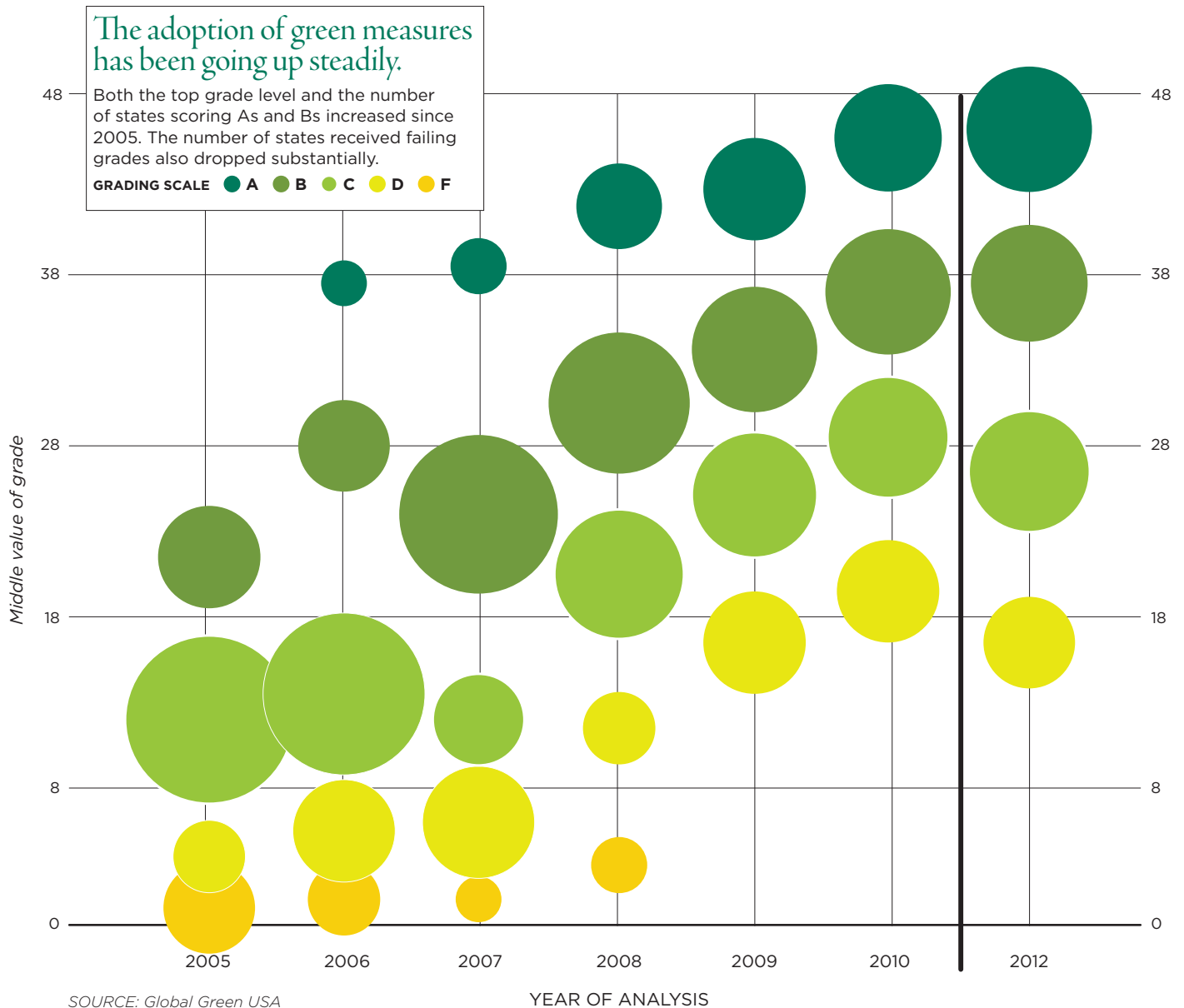


Green Goes Mainstream in Low-Income Housing

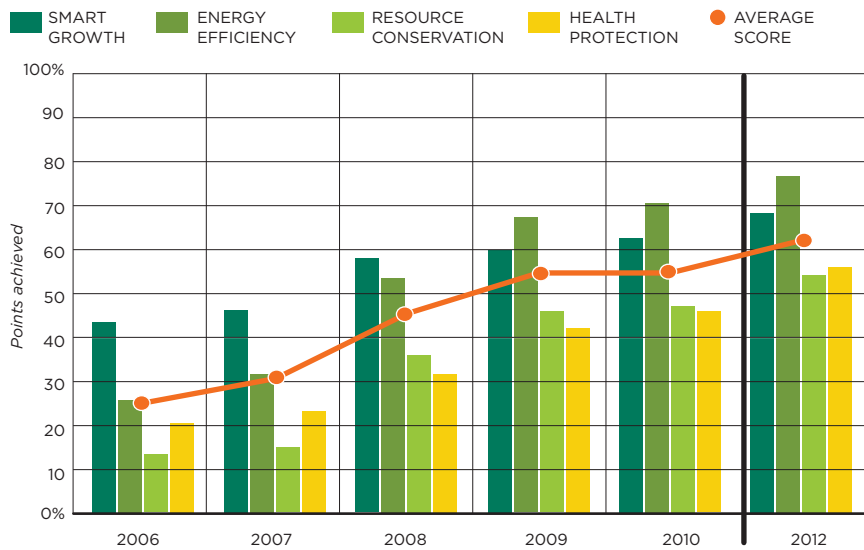
Energy-efficient buildings aren't only for the rich. *By Lauren Fuhry and Walker Wells, AICP*



LESS THAN A DECADE AGO, GREEN BUILDING WAS AN EMERGING FIELD, WITH LITTLE national consensus on its definition or what standards most effectively promoted the essential qualities of green practice. Today, green standards are broadly recognized, with 17 percent of all residential construction in 2011 using a third-party green building certification program, according to McGraw Hill's survey, Workforce and Green Jobs Study 2011.

High scores

The greatest growth has come in Health Protection and Resource Conservation.



SOURCE: Global Green USA

Surprisingly, green building has gained equal, if not greater, traction in the low-income housing community, even though environmental strategies are typically associated with high-end design. A major catalyst for the greening of affordable housing is the financing tool, familiar to housing insiders but relatively obscure to most other professionals, known as the Low Income Housing Tax Credit program, Section 42 of the IRS Code.

Created by the Tax Reform Act of 1986, LIHTC financing has since contributed to more than two million affordable rental units that serve individuals and families making 60 percent or less of the area median income. Through the LIHTC program, tax credits are allocated to developers of income-restricted properties. The credits can then be transferred to private investors in exchange for development equity. The ability to attract private equity reduces the need for direct government financing and enables developers to maintain rents at subsidized levels.

Section 42 provides broad parameters for the LIHTC program, but state housing authorities set the specific criteria for allocating the credits. Each year state housing finance agencies set geographic, typology, or amenity priorities; establish minimum construction standards; and create locally significant evaluative criteria in a document known as the Qualified Allocation Plan.

The QAP is then used to score individ-

ual project applications. Selected applicants are allocated a set amount of LIHTCs based on the anticipated project cost. Because competition of LIHTC allocations is often highly competitive, the QAP criteria can have a significant impact on what design strategies are included in projects seeking credits.

Recognizing the substantial influence that LIHTC allocation criteria has in affordable housing development, Global Green USA, a national nonprofit focused on urban sustainability, began to review and rank green building items promoted in each state's QAP. Initiated in 2005, the annual analysis examines green practices in four categories: smart growth, energy efficiency, resource conservation, and health protection.

Seven years of analysis demonstrates a robust trend toward increasing both the number and stringency of green practices in affordable housing in nearly all states, with those in each of the nation's major regions emerging as national leaders in promoting sustainable development practices.

Starting with smart growth

In 2005, few QAPs included references to urban infill, brownfield redevelopment, or adaptive reuse, and less than half mentioned access to transit. Three years later, nearly 90 percent of states provided incentives for locating developments within walking distance of transit and services.

This rapid increase reflects the growing

awareness that access to transportation options plays a critical role in a development's true affordability. "When you look at affordability and its impact on low-income families or individuals, the price of housing alone is just one factor," says Tom Osdoba, vice president of Enterprise Green Initiatives at Enterprise Community Partners, a national nonprofit. "If they're living in a car-dependent location and have to drive long distances for work or for getting groceries, the cost burden on those people is quite extreme."

By 2012, all but one QAP mentioned adaptive reuse and almost two-thirds of states encouraged infill development. The Indiana Housing and Development Corporation has leveraged multiple assets to repurpose dilapidated buildings into multi-family housing in downtown centers.

"Using the existing infrastructure and infill housing are two big components that we have really focused in on," says IHDC executive director Jacob Sipe. "Comprehensive community development and high-performance building does increase cost, but we also have to look at the long-term impacts. Revitalizing, using an existing structure, adapting it to a new use . . . has a much bigger impact than a new construction deal in a cornfield."

Chris Miller, managing director of Management and Development in the New Hampshire Housing Finance Authority, has had similar experiences with urban infill projects. "Local merchants find that there's a benefit to having all these people live downtown. People are showing up at their stores. It's been a remarkable community development outcome."

These agencies' actions are supported by several studies that examine the relationship between infill development and community revitalization. According to a 2009 study published by the University of Michigan, "further case studies show that LIHTC is successful at promoting neighborhood revitalization when it is strategically concentrated and part of cumulative efforts." A 2010 Enterprise Community Partners report found that "a cluster of [affordable housing] developments in the Belmont commercial area in the Bronx boosted estimated local purchasing power by more than one-third."

Energy efficiency as the cornerstone

Standards for energy-efficient appliances,

equipment, and building products were also part of the early efforts to green QAPs. In the 2005 QAP analysis, 12 states mentioned EnergyStar appliances, and 19 states included minimum standards for HVAC performance. By 2008, the numbers jumped to 36 and 30, respectively, while the 2012 analysis shows that nearly all of the states encourage EnergyStar products and HVAC performance standards.

“Quickly, people began to acknowledge that utilities were an important part of affordability,” says Chris Estes, president of the National Housing Conference, who pinpoints rising utility costs as the initial driver toward green in affordable housing. A 2001 study, “The Cold Facts: The First Annual Report on the Effect of Home Energy Costs on Low-income Americans,” found that “the average low-income family spends about one in five of their dollars on home energy costs every year.” So, a family making \$50,000 a year pays \$10,000 annually to heat their home and cook meals.

More recently, a 2011 report by the Carsey Institute found that from 2007 to 2010 there was a 48 percent increase in the number of U.S. households seeking federal assistance to pay heating and cooling bills.

Low-income renters paying these disproportionate utility costs have less to spend on healthy food, education, or health care. Unpaid utility bills are also a common cause of eviction. Early on, this situation led affordable housing advocates to ask whether they could build housing with reasonable operating costs. “That is really the extension of that mission of affordability,” Estes says.

As the connection between utility costs and affordability solidified at the state level,

a national directive to consider energy efficiency in affordable housing came in 2008 with the passage of the Housing & Economic Recovery Act. HERA amended Section 42 of the tax code to require that QAPs address energy efficiency standards. In the year after HERA’s passage, references to energy efficiency in QAPs outnumbered smart growth considerations for the first time in Global Green’s analysis.

“If you’re going to operate quality affordable housing, you have to operate it in a cost-efficient way. Therein lies the alignment with a lot of environmental and sustainable technologies and techniques,” explains Larry Oaks, vice president of housing at the Local Initiatives Support Coalition.

Resource efficiency and durability

Unlike market-based development, where consumer preferences and short-term cost-benefit analyses rule decision making, affordable housing is not driven by the need for a quick return on investment. LIHTC-funded projects must serve low- or moderate-income tenants for 15 to 45 years. The utility and maintenance cost savings over a 45-year period typically outweigh initial savings gained by using cheap materials. The long-term nature of the LIHTC program allows housing agencies to factor in these operating and maintenance issues when making construction decisions.

Starting in 2008, measures related to resource conservation and durable building materials began to appear with increasing frequency. The inclusion of resource conservation measures in QAPs grew by nearly 500 percent between 2005 and 2012, the largest increase among the four categories.

As with energy efficiency, state agencies and developers recognized the operating savings potential of reduced water use. From 2007 to 2008, water efficiency standards jumped from 20 mentions to 35 in state QAPs.

“We think we could save money and save the planet at the same time,” says Linda Mandolini, director of the California-based nonprofit developer Eden Housing. The uptick in water conservation measures also signaled the hard realities that state agencies and developers were encountering. Estes, who previously served as the director of North Carolina’s Housing Coalition, explains: “In North Carolina a few years ago, the whole dynamic of development changed because we went through an extended drought. Suddenly, the whole notion of lot size, green space, water collection and retention, and drought-resistant plants all became part of every affordable housing discussion.”

Emphasizing durable building materials also became more common as states saw the practical benefits of requiring better products. Chris Miller says that after starting the multifamily program in New Hampshire, “we had some very quick lessons about construction quality outcomes; if we’re going to be in these projects for 30 years, we need them to be well built and efficient.” Dan Foster, Housing Tax Credit Program Manager of the New Mexico Housing and Development Corporation, says something similar: “We’re in these deals for the long haul . . . [the properties] need to remain competitive and sustainable.”

Healthy housing: the new frontier

In recent years, healthy building initiatives



Belen Crossing in Belen, New Mexico, was overhauled using Low Income Housing Tax Credits.

have been at the forefront of the discussion regarding what constitutes safe, decent, and affordable housing. In 2005, only three states mentioned healthy materials like paints and carpet with low levels of volatile organic compounds, and just 10 referenced minimum ventilation standards. In 2012, more than half of states either encouraged or required using low-VOC alternatives, and almost 90 percent include measures related to enhanced indoor air quality.

Estes considers health “the new frontier in green building because that’s where public costs start to escalate, and that’s where the savings really exist.” He coauthored a study that found that North Carolina was spending over \$100 million per year on treatment costs for children living in sub-standard housing.

Colleen Flynn, community development officer of LISC’s New York office, makes a similar point. “A lot of dollars go into health care costs for asthma and lead-based paint poisoning and injury,” she says. Her office is collaborating with the New York City Department of Health and Mental Hygiene, New York’s Coalition for a Smoke-Free City, and the Bedford Stuyvesant Restoration Corporation on a property management partnership called Two Shades of Green, which seeks to “integrate green, healthy, and cost effective measures into affordable housing.”

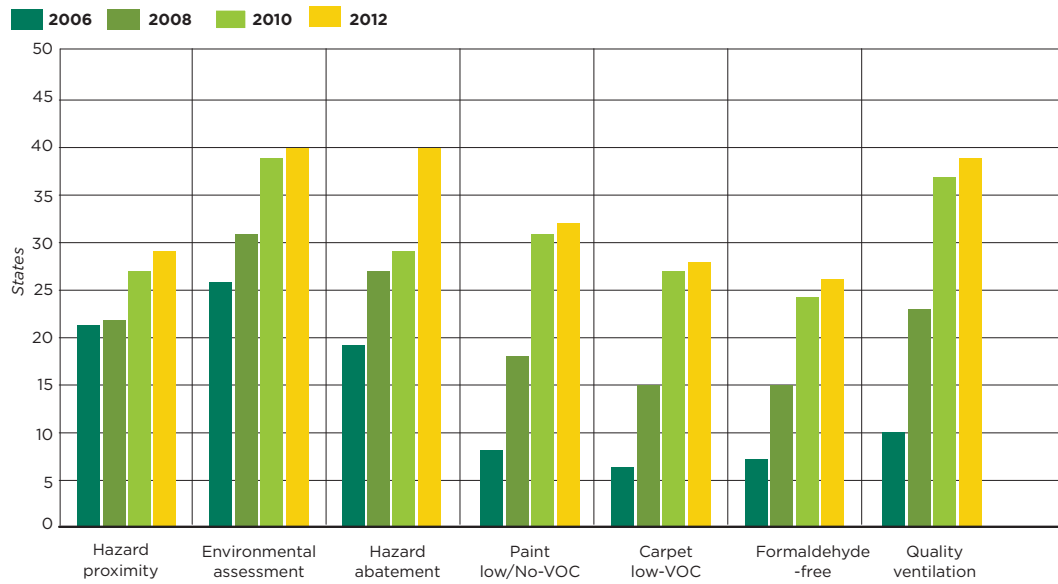
A New Mexico rehabilitation project demonstrates how good practice can produce tangible benefits. After installing new drywall, replacing carpet floors with hardwood, and using only low-VOC paints, a parent noticed a dramatic improvement in her child’s asthma symptoms. According to Foster, “the child wasn’t going to the hospital anymore and was able to get off all of the asthma medications. That’s the piece that gets missed a lot in bottom-line savings.”

“Developers and owners are realizing the quality-of-life aspects of green building, and how they can have happier and healthier tenants,” Foster adds.

Enterprise’s Osdoba is interested in evaluating health claims more fully. “Whether it’s indoor air-quality issues and their contribution to asthma, or building housing in walkable communities where people aren’t car-dependent, I think there’s a clear value proposition at the societal level.” To this end, Enterprise is conducting a multiyear study to “try to quantify and document the health impacts associated with green afford-

Protecting health and increasing energy efficiency

Proactive health strategies complement historic hazard avoidance strategies, while efficiency measures have seen solid growth.



SOURCE: Global Green USA



Cottonwood Place Apartments in Moreno Valley, California, is a 109-unit, new construction development built in 1998 with the help of LIHTCs.

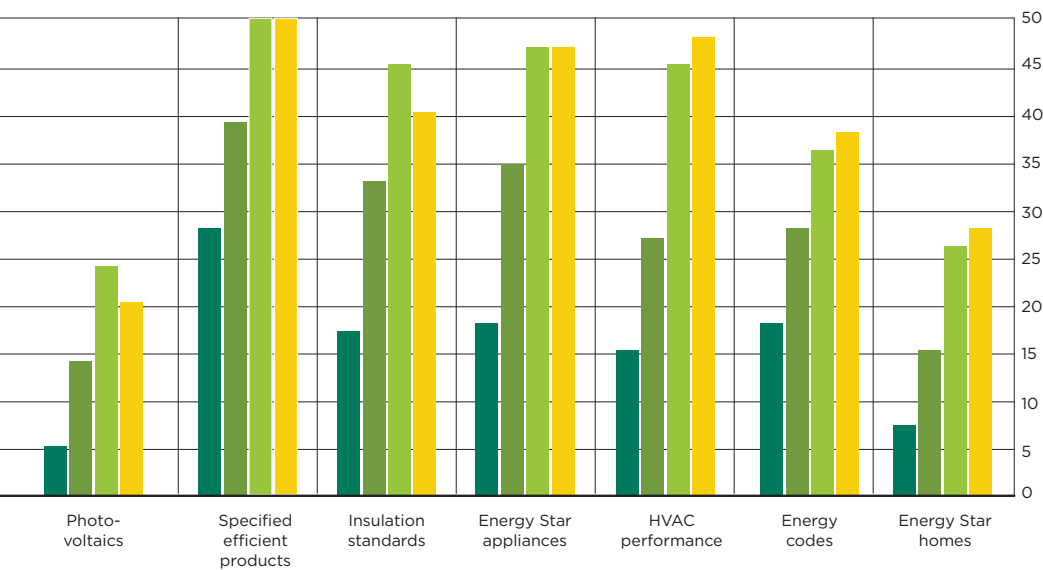
able housing so that we can then bring that data into the policy and market conversation.” The report is a longitudinal study that will be completed in five to 10 years.

A comprehensive view of green

In 2012, Connecticut and Maryland became the first states to achieve perfect scores on Global Green’s annual ranking. In another first, the proportion of “A” states in 2012 was greater than every other grade category. This outcome is in stark contrast to the 2005 results, when no states received an A and seven states received an F.

Another indicator of steady progress is that 47 percent of LIHTC funds nationwide went to states that achieved an A- or better in the 2012 ranking, while 72 percent of funds went to states receiving a B- or better.

As the spectrum of green building measures encouraged or required by housing agencies has expanded over the years, states are shifting increasingly toward green building programs like LEED, Enterprise Green Communities, EarthCraft, and GreenPoint Rated. In 2012, 27 QAPs mentioned third-party green building certifications, quadruple the number from five years ago.



“Green building is an extremely fast-moving field. As a small staff, we recognized our own inability to keep up, and recognized that there are good standards out there,” says Foster.

Philip Agee, green building technical manager at EarthCraft Virginia, says that EarthCraft acts as “quality assurance” for the Virginia Housing Development Authority by working alongside project developers to ensure that green measures are taken into account from the earliest planning stages and are ultimately properly implemented. Foster also highlights the need to confirm that completed buildings match what was proposed in the applications and what developers were allocated points for.

What’s ahead

Even with the track record of success, the Low Income Housing Tax Credit program is not without criticism. Concerns have been raised about the high costs per dwelling unit created through the program, partly due to the various design standards included in QAPs related to aesthetics, amenities, and green building. While numerous studies have shown that green building increases construction costs by an average of just two percent, green features are an easy target in discussions related to cost.

For green measures to have staying power in future QAP revisions, the conversation about the cost, benefit, and value of building green needs more empirical support. “I

think it’s incumbent upon us to start documenting what that looks like,” says Eden Housing’s Linda Mandolini. A key recommendation from the Global Green report is for state agencies to consider incentives related to utility tracking for LIHTC-funded projects.

The policy innovation occurring in the LIHTC program has influenced the requirements for other housing funding programs. “Affordable housing has provided a natural laboratory for green technology and the expansion of a green agenda,” says LISC’s Larry Oaks.

In its most recent revision of criteria for discretionary funding applicants, the U.S. Department of Housing and Urban Development included options related to achieving EnergyStar, LEED, Enterprise Green

Communities, and other green building certifications. The 2012 application for Choice Neighborhoods funding, used to renovate or rebuild public housing, includes point options for pursuing a green building rating and achieving LEED for Neighborhood Development certification.

The U.S. Department of Agriculture also included points for energy efficiency and green building certification in last year’s solicitation for funds administered through the Farm Labor Housing program (Sections 514/516). As more agencies require or encourage a green approach, there will be a greater need for consistency and alignment among the programs. The Partnership for Sustainable Communities, a collaboration between HUD, the Environmental Protection Agency, and the Department of Transportation, offers a potential framework for doing so.

Sustainable development and green building standards are fluid by definition. On the horizon are improved approaches for measuring attributes of smart growth, verifying building performance, and sharing operations savings between developers and tenants. As these tools and associated public policies evolve, sustainability advocates and practitioners will also need to seek out new opportunities to ensure that best practices in green design are integrated into housing and communities. ■

Lauren Fuhr is a researcher, analyst, and writer for the Green Urbanism Program at Global Green USA. She coauthored *Progress and Possibility: Green Building Criteria in Low Income Housing Tax Credit Programs* (2012). Walker Wells is the director of the Green Urbanism Program at Global Green USA and a lecturer at the UCLA Urban Planning Program and Pomona College Environmental Analysis Program. He is the editor and coauthor of the *Blueprint for Greening Affordable Housing* (Island Press 2009).

RESOURCES

G R O U P S Global Green USA, www.globalgreen.org. Enterprise Green Communities, www.enterprisecommunity.com/solutions-and-innovation/enterprise-green-communities; U.S. Green Building Council’s Green Affordable Housing Campaign: www.usgbc.org/advocacy/campaigns/green-affordable-housing; Green Affordable Housing Coalition, <http://greenaffordablehousingcoalition.org/news-and-resources>; Local Initiatives Support Coalition, www.lisc.org; NeighborWorks America Green Organization Program, www.nw.org/network/neighborworksprogs/multifamily/GreenPrograms.asp.

R E A D I N G *Blueprint for Greening Affordable Housing*: <http://islandpress.org/ip/books/book/islandpress/B/bo5488245.html>. *Progress and Possibility*, www.globalgreen.org/i/2012QAP_Final.pdf.