

# It's Getting Easier to be Green

## *Cultivating the intersections between community development and environmental sustainability*

By Naomi Cytron

### Introduction

It seems like everywhere you turn these days, something is 'going green'— be it a lightbulb, a shopping bag, or an A-list Hollywood celebrity. The community development field is not immune to this shift in hue; the green revolution is prompting community and economic developers to seek ways to dismantle the boundaries between environmental sustainability and community development. And promising intersections between these realms are emerging. In this issue of *Community Investments*, we explore several of these areas of overlap, including brownfields redevelopment, triple bottom line investing, and retrofitting existing affordable housing developments with green operating systems. In this introductory article, we examine the intersections between traditional community development activities and what it means to go green — from transforming the built environment to reduce environmental hazards and improve health in low-income areas, to reorienting job training and economic development efforts to contribute to both sustainability and wealth creation.

### Greening the Built Environment

The construction and operation of the buildings where we live and conduct business consume over 60 percent of the electricity used in the U.S. and account for one-third of total greenhouse gas emissions.<sup>1</sup> Inefficient heating and cooling systems, lighting, and appliances contribute to the carbon footprint of the built environment; an old or poorly maintained refrigerator, for instance, can emit over 1,500 pounds of CO<sub>2</sub> annually—the equivalent of about 75 gallons of gasoline.<sup>2</sup> Building construction, renovations and operations also consume vast amounts of raw materials and generate heaps of waste; while some building materials are recycled, millions of tons of wood, concrete, drywall, and asphalt shingles end up in landfills.<sup>3</sup> Conventional building practices may also have negative impacts on our health; materials and finishes are thought to contribute to poor indoor air quality and resulting respiratory illnesses such as asthma. The negative impacts of conventional building practices on human and environmental health require that we rethink where and how to design, construct, operate, and maintain both residential and commercial buildings in more sustainable ways.

Moreover, it is critical that we recognize the natural intersections between the benefits of greener building practices and the needs and interests of low-income communities. Measures to increase energy efficiency can lower utility costs for residential and commercial properties, and smart growth and transit-oriented development can yield improved health outcomes and access to transportation and jobs. While certainly beneficial to everyone, these kinds of outcomes can have particular significance for lower-income households, who often struggle to stretch earnings to cover basic costs like utilities, health care, and transportation.

### But What Does it Mean to Go Green?

Green building is intended to yield a variety of environmental, economic, and health benefits, from conserving natural resources, to improving durability and reducing operating costs, to enhancing quality of life and comfort for building occupants. But for many developers—nonprofit and for-profit alike—greening is a new concept, and assistance is needed in determining which types of designs, materials, and technologies truly contribute to the kinds of outcomes noted above. Is it enough to offer recycling bins? Or to use non-toxic paints? Several guides and rating systems and have been created to help developers, architects, and engineers make greener choices throughout the development process. The federal ENERGY STAR labeling program, for instance, identifies energy efficient products across a range of categories, including major appliances, lighting, and office equipment. By providing consumers the opportunity to evaluate the energy efficiency of their appliances and make better choices, in 2007 alone the program reduced greenhouse gas emissions by 40 million metric tons and saved more than \$16 billion on utility bills in the US.<sup>4</sup>

Leadership in Energy and Environmental Design (LEED), a green certification program developed by the U.S. Green Building Council, has gained national prominence as a benchmarking tool for green design, construction and operation. LEED rating systems apply to particular types of construction, such as schools, retail sites, and new homes. While there are a number of levels of certification, overall, LEED certified buildings must demonstrate that they are high performing across a number of variables: sustainable

site development, water savings, energy efficiency, materials selection and indoor environmental quality. A new LEED rating system—currently in pilot phase—goes even further by rating overall neighborhood design, and examines measures to curb sprawl, reduce automobile dependency, and encourage mixed-use development.

In an effort to encourage the greening of affordable housing and to make the elements involved more understandable, Enterprise Community Partners, through its Green Communities Initiative, has crafted a set of greening criteria that applies specifically for affordable housing development. Developers who meet Green Communities Criteria for affordable housing—using designs and materials that promote health, conserve energy and natural resources, and provide easy access to jobs, schools, and services—are eligible for grants, financing, tax-credit equity and technical assistance through Enterprise.

Local green affordable housing standards have been established by a number of cities and regions as well—the City of Seattle, for example, was an early adopter of environmental standards for greening affordable housing, and since 2002 has encouraged the use of green strategies outlined in its “SeaGreen—Greening Seattle’s Affordable Housing” guide (see box 1.1). Local standards can address conditions specific to a given area, including climate issues and sourcing of green materials.

While these types of standards and guidelines are helpful in understanding what going green entails, it can be particularly challenging for nonprofit housing developers to incorporate sustainability measures into their projects, especially given financing constraints and the approvals and restrictions that are often associated with affordable housing construction. While some green elements are low or no-cost, others are more difficult and costly. Low-hanging fruit include paying greater attention to building orientation and landscaping choices, and using recycled materials or installing energy efficient appliances. Those that require more planning include solar panel installation or onsite systems to clean and reuse wastewater. Determining how to finance solar panels that would generate energy for individual housing units can be particularly complicated, as costs may be paid by a developer but savings would flow to tenants.

With all the new choices that need to be weighed, going green can certainly seem daunting. Two approaches, though, can help guide the planning process. The first involves a costing process that takes into account not only the upfront expense of green construction, but also the operating, maintenance, and replacement costs over the life of the building. Called “Life Cycle Cost Analysis,” this approach evaluates whether an increased initial investment will generate long term savings for developers by looking at pay-back time of additional investments and savings per year.

## Seeing Green: Spotlight on Seattle

Box 1.1

With numerous awards already under its belt, Seattle’s High Point neighborhood may be one you’ve already heard about. Once the site of over 700 dilapidated public housing units, when complete the neighborhood will be built out to accommodate 1,600 mixed-income housing units in a “New Urbanist” setting that includes a library, a health clinic, and commercial offerings. Even more impressive is that High Point is designed to be a sustainable community, incorporating a host of elements to protect both the environment and the health of community residents. The site design includes a natural drainage system and homes are built to be energy efficient; some units have been designated as “Breathe Easy” homes and include features that reduce or remove allergens. It is estimated that the energy efficiency measures will reduce energy costs by 20 percent annually. And the health benefits are already evident; residents are reporting fewer days with allergy symptoms and an improved quality of life in their new homes as compared to when they lived in their previous residences.

High Point is but one example of the commitment Seattle has made to integrating sustainable practices into its development patterns. Back in 2000, Seattle became the first city in the nation to adopt a Sustainable Building Policy. Two years later, the City’s Office of Housing developed a green building guide targeted toward nonprofit housing developers entitled “SeaGreen—Green Seattle’s Affordable Housing.” The City notes that SeaGreen is “designed to manage the built environment in a socially equitable way so those who can least afford it will benefit from healthy, high quality affordable housing.”

Since then, a number of innovative green affordable housing projects have been developed. Traugott Terrace, which opened in 2003 and provides 50 units of housing for extremely low-income recovering addicts and alcoholics, is the first LEED certified affordable housing project of its kind in the nation. In 2007, Broadway Crossing opened—this mixed-use development includes a Walgreens store on the ground level and 44 units of extremely-low and low-income housing on the four stories above. Not only does the project employ smart growth principles by increasing vertical density and employing below-grade parking rather than a surface lot, the units were designed to incorporate green features like ENERGY STAR appliances, low-flow water fixtures, and non-toxic paints and sealants.

This process can be used to determine which combination of green features might generate efficiencies and savings for a project, and ultimately can guide financial decisions about incorporating sustainable elements into a project.

In addition, an “Integrated Design Process” is held up by advocates as a best practice in helping to manage expectations and costs in greening. This multidisciplinary approach brings together architects, builders, engineers, finance partners and other agents to incorporate sustainable design and green elements into a project from its inception. Through this pre-development process—which often takes shape as a green design brainstorming session, also known as a ‘charette’—all involved parties can carefully consider how greener building systems can efficiently operate in conjunction with one another over the life of the building. This process stands in contrast to adding-on green elements after design is complete, which can miss key synergies across the use, construction, operation, and maintenance of a building and thereby reduce efficiencies and savings.

### Remaining Challenges

While green affordable projects have started to spring up in larger cities around the country, the green revolution has not yet reached all corners. “In more sophisticated markets, the momentum will carry green building forward and it will become the standard,” said Rose Cade, Senior Program Director at Enterprise Community Partners. “But in smaller markets, nonprofit developers are often inexperienced and have limited capacity to integrate green practices. It’s a real challenge to figure out how to deliver the right resources, training, and funding to these places.” Access to environmental consultants, or even to green materials, might be limited, and additional work is needed in determining how to expand the capacity for green building in rural areas and smaller cities.

Another limiting factor rests with the financing of green development. Walker Wells, Director of Urban Greening at Global Green—the American arm of Green Cross International that seeks to stem global climate change by working to green the built environment—noted that most large-scale



*Solara, a 56-unit affordable housing project in San Diego County, is one of the rare projects that is using PV panels to power all residential and common areas, including a computer learning center. Developed by CommunityHousingWorks and opened in 2007, Solara financed the panels using federal investment tax credits and received a rebate on the cost of the panels from the California Energy Commission.*

financial institutions have been slow to adjust underwriting standards in ways that might boost the industry. “At the moment of underwriting, lenders are still wondering how green elements influence financial performance and risk exposure,” said Wells. In part, this is because there is limited data regarding the savings from energy and related efficiencies—data that can be translated into an argument for a larger loan amount to cover the upfront costs of greening. Lenders also might have concerns simply about the abilities of a developer to succeed in stepping outside of conventional building practices. Increased data about performance and savings of green projects that is collected and reported in a way relevant to lenders would be a significant boost to the industry, noted Wells. Enterprise Community Partners has begun to collect such data on the projects financed through the Green Communities Initiative, but more widespread monitoring of projects will strengthen the case for financing

## Green Premiums?

Box 1.2

The growing volume of green affordable housing developments offers the opportunity for advocates to capture and disseminate both quantitative data and anecdotal evidence to help make the case that affordable green building is not a contradiction in terms. New Ecology, Inc., a nonprofit organization founded in 1999 to spur sustainable development in distressed urban communities in New England, recently released a study, “The Costs and Benefits of Green Affordable Housing,” examining whether or not green affordable housing is financially viable. The authors found that among 16 green affordable housing developments, there was on average a green “premium” of just 2.42 percent of total development costs. The study uncovered substantial benefits, such as decreased operating expenses and reduced replacement costs, as well as other benefits that are harder to capture quantitatively, including improved health and comfort of residents. While the study examined only a small number of projects, the analysis represents a good starting point for understanding the costs and benefits of green affordable housing.

structures geared particularly to green projects. For this to happen, more resources must be devoted to the equipment and staffing necessary to track and analyze the performance of green developments.

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### **Growing Incentives for Going Green**

While the mainstream finance industry has shown limited support for greening through mechanisms like favorable terms and flexible underwriting standards, key shifts have taken place in how states are incentivizing and rewarding affordable projects that put green building ideas into practice. Of significance is the increasing advantage gained by green properties in the competition for Low Income Housing Tax Credits (LIHTC). “More and more states are including green standards in their LIHTC Qualified Allocation Plans (QAPs), and they are becoming much more comprehensive in their criteria for greening,” said Wells, who recently completed an analysis of 2007 state tax credit allocation plans. “The progress is pretty amazing.” He noted that states are not just rewarding energy efficiency, but also are considering factors like neighborhood connectivity, materials, air quality, and water conservation. This kind of shift is critical, he noted; if allocation mechanisms reward comprehensive approaches to greening, then it creates a powerful lever to generate responsiveness in the industry. There is still considerable variation across geographies in the comprehensiveness of green building requirements, though, and Wells noted that there is great potential for making green building requirements in state QAPs more robust.

Community development intermediaries, along with private foundations, are also working to fill the current financing gaps. Enterprise Community Partners is one of the largest national players in supporting affordable green building, and through its Green Communities Initiative, it has invested more than \$570 million in loans, grants, and investments in an effort to mainstream environmentally responsible affordable housing development. This includes loans and grants to nonprofits for critical pre-development design activities. The Green Communities Initiative has succeeded in spurring the development of more than 250 green projects in 28 states—25 percent of these projects are in California.

In addition to Enterprise Community Partners, a number of other community development intermediaries and lend-

ers—including the Local Initiatives Support Corporation (LISC), the Rural Community Assistance Corporation, and NeighborWorks America—have launched green initiatives to provide financial and technical support for community groups looking to green their programs and projects. LISC has directed specific attention to promoting and supporting green practices in rehabbing the existing affordable housing stock of the nation (See article: “Re-build it Green”). The Home Depot Foundation, established in 2002, has also been a significant supporter of green affordable housing and had provided grants for green design and rehab to national organizations including LISC, the National Housing Trust and Habitat for Humanity.

### **Green Economic Development**

The green revolution is starting to generate ripple effects in the economy at large, creating new industries and expanding or retooling others. Alternative energies—such as wind, solar, biofuel, and fuel cells—for instance, showed significant growth in 2007, and are projected to expand rapidly in the coming years.<sup>5</sup> There are wide-ranging estimates of how many jobs will be created as these and other green sectors expand; some research points to the creation of 5 million jobs in the next 20 years, while more aggressive estimates indicate that the renewable energy and energy efficiency sectors may generate as many as 40 million jobs in the U.S. by 2030.<sup>6</sup> Advocates point out that these “green collar jobs”—including those in the research and development, manufacturing and construction, and maintenance and operations of green systems and products—can be more than just new jobs; rather, they have the potential to offer a career ladder for the working poor.

A number of organizations—such as Oakland, California’s Green for All, founded by Van Jones of the Ella Baker Center and Majora Carter of Sustainable South Bronx, and the Apollo Alliance—are calling for increased attention to and investment in “green pathways out of poverty.” These groups are working to capitalize on advances in clean energy and green building to create employment opportunities for those who have been trapped in cycles of unemployment or dead-end, low-wage work. In order for this to gain traction, though, new job training, employment and entrepreneurial opportunities in the emerging green economy need to be targeted at those from disadvantaged communities. Not only that, but the opportunities in the green economy must be structured in a way that offers both entry level jobs for transitioning workers and bridges to higher skill and managerial positions that can provide solid wages for working families.

Several new reports outline current green economic development opportunities and strategies for developing equitable green collar jobs initiatives at the local level.<sup>7</sup> Key steps to implementing green collar jobs initiatives include crafting policies that create local demand for green collar jobs, working to identify job growth areas and skill

requirements, and building partnerships—among employers, workforce agencies, community organizations, labor unions, and community and technical colleges—that can train and place workers at a variety of rungs on the green career ladder.


Cities around the country are beginning to implement green collar jobs initiatives that are aimed at training and placing low-income workers in green maintenance, installation, and construction jobs. For example, Richmond BUILD, a comprehensive construction skills course for low-income people in Richmond, California, teaches participants how to install solar panels and helps place graduates of the program in jobs. The program is the product of a public/private partnership, and while small in scale, is seeing successes; the program has a 91 percent placement rate, and the average starting salary for graduates is over \$18 per hour.<sup>8</sup> In Chicago, GreenCorps Chicago participants—primarily ex-offenders—receive training in landscaping and urban gardening, computer refurbishing and recycling, household hazardous waste handling, and home weatherization. Similar programs are taking root in Washington D.C., Los Angeles, and Oakland.

Attention is being generated at the federal level as well. Signed into law at the end of last year, the Energy Independence and Security Act includes the Green Jobs Act of 2007, which authorizes \$125 million in green-collar job training opportunities—enough to train about 30,000 workers a year. A portion of Green Jobs Act funds is earmarked for a Pathways Out of Poverty demonstration program, which will provide targeted green training and career resources

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to displaced workers, at-risk youth, and other low-income individuals. However, as of this writing, the Act awaits full funding from Congress.

### Conclusion

Rather than muddying the waters, seeking ways to tie together community development ends with environmental outcomes can help streamline the process of addressing not only the health, safety, and financial security issues facing low-income communities, but also looming climate change concerns. It’s certainly not simple, but increasingly, public, private, and non-profit organizations are showing that it can be done. Green for All’s Van Jones summed up the field’s potential in an interview published in the *New York Times*: “The green economy has the power to deliver new sources of work, wealth and health to low-income people – while honoring the Earth. If you can do that, you just wiped out a whole bunch of problems. We can make what is good for poor black kids good for the polar bears and good for the country.”

## Greening Small Businesses

Box 1.3

One way to define a green business is that it creates products or offers services that tie directly into energy efficient or otherwise sustainable industries—for instance, building hybrid cars or making parts for wind turbines. But a business can also be green by conserving resources and preventing pollution—e.g. recycling, lowering energy and water use, and using less toxic cleaning products.

These practices can both reduce the fixed costs of operating a business and improve the health of workers. But going green can be hard for small businesses, particularly those owned by first-time entrepreneurs or those located in lower-income areas. Small businesses often operate with tight margins, and owners may be wary of anything that might involve an upfront cost with an uncertain return horizon. As such, it can be difficult for small merchants to think about investing in green infrastructure, like low-flow toilets or more efficient heating and cooling systems. Behavioral changes, like separating recyclables from trash or reducing printing, can also be difficult to achieve in a systematic and sustained way.

However, in a number of California communities, including those in the Bay Area and San Diego, resources are increasingly becoming available to help make greening a less daunting endeavor for small businesses. County level programs have been launched to provide technical assistance and other supports to promote environmental protection. San Francisco’s program, for example, which is part of a nine-county Bay Area Green Business Program, offers checklists in a number of languages to help certain types of businesses understand what elements constitute a greening protocol. In addition, the program provides free products and services to help small businesses reduce water and electricity use. Business owners can achieve green certification through the program, which entitles them to marketing and networking events run by the city. While these types of programs are catching on, more work is needed to overcome the challenges that many small businesses face in implementing a full suite of green practices.

### CI Notebook

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### It's Getting Easier to be Green

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- 3 U.S. Environmental Protection Agency, <http://www.epa.gov>
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### Industrial Decline and the Opportunities and Challenges of Brownfields and Community Redevelopment

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### Environmental Justice

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- 3 Since then, criticisms have emerged about the degree to which this Executive Order has been implemented, and in September 2006 the Office of the Inspector General of the Environmental Protection Agency issues a report chastising the agency for failing to meet its mandate of implementing environmental justice reviews. (U.S. Office of the Inspector General (2006). *EPA Needs to Conduct Environmental Justice Reviews of Its Programs, Policies and Activities*.)
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### Triple Bottom Line Investing

- 1 This article is based upon a larger report titled: *Where Money Meets Mission: Creating a Unified Investment Strategy* published in May 2007 by the same authors. The larger report is available at [www.blendedvalue.org](http://www.blendedvalue.org).
- 2 United Nations Environmental Programme Finance Initiative. Principles for Responsible Investment (PRI).
- 3 The term "Unified Investment Strategy" was first presented in *A Capital Idea: The Unified Investment Strategy and Total Foundation Asset Management* and explored in related papers the reader may find at [www.blendedvalue.org](http://www.blendedvalue.org).
- 4 Friedman, M. 1970, "Social Responsibility of Business is to Increase Its Profits." *The New York Times Magazine*.
- 5 'Market rate' is defined as a return on investment that matches generally accepted principles of risk and return at any given time for an investment in the financial markets. This is representative of Conventional Wisdom, and is not embraced but duly noted by the authors.
- 6 *2005 Report on Socially Responsible Investing Trends in the United States*, Social Investment Forum, January 2006. The private equity figure comes from the RISE Report of 2003.
- 7 For an expanded discussion of the array of assets available to organizations, please see both *The 21st Century Foundation: Building Upon the Past, Creating for the Future* and *An Essay in Two Parts: Total Foundation Asset Management—Exploring Elements of Engagement within Philanthropic Practice*, both of which are available at [www.blendedvalue.org](http://www.blendedvalue.org). The reader may also find *Blended Value Investing*, which provides case examples of alternative investment approaches and was published by the World Economic Forum, of interest. That paper is also available at the Blended Value web site.