

# Stanford SOCIAL INNOVATION REVIEW

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## **This Old Green House** By Suzie Boss

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# Action What Works

## This Old Green House

Clean Energy Works Portland gets consumers—and the workforce—energized about weatherization **BY SUZIE BOSS**

ROBERTA HUNTE IS A career counselor in Portland, Ore., who specializes in helping women find their way into the building trades. After work, she heads home to a “horribly drafty” house built in 1924. “It’s cold in the winter, and there are moldy places,” she says. Through her job at Oregon Tradeswomen, Hunte routinely meets people qualified to fix ventilation and install insulation. But even though she knows she could cut her energy bill by weatherizing her house, she has hesitated to invest. “Truthfully,” she admits, “when I think about home improvements, I think about paint colors.”

That changed recently when Hunte took part in a pilot project called Clean Energy Works Portland. The program helps homeowners finance and install energy upgrades like high-efficiency furnaces, hot water heaters, and insulation. Hunte spent nothing up front to have her home weatherized from top to bottom. Instead, she is repaying the low-interest, 20-year loan on her utility bill. Energy savings and rebates are factored in, so her monthly outlay hasn’t increased. “What’s changed is where the money goes,” she says. “A lot less of it goes to my gas bill now.”

Clean Energy Works Portland also delivers social benefits that Hunte appreciates. The work crew on her house included a woman she had recently placed in a pre-apprenticeship training program. “Since she worked on my house, she’s already been promoted. Now she’s training to be an energy auditor. Even in this terrible economy,” Hunte adds, “she’s on a career track.”

Locally adapted versions of Clean Energy Works Portland could soon be coming to neighborhoods all over the country. The Portland pilot, launched in 2009 with \$2.5 million in federal stimulus and municipal money, was designed to reach 500 homes and quickly scale up. Another \$20 million from the U.S. Department of Energy was approved in April to fuel expansion statewide, and leveraged funds from a variety of sources will bring that to \$120 million. In 10 years, Clean Energy Works Oregon aims to retrofit 100,000 homes, creating up to 10,000 local jobs. (Clean Energy Works does not use PACE bonds, a federal program to finance home retrofitting that recently was cancelled.)

The public-private partnership model incorporates several strategic components, including sustainable

SUZIE BOSS is a journalist from Portland, Ore., who writes about social change and education. She contributes to *Edutopia* and *World-changing* and is coauthor of *Reinventing Project-Based Learning*.

financing for energy retrofits, worker training for family-wage green jobs, and consumer advocacy to ease homeowners through the sometimes confusing process of selecting from weatherization options. Phaedra Ellis-Lamkins, CEO of the Oakland, Calif.-based green economy advocate Green for All, says of the Portland program, “If not a silver bullet, it’s close.”

### PARTNERS GALORE

Portland, a hotbed of sustainable development, was primed to move fast on the home weatherization front. A Climate Action Plan adopted by the Portland City Council in 2009 sets a goal of cutting local greenhouse gas emissions by 80 percent by 2050. Adding to the urgency, unemployment rates in this green metropolis have been stuck in the double digits throughout the recession. Home energy retrofits offered the city a practical way to make progress toward clean energy goals and simultaneously expand job opportunities, especially for those hit hardest by the poor job market.

To design the program, the city pulled together diverse stakeholders—grassroots activists, union leaders, financial partners, utility executives, and bureaucrats from federal, city, and county agencies. “They don’t necessarily collaborate or even know one another,” says Derek Smith, the city’s point person for Clean Energy Works Portland.

Before coming to City Hall in 2008, Smith directed sustainability efforts for Norm Thompson, a direct marketing company. With

*A weatherization technician blows insulation into an attic, part of a Clean Energy Works Portland home retrofit.*



no preconceptions about the pace of government work, he pushed ahead with an ambitious timeline. “We invited everyone—more than 50 stakeholders—to the table, and relied on them to help shape this. Nobody was an afterthought,” he says, “and everyone just rolled up his sleeves and made it happen.” Three months and five meetings later, “we had an agreement,” Smith says.

Jeremy Hays, director of special projects for Green for All, helped guide the conversation. “We talked about what it will take to build this new American economy,” he says, “including an honest discussion of trade-offs when you look at the three E’s: environment, equity, economy.”

Out of that process emerged a Community Workforce Agreement that sets expectations for contracting, training, and employment. Portland’s population is 78 percent white, but people of color, women, and others underrepresented in the building trades are expected to account for 30 percent of worker hours on home weatherization projects.

The city should have no trouble meeting these diversity goals, predicts John Gardner of Worksystems Inc., a Portland nonprofit focusing on workforce readiness. “Weatherization is a great pathway into the trades. You’re going to see a higher percentage of women and people of color cutting their teeth here,” he predicts. After completing a five-week training program, entry-level weatherization installers can expect to earn about \$15 per hour. Gardner is also seeing more seasoned workers sign on for training. “If you’ve done construction but been out of work for six months, maybe getting weatherization certification gets you into this new wave of commercial and residential retrofits we’re all expecting.”

Portland Mayor Sam Adams predicts the program will pave the way to “long-range social transformation by creating a scalable model for energy-efficiency programs that include an equitable job creation component. This is an effort that we hope more cities will consider to help create green jobs.”

Interest from other regions is indeed “surging,” Hays says. Twenty-five communities were recently awarded a share of \$452 million from the U.S. Department of Energy’s Retrofit Ramp-Up initiative in a competitive process, “and they all want to do what Portland is doing.”

### RECYCLING DOLLARS

Buildings account for 40 percent of U.S. energy use, and making them more efficient “is truly low-hanging fruit,” Energy Secretary Steven Chu noted in a recent op-ed piece for the World Economic Forum. Home retrofit programs are most successful in achieving savings, he added, when they target the least-efficient houses and concentrate on the most fundamental work: airtight ducts, windows and doors, insulation, and caulking. The challenge is making those unsexy repairs appealing to homeowners, who will likely have to borrow to pay for major retrofits that on older houses can exceed \$10,000.

To overcome the financing barrier, Smith started looking for low-cost sources of capital to fund low-interest loans. The money arrived unexpectedly when the federal stimulus bill passed,

### FINANCING GREEN

Make home retrofits more appealing to consumers

Use utility bills for convenient loan repayment

Create sustainable funding for retrofit mortgages

unleashing “a tidal wave of federal investments to fund models that can bring this [green] industry to scale,” Smith says. Portland allocated \$2.5 million from its share of stimulus funds to start a revolving loan fund for retrofits, doubling the pot with support from foundations and the Living Cities Catalyst Fund. “Then we were off to the races,” Smith says, “with no debt on our shoulders.”

Another piece fell into place when ShoreBank Enterprise Cascadia, a nonprofit, signed on to manage financing. Three Portland utilities agreed to use their monthly bills for loan repayment, further streamlining the process for consumers. The long-term goal is to bundle consumer loans and create a predictable secondary market for home retrofit mortgages. “Then the dollars can be replenished into the fund and redeployed locally,” Smith says, “ensuring that these jobs don’t go away when the federal money dries up.” The city of Portland is gathering data on loan repayment rates and actual energy savings to make the case for a secondary market.

### GROWING THE MARKET

Scaling up a local green economy means growing an entire system. Consumers have to want home energy improvements. Contractors have to be ready to respond to demand. Blue-collar workers need training, certification, and experience “in new processes, materials, and procedures,” says Gardner. At Worksystems, Gardner focuses on preparing workers for currently available, not future, jobs. “What entry-level, mid-level, high-level jobs can we prepare folks for today? We don’t want to train a group and then have them sit around for six months. Training needs to reflect actual hiring,” he says.

Timing has been a challenge in other communities that have sought to catch the green jobs wave. Solar Richmond in Richmond, Calif., began offering career training in solar installation in 2007. But the jobs weren’t necessarily waiting on the other end. By this spring, 23 of 90 graduates had found permanent jobs in solar installation and another 32 had temporary jobs, according to a *San Francisco Chronicle* report.

To grow demand, Clean Energy Works Portland has sought to make the process easy on consumers. When homeowners sign up for a retrofit, they are assigned a qualified contractor and an advocate from Energy Trust of Oregon. The advocate sticks with them—starting with a whole-house energy audit and continuing with comparison of upgrades, application for financing, and final installation and testing.

Even with the focus on making weatherization painless, demand has been “less than we expected,” Smith admits. The city plans to engage its network of community-based organizations to spread the word. Word of mouth from satisfied consumers like Hunte could help spark interest. Her biggest surprise from weatherizing, she says, “is how much more comfortable my house is now.”

Consumer outreach needs to convince people that “there’s a benefit of comfort, savings, and predictable confidence that you’ll get value out of this investment if you sell your home,” Smith says. In the short term, he adds, “we have to figure out how to make retrofits as appealing as new kitchen countertops.” ■