DOE/EE-0149 Rebuild Americ U.S. DEPARTMENT OF Energy Partner Update **Your Choice For Success**

January-February 1998

Profile

'Brazos Valley' **Rebuilds** Texas

After promoting renewable energy as a mechanical engineering student, professor and practitioner for over 20 years, it's natural that Dr. Dan Turner is enthusiastic about Rebuild America.

He said that, "Rebuild America is a cornerstone project" of Texas A&M University's Energy Systems Lab (ESL), where he is the division head. The Rebuild America program, founded in 1996, is called the Brazos Valley **Energy Conservation Coalition.**

In addition to running Brazos Valley, the Energy Systems Lab is one of the U.S. Department of Energy's Industrial Assessment Centers. Its 60 engineers and researchers also work on the State Energy Office's Loan Star Program, which provides infrastructure upgrade loans to state agencies, schools, and municipalities.

A Win-Win Situation

"Our goal [for Brazos Valley] is to provide energy efficiency to the public sector," Turner said. "Energy efficiency is important to all of us, whether from the standpoint of the environment, global warming, or just using less energy."

So far, Brazos Valley has completed walk-through audits of 7 million square feet of space for clients including Brazos County, Bryan Independent School District, and Wichita Falls Independent School District [Summer 1997 Partner Update]. Turner said they are well on their way

Rebuild DC Public Schools Is 150th Partnership

Rebuild America welcomed its 150th partnership - the Washington, DC Public School System - with a kick-off event in October 1997 featuring Department of **Energy Secretary Federico Peña and** General Julius W. Becton Jr., the schools' chief executive.

The partnership, called **Rebuild DC** Public Schools, will reduce the schools' energy costs by \$3 million a year for five years, a 20 percent reduction from the system's current \$16 million annual energy bill.

The U.S. Department of Energy (DOE) will provide expertise, training, and contracting assistance to the partnership, including establishing an energy-use baseline and producing a comprehensive energy retrofit plan for the school system.

"At the local level, this partnership will cut the schools' energy bills and give students hands-on experience and training," said Secretary Peña. "There's a double benefit – any time we cut energy consumption, we are reducing greenhouse gases that contribute to global warming."

"We'll be focusing on increasing



Secretary Peña congratulates General Becton at Wilson High School

lighting efficiency, repairing and replacing boilers and chillers, and taking other steps to improve the school atmosphere, with your help," said General Becton. The \$3 million savings will be used, he said, "to hire more qualified teachers; buy computers, books, and other instruction materials; and improve the school security."

Team Systems International, a Washington, DC-based energy management firm, is managing the project. They are joining DOE, the school system, Friends of the Earth, and others determined to make the school system a model of facility renewal.

Chief Operating Officer Charles Williams noted that Rebuild DC Public Schools is the first K-12 school system to take the lead role in a Rebuild America

Continued on page 2

Inside This Issue

Continued on page 3

WELCOME 30 NEW PARTNERSHIPS



2

3

LITTLE ROCK. HAWAII



MILLION SOLAR

ROOFS INITIATIVE

Rebuild America is proud to add these **30** new partnerships to the many communities and businesses nationwide that are saving money through energy efficiency.

Mount Carmel, PA, Green Heat

State University

Washington, DC

State of Nevada

Rebuild DC Public Schools.

Murfreesboro, TN, Middle Tennessee

Rebuild Roanoke-Chowan Area, NC

Salisbury Housing Authority, NC

Santa Clarita, CA, CEEDS, Inc.

Tennessee Department of

Uptown Shelby Association, NC

Washington, NC, Mideast Regional

General Services

Housing Authority

Asheville Housing Authority, NC Asheville, NC, Opportunity Corporation, Inc. Bridgeport, CT, ERI Services, Inc. Chicago, IL, Illinois Medical District **City of Concord, NC** City of Greensboro, NC City of Laurel, MD City of Mount Rainier, MD City of New Bern, NC City of Reno, NV City of Rocky Mount, NC City & County of San Francisco, CA Fayetteville, NC, North Carolina Natural Gas Corp. Goldsboro, NC, Dilland Business Tech. Greensboro, NC, Yadah Corporation Hawaii Community Colleges Laurinburg Housing Authority, NC Menifee, AR, River Valley Electric Motor **Rewind & Repair, Inc.**

 land Business Tech.
 Vancouver, WA, Clark Public Utilities

 adah Corporation
 Virginia Beach, VA, Applied Energy

 r Colleges
 Solutions

 g Authority, NC
 Valley Electric Motor

 r, Inc.
 Virginia Beach, VA, Applied Energy

Rebuild America 161 partnerships and counting...

To learn more about Rebuild America, call 1-800-DOE-EREC or visit www.eren.doe.gov/buildings/rebuild.



Students Rebuild DC Public Schools

Continued from page 1

partnership. "We are delighted that we're on the leading edge of this," he said.

Dozens of students will participate in the "Savings Through Energy Management" education initiative. They will learn energy

auditing, planning, and design, and identify cost-

saving energy opportunities in their schools. Twenty-five public high school students will also participate in a summer internship program at DOE.

"We are going to make this high school and the other 150 schools in the school system a better place to learn and a better place to work," Secretary Peña said.

View from DC by Mark Bailey

With this issue marking the start of the newsletter's second year, *Rebuild America Partner Update* has been revised with a fresh new look and refined content.

Partner Update provides a timely source of news about the Rebuild America effort. Starting with this issue, we'll begin publishing *Partner Update* on a bimonthly basis.

Six times a year, *Partner Update* will now provide you with useful information on partnership activities, industry trends and program news.

With your suggestions in mind, we've added more of what you want in these eight pages – features on people and partnerships, how-to technical and financial articles, news from Rebuild America, and more.

Please continue to let us know what you want to read about in *Partner Update*, and send us news about your activities, successes, and the people who make your program work. Send your comments and ideas to the address on the back page.

Heading to Texas

If you haven't already begun planning to attend the 1998 Rebuild America National Conference in San Antonio, now is the time!

We will send out registration packets in mid-January. You can also visit the Rebuild America web site at www.eren.doe.gov/buildings/rebuild to get information online.

With keynote presenters from the worlds of energy and the environment, sessions on nearly every aspect of building retrofits, and superb local attractions, San Antonio promises to be the best Rebuild America conference yet – you won't want to miss it!

You can contact Rebecca Penovich of D&R International at (301) 588-9387, or e-mail beckyp@drintl.com for more information. Thanks, and see you in San Antonio.

Mark Bailey is the Rebuild America program manager.

Partnership Briefs

Eight diverse buildings are slated for retrofits under the Rebuild Arkansas program in Little Rock, including historic Central High School. The partnership "will be a place others can come to learn about cost-effective energy-efficiency measures in a comprehensive group of municipal, institutional, and residential buildings," said Mark Ginsberg, deputy assistant secretary for the U.S. Department of Energy, at a kickoff celebration in October 1997. The partnership plans to retrofit approximately 700,000 square feet of space in the eight buildings, saving over 20 percent on their energy bills.

For more information, contact Wendell Jones, Little Rock's director of general services, at (501) 371-4786.

The Hawaii State Public Library System plans to renovate its 49 public libraries on Hawaii's six major islands, the only public libraries in the state. The Library System expects to reduce its \$1 million utility bill by making its 422,000 square feet of space more energy-efficient. Wendy Cheuk, the capital improvements coordinator, said she expects to issue a Request for Proposal this spring, after the state attorney general approves it. By using a performance contract, Cheuk said they expect to pay for the project with their energy savings. "We're looking forward to using energy efficiency as a way to get a handle on our ever-increasing utility costs," she said.

For more information, contact Wendy Cheuk at (808) 586-3707.

Rebuild New York, a partnership of the Association for Energy Affordability, Inc. (AEA), is creating a training center which offers state-of-the-art technical training, retrofit certification programs, and seminars on industry trends to professional and government staff, contractors, and community representatives. The partnership will also participate in a retail access aggregation project through which low-income communities in downstate New York will have the opportunity to aggregate, purchase fuels in bulk, and receive energy-efficiency retrofits and education. "We expect that this project will significantly lower the energy burden of low-income households," said Rhona Saffer of AEA.

For more information, contact Rhona Saffer at (212) 279-3902.

Brazos Valley: A Real Win-Win Situation

Continued from page 1

to fulfilling their "hope to far exceed our stated goals, maybe even in our second year."

Those goals include completing \$6 million of projects in 2 million square feet of space over five years. While they are focusing on capital investment, Turner said, "a side effect is job creation as we involve the private sector. This is a real win-win situation."

A Spectrum of Services

Brazos Valley provides clients with the full spectrum of energy efficiency services, including energy audits, project design and installation, metering and monitoring, savings verification, and financing. "Texas Energy Engineering Services, Inc. is the design and consultation engineering firm. With their financing subsidiary, SmartMoney, we can do the whole project," Turner said.

In a "unique approach" to marketing, Turner said that Brazos Valley does free walkthrough audits. If there is potential for energy



savings, clients pay for a detailed audit, where short-term metering and monitoring equipment is installed to provide on-site data. If clients

agree to develop and implement a retrofit project, Brazos Valley reimburses them for part of the cost of the detailed audit.

"One key is that we have money available as a loan for engineering contracts," Turner said. "Clients pay back the loan from their savings, and we do metering and monitoring to ensure the retrofit is working and report savings."

Spreading the Word

As a mechanical engineering undergraduate at the University of Texas - Austin, Turner decided to focus on energy instead of

traditional design/control areas. He stayed to receive his master's degree, and went on to earn a Ph.D. at the University of Oklahoma. "I've spent my career teaching and conducting research in renewables and energy conservation areas," Turner said.

Turner and his team of faculty, staff and students are optimistic about the future for the Brazos Valley program. They are spreading the word about Rebuild America through a series of workshops across the state, and they've sent materials to schools, state agencies and municipalities.

"That we already have several million square feet committed is a pretty good indication of success," Turner said. "We hope to build Rebuild America into a stable, longlasting program."

Using the Sun To Cool Our World

America's 81 million buildings account for two-thirds of the total U.S. electricity use, according to the U.S. Department of Energy (DOE). That in turn produces nearly one-quarter of all U.S. carbon emissions.

To reduce this, President Clinton recently announced the Million Solar Roofs Initiative, with a goal of installing 1 million solar energy systems on buildings across the U.S. by the year 2010.

Rebuild America Program Manager Mark Bailey said that Rebuild America partnerships can play a key role in the program's success. "Rebuild America's network of energy experts and community leaders is a tremendous resource to get solar energy systems onto buildings, where they will save money for building owners and improve the environment."

By 2010, the Initiative will:

- Create 70,000 new high-tech jobs through the demand for solar energy technologies like photovoltaics and solar water heating.
- Use clean energy from the sun to reduce carbon dioxide emissions equal to the amount produced by 850,000 cars in one year.
- Keep U.S. companies competitive as increased demand drives a world market expected to reach \$1.5 billion by 2005.

DOE is leading the Initiative, which helps develop projects that produce solar energy installations on the roofs of residential. commercial, institutional, and government buildings. As with Rebuild America, participants have wide discretion in choosing program design, technologies, and deployment options.

Be Solar Friendly

Ideally, solar energy systems should be installed in energy-efficient buildings. Rebuild America partnerships can integrate their expertise in energy efficiency with solar energy technologies to cut non-renewable energy use in buildings even further.

Rebuild America partnerships who want to bring solar energy into their communities can start by examining their action plans to see how to integrate solar technologies into their existing programs.

They can also explore ways to promote solar energy in buildings through local government policies, the adoption of net-metering, removal of zoning restrictions, tax incentives, training and education programs, and solar friendly building codes and standards.

Learn More

To learn more about getting involved with the Million Solar Roofs Initiative:

- Contact your Rebuild America program representative.
- Call the Energy Efficiency and Renewable Energy Clearinghouse at 1-800-DOE-EREC.
- Visit the web site: www.eren.doe.gov/millionroofs.

Rebuild America Conference

You're invited to San Antonio, Texas, March 10-12, for the 1998 Rebuild America National Conference.

The conference will be a dynamic forum for Rebuild America participants to interact with their peers from around the country. Experts will add insight into the latest developments in energy efficiency and retrofit construction.

Not-to-be-Missed Event

The conference agenda includes knowledgeable speakers and features many informative sessions geared to help you implement or augment your community's energy-efficiency efforts.

A sample of sessions includes:

- Collecting utility data.
- Financing your Rebuild America program.
- Developing your action plan.
- Rallying program support in your community.
- Verifying savings.
- Media strategies for promoting your success.

Roundtable discussions and exhibitor sessions will provide opportunities for networking and information exchange and award sessions will showcase leaders from this exciting national program.

A Vibrant City

There are also great things to see and do in San Antonio. The city's famous Riverwalk area boasts a panorama of Southwestern nightlife and color. Everyone is invited to enjoy this and other distinctly Western experiences.

Those who receive *Partner Update* will receive registration materials in mid-January. Otherwise, visit the Rebuild America web site at www.eren.doe.gov/buildings/rebuild, or contact Rebecca Penovich of D&R International at (301) 588-9387, or e-mail beckyp@drintl.com.

Please let us know if someone in your community should be invited. Everyone involved with community projects is encouraged to attend.

Assistance Services: Technical Advice and More

By Bill Mixon

Wallace Heggie, purchasing agent for the **City of Meridian, Mississippi**, needed someone to review technical specifications for a city-wide retrofit project.

Through Rebuild America's assistance services, experts at Oak Ridge National Laboratory (ORNL) reviewed Heggie's specs and provided suggestions for changes. "The Rebuild America network was right on target," Heggie said.

Reviewing contract documents is one of the many ways Rebuild America helps partnerships leverage their resources with Rebuild America's network of business, financial, and technical experts.

According to Rebuild America's management plan, "almost anything that facilitates, expedites, or improves partnership or community abilities" can be provided to partnerships.

Business and Technical Publications

Rebuild America publishes a wide array of business and technical guides to help partnerships. The guides cover topics like financing, building commissioning and ventilation, and action plan development. Other Rebuild America resources are the Energy Efficiency and Renewable Energy Clearinghouse (1-800-DOE-EREC) and Rebuild America web site (www.eren.doe.gov/buildings/rebuild).

Program Representatives

Wallace Heggie's program representative introduced him to ORNL. Program representatives connect partnerships to resources from Rebuild America, other federal or state programs, and private industry.

They can help arrange workshops, coordinate on-site assistance, and arrange for recognition of partnership activities.

Program representatives can also assist partnerships working on their action plans by arranging local action planning workshops, and helping to identify partners, outline their roles, and select target buildings.

Comprehensive Assistance

Partnerships implementing their action plans can get customized assistance

throughout the building retrofit process, including:

- Partnership formation meetings.
- Technical and management advice.
- Data collection, interpretation and use.
- Action plan development and other training workshops.
- Auditor selection and design review.
- Savings measurement and tracking.

Focus Your Needs

Talk about your assistance needs with your program representative, who can help you focus in on key areas where Rebuild America can provide assistance services.

Bill Mixon of TECH Support Services in Oak Ridge, Tennessee, coordinates Rebuild America's assistance services. He can be reached at (423) 483-7096, or e-mail billmixon@icx.net.

Spread the Word about Rebuild America



In addition to *Partner Update's* new look, Rebuild America has a new Info Kit and brochure available to help program representatives and partnerships spread the word about energy efficiency.

You can send them to colleagues, distribute them at conferences, and refer to them for examples of successful partnerships across the country. For copies, contact your program representative in February.





Workbench

Encouraging Projects with Non-Federal Funds By John Ruckes

As Rebuild America works to meet its goal of 250 partnerships nationwide, state governments are becoming more creative in encouraging new Rebuild America partnerships. And they're doing it without federal funds.

Several states, for example, are using local Stripper Well funds to create and support new partnerships. Stripper Well funds are payments to states resulting from a court decision to provide compensation for past overcharges on petroleum products.

Incentives Work

In **Connecticut**, we've used Stripper Well funds as an incentive for communities to form partnerships and develop viable action plans. Without such an incentive, we felt communities wouldn't invest the necessary resources. We offered \$150,000 to up to six communities, based on a competitive evaluation of preliminary action plans due after four months [Spring 1997 *Partner Update*].

Twenty cities and towns expressed their interest by joining Rebuild America, and we held workshops statewide to answer their questions and help them develop their action plans. As a result of our solicitation, five strong partnerships received funding and are now starting projects in their communities.

Rebuild America Communities

North Carolina is also using Stripper Well funds to target units of public housing, local government and commercial buildings. They began by contacting over 1,500 potential partnership organizations across the state. Over half of the respondents were interested, and to date **Rebuild North Carolina** has helped start eight partnerships, some with more than 20 local partners.

After a partnership develops an action plan, the state contracts with the partnership's lead organization to provide seed money for projects. These funds (up to \$100,000) can be used either

"[T]o date Rebuild North Carolina has helped start eight partnerships, some with more than 20 local partners."

for energy audits or capital improvements. Thanks to effective group dynamics within partnerships, partners are looking at community interests rather than individual organizational interests.

Partnerships receiving this funding must provide at least a 50 percent match. North Carolina has found that this leveraging results in far greater sums of money being committed to Rebuild America projects.

Community recognition is expected to be an important part of the program. The City of Salisbury, for example, is putting up signs that say, "Welcome to a Rebuild America community."

Sixty Partners in Nebraska

Since 1990, the Nebraska Energy Office has offered 6 percent Dollar and Energy Saving Loans to small businesses, home and apartment owners, farmers, and ranchers. Close to 600 loans totaling greater than \$10 million have financed energy saving improvements for state businesses.

The state launched **Rebuild Nebraska** to reach medium and larger sized firms statewide. Partners voluntarily agree to improve energy efficiency and reduce waste in exchange for services and access to the 6 percent loan pool.

Rebuild Nebraska partners have access to free energy audits of their buildings and systems, and media coverage. After the audits, firms complete action plans that identify recent improvements and those measures to be implemented in the near future. At this point, companies are eligible for project financing from the loan pool.

The Energy Office's targeting, assessing, and financing package under the Rebuild Nebraska program has garnered 60 partners in less than 12 months.

New Audiences

These programs show some of the wide range of approaches available to states looking to expand Rebuild America and market it to new audiences. I encourage everyone to share their ideas and methods.

John Ruckes is the lead planning analyst for Connecticut's Office of Policy and Management. He can be reached at (860) 418-6384, or e-mail john.ruckes@po.state.ct.us.

Rebuild America News

Tools

In a significant expansion of the current Rebuild America web site, each partnership will effectively have its own web page. These pages will serve as a resource to existing and potential partners across the country and will be accessible from the current Rebuild America web site.

They will highlight the accomplishments of the partnerships and celebrate the successes of each Rebuild America community. They will also give the world an up-close and personal look at the program.

The individual web pages will include:

- Demographic information about each partnership, such as geographical area and population.
- Details about each partnership's goals, including square footage to be retrofitted; total dollars to be invested; total anticipated energy and cost savings; and total carbon dioxide to be reduced.
- Excerpts from each partnership's action plan if available, and information about their community's progress.

Partners with existing web sites will have the opportunity to link their web addresses to the Rebuild America web site, providing interested visitors with even more information about each community.

Rebuild America is currently working with partnerships who are implementing action plans to compile the data needed for each web page. Once compiled, the information will be formatted for the World Wide Web and attached to the current Rebuild America web site as a partnership profile. Visitors to the site will then have the option of reading through a selection of these profiles.

Check out the Rebuild America web site later this month for more details: www.eren.doe.gov/buildings/rebuild.

Partnerships nationwide may soon benefit from the Peer Exchange **Program** set up by Cyane Dandridge, former executive director of the **ReEnergize East Bay Consortium [Fall** 1996 Partner Update], and Paul Johnson of DOE's Seattle Regional Support Office. Designed by and for peers, the program will increase the exchange of ideas and experiences among partnerships in the region served by the Seattle Support Office. Participants will share their expertise through meetings, teleconferences, newsletters and the Internet. "It is our hope that our region's Peer Exchange Program will become a national model in which all Rebuild America partnerships can participate," Dandridge said.

For more information, contact Cyane Dandridge at (510) 215-0343, or e-mail cyaned@aol.com.

The U.S. Department of Energy (DOE) has brought Rebuild America and other programs of the Office of Energy Efficiency and Renewable Energy together into Buildings for the 21st Century. In a partnership between DOE, private enterprise, and communities across the country, Buildings for the 21st Century will improve the way buildings are constructed and renovated by creating a "whole buildings" approach that treats buildings as integrated systems rather than a series of independent components. Decision-makers will be better equipped to optimize siting, design, material and equipment selections, and financing options.

For more information about Buildings for the 21st Century, contact your Rebuild America program representative. There was international agreement to reduce greenhouse gases at the climate change conference held in December 1997 in Kyoto, Japan. **The Kyoto Protocol to the U.N. Framework Convention on Climate Change** would require the United States to reduce emissions by 7 percent below 1990 levels by 2012. The treaty covers the six major greenhouse gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The treaty would go into effect after President Clinton and the Senate both approve it.

Upcoming Conferences:

Greenprints. February 25-27, 1998 in Atlanta, GA. Sustainable design/ construction conference and trade show. Contact Mary Jim Evans of Southface Energy Institute at (404) 872-3549 for information.

Rebuild America 1998 National Conference. March 10-12, 1998 in San Antonio, TX. Contact Rebecca Penovich of D&R International at (301) 588-9387, or e-mail beckyp@drintl.com.

SOLTECH 1998 Annual Meeting.

April 25-30, 1998 in Orlando, FL. The annual meeting of the Solar Energy Industries Association. Contact the Solar Energy Industries Association, 1800 M Street, NW, Suite 300, Washington, DC 20036; or phone (202) 383-2620.



Come to the Rebuild America National Conference

March 10–12, 1998 San Antonio, Texas See page 4 for details!

Share Your Success

Rebuild America Partner Update, the bimonthly newsletter about the Rebuild America community, covers partnership activities, industry trends, and program news.

Your kleas are welcome. Contact Jonathan T. Alloy, editor, at Potomac Communications Group, 2025 M Street, NW, Suite 350, Washington, DC 20036; or e-mail jalloy@pcgpr.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.

Rebuild America

Rebuild America is a Voluntary program of the U.S. Department of Energy that helps community partnerships male profitable investments in existing buildings through energy-efficient technologies.

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 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

Address Contection Requested

