MARKETWISE

Spring/Summer 2009

COMMUNITY ECONOMIC DEVELOPMENT PUBLICATION

FEDERAL RESERVE BANK OF RICHMOND

GREEN FINANCE:

Cultivating New Investment Opportunities

MARKETWISE
SPRING/SUMMER 2009

The mission of *MARKETWISE* is to provide both progressive and practical information about community economic development that supports economic growth in the Fifth District. The Fifth District consists of Maryland, North Carolina, South Carolina, Virginia, most of West Virginia and the District of Columbia.

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We welcome *MARKETWISE* article ideas and suggestions from community economic development practitioners. Email comments to Sarah.Eckstein@rich.frb.org.

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Cover Photo: Fancy/Veer/Corbis

President's Message

Should investors explicitly consider social and environmental objectives when analyzing new investment opportunities or remain focused on maximizing financial gains? Some investors and community organizations advocate "triple-bottom line" investment strategies, those that pursue financial, social and environmental returns. One of the inherent and widely recognized challenges associated with this approach is appropriately valuing social and environmental returns. Weighing the financial risks and returns associated with such investments is also challenging. For example, environmentally sustainable buildings may ultimately generate greater financial returns for their investors than conventional buildings, but the returns will be realized over a longer time-horizon, making them less certain.

As communities explore how to best integrate environmental and social goals into their development initiatives, they must grapple with these thorny investment questions. In addition to the valuation concerns, a lack of data and finding consensus on how much weight to place on each of the three objectives further complicate the decision process. The optimal investment choice will not always be clear and for some projects the long-term benefits may simply not offset the initial costs.

In this issue of *MARKETWISE*, we highlight green buildings and businesses where communities and investors have decided that the environmental and financial benefits of these projects outweighed any higher up-front costs. We also explore advances in green building technology and green financing.

Financial institutions across the Fifth District are investing in diverse sustainable and environmental initiatives. A number of banks have also developed new green financial products to serve what they see as an expanding green market. North Carolina's BB&T Bank, for example, offers a green mortgage program for energy-efficient homes that considers the impact of future energy-cost savings on home equity projections.

Some financial institutions in our District have gone a step further and built environmentally friendly branches and offices to demonstrate their commitment to green development. We at the Richmond Fed have recently installed a green roof in our Charlotte branch. For us, the choice was clear; the financial and environmental benefits easily exceeded the marginally higher installation costs. [See page 24 for more information on the green roof.]

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While triple-bottom line investing is still in its infancy, community interest in sustainable development will undoubtedly spur continued financial innovation in this arena. Access to more green capital will allow communities to invest in new technologies and projects that meet their social, environmental, and financial objectives.

Jeffrey M. Lacker, President
Federal Reserve Bank of Richmond

Photo: Images.com/Corbis/John Berry

Green Financing Opportunities:
Taking a Chance on a Green Future

By Sarah Eckstein

Photo: Getty Images/Mike Kemp

In today's difficult economy, investing in green development may sound like a bold move by financial institutions. With little long-term data available and few objective standards for evaluating the financial and environmental returns associated with such projects, investors and banks have traditionally shied away from financing green projects. However, according to one estimate from McGraw-Hill Construction, an industry leader in green building, green development seems to be one of the few areas of construction insulated from the downturn. They estimate that by 2013 the green building market will more than double, reaching between $96-$140 billion for residential and nonresidential buildings.[1]

The Green Value Proposition

Over the last several decades, the green movement has progressed from fringe grassroots campaigns to mainstream consciousness. Increased media attention on environmental problems, especially the effects of global warming, has encouraged consumers to be ecologically conscious and push for new environmental policies. The government has responded with new tax credits and subsidies that support green building and sustainable living. An expectation that energy costs will continue to climb, as well as new advancements in energy technology, have also contributed to the increasing demand for and supply of greener buildings. Many investors now recognize that a shift toward sustainable building practices can be both profitable and positive for the environment.

Some investors are taking the "triple-bottom line" approach to analyzing green projects—considering the financial, environmental and social returns to their investment. Investors who focus on the financial returns from green building need to consider the cost-savings as well as potential revenue from energy-saving technology. For example, solar panels and geothermal technology not only reduce energy costs over the long-run, but they may also generate excess clean-energy that can be sold to other energy users. Additional cost-savings may also be gained from lower water bills and fewer maintenance and repair costs.[2]

Furthermore, the cost-savings and revenue associated with green buildings may decrease the default risks for borrowers of "green" loans.[3] For homeowners who have purchased green homes—less money spent on utilities should mean more opportunities to shift budgets towards paying off mortgages and long-term financial stability.

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Mortgage Program Promotes Energy Efficiency

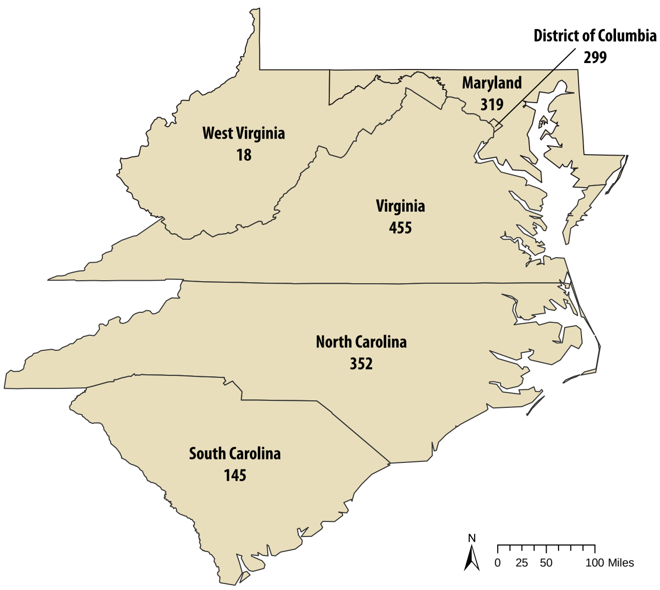
The Federal Housing Administration and the Department of Housing and Urban Development established the Energy Efficient Mortgage (EEM) program to encourage people to purchase greener homes and/or make renovations to existing homes more environmentally friendly. Paying lower utility bills allows homeowners to allocate a larger portion of their income to their mortgage. Homebuyers can also benefit from a larger tax deduction with the EEM program because the interest on mortgage payments is tax deductible.

Eligible persons must meet FHA income requirements and be able to make the monthly mortgage payments. A home energy rating system or an energy consultant is also required to determine the cost of energy improvements and an estimate of energy savings. The EEM program can be applied to as many as four existing or new homes. The improvements can be included in a borrower's mortgage only if their total cost is less than the total dollar value of the energy that will be saved during their useful life. The cost of the improvements that may be eligible for financing as part of the mortgage is either 5 percent of the property's value (not to exceed $8,000) or $4,000 — whichever is greater.

For additional information and to view full eligibility requirements, visit **www.hud.gov/offices/hsg/sfh/eem/energy-r.cfm**.

FIGURE 1

Fifth District: Commercial LEED Projects by State (Certified & Registered)



Source: U.S. Green Building Council, projects as of May 2008. Access additional information about projects from the LEED Projects & Case Study directory at www.usgbc.org/LEED/Project/CertifiedProjectList.aspx.

Banks and investors are also finding that green buildings maintain higher market value over time than conventional developments, according to The Royal Institution of Chartered Surveyors, an international professional organization.[4] While the overall real estate market remains weak in some regions, green housing developers are hoping that the long-term cost-savings features associated with green buildings act as short-term bait to lure in tenants in a down market.[5]

Green Financial Innovations

The terms "green financing" and "sustainable investing" are often used interchangeably. Green financing is typically defined as lending or financial investment that supports and encourages environmentally friendly projects. Sustainable investing covers a wide spectrum of environmentally sustainable projects, including infrastructure, businesses or consumer products. Although there is no one criterian used to define "green investors," this term is applied to banks, hedge funds, venture capitalists, governments and other private and public investors who offer loans, gap financing and tax credits. Green financing institutions and investors consciously integrate environmental values into their investment decisions.

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Leadership in Energy and Environmental Design (LEED) Certification and Neighborhood Development

The Leadership in Energy and Environmental Design, or LEED, certification is a building rating system established and administered by the U.S. Green Building Council to measure the sustainability of infrastructure. The LEED system helps create a universal performance measure for green building and construction for homes, businesses, commercial and government buildings, neighborhood development and schools. LEED certification provides independent, third-party verification that a building project meets the highest green building and performance measures. Earning LEED certification is based on a holistic view of building standards where the entire structure strives for self-sustainability.

The U.S. Green Building Council recently collaborated with the Congress for New Urbanism and the Natural Resources Defense Council to pilot the LEED for Neighborhood Development Rating System. The program, which began in 2007, encourages sustainable community development. LEED for Neighborhood Development incorporates principles of sustainable growth, urbanism and green building into strategic neighborhood design. The objective is to reduce urban sprawl and create livable communities that encourage healthy activity, local business development and reduced environmental impact. The second of two public comment periods will conclude in spring of 2009, and the post-pilot version of the rating system is expected to be launched in summer of 2009.

For further information on LEED certification, qualifications and projects, visit **www.usgbc.org/DisplayPage.aspx?CategoryID=19**.

Washington, D.C.

Enterprise Balances Personal and Environmental Health Through Green Practices

By Sarah Eckstein

Enterprise Community Partners has been critical to implementing progressive green building laws in Washington, D.C. Based on Enterprise's Green Communities Criteria, the District of Columbia Building Act of 2006 establishes green building standards for both public and private construction. Most notably, the law changes standards for affordable housing to reflect green, sustainable construction and modernization. Some of the new requirements include standards for water conservation, energy efficiency, healthy living environments and sustainable design.

Enterprise makes a variety of green building assistance available to their partners. Enterprise, in partnership with GreenHOME, a local green building and development organization, provides training, technical assistance grant packages, capital grants, direct support and policy work to those tied to the community development and building industries. These services ensure effective implementation of the D.C. Green Building Act's affordable housing provisions in D.C. and implementation of green building requirements in surrounding areas.

Enterprise Community Partners utilizes a number of financial sources to invest in green projects including public money, private corporations, foundations and individual contributions. In turn, Enterprise leverages these resources with public housing and community investment programs. The capital and resources raised create loans, grants and equity to sustain green building initiatives throughout D.C. and the country.

Enterprise partnered with GreenHome to launch the D.C. Green Communities Initiative. This four-year program aims to invest more than $60 million to build at least 400 sustainable, affordable homes. The initiative works closely with the public and private sectors to support the initiative.

Photo: Courtesy of Enterprise Community Partners, Inc.

Residents, Juliette Moore and her sons, Lorenzo, Markeith and Joshua, in front of their home at Galen Terrace.

Despite the recent decline in D.C. home values, the city remains one of the most expensive metropolitan regions in the country, according to Forbes.[1] As a result of years of steep increases in house prices and rents, the demand for affordable housing has exceeded available units. According to Enterprise, the combined waiting list for public housing and rental assistance exceeds 45,000 individuals and families. Enterprise continues to keep up with demand but many affordable units continue to be at risk of being converted to market-based pricing.

Between 2009 and 2013, Enterprise plans to enhance Washington, D.C.'s green community and

- provide or produce 5,500 quality, affordable homes;
- commit $325 million in loans and equity to help community-based nonprofits increase affordable housing inventory; and
- invest $300,000 to support D.C. resident groups that want to exercise their "first right to purchase" and save their affordable housing from becoming more expensive market-rate housing.

For more information on Enterprise Community Partners and their specific initiatives, visit **www.enterprisecommunity.org**.

Sarah Eckstein is the MARKETWISE *editor in the Federal Reserve Bank of Richmond's Community Affairs Office.*

Endnotes:

[1] In Depth: America's Most Expensive Cities **www.forbes.com/2008/07/23/cities-america-expensive-forbeslife-cx_ls_0724expensive_us_slide.html**.

North Carolina

SJF Ventures Sees a "Clean" Future

By Courtney Mailey

SJF Ventures, a for-profit venture capital fund based in Durham, N.C., specializes in financing "cleantech" firms, those that use innovative technologies to advance environmental responsibility or improvement. Founders David Kirkpatrick and Rick Defieux "saw a huge opportunity in the U.S. for cleantech financing particularly in places where new industries could contribute jobs and wealth in lower-income communities," says Kirkpatrick.

SJF Ventures' portfolio of companies includes recognized green businesses such as recycling or alternative energy firms, as well as innovative technologies and business models in other sectors that are robust, scalable and at an early stage of revenue growth. For example, SJF Ventures portfolio firm BB Hobbs, an agricultural equipment designer/manufacturer in South Carolina, produces smart-drip irrigation systems that apply only the fertilizer and water needed by individual plants.

BB Hobbs, an SJF Ventures portfolio firm, produces a smart-drip irrigation system that applies only the fertilizer and water needed by an individual plant.

Photos: Courtesy of BB Hobbs and SJF Ventures

In 2001, SJF Ventures formed a nonprofit, SJF Advisory Services, to provide business assistance to companies that have a positive impact on lower income communities. SJF Advisory Services gives feedback to entrepreneurs about market strategies and business models, in addition to conducting workshops like "Getting Ready for Equity™." The workshops give entrepreneurs an opportunity to learn about private equity finance and to meet investors. Once SJF Ventures invests in a company, SJF Ventures becomes a part owner. It then continues to work with the firm as a partner in growing the business until the firm becomes mature enough to go public or be acquired by another company.

The current economic climate has not directly affected SJF Venture's portfolio, although a few companies have experienced slower sales. SJF Ventures continues to actively invest during the economic downturn and made three investments in the fourth quarter of 2008. "We recognize that some venture funds have had some difficulty with capital calls, but that has not been an issue for our investors," says Kirkpatrick.

As lending by banks has tightened, SJF has seen an increase in interest from later stage firms in energy, natural products and business services that might have been satisfied with debt financing before but are now seeking a viable equity capital alternative. Additionally, Bonny Moellenbrock, executive director for SJF Advisory Services sees that "a potential increase in the use of energy tax credits may enable some cleantech firms to become more ready for equity as the playing field for financing levels out with changes in federal policy."

SJF Ventures will be raising another 10-year limited partnership fund in the next two to three years. Its first two funds, SJF Ventures I and II, are certified CDFIs and received investment from many banks and private investors. Since its first fund of $17 million, the composition and number of investors in the second fund of $28 million has evolved from nine public and institutional investors to more than 75 investors, including private individuals and funds of funds. SJF Ventures' funds have performed competitively against all U.S. venture funds of the same vintage year. "Cleantech investments have become a recognized venture capital focus area, along with IT and biotech, and we are glad to have been a pioneer in this kind of investment specialty," says Kirkpatrick.

For more information about SJF Ventures and SJF Advisory Services events in your area, visit **www.sjfund.com**. For information about BB Hobbs, visit **www.bbhobbs.com**.

Courtney A. Mailey is a regional community development manager at the Federal Reserve Bank of Richmond's Community Affairs Office. She conducts outreach in Virginia and southern West Virginia.

MARYLAND

MARYLAND *LEADS* IN LEED DESIGN AND CONSTRUCTION

By Ellen Janes

Photos: Courtesy of Jennifer Wallace

Walking path surrounding the Philip Merrill Environmental Center.

In 2000, the Chesapeake Bay Foundation's (CBF) headquarters became the first building in the world to be awarded a Platinum LEED rating from the U.S. Building Council. *[See definition of LEED on page 4.]* Almost nine years later, CBF's 32,000-square-foot Philip Merrill Environmental Center remains an international example of environmentally responsible and energy-efficient building design and operations.

Mary Tod Winchester, the Center's vice president for administration, oversaw the building's conception to development from construction, and now oversees its management and maintenance. "The Center is more successful than we could have imagined, not only for how it saves money, but also for how it has been an incredible resource for attracting and retaining staff, inspiring donors and members and training architects, engineers and contractors," says Winchester.

The Merrill Center sits near the Chesapeake Bay shore on the outer fringes of the state capital in Annapolis, Maryland. Tall grasses that are crucial to the bay's ecosystem surround the building, forming a natural extension of the coastal grassland on which it was built. Virtually every aspect of the building has been integrated into its surroundings, including Black Walnut Creek that adjoins the property.

The building's southern exposure helps capture light, heat and prevailing winds. An open office layout allows grand southern-facing windows to light the entire building. Sensors dim and turn off unneeded lights. Solar panels convert sunshine to electricity and heat water and the bay's winds cool the Center in warm months.

Three hundred-foot-deep geothermal wells use the 54-degree temperature below the earth's surface to control the Center's inside temperature. These wells dramatically reduce heating and cooling needs and provide one-third of the Center's energy. Rooftop cisterns collect the rainwater, which is used for the majority of the building's water needs—ranging from washing to irrigation. Composting toilets use no water and waste enriches the Center's grounds.

The building uses recycled or renewable materials extensively: walls and floors are constructed from cork and bamboo; recycled steel is used for rebar, siding and roofing; and ceiling tiles are largely made of recycled mineral wool and cellulose fiber. Posts, beams and trusses use 100-percent recycled particle board and fast-growing wood.

Dedicated to restoring its immediate environment, CBF has planted thousands of trees and underwater grasses and has created an artificial reef for an oyster sanctuary. The gravel parking lot slows stormwater, which is captured and filtered to remove oils before it returns to the bay or creek.

The building cost $7.2 million to design and build, far more than a conventional building would have cost when the Merrill Center was originally built. But today, Winchester believes the construction costs would be comparable to a conventionally constructed building. CBF spent a far greater share of its budget on design, engineering and contracting than would be needed today as more green models emerge and industry professionals become more experienced in green building. In addition, the popularity of green building has made materials less costly and more readily available than in 2000. State-issued tax-exempt bonds and contributions from Washington, D.C.-area publisher Philip Merrill financed the Center.

Winchester estimates that the building's design and materials save CBF at least $97,000 in energy costs annually. Most of these savings are from geothermal heating and cooling. This alone reduces electricity needed for lighting—usually the highest energy cost in commercial buildings. In addition, the building generates significant revenue as it inspires donors and members to increase their commitment to CBF and attracts environmental workshops, conferences and other events.

For more information, visit **www.CBF.org**.

Ellen Janes is a regional community development manager in the Federal Reserve Bank of Richmond's Community Affairs Office. She works out of the Baltimore Office and conducts outreach in Maryland, Washington, D.C., and Northern West Virginia.

ADDITIONAL RESOURCES

US Green Building Council
www.usgbc.org

Project Profile, New Construction Nationals Park, Washington, DC
www.usgbc.org/ShowFile.aspx?DocumentID=5108

Project Profile, Commercial Interior US Green Building Council, Washington, DC
www.usgbc.org/ShowFile.aspx?DocumentID=3600

Project Profile, Schools – Sidwell Friends Middle School, Washington, DC
www.usgbc.org/ShowFile.aspx?DocumentID=3943

Project Profile, Homes – Southern Living Ideas House, Leicester, NC
www.usgbc.org/ShowFile.aspx?DocumentID=5106

Natural Resources Defense Council (NRDC) Building Green Resources
www.nrdc.org/buildinggreen/default.asp

Blair Towns, Silver Spring, MD Case Study
www.nrdc.org/buildinggreen/casestudies/blair.pdf

The Green Standard
ww.thegreenstandard.org

Green Building Initiative
www.thegbi.org

Sustainable Buildings Industry Council
www.sbicouncil.org

The Whole Building Design Guide
www.wbdg.org

Assessing Green Building Performance Case Study
www.gsa.gov/gsa/cm_attachments/GSA_DOCUMENT/GSA_WBDG_Report_Final_R2-p-q5Q_0Z5RDZ-i34K-pR.pdf

White Paper
www.gsa.gov/gsa/cm_attachments/GSA_DOCUMENT/GSA_AssessGreen_white_paper_R2-p-q5Q_0Z5RDZ-i34K-pR.pdf

Guide to ENERGY STAR Qualified Homes
www.lisc.org/section/goals/healthy/green_dev//energy_star

A small but growing number of banks are developing financial products to respond to the emerging green building industry. North Carolina-based BB&T Bank has instituted a green mortgage program. The energy-efficient mortgages are loans on homes that meet designated energy-efficient standards. BB&T Bank offers two types of energy mortgages. The "energy-improvement mortgage" assists borrowers with financing energy upgrades in an existing home. The "energy-efficient mortgage" uses the projected energy savings from a new energy-efficient home to increase the home-buying power of consumers by factoring in the projected energy savings into their equity over time.

Community development banks are also beginning to take notice of sustainability trends in community development. Some are offering packages of green rebates and financing for community developers and small businesses. For example Chicago's ShoreBank, which is the first commercial bank in the United States with a commitment to environmentally sustainable community development practices, and its affiliate, ShoreBank Pacific, makes loans to help grow small businesses in the alternative-energy industry. They have also supported large sustainable community development projects with the assistance of the federal New Markets Tax Credit program. ShoreBank Pacific recently announced their Green Building Loan Program, which provides green builders up to 85 percent loan-to-value. This is a significant increase in the amount commercial developers are typically able to borrow against the value of their property in the current economy.[6]

In addition to specialized mortgages for buyers and renovators of sustainable homes, some banks are offering green car loans for those looking to buy more fuel-efficient cars. These loans aim to help customers purchase hybrid vehicles or those that get higher miles per gallon (MPG). Franklin Savings Bank, based in western Maine, offers a 0.50 percent discount reduction off the current APR rate for vehicles that get 35 MPG or higher. Proposed government incentives are expected to further encourage banks to develop similar green lending programs.

A Greener Government

The Energy Policy Act of 1992 and the Energy Policy Act of 2005 helped advance green initiatives at the federal level. The 1992 law contained energy-efficiency incentives, including developing provisions on energy consumption for federal buildings and public housing and piloting a program for mortgages for energy-efficient housing. By 2005, the Energy Star labeling program was established to set standards for energy-efficient products, and various tax incentives were granted to businesses and households meeting energy and water conservation standards.[7] As part of the 2009 fiscal stimulus package, the government has integrated environmental incentives to consumers and businesses. [See page 15 for additional green programs from the American Recovery and Reinvestment Act of 2009.]

Green federal policies have become a catalyst for states and cities to adopt their own incentives to encourage green investment in the private sector. In 2006, the Washington, D.C. city council passed the D.C. Green Building Act. The act requires that new nonresidential, private construction over 50,000 square feet and all public building projects achieve LEED certification by 2012. Washington, D.C. became the first major U.S. locality to require LEED compliance for private projects. According to the District Department of the Environment, the D.C. area has the largest number of green buildings per capita.[9]

Maryland has instituted the *Smart, Green and Growing Initiative*, a multi-agency initiative aimed at developing a vision for a sustainable future for the state. For the Department of Housing and Community Development, the initiative means supporting workforce housing that is located near jobs and public transit and incorporating green approaches into housing and site development. Other departments, such as the Department of Energy, offer tax credits for using bioheat, renewable fuel that emits less greenhouse gases.[10]

Green Development

Community development practitioners also recognize that by applying a green approach to issues such as affordable housing and business development, they can achieve social, environmental and economic returns. However, like other investors, housing developers have been uncertain about whether incorporating green will be an effective approach to building sustainable and viable communities. Concerns about keeping green buildings affordable and navigating the green development process has discouraged some organizations from venturing into green territory.

Increasingly, green developers are discovering that green building methods and materials can be integrated into any type of development.[11] But most nonprofit and for-profit developers need guidance to determine which types of designs, materials and technologies are needed for successful green building.

Many community developers find the best model for financing is to secure both private and public resources. A wide range of public incentives and programs are made available for green projects.

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ADDITIONAL RESOURCES

Energy and Environmental Building Association
www.eeba.org

US Environmental Protection Agency (EPA) Green Building Web Site
www.epa.gov/greenbuilding

The Energy Efficient Mortgage Program (EEM)
www.hud.gov/offices/hsg/sfh/eem/energy-r.cfm

RESEARCH OF DAVIS LANGDON

Costing Green: A Comprehensive Cost Database and Budgeting Methodology
www.usgbc.org/Docs/Resources/Cost_of_Green_Full.pdf

The Costs and Benefits of Achieving Green Buildings
www.davislangdon.com/upload/StaticFiles/AUSNZ%20Publications/Info%20Data/InfoData_Green_Buildings.pdf

The Cost of Green Revisited
www.davislangdon.com/upload/images/publications/USA/The%20Cost%20of%20Green%20Revisited.pdf

FEDERAL RESERVE BANK SYSTEM PUBLICATIONS

Green Investment Strategies: A Positive Force In Cities (FRB Boston)
www.bos.frb.org/commdev/c&b/2008/spring/Wachter_greening.pdf

The Marriage of Green and Affordable (FRB Boston)
www.bos.frb.org/commdev/necd/2008/issue2/green.pdf

It's Getting Easier to be Green: Cultivating the Intersections Between Community Development and Environmental Sustainability (FRB San Francisco)
www.frbsf.org/publications/community/investments/0808/overview.pdf

Re-building it Green (FRB San Francisco)
www.frbsf.org/publications/community/investments/0808/rebuild.pdf

Builders See Green (FRB Minneapolis)
www.minneapolisfed.org/publications_papers/pub_display.cfm?id=1209

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Virginia

EarthCraft Sets Gold Standard in Green Building

By Deborah Rider Allen

EarthCraft Virginia serves as a blueprint for building and renovating new single-family and multifamily homes to meet energy efficiency standards through environmentally responsible design and construction. The Virginia program is adapted from the EarthCraft green builder program developed 12 years ago in Atlanta, by Southface Energy Institute and the Greater Atlanta Home Builders Association.

For each project, EarthCraft Virginia develops an energy model and provides a menu of items from which the owner can choose from to earn the points required to achieve certification for the project. Depending on the scope of the project, different points for certification are required. For example, new or renovated and single or multifamily homes carry varying certification requirements. The points fall into a number of categories including site planning and landscaping, envelope system, air-sealing, insulation, windows, recycled and natural materials, lighting, heating and cooling, indoor air quality ventilation, moisture control, recycling of construction waste and durability.

An EarthCraft technical advisor is assigned to each project to advise subcontractors and perform quality assurance inspections during construction to verify compliance. For renovation projects, the building must be inspected before, during and after the renovation by a certified EarthCraft technical advisor. The initial testing to establish a base line model includes blower door testing, forced air distribution systems testing and pressure diagnostic testing. After the construction and scoring worksheets are completed, the energy performance model must show a minimum of 30 percent improvement compared to the pre-renovation model.

EarthCraft homes built by Better Housing Coalition, a Richmond-based community development organization, include HardiPlank siding made of concrete and wood fiber; a 50-year product guarantee; a 15-year paint guarantee on factory finished paint products; Energy Star fixtures and appliances; low-VOC paint and carpet for improved air quality; blown cellulose insulation made from recycled newsprint and custom fit for every framing cavity; and UV ray resistant energy-efficient windows.

For more information about EarthCraft, visit **www.ecvirginia.org**.

Deborah Rider Allen has been a freelance writer for local and national businesses and publications since 1987. Her work has been published in various media including Home Energy Magazine, the Richmond Times-Dispatch, Housetrends of Richmond, Richmond Magazine, R-Home, Chesapeake Bay Magazine, Virginia Bride Magazine, The Post *and various Web sites.*

Photo: AP Photos/The Daily News-Record, Nikki Fox

Volunteers construct an EarthCraft home for Central Valley Habitat for Humanity in Harrisonburg, Virginia.

South Carolina

One Cool Blow: More Than a Gust of Wind

By Carl Neely

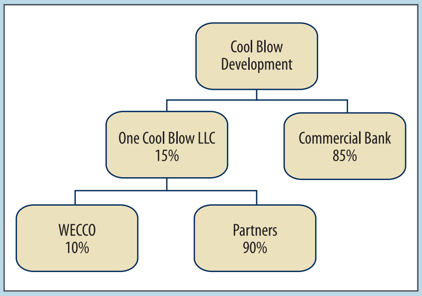
One Cool Blow, in Charleston, S.C., strives to be both environmentally and architecturally aesthetic, a combination that has not always worked well in traditional green building construction and is especially important to a city that showcases exquisite historical architecture.

The Charleston project illustrates how a unique green development can combine environmentally friendly building practices with mixed-use and workforce housing. About 15 percent of the 58 units in the development are priced below $200,000 and are deed-restricted for workforce housing for 10 years. A partnership between WECCO of Charleston, LLC, and the city of Charleston allowed One Cool Blow to receive an incentive to construct an additional nine units with eight units allocated for workforce housing.

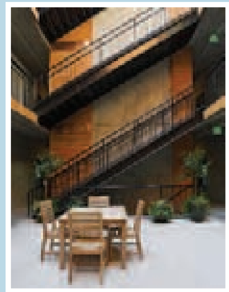
As the Charleston area continues to grow, there are virtually no incentives for infill developments.[1] A lack of incentives coupled with higher impact fees makes infill mixed-use workforce housing a rare commodity in Charleston.

Kristopher King, project manager for WECCO and the developer of One Cool Blow, says, "Market-rate buyers have

Illustration: Courtesy of WECCO of Charleston, LLC



The One Cool Blow Development Project received financing from multiple sources.



embraced the workforce housing component of the program." To help qualified buyers, the city developed a down payment assistance program for first-time homebuyers. Some programs offer up to $12,000 toward the down payment.

One Cool Blow, which was named after the street in a 19th century village known for the strong gusts of wind that cut through the property on the Charleston Peninsula, is a mixed-use workforce space that is green inside and out. It has precast walling that allows for quicker construction, energy efficiency and increased stability during strong wind storms. Renewable construction materials such as bamboo flooring and recycled metals help lighten the environmental impact. Vegetation roofs reduce storm water runoff and help cool the building in the summer.

The project consists of three separate buildings linked by metal canopies. The canopies serve both as generator supports and as connections between the three buildings, making them one structure. According to the zoning guidelines, the canopies reduce the impact fees assessed by the local government.

WECCO began as a manufacturer of precast walls and has evolved into an environmental building leader. Many of their projects, including One Cool Blow, follow Leadership in Energy and Environmental Design (LEED) standards. Such innovative approaches have allowed

Photo: Courtesy of WECCO/Julia Lynn Photography

The One Cool Blow mixed-use development project is the first of its kind in Charleston to integrate design elements with low environmental impact. Green features include a vegetated roof, concrete wall construction, low-VOC paint and native landscaping.

WECCO Developers to fill a unique niche market while fostering distinctive partnerships in Charleston. For more information, visit **www.wecco.com**.

Carl Neely is a regional community development manager in the Federal Reserve Bank of Richmond's Community Affairs Office. He works out of the Charlotte Office and conducts outreach in North Carolina and South Carolina.

Endnotes:

[1] Housing in the Charleston, S.C. Region: A 2007 Affordability Assessment, Page 3, **www.lowcountryhousingtrust.org/pdfs/HousingStudy08.pdf**.

WEST VIRGINIA

LIGHTS ON! WEST VIRGINIA SHINES BRIGHTLY IN ADAPTIVE REUSE

By Jennie Blizzard

What happens when three small business owners who share a passion for community and environmental awareness decide to take green building to another level? Lights ON! West Virginia (Lights ON!), a real estate company that buys historic buildings and renovates them into environmentally friendly office space, is born. "I feel as though existing buildings and historic ones in downtown Appalachia are some of the most underused resources the region has," says Brandon Holmes, a managing partner of Lights ON! "It has been said that available commercial building stock is West Virginia's fourth largest resource."

About two years ago, Holmes and his business partners decided to transition from leasing office space. "We needed a place to expand our working environment and improve our working conditions to retain talent, and we wanted to explore leasing out rental space to other businesses," says Holmes. In July 2007, Lights ON! started renovating the Bellann building in Oak Hill, W.Va., which is now headquarters for Holmes and his business partners' other two businesses, WELD and ELITE Swiftwater Institute. WELD offers Web-based marketing services, while ELITE offers Web-based distance learning for first-responders of flood, swift water and rope rescue emergencies.

Lights ON! gutted the 10,000-square-foot Bellann building, which sat vacant for 16 years. They replaced the old roof with a white reflective roof, installed an energy-efficient HVAC system and energy-saving appliances, and replaced 38 windows with energy-efficient ones. Every office has a window, which reduces the need for light bulbs. They preserved the original hardwood flooring and recycled over one ton of metal during the renovation. "The greenest buildings are the ones that currently exist," says Holmes. "Every building and every brick is already there."

Photo: Courtesty of Charlie Shock, WELD/Lights ON! WV

Brandon Holmes stands in the 6500-square-foot upstairs of the Bellann building which was rennovated using green building practices and now provides micro-office space for six companies.

Six tenants currently lease space in the Bellann building and must follow "green lease" requirements. Tenants must agree to follow basic green practices, such as participating in a recycling program and using energy-efficient transportation and earth-friendly cleaning products. According to Holmes, tenants seem eager to comply with these standards. "We feel there is a high demand for companies to have this type of work environment."

Holmes admits that the learning curve for this green renovation was steep. Lights ON! knew nothing about how to renovate a building or finance a commercial project. The company hired a consultant to explore if the Bellann building could even qualify for a LEED certification. After reviewing the standards, Lights ON! outlined best LEED practices to consider for Bellann's renovation.

Lights ON! blended public and private sector green financing to renovate the project. They have obtained financing from the Natural Capital Investment Fund, a business loan fund and community development financial institution that provides debt and equity financing to small businesses. BB&T and 4-C Economic Development Authority in West Virginia also financed the project. "With economic indicators we were able to convince BB&T that a renovation would generate higher rental rates per square foot of space," says Holmes. "I cannot speak highly enough of their willingness to allow other lenders to become involved in the debt structure of this project."

Lights ON! hopes to produce a green building toolkit for other entrepreneurs and professionals that will serve as a guide on how to redevelop existing buildings and downtowns throughout Appalachia. "By adaptively using buildings in historic downtowns, the state and Appalachia can position themselves to retain and attract talented people," says Holmes. For more information about Lights ON! West Virginia, visit **www.lightsonwv.blogspot.com** or call Brandon Holmes at (304) 663-1196.

Jennie Blizzard is a co-editor of MARKETWISE *Spring/Summer 2009 issue.*

Various green funding resources can be found through local, state and federal programs. Often, securing government resources enables developers to obtain better private financing. Leveraging other community development grants such as the New Market Tax Credits program further supports green building initiatives. Private resources offered by venture capitalists, banks, foundations and private donations help diversify funding and fill gaps in government programs and incentives. Typically developers utilize a mix of green financing and conventional financing to achieve a stable financing stream. While green investors and banks play a supplementary role in green community development financing—their presence in large community development projects remains limited in many regions, requiring the need for diverse funding sources.

Trade Offs

Compared with the traditional construction process, green building can be more complex and costly, especially for developers new to the industry. According to New Ecology Inc., a community-based sustainable development organization in Massachusetts, green building tends to require significant evaluation of environmental issues, more coordination between design professionals and contractors and, overall, a more detailed preparation of building plans.[12]

One persistent challenge for investors is reconciling these higher up-front costs with the prospects of long-term savings and net benefits. According to one study of 150 green buildings sponsored by the U.S. Green Building Council and other real estate and architectural groups, building green costs an average of 2.5 percent more up front. However, green buildings reduced energy consumption by 33 percent.[13] Despite the initial price premium, the study found that the long-term energy-efficiency savings made green building an attractive investment.

While LEED certification, the Energy Star program and EPA emission standards have helped build credibility among green projects, there is no comprehensive measure to help investors value green project returns. Life-cycle analysis (LCA) is one method of assessing the total costs of green infrastructure. The purpose is to estimate the overall costs of project alternatives and to select the plan that ensures the infrastructure will present the lowest total cost of ownership consistent with its quality and designated function.[14] It takes into account all building, operating and disposal expenses over the useful life of the asset. The LCA method also evaluates the consequences of using alternative materials, designs or building processes that deliver the same performance

Continued on page 14

ADDITIONAL RESOURCES

Green Government Database
www.naco.org/GreenTemplate.cfm?Section=Green_Government_Database&Template=/cffiles/ggi/green_counties/ggi_search.cfm

Life Cycle Analysis Tools:
Whole Building Design Guide
www.wbdg.org/index.php

US Department of Energy – Federal Energy Management Program (FEMP)
www.eere.energy.gov/femp/program/lifecycle.html

but differ in initial cost. The analysis helps diminish some valuation and cost uncertainty associated with environmental development.

Conclusion

Despite market challenges, an increase in green building incentives, as well as technological innovations, will drive continued interest in green development and opportunities for green financing. As with any new innovation, green building faces barriers to acceptance and requires a change of industry norms. Many community development professionals are working to break down these barriers through educating industry professionals, bankers, and consumers about the long-term potential for green building. They believe that green development can create long-term environmental and financial returns that are a win-win for both investors and communities.

Sarah Eckstein is the MARKETWISE *editor in the Federal Reserve Bank of Richmond's Community Affairs Office.*

Endnotes:

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[3] Gronewold, Nathanial, *"Green" Banks Sprout form Ruins of Economic Crisis*, New York Times, April 6, 2009.

[4] Eichholtz, Piet and Kok, Nils and Quigley, John. *Doing Well by Doing Good? An analysis of the financial performance of green office buildings in the USA*, Royal Institute of Chartered Surveyors, March 30, 2009, **www.rics.org/Knowledgezone/Researchandreports/doingwell_300309_research.htm**.

[5] Burke, Robert, *LEEDing the Way*, Virginia Business, March 27, 2009, **www.virginiabusiness.com/index.php/news/article/leeding-the-way/**.

[6] *New Loan Program from ShoreBank Pacific Rewards Sustainable Development*, Business Wire, 2009, **www.reuters.com/article/pressRelease/idUS173524+02-Feb-2009+BW20090202**.

[7] Fischer, Eric A., *Issues in Green Building and the Federal Response: An Introduction*, Congressional Research Service, January 16, 2009, Pages 18-19.

[9] **www.green.dc.gov/green/cwp/view,a,1231,q,460953.asp**.

[10] **www.green.maryland.gov**.

[11] **www.practitionerresources.org/cache/documents/666/66601.pdf**.

[12] Connelly, Edward F. and Miller, Jessica, *Making Affordable Housing Greener*, Communities & Banking, Federal Reserve Bank of Boston. Vol. 20, No. 2, Spring 2009, Pages 23-24.

[13] Kats, Gregory, *Green Building and Communities: Costs and Benefits*, (Full study to be released summer 2009), **www.goodenergies.com/news/research-knowledge.php?WYSESSID=fmj8pal4ufnld4tf39gkim73e3**.

[14] Fuller, Sieglinde, *Life-Cycle Cost Analysis* (LCCA), National Institute of Standards and Technology, Whole Building Design Guide, **www.wbdg.org/resources/lcca.php**.

Renewable Energy Tax Credits

The American Recovery and Reinvestment Act of 2009 provides tax credits for clean-energy projects for both homes and businesses. The act provides homeowners a 30 percent credit for energy efficient improvements, eliminates caps for specific improvements, and establishes an aggregate cap of $1,500 for all improvements made in 2009 and 2010. For business and homeowners, tax credits are available for purchasing electric vehicles and installing clean-fuel systems.

A new tax credit is also available to encourage investment in manufacturing facilities that help make clean-energy products. The 30 percent investment tax credit can be applied to clean-energy technology such as solar and wind energy.

www.renewableenergyworld.com/rea/news/article/2009/02/clean-energy-aspects-of-the-american-recovery-and-reinvestment-act

Weatherization Initiative

The Department of Energy (DOE) and the Department of Housing and Urban Development (HUD) announced a new interagency collaboration on federal housing weatherization efforts. The American Recovery and Reinvestment Act of 2009 authorizes the new interagency task force to leverage $16 billion in funds to spur growth in the home energy efficiency industry. HUD's funding includes $4.5 billion to renovate and upgrade public and tribal housing and an additional $250 million for energy retrofits of privately owned, federally assisted housing. DOE's funding designates $5 billion for weatherization assistance. The major programs include $3.2 billion for new block grants that states, local governments, and tribal governments can use to retrofit homes and $3.1 billion for the State Energy Program.

The task force will coordinate the expenditure of the new funds in local communities and develop guidelines and specifications for retrofitting public housing and privately owned, federally subsidized rental properties. The group will also be responsible for evaluating home energy disclosure and audit standards and creating new financing tools for home energy efficiency efforts. To help document gains and benefits from energy-efficient improvements, the task force will spearhead a government-wide effort to develop a common baseline for measuring home energy use.

A complementary measure in the act provides $5 billion for the Weatherization Assistance Program. The measure aims to reduce energy costs for low-income households by increasing the energy efficiency of their homes while ensuring their health and safety. The Act increases the eligible income level under the program, raises assistance levels to $6,500 per home and allows for updated weatherization assistance for homes that were weatherized as recently as 1994. For more information on the program, visit **www.energy.gov/news2009/6956.htm**.

Environmental Economics: The Externalities of Going Green

By Sonya Ravindranath Waddell

Many of the environmental benefits of the green building techniques discussed in this issue can be factored into the short or long-term costs of at least one of the parties involved. For example, employing a smart drip irrigation system is probably a cost-saving implementation for the SJF Ventures portfolio firm. And a builder can probably recover at least the 2.5 percent added cost of green building since a consumer is likely to spend more on a house with lower long-term energy costs.

Economists talk about *externalities* arising when the unintended consequences of an activity—such as carbon dioxide emissions—are not factored into prices. An externality, in fact, is the unintended consequence; it is a cost or benefit of an economic activity that is not reflected in prices and can affect both the people directly involved, as well as those not involved in the activity. For example, a factory that pumps smoke into the air impacts the air quality of nearby residents as well as the atmospheric quality for a broader group of people, including future generations. This creates a cost of production that is not included in the producer's cost and revenue calculations and therefore is not a consideration in production decisions. It constitutes a *negative* externality. Conversely, the green roof on the Richmond Fed's Charlotte branch is not only a cost-efficient building method, but through the plants' absorption of carbon dioxide and emission of oxygen, the roof might provide a positive, albeit small, benefit to the Charlotte community. Furthermore, any conservation of energy and reduction in carbon dioxide emissions is a benefit to the entire planet. This is an example of a *positive* externality.

Externalities are a form of market failure — if the externality is positive, the market will provide too little of the good; if the externality is negative, the market will supply too much. Economists and policy, makers have, over time, developed ways to "fix" the market when externalities arise. For example, taxes are imposed as a way to account for the cost of the externality, or subsidies are provided to make it more profitable for a person to buy a hybrid vehicle or make energy efficient enhancements to their home. Some economists have also recommended assigning property rights to environmental goods such as air or water. The more private corporations and public citizens consider the environmental and social externalities of their activities when making economic decisions, the better the market will function without external solutions.

Sonya Ravindranath Waddell is an associate regional economist in the Research Department at the Federal Reserve Bank of Richmond.

DISTRICT HIGHLIGHTS COMPILED BY Jennie Blizzard, Ellen Janes, Courtney Mailey and Carl Neely

Foundation Creates Resource Center for Nonprofits Facing Challenging Tough Economic Times

During challenging economic times, nonprofit organizations often have a difficult time accomplishing their mission with fewer staff and smaller budgets. The Washington, D.C.-based Eugene and Agnes E. Meyer Foundation recognizes these challenges and has created an Economic Crisis Resource Center to help nonprofit board members and staff navigate the turbulent economy. The foundation offers links and brief descriptions of a wide range of events, publications, Web sites, podcasts and blogs. Topics range from innovative approaches to fundraising and marketing to board involvement and stress management. In addition, there are toolkits available to help organizations assess the impact from the negative economy. The foundation offers a popular, ongoing series of workshops on additional topics including priority setting, communication strategies and staff retention. The Web site includes links to information and frequently asked questions about the recession to help nonprofits better understand how the current economy affects the nonprofit industry. For more information, visit **www.meyerfoundation.org/economyresources**.

State Adopts New Identity Theft Law

On July 1, 2009, two new consumer protection laws, the Financial Identity Fraud and the Identity Theft Protection Act, will go into effect. Consumers will be able to freeze their credit without penalty and choose from several additional options to dispute information on their credit file.

A credit file freeze does not block credit bureaus from collecting information but does prevent the dissemination of information to third party companies. The freeze does not affect a consumer's credit scores.

The new law also addresses "dumpster diving"— rummaging or stealing another person's household garbage and personal information with the intent to commit identity theft or fraud. This practice is a criminal offense. Under the new law, businesses are required to have five digits or fewer of the credit card number on the receipt. However, this requirement does not apply to imprinted receipts. In addition, consumers can require credit reporting agencies to prove credit report accuracy.

To read the bill, visit **www.scstatehouse.gov/sess117_2007-2008/bills/453.htm**. A video summary from The South Carolina Department of Consumer Affairs is available at **www.youtube.com/watch?v=KW6NM0qN-q4**.

Maryland Takes Inclusive Approach to Allocating Stabilization Funds

The Maryland Department of Housing and Community Development (DHCD) has used its Neighborhood Stabilization Program (NSP) funds to launch a new Neighborhood Conservation Initiative. NSP provides assistance to state and local communities for acquiring and redeveloping foreclosed or abandoned properties to help stabilize neighborhoods. DHCD has targeted the funds to further expand Maryland's current housing and revitalization incentives. To better serve the needs of Maryland residents, the state is collaborating with counties, municipalities, public housing authorities and community-based organizations to design the activities that the Initiative will fund.

DHCD received more than $64 million in requests and awarded just under $19 million to Baltimore City, Hagerstown, twelve counties and two public housing authorities.

Together, the awardees aim to produce 500 affordable homes and offer downpayment assistance to 1,000 homebuyers. The remaining portion of the state's NSP funds will support rental housing for low-income households statewide.

For more information on the Neighborhood Conservation Initiative, visit **www.dhcd.state.md.us**.

NSP information and state allocations can be found at **www.hud.gov/offices/cpd/communitydevelopment/programs/neighborhoodspg**.

Virginia Amends Payday Lending Law

In January 2009, several key amendments to the Virginia Payday Loan Act of 2002 became state law. The act, which regulates the industry and caps interest on payday loans at 780 percent APR, restricts payday lenders from offering open-ended loans. Open-ended loans typically carry extremely high interest rates and fees. The amendments also would restrict a single borrower to one payday loan at a time, require lenders to offer a minimum loan term of two pay periods to repay a payday loan, and restrict debt-collecting practices. The Virginia law would add a database to track and enforce these limits on lending.

Payday lenders now must check a database maintained by the Bureau of Financial Institutions to determine whether a borrower has any outstanding payday loans before making a loan to that borrower. In order to comply with debt collection restrictions, borrowers are required to forward-date the check as a security measure, instead of back-dating. Payday lenders also must comply with the Fair Debt Collection Practices Act.

Visit **http://leg1.state.va.us/cgi-bin/legp504.exe?081+ful+CHAP0849** to view the regulation.

New Technology-Based Economic Development Plan Hopes to Attract Businesses and High-Paying Jobs

On March 19, a diverse coalition of West Virginia economic developers, researchers, technologists, service providers and others joined TechConnectWV for the launch of *A Blueprint for West Virginia's Innovation Economy: A Strategic Plan*. The blueprint marks four years of research and strategic alliance-building by TechConnectWV, which aims to diversify West Virginia's economy by developing science and technology niches into new industries. According to TechConnectWV's executive director, Dr. Kevin DiGregorio, "Technology-based economic development is fundamental to the future of West Virginia's economy. We are a little bit behind, so that means that we have to move at an even faster pace in the short term. This group is determined to help make that a reality." In the short term, the blueprint recommends that West Virginia nurture and develop leadership to propel technology-based development. "We see four areas where we have nascent, but true, competitive advantages: advanced energy and energy-related technology; advanced materials and chemicals; identification, security and sensing technology; and molecular diagnostics, and therapeutics and targeted delivery systems," says Russ Lorince, director of economic development at West Virginia University.

For more information about TechConnectWV, also known as the West Virginia Coalition for Technology-Based Economic Development, visit **www.techconnectwv.org** or contact Dr. Kevin DiGregorio, at **kevindig@suddenlink.net**, or call (304) 437-4295.

BizWorks Partners and NCIF Finance First Solar Farm in Western North Carolina

Mountain BizWorks of Asheville, North Carolina, and the Natural Capital Investment Fund recently announced a joint effort to provide loans of up to $300,000 to sustainable green businesses. Mountain BizWorks provides training, technical and business development support for entrepreneurs interested in expanding their small businesses. The partnership brings technical assistance and capital to businesses that emphasize social and environmental factors as well as economic returns. FLS Energy, Inc. was the first to leverage the capital to build the original solar farm in western North Carolina. Built on an old landfill at Evergreen Packaging in Haywood County, the solar farm is one of the largest in the southwest and includes 3,288 photovoltaic (PV) panels installed on about seven acres. The solar farm produces enough energy to power more than 1,100 homes a year.

For more information on Mountain BizWorks visit **www.mountainbizworks.org**.

Contact Matt Siegel, director of the WNC Green Building Council, at **matt@wncgbc.org**, or visit **www.wncgreenbuilding.com** to learn more about the solar farm.

Community Housing Partners

By Orlando Artze

Photo: Courtesy of CHP/Jasmin Cotman

A family makes use of the new community room at Lafayette Square in Williamsburg, Va. The extensive renovations included the use of environmentally responsible building practices and design features such as energy-efficient mechanical systems, appliances, and lighting; EnergyStar windows; low-VOC finishes; durable siding; and native landscaping.

Community Housing Partners (CHP), a nonprofit community development corporation located in Christiansburg, Va., focuses on providing affordable, green, sustainable housing opportunities and services for low-income individuals and families. Their activities include sustainable development, architectural design, construction, energy services, homeownership facilitation and housing management.

Q: What are CHP's sources of funding for its green projects?

A: Because all of CHP's projects are considered green projects, we generally do not apply for funding sources based entirely on the green elements of a project. Since each project is unique, CHP uses a combination of funding and/or tax credits from local, state and federal agencies, private partners and lending institutions. How and if this money is applied to the green aspects of a project is usually left to CHP's discretion.

Q: How does CHP obtain green funding?

A: It is extremely difficult to quantify the exact cost of adding green practices to affordable housing programs since projects require different building materials that vary in price. As a result, it is often difficult to say precisely how much of our total funding applies to the green aspects of projects. And though many green designs are cost effective in the short term, others may take several years to reclaim the savings. There are staffing costs, but they depend on the extent of the work done and the number of strategies included in each project. To determine potential costs, CHP must outline all the possibilities, determine a budget, and then decide which green strategies are appropriate to implement.

By incorporating green design and construction strategies into CHP's everyday methodology, we have learned some important lessons:

- True environmental policy works best if it becomes an overall agency goal. Helping staff, customers and colleagues think differently about the environment and conservation will help the program succeed.

Photo: Courtesy of CHP/Philip Beaurline

The Roanoke-Lee Street development was created by CHP in partnership with the town of Blacksburg, Va., and consists of 14 units of affordable and sustainable duplex housing.

- Stable funding is critical. CHP must calculate the various budgetary options for materials and activities and then develop a plan. We do seek funding from groups that support green building, such as LISC, NeighborWorks America, the Home Depot Foundation and Enterprise Green Communities, but also from more traditional funding sources used for development projects.
- A metric system, such as CHP's self-created Development Feasibility Scoring System, helps the agency set and achieve objectives. It also provides staff with a useful list of planning and construction options and alternatives.
- Green building can be cost effective. Organizations can adopt various activities that provide significant savings. Even if funds for environmental practices are low, staff should do what they can, when they can. This gets the agency moving in the right direction.

Q: Of the green features CHP uses, which ones provide the most energy savings and environmental benefits?

A: The following is a list of features that provide the most energy savings:

- Advanced framing techniques
- Energy Star lighting, windows, and appliances
- Cellulose insulation
- Air sealing
- Seer heat pumps
- Low VOC paints, sealants, and adhesives
- Low-flow toilets and faucets
- Fiber cement board siding (such as HardiPlank siding)
- Energy-efficient water heaters
- Tankless gas water heaters
- Super insulated electric water heaters
- Solar thermal water heaters

For more information about CHP, visit
www.communityhousingpartners.org
or call (540) 382-2002.

Orlando Artze, CHP's Executive Vice President & COO, joined CHP in April 2006, bringing with him over 20 years of experience in the affordable housing field from his previous work with Local Initiatives Support Corporation (LISC), where he most recently served as the Program Vice President for the Southeast and Minnesota regions. Artze holds an MBA from Baruch College, City University of New York and also has an MA in American History from Stony Brook University, State University of New York.

Photo: Courtesy of CHP/Philip Beaurline

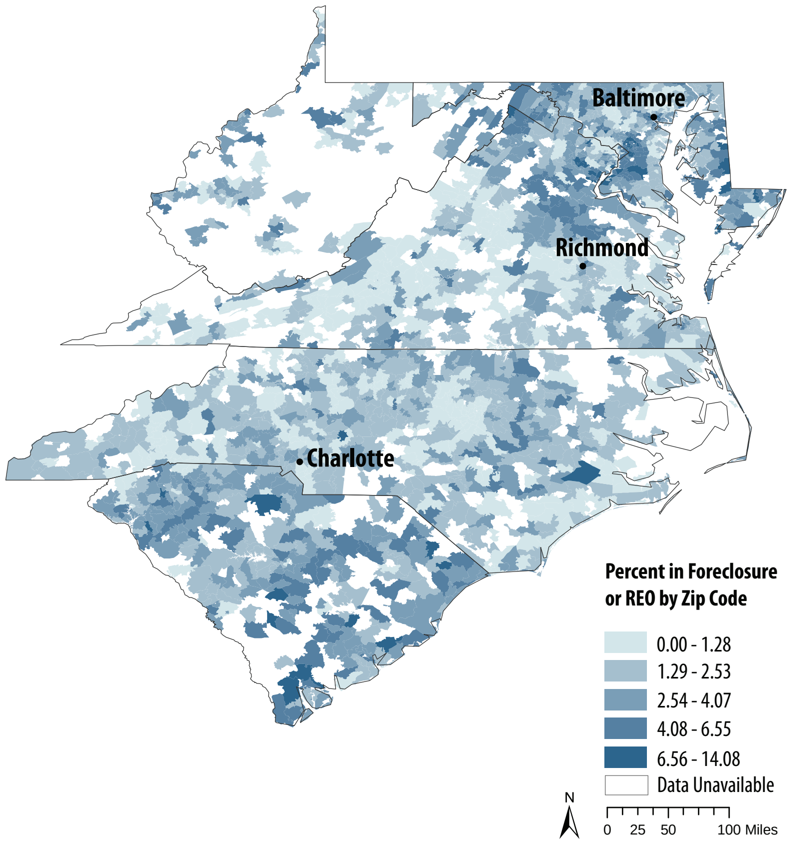
The Tekoa Youth Facility is a 20-bed therapeutic residential facility for at-risk youth in Christiansburg, Va. This new construction project is an award-winning example of low-impact, green, attractive, sustainable design.

Photo: Courtesy of CHP/Melissa Byrd

Yorktown Square II, which has earned the EarthCraft Multifamily Energy Efficiency Standards certification, was acquired and redeveloped by CHP to preserve this affordable housing stock for the community and residents of Yorktown, Va.

FIGURE 2

Fifth District: Percentage of Owner-Occupied Loans in Foreclosure or REO*



Geographic Area	Number of First-Lien, Primary Owner Loans	Percent of First-Lien, Primary Owner Loans with Payments 90+ Days Past Due (%)	Percent of First-Lien Primary Owner Loans in Foreclosure or REO (%)
DC	112,356	2.93	2.58
MD	1,264,712	4.36	3.34
NC	1,668,461	4.00	1.60
SC	787,404	3.75	2.84
VA	1,675,275	3.33	2.39
WV	158,364	3.78	2.80
5th District	5,666,572	3.82	2.48
United States	53,407,272	4.48	3.91

Source: Federal Reserve Bank of Richmond estimates in the map and chart above, using LPS (Lender Processing Services, Inc) Applied Analytics and Mortgage Banker's Association data. (These numbers are adjusted to compensate for the datasets' estimated coverage of the market). Data is from February 2009. In the map, uncategorized zip codes have fewer than one hundred loans or no available data.
* REO is defined as real estate owned by the lender (after the foreclosure but before the house is sold).

Richmond Fed Partners with HOPE NOW and NeighborWorks America to Help Homeowners

The Federal Reserve Bank of Richmond joined HOPE NOW and NeighborWorks America to sponsor an event for Carolina borrowers facing foreclosure. The event drew hundreds of homeowners seeking a chance to meet with their mortgage lenders to receive possible mortgage resolutions. The event, held in Charlotte, N.C., connected 15 servicers, 12 housing counselors and 12 nonprofit organizations who provided over 600 people at risk of losing their homes with information that could help prevent foreclosure and improve their credit.

Weaknesses within the housing market and rising unemployment rates have left families uncertain about the viability of homeownership. Areas once unaffected by foreclosure are now experiencing unemployment and spillover effects from adjacent communities. The Federal Reserve Bank of Richmond has identified the Charlotte region as an area with increasing mortgage delinquency and foreclosure challenges. In January 2009, according to LPS Applied Analytics, 4 percent of the loans in the Charlotte region were more than 90 days delinquent, a figure higher than the state average.

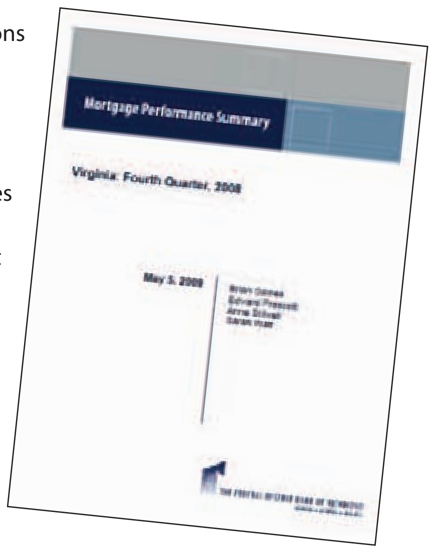
Data recently released from the Bureau of Labor Statistics show that the unadjusted rate of unemployed persons for the Charlotte region in February 2009 reached 11.7 percent compared with 11.3 percent for North Carolina.

Visit the Richmond Fed's Foreclosure Resource Center for foreclosure prevention resources at **www.richmondfed.org/community_development/foreclosure_resource_center**.

Virginia Mortgage Performance Summary Shows Slightly Better than National Average Picture

A report released by the Federal Reserve Bank of Richmond shows that despite pockets of foreclosures and delinquencies, Virginia mortgages overall are performing better than the national average. The report looks at the background, composition and performance of prime and subprime mortgage loans in Virginia. (Subprime mortgages loans are those made to people with credit scores at 620 or below.)

The Commonwealth ranks 41st among the nation's 50 states with subprime mortgages accounting for 8.8 percent of loans compared to the national average of 11.7 percent, according to fourth quarter 2008 data. The number of Virginia subprime loans in foreclosure was 9.4 percent compared to the national average of 13.7 percent.


Mortgage Performance Summary

Virginia: Fourth Quarter, 2008

May 5, 2009

Still, the dire economic conditions that prevailed in 2008 and 2009 continue to create hardships for homeowners and communities nationwide. As a result, mortgage loan delinquencies and foreclosures are rising, explained Edward "Ned" Prescott, research economist and vice president. "It's important to keep in mind that mortgage delinquencies continue to increase nationwide and Virginia is no exception," he noted.

The Richmond Fed also looked at mortgage performance throughout the Commonwealth.

"There is a lot of variation in mortgage performance throughout the Commonwealth, but the outer ring of Northern Virginia is in the worst shape and has been for some time," Prescott said. The report ties the poor performance in Northern Virginia to the big increase and ensuing drop in house prices there. There also was a large fraction of interest-only loans taken out in Northern Virginia compared with the rest of the Commonwealth.

The entire report can be accessed at **http://e1web802/research/regional_economy/reports/mortgage_performance_summaries/va/2008/fourth_quarter/index.cfm**.

"The recent experience has shown some ways in which financial innovation can misfire. Regulation should not prevent innovation, rather it should ensure that innovations are sufficiently transparent and understandable to allow consumer choice to drive good market outcomes . . . Other questions about proposed innovations should be raised: For instance, how will the innovative product or practice perform under stressed financial conditions? What effects will the innovation have on the ability and willingness of the lender to make loans that are well underwritten and serve the needs of the borrower? These questions about innovation are relevant for safety-and-soundness supervision as well as for consumer protection."

– Ben S. Bernanke, Chairman, Federal Reserve Board of Governors

Federal Reserve System's Sixth Biennial Community Affairs Research Conference, Washington, D.C., April 17, 2009 Financial Innovation and Consumer Protection

The entire speech can be accessed at **www.federalreserve.gov/newsevents/speech/bernanke20090417a.htm**.

Approaches to CDFI Sustainability

ORGANIZATIONS

THE ASPEN INSTITUTE AND THE FEDERAL RESERVE BANK OF CHICAGO

Community Development Financial Institutions (CDFIs) are being challenged to grow and reach a greater share of the underserved in the United States. They are working to do so in an increasingly competitive environment for both funding and customers. This struggle has raised some critical questions within the CDFI field. This paper attempts to look at sustainability within the context of increasing industry scale and the use of subsidies. Through quantitative analysis, a survey of industry practitioners and a series of case studies, the study looks at the state of sustainability in the field, and uses these findings to develop a framework for understanding sustainability.

— *Excerpt from the report.*

www.aspeninstitute.org/publications/approaches-cdfi-sustainability

Financial Innovations Roundtable: Developing Practical Solutions to Scale up Integrated Community Development Strategies

ORGANIZATIONS

THE CARSEY INSTITUTE AND THE UNIVERSITY OF NEW HAMPSHIRE

Financial Innovations Roundtable, housed at the Carsey Institute at the University of New Hampshire, brings together nearly 100 leaders from conventional financial institutions such as banks, mortgage companies, insurance companies, and investment firms as well as leaders from public agencies, CDFIs, foundations, pension funds, religious institutions and universities. These participants collaborate on increasing the flow of capital and access to financial services in low-income communities. The group convenes annually to address broad policy issues in community economic development. Members identify the challenges inherent in community development and create cross-sector partnerships to develop practical solutions. Over the year, these partners engage in various initiatives and research, working to remove barriers between conventional and non-traditional lenders, investors, and markets, and to create products and services that offer low-income communities greater access to capital and financial services.

This publication presents several innovations that roundtable participants have created or are currently developing. The first section looks at capital markets and community development— the flow of capital and access to financial services in low-income communities. A second section of this report tackles mission-related investing and targeted investing.

— *Excerpt from the report.*

www.carseyinstitute.unh.edu/publications/Report-FIR-2009.pdf

A Guide to Home Mortgage Disclosure Act Data

ORGANIZATION

THE URBAN INSTITUTE

The Home Mortgage Disclosure Act (HMDA) requires most lending institutions to report on home mortgage loan applications, including the application outcome, loan- and applicant-related information, and property location. Annual data collected through HMDA provide a unique set of files with information at the neighborhood level. HMDA-based measures can begin to answer a wide array of questions:

- What is happening to home prices in a particular area?
- Has home investment in certain low-income neighborhoods lagged compared with that in other neighborhoods?
- How has the racial or economic composition of borrowers changed over time?
- Have minorities or women had trouble accessing mortgage credit?
- In what kinds of neighborhoods are subprime loans concentrated?
- What types of borrowers are most likely to receive subprime loans?

This guide provides an introduction to HMDA data and describes the HMDA indicators available on DataPlace (http://beta.dataplace.org). It also describes the contents of the orginal source files from which the DataPlace indicators were derived. Finally the guide illustrates how DataPlace indicators derived from HMDA data can be used to shed light on such issues as neighborhood investment trends, changes in the racial and economic composition of homebuyers, disparities in home loan access and subprime lending.

— *Excerpt from the report.*

www.urban.org/publications/1001247.html

Revisiting the CRA: Perspectives on the Future of the Community Reinvestment Act

The Community Reinvestment Act (CRA), enacted in 1977, has fostered access to financial services for low-and moderate-income communities across the country. Together with other anti-discrimination, consumer protection and disclosure laws, CRA remains today a key element of the regulatory framework, encouraging the provision of mortgage, small business, and other credit, investment, and financial services in low- and moderate-income neighborhoods.

While CRA has been a part of the bank regulatory framework for more than 30 years, many observers think the act has not kept up with changes in the financial services industry. This volume of research papers and essays, jointly published by the Federal Reserve Banks of Boston and San Francisco, documents how much the industry has changed since the CRA was passed and offers proposals for CRA reform. The volume captures many different perspectives on the past and future of CRA, provides facts and highlights possible reforms.

— *Excerpt from the report.*

www.frbsf.org/publications/community/cra/revisiting_cra.pdf

ORGANIZATIONS

THE FEDERAL RESERVE BANKS OF BOSTON AND SAN FRANCISCO

Stretched Thin: The Impact of Rising Housing Expenses on America's Owners and Renters

The housing woes of America's families extend beyond higher mortgage payments to include large increases in a wide variety of other housing expenses, according to a new study entitled *Stretched Thin: The Impact of Rising Housing Expenses on America's Owners and Renters*.

ORGANIZATION

THE CENTER FOR HOUSING POLICY

Conducted by the Center for Housing Policy, the research affiliate of the National Housing Conference, the study reveals that mortgage payments are only one of several factors contributing to the challenge of rising housing expenses, and that this problem is adversely affecting virtually all segments of the housing market – homeowners and renters, new and longtime homeowners, and households with and without mortgages.

— *Excerpt from the report.*

www.nhc.org/pdf/pub_stretchedthin_2008.pdf

Foreclosure-Response.org: A New Tool to Help Communities Prevent Foreclosures and Stabilize Neighborhoods

The Center for Housing Policy, KnowledgePlex, the Local Initiatives Support Corporation and the Urban Institute have joined forces to launch Foreclosure-Response.org – a new resource that provides government officials, housing practitioners and advocates with up-to-date information on several state and local policy solutions related to foreclosure prevention and neighborhood stabilization. The site includes a policy guide to state and local housing policy, maps and data, and a forum.

www.foreclosure-response.org

ORGANIZATIONS

THE CENTER FOR HOUSING POLICY, KNOWLEDGEPLEX, THE LOCAL INITIATIVES SUPPORT CORPORATION AND THE URBAN INSTITUTE

Neighborhoods in Bloom Revisited

In 1999, the City of Richmond decided to target the bulk of its federal Community Development Block Grant funds and its Home Investment Partnership funds, as well as significant amounts of capital improvement funds and other resources on seven carefully chosen neighborhoods. Through the Neighborhoods in Bloom initiative, the city planned to concentrate significant resources on these neighborhoods until it achieved the critical mass of public investment needed to stimulate self-sustaining, private-market activity.

— *Excerpt from the report.*

Pierre-Daniel G. Sarte, a senior economist at the Federal Reserve Bank of Richmond, revisits the Neighborhoods in Bloom initiative for insight into the economic effects of community revitalization. A Richmond, Va.-based community development program provides a natural experiment for measuring how the choices of one property owner can increase or decrease the value of neighboring properties.

Residential Externalities essay available at **www.richmondfed.org/publications/research/economic_brief/2009/eb_09-02.cfm**.

Read the original Neighborhoods in Bloom report at **www.richmondfed.org/community_development/emerging_issues/reports/pdf/nib_research.pdf**.

ORGANIZATION

THE FEDERAL RESERVE BANK OF RICHMOND

The Fed Goes Green in its Own Backyard

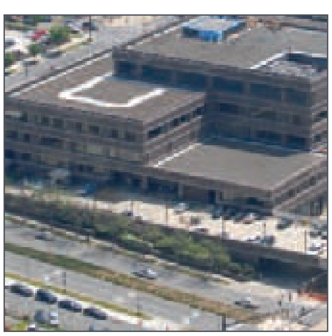
When I first started talking about a green roof in 2006, many people had ready answers that included smiles and a hearty laugh. To start the real conversation, we had to get beyond visions of lawn mowers, putting greens and people's reservation that the roof had no practical purpose. Thankfully, once we clarified many functional and financial misconceptions there were ready ears and a willing mindset to look at this project in its totality. Looking back, "going green" was just beginning to gather steam. The Bank believed this was the perfect opportunity to embrace innovation and contribute to a sustainable, healthy community.

So what is a green roof and why did the Bank decide to do it? A green roof is a conventional roof system that substitutes a specialized drainage layer with engineered soil and plants specifically suited for a roof climate. A roof climate is more arid, hotter and windier than ground level conditions. The environmental benefits of installing our green roof include conserving energy, minimizing storm water runoff and reducing building temperatures in warm months.

From a financial standpoint, the most significant benefit for the Bank is a considerable reduction in life cycle costs, or the amount of resources needed to maintain the roof over its lifetime. Many green roofs installed before World War II are still working today, and industry expectations are that green roofs more than double roof-life in most cases. The Bank predicts that during the lifespan of the green roof a traditional roof would need to be replaced at least one additional time. The cost of roof replacement in today's dollars is at least 3 times more expensive than the anticipated reduction in energy costs, making the decision to go green fairly easy. The price of the green roof was 1.21 times the cost of a conventional roof. So, for approximately $320,000 more in up-front costs, we anticipate a gain of at least $2 million in cost-savings over the lifespan of the roof. The extended life also means a 38 percent reduction in annual depreciation costs. The green roof not only made financial sense, but established the Bank as a leading example of sustainable construction in the Carolinas and nationally.

Adam Pilsbury is Assistant Vice President of the Federal Reserve Bank of Richmond, Charlotte Branch.

Photo: Federal Reserve Bank of Richmond



Federal Reserve Bank of Richmond invests in green technology with the installation of a green roof at its Charlotte Branch.

Photo: Federal Reserve Bank of Richmond

"I have always been passionate about community development issues. I look forward to applying my economics background and work experience to enhance research and outreach activities for the Federal Reserve."

– Kim Zeuli
Assistant Vice President and
Community Affairs Officer

Kim Zeuli has joined the Federal Reserve Bank of Richmond as assistant vice president and the new officer of Community Affairs. Kim brings a wealth of community development experience to the position. She has worked on community development issues internationally and domestically. Before joining the Fed, she was a professor in the University of Wisconsin's Agricultural and Applied Economics Department. Most recently she was a research director and business consultant with the Corporate Executive Board, Business Leadership Forum, in Washington, D.C. A graduate of Vassar College, Zeuli earned a masters and doctorate in Applied Economics from the University of Minnesota, St. Paul, Minn.

Avoiding Foreclosure Scams...

The Federal Reserve has created a 30-second advertisement which will direct consumers to free resources on avoiding foreclosure scams at www.federalreserve.gov. These include "5 Tips for Avoiding Foreclosure Scams" and other mortgage foreclosure resources. In mid-April 2009, the ad began airing in movie theaters across nine U.S. states, including Fifth District states, Maryland and Virginia.

5 Tips for Avoiding Foreclosure Scams

www.federalreserve.gov/pubs/foreclosurescamtips/default.htm

LESSONS FROM A STORM ▪ Banking for Safety

The Community Affairs Offices in the Federal Reserve System have released "Lessons from a Storm," a video chronicling the stories of families who, in the aftermath of Hurricane Katrina, learned about the benefits of maintaining a bank account that allows for the direct deposit of payments and benefits. The devastation that accompanied Hurricane Katrina in 2005 left many individuals and families without homes and without a way to receive payments sent to them by mail. Evacuees who had bank accounts, and who had payments automatically deposited into their accounts, could immediately access their funds at any branch of their bank. They also had a place for government emergency payments to be deposited.

The 17-minute video is available for viewing at **www.bos.frb.org/consumer/lessons-from-a-storm/**. Copies can also be requested through the Boston Federal Reserve Bank Web site or by contacting Mary Bland at the Federal Reserve Bank of Richmond at mary.bland@rich.frb.org.

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