Anticipate barriers to funding and be ready with solutions.** Rebuild Idaho is working with the **Western States Coalition** to make performance contracting a viable option for Idaho partners. **Rebuild Idaho**, through the **Treasure Valley Partnership**, has applied for a grant to provide investment-grade building audits to building owners in the state's most populous areas. Partners that opt for performance contracting will be expected to assign 2.5 percent of their energy savings to a shared fund to keep the program sustainable, Baker says.

Yoshinaka sums up one of the most effective tools a partnership leader can use to coax a project to the retrofit stage: “Stick-to-it-iveness. Never give up.”

## Snapshot



*Greg Davoren opens doors and windows for partnerships throughout the Northeast.*

**Vital statistics:**

Lives in Boston, MA. Attended Clark University in Worcester, MA for his undergraduate and graduate degrees in Environmental Management and Policy.

**Current role with Rebuild America:**

Rebuild America Team Leader for the Boston Regional Office which serves New England and New York State.

**Most rewarding aspect of your work:**

Meeting the people who are working and living in buildings that have been positively affected by Rebuild America. A great example of this is the Morville House, a seniors housing development in Boston where a comprehensive retrofit

helped improve the quality of life for residents. Improvements included replacing old, deteriorating windows with new ones. One resident was ecstatic with the renovations because she was finally able to open up the windows and enjoy fresh air.

**How you became involved with Rebuild America:**

I started working on Rebuild America six months after the program was formed. There were only four partnerships in the region at that time -- we now have 44 and are growing quickly.

**Critical issues communities face:**

Communities recognize they have serious building infrastructure needs due to the age of many inner city buildings. Rebuild America identifies solutions to improve the quality of these buildings and communities. This, in turn, helps create community vision which is vital to the revitalization of inner cities.

**Your greatest challenge:**

Being everywhere at once. To work within limits and still have enough "one on one time" with all the Rebuild America partnerships.

**The last play you enjoyed:**

At the Scullers Jazz Club in Boston I saw Eartha Kitt's "One Woman Show." She's an incredible woman who overcame many obstacles in her life and is still going strong.

**What you'd be doing if you weren't working at DOE:**

My hobby is art history. I would probably be an art historian, working as a curator at a museum, focusing on Dutch and Flemish art.

**Where you'd live, if you could pick any place in the world:**

Florence, Italy. It's incredible -- a beautiful country and wonderful people.

## Rebuild America Briefs

**Philadelphia honored for energy prowess...**The Philadelphia Regional Office presented the 1999 Rebuild America Energy Excellence Award in Community and Local Government to the Philadelphia Energy Office on October 29. **Rebuild**

**Philadelphia** also used the occasion to honor those who contributed to the success of the city's first Rebuild America project, the Northeast Regional Library. Participants included **David Leiter** and **Brian Castelli** of DOE headquarters, **Tony Pontello**, Philadelphia Regional Office acting director, and **Michelle Knapik**, partnership leader representing the City.

**Broadcasting success...****Vicki Heidinger**, leader of Rebuild Asheville, NC, **Ron Shelton**, Rebuild America sector manager, and **Larry Schoff**, Rebuild America K-12 schools sector manager, presented a 3-hour session on energy-efficient design and renovation applicable to Head Start facilities at the National Head Start Facilities Conference in Nashville, TN, September 27-29. The conference was broadcast by satellite and downlinked to 40 states. Heidinger also participated in a 90-session about the Asheville Head Start program and its successful conversion of a 1950's school building into a state-of-the-art facility.



## Campus Buildings

Continued from page 4

known as Resource Reallocation–Utilities Strategic Assessment (RR-USA), which examine the role of energy utility restructuring and energy savings in supporting facility improvements. In light of the restructuring of the energy utility industry, educational institutions are well advised to undertake a “Utilities Strategic Assessment” (USA), evaluate the opportunities and the barriers, and embark on a strategic action plan.

APPA members are typically the chief facilities officers for a campus, while NACUBO members tend to be the chief financial officers. The RR-USA briefings are designed to have both officers from each institution attend since each is critical to campus facilities issues.

### RR-USA Briefings

Four RR-USA briefings have been presented this year in Ohio, Massachusetts, Pennsylvania and North Carolina. These briefings allow people from different institutions to explore how they can work with each other, with their national associations, with programs like Rebuild America and ENERGY STAR®, and with national business partners of each program, to gain better control of their facilities and their energy future.

The briefings emphasize the stewardship issues facing higher education and how improved efficiency and utility strategies can help address these issues. The RR-USA challenge is two-fold: 1) To identify and capture energy cost savings through improved energy efficiency, reduced waste and supply-side and rate improvements; and 2) to reallocate savings to reduce deferred maintenance backlogs, upgrade utilities infrastructure, promote sound plant economics and stewardship, and protect the environment.

The partnership benefits of the Rebuild America and ENERGY STAR® programs are described, along with knowledge provided by selected Business Partners. Attendees must decide to act on what they learn and afternoon sessions explore possibilities for moving forward with facilities improvement and efficiency options.

Those interested in coordinating an RR-USA briefing for their state need to:

- Locate a host organization to provide meeting space, parking information, audio-visual equipment, and coordination of logistics for the day-long briefing.
- Do some pre-briefing intelligence to set up the morning

presentations. Know the key issues for institutions in your state regarding utility deregulation, facilities improvement needs, increased efficiency potential – and the state organizations that work on these issues.

- Find an organization to spearhead follow-up activities. A one-day briefing will not change the world, but having a champion on board to take the lead on identified activities will increase the likelihood of success.

For information about promoting a briefing of this kind in your state, contact the Rebuild America Regional Team Leader for your region. The Team Leader will forward any appropriate request for national coordination.

*Mike MacDonald is the Rebuild America Manager for Higher Education. He can be reached by email at [kbm@ornl.gov](mailto:kbm@ornl.gov).*

## Rebuild America Briefs

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**A partnership launch with a twist...** The launch of **Rebuild Albuquerque** (NM) at Rio Grande High School on September 27 got down to brass tacks with Business Partners Team Leader **Doug Avery** giving pointers on how to do school lighting retrofits and using the classrooms as a “lab.” Rebuild America Business Partners Onsite Sycom, Lithonia Lighting, NORESKO, and Watt Stopper donated their services to retrofit four classrooms on the spot. The September 30 edition of the Albuquerque Tribune covered the event. The partnership plans to actively engage students in a district-wide retrofit of its schools.

**Focus on public housing.** **Rebuild Ohio**, the **Stark Metropolitan Housing Authority** and **FirstEnergy Corporation** hosted a conference on finding energy-efficient solutions to improve living conditions in public housing, November 15-16 in Canton, OH. For more information, contact Manny Anunike at 614-466-6797 or email [eanunike@odod.state.oh.us](mailto:eanunike@odod.state.oh.us).

## Partnerships Help Owners

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other programs.

The *Small Scale Energy Loan Program* provides loans to individuals, for-profit and non-profit businesses, government entities including schools, and tribes for qualified energy-efficiency projects. This unique program is totally self-supporting. The Office of Energy reviews each loan application and approves qualified applicants.

The Oregon Office of Energy issues general obligations bonds to create funding for its self-supporting *Small Scale Energy Loan Program*. Loans may finance conservation, renewable energy resources, recycling, and transportation efficiency projects. Since 1981, the program has awarded more than 490 loans for a total of \$276 million. Cumulatively, energy loan projects save enough energy to heat more than 110,000 homes per year. *For more information, contact Dave Stevens at 503-378-3493 or email david.p.stevens@state.or.us.*

The *Business Energy Tax Credit Program*, created in 1980, has supported projects implemented by 264 agricultural firms, 186 food products businesses, 83 lumber companies, 215 manufacturing plants, 555 grocery stores, 119 restaurants, 86 banks, 1,351 rental properties (36,600 units), and 199 service industry businesses. The program allows a 35 percent tax credit of eligible project costs over a 5-year-period. It encourages investment in energy conservation, recycling, renewable energy resources, and less-polluting transportation fuels. To qualify, a business must receive approval from the Office of Energy before starting the project. The administration of the program is self-supporting. *For more information, contact Evan Elias at 503-378-6044 or via e-mail at: evan.s.elias@state.or.us.*

In California, the State Assistance Fund Enterprise, Business, and Industrial Development Corporation (SAFE-BIDCO), an independent state-owned nonprofit organization, provides 5 percent energy improvement loans for small businesses and nonprofits (*Sept-Oct '99 Partner Update*). Applicants may apply for a maximum of \$250,000 or 10 times the amount of annual savings, which ever is less, up to a project's net cost. Loans can be used to finance any project that conserves energy by 15 percent, produces energy for on-site usage, or manages load. Loans are funded upon project completion, which can take several months. Through November 1998, SAFE-BIDCO made 214 loans for a total of \$6.9 million. *For more information, contact Paul Cormier at 707-577-8221.*

## SOLUTIONS

**Q** – How can partnerships evaluate the final energy saving performance contract (ESPC) proposal from an energy service company (ESCO)?

**A** – Rebuild America's technical experts can review proposals, also called audits, to evaluate accuracy and thoroughness. However, any reviewer must have the ESCO's basis, assumptions and methods of calculations they used to estimate energy savings and project cost.

The best way to ensure that this information is included is to require it in Request for Proposal (RFP) or Request for Qualifications (RFQ) documents.

Partnerships can download samples from the Rebuild America IMS, accessible via [www.eren.doe.gov/buildings/rebuild](http://www.eren.doe.gov/buildings/rebuild). A list of "proposal content requirements" used in Federal ESPC projects is also available from EREC.

The Tennessee Small Business Development Center at the University of Memphis developed an RFQ that was used by Rebuild Shelby in North Carolina and several school districts. This RFQ requires bidders to detail information including:

- Extensive baseline information including methods for developing an energy consumption baseline and for adjusting the baseline as equipment is added, and specifics on current energy consumption, both total cost and cost per-square-foot.
- The financing instrument typically used, including type, term, frequency of payments, interest rate, and methods of risk minimization.
- A project cost summary for the whole project with detail on necessary engineering studies, system and equipment upgrades, training, and maintenance services.
- Guaranteed energy savings including a description of operational savings, the rationale for each item, and an explanation of how the savings are guaranteed.

*For more information on evaluating draft ESPC documents or ESCO proposals, contact EREC at 1-800-DOE-EREC.*

## Kingston Schools

Continued from page 2

communities keep local dollars at home. Contractors for this project live in New York State and the pulse boilers and lighting purchased were manufactured in the state. Energy savings have become one of the school district's legacies for the future.

"Dollars saved now and in the decades to come will keep tax increases down," says Kingston School District Superintendent **Arthur Stellar**. "This will free up funds to plow back into educational programs and help us maintain our commitment to managing our energy resources wisely."

## View from DC

Continued from page 2

outdoor lighting, alternatively fueled vehicles, and green building practices.

- Rebuild America has engaged private industry through the Business Partners program and has formed strategic alliances with key national organizations such as the Association of Higher Education Facilities Officers, the National Association of Housing and Redevelopment Officials, and the National Association of Energy Service Companies.

Rebuild America builds links between efforts to improve the energy efficiency of existing buildings, influence new construction and promote sustainable community development. This kind of flexibility is key to our success and is bound to take us in new and exciting strategic directions in the new millennium.

*Mark Bailey is national program manager of Rebuild America.*

## Idaho State

Continued from page 1

conservation: Improving maintenance and operations procedures; using energy-efficient equipment; increasing building energy efficiency through architectural modifications; and providing continuous education through energy conservation seminars and workshops.

"The buildings we select for energy improvements are those that offer the greatest potential for energy savings and the quickest payback," says Hashim. "These buildings typically have the greatest number of environmental complaints from occupants – a good indicator of heavy energy use and building inefficiencies."

A doctoral student in engineering at ISU, Hashim is using Life-Cycle Costing Analysis (LCCA) as a tool for planning the retrofits of five academic buildings, a library and a gymnasium. LCCA analyzes the total cost of a system, building, or other capital equipment or facility over its anticipated useful life.

"It is especially important to use LCCA when costing out major energy-efficiency upgrades in buildings or other long-term improvements," he notes. Hashim should know. He is Idaho's first certified U.S. Department of Energy instructor of Federal Energy Management Program (FEMP) LCCA workshops for energy conservation projects and one of only 26 certified instructors in the U.S.

Plans Hashim developed for campus buildings using LCCA call for:

- Lighting upgrades through the EPA Green Lights Program
- Installing electric monitoring devices
- Renovating HVAC systems
- Connecting all buildings to energy

management systems

- Making energy-efficient architectural improvements
- Developing written operating procedures
- Using a computerized preventive maintenance program
- Performing annual energy audits
- Exploring alternatives to financing energy conservation projects.

Education and training of physical plant employees are top priorities of the ISU partnership. Maintenance and operations workers are encouraged to participate in HVAC and maintenance technology workshops, and energy conservation workshops and awareness campaigns are held regularly on campus. The facilities planning department continually seeks new computerized technologies to support the physical plant's activities.

Due to an increasing need for trained energy engineers, budget analysts, federal energy coordinators, planners and managers, Hashim will be leading the next LCCA workshop, which is planned for December 1999 or January 2000 at the University of Idaho, Moscow.

Hashim has worked in production and mechanical engineering, marketing, sales and international business management for Fortune 500 companies in the U.S., Saudi Arabia, and India. He was named the 1998-99 "Outstanding-Student-of-the-Year" by the Associated Students of Idaho State University.

*For more information or if you are interested in the LCCA workshop, email Syed Hashim at [syedfaiy@isu.edu](mailto:syedfaiy@isu.edu).*

## Upcoming Events

**Rebuild America Business Partners Summit.** December 2, 1999 at Pacific Gas & Electric's Pacific Energy Center, San Francisco, CA 94103. Phone: 415-973-7268. Contact Business Partners Team Leader Doug Avery at 310-798-6927.

**1999 Annual Congress of Cities, National League of Cities.** November 29-December 4, 1999 in Los Angeles. Call 202-626-3105 for more information.

**Chicago Regional Team Meeting.** December 15-16, 1999 in Chicago. Contact Geri Perrotte at 312-886-8597 or email: [geri/perrotte@hq.doe.gov](mailto:geri/perrotte@hq.doe.gov)

**Announcement and Celebration of Rebuild America's 250th Partnership.** TBA. Contact Mark Bailey (DOE HQ) at 202-586-9424 or Rebecca Penovich (D&R) at 301-588-9387.

**Denver Regional Peer Exchange.** January, 26-27, 2000 in Denver, CO. Contact Denver Regional Team Leader Dave Waltzman at 303-275-4821.

## Share Your Success

To submit news or story ideas, contact:

- Elise G. Rand, (202) 466-7391, or e-mail [erand@pcgpr.com](mailto:erand@pcgpr.com)
- Alex Zartman, (301) 588-9387, or e-mail [alexz@drintl.com](mailto:alexz@drintl.com)

## Learn More

Rebuild America is part of DOE's Buildings for the 21st Century. If you would like information about Rebuild America or the other energy efficiency and renewable energy programs and resources, call 1-800-DOE-EREC or visit [www.eren.doe.gov](http://www.eren.doe.gov).

To be placed on the mailing list for *Rebuild America Partner Update*, e-mail [rebuildamerica@drintl.com](mailto:rebuildamerica@drintl.com).

## Rebuild America Welcomes 7 New Partnerships



U.S. Dept. of Energy  
**Rebuild America**

Rebuild America is a network of community partnerships – made up of local governments and businesses – that save money by saving energy. These voluntary partnerships, working with the U.S. Department of Energy, choose the best ways to improve the energy efficiency of commercial, government and apartment buildings. Rebuild America supports them with business and technical tools and customized assistance.

By the year 2003, 250 Rebuild America partnerships will be involved in over 2 billion square feet of building renovations, which will save \$650 million every year in energy costs, generate \$3 billion in private community investment, create 26,000 new private sector jobs, and reduce air pollution by 1.6 million tons of carbon dioxide a year.

Rebuild America  
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State and Community Programs  
U.S. Department of Energy  
1000 Independence Avenue, SW  
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