PUSHING THE HOME PERFORMANCE CONTRACTING ENVELOPE

Raise comfort levels, lower energy bills, and get a whole-house retrofit with the contractors at GreenHomes America.

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RICHARD KORNBLUTH

Home performance contractor Richard Kornbluth evaluates a home's air infiltration using a blower door—a critical part of every GreenHomes America assessment.

One of the larger firms to enter the home performance industry is GreenHomes America (see "Michael Rogers Joins GreenHomes America," *HE* Mar/April '06, p. 6). GreenHomes America is a subsidiary of the Linc Group, which foresaw an opportunity in the existing-homes market to help meet America's need to reduce energy consumption while preserving the environment. With a growing market identified and no national players entering the industry, the Linc Group decided to leverage the success it had experienced with its commercial bundled energy management solutions and launch a similar offering designed specifically for residential homeowners.

"Most homes, whether new or old, were not built to maximize energy efficiency or comfort," says Brett Knox, president of GreenHomes America (GreenHomes). "Most leak like sieves, creating drafts, moisture, and other comfort- and energy-draining issues, as well as generating excessively high utility bills."

These house problems represent a significant burden in the average household budget as energy prices continue to rise. The wasted energy, and its effect on the environment and on our natural resources, are likewise a growing concern. The bottom line is that homeowners today must constantly sacrifice their family's comfort, health, and safety to save money and conserve energy when they live in a leaky, drafty home.

GreenHomes sees evidence that contractors, who traditionally dealt with building performance issues individually, are starting to adopt a comprehensive approach to home improvement. GreenHomes launched its home performance contracting (HPC) business based on the science of home performance. This whole-house approach to solving inherent design and construction deficiencies allows homeowners to cost-effectively optimize the efficiency—including comfort, health, and safety—of their homes.

HPC has gained considerable momentum in the past few years with support from the DOE and EPA Home Performance with Energy Star program.

What to Expect from a GreenHomes HPC Assessment

The first step in the GreenHomes HPC process is a home comfort and energy assessment. An assessment typically costs around $250 (unless a promotion is in effect). To be compliant with industry standards, the HPC adviser performing the assessment must be thoroughly trained and have Building Performance Institute (BPI) accreditation. The advisers should also be adequately trained in all home services (heating and air conditioning, duct sizing, lighting, insulation, ventilation, and more) and should understand the intricate principles of building science, the dynamics of air flow, and how household equipment and appliances interact with each other.

An adviser then uses advanced tools and techniques to perform the assessment, including a blower door, an infrared camera, a combustion gas analyzer, and other diagnostic equipment. These tools are used to help identify

- air leaks through attic, basement, ceiling, exterior walls, windows, doors, and recessed lights;
- missing or insufficient insulation;
- leaking or otherwise defective ductwork used in a central HVAC system;
- condition and energy efficiency ratings of the furnace, air conditioner, and water heater;
- lighting efficiency and appliance energy ratings;
- gas leaks and any CO or other combustion problems with the furnace, water heater, and other combustion equipment; and
- any other problems that might affect the customer's comfort.

The HPC adviser analyzes the data collected during the assessment to determine the solutions required to optimize energy savings, comfort, and IAQ. The adviser then presents the homeowner with a detailed report describing the condition of the home, the options for optimizing comfort and energy savings, the cost of the recommended improvements, financing options, available rebates and subsidies, and the energy savings guaranteed by GreenHomes.

The HPC assessment frequently identifies shortcomings in the construction of the home that need to be fixed. Often there are many such shortcomings. GreenHomes can perform the entire scope of work, eliminating the need for the homeowner to deal with several contractors. This simplifies the project for the homeowner and ensures that the work is done quickly, with minimal disruption to his or her daily routine, while delivering the highest-quality results.

A typical home optimization project is completed in two to three days and costs from $5,000 to $25,000. When a job is complete, GreenHomes returns to the home at scheduled intervals to make sure that installed equipment is performing at optimum efficiency and to measure and track results. This, and other service-based offerings such as IAQ monitoring, allows GreenHomes to maintain ongoing contact with the customer, which in turn produces a steady revenue stream.

Leadership by the New York State Energy Research and Development Authority (NYSERDA), the Wisconsin Energy Conservation Corporation, the California Energy Commission, and other government programs and state and utility financing and rebates have contributed significantly to the surge in HPC improvements. In addition, the public's focus on rising energy and oil costs, mitigating global climate change, and reducing dependence on foreign oil contributes to the momentum of HPC.

With the HPC approach, GreenHomes home energy advisers—certified by the Building Performance Institute (BPI)—use diagnostics to perform comprehensive home comfort and energy assessments for customers. The home energy advisers thoroughly inspect and test all components of the home, collect and analyze the data, and provide a detailed report that illustrates the home's condition and calculates energy use (see "What to Expect from a GreenHomes HPC Assessment"). The report also recommends a choice of customized improvements designed to identify the root source of home performance problems and solve those problems permanently while reducing energy use. Recommended improvements provide homeowners with immediate results. These include

- rooms that are quieter, more comfortable, and draft-free with consistent temperature;
- improved indoor air quality (IAQ);
- reduced energy consumption and guaranteed utility bill savings;
- improved home durability and reduced maintenance costs; and
- increased home resale value.

GreenHomes provides a customized HPC solution for each home. The solutions do not focus on a single home component or appliance. Rather, they focus on how all the components of a home can work together to provide the optimal in-home environment, reducing energy use by 25% or more. While GreenHomes provides home performance solutions specifically created to match a customer's needs and budget, commonly recommended solutions include a combination of air seal-

ing, insulation, replacement of windows, HVAC service and/or replacement, and upgrading of lighting and appliances.

Beyond the principles of HPC, the GreenHomes business model also employs a methodology built on strict adherence to quality, process, technology, education, and standards. This methodology enables GreenHomes to deliver best-practice service on every job. The methodology also allows personnel to be equipped with state-of-the-art training, technology, and tools.

While numerous examples of energy savings guarantees exist in the new-construction sector, serious efforts to guarantee energy savings are unusual in the existing-homes market. But GreenHomes is an exception.

"We are so confident in our highly trained personnel, unique quality-based business model, and adherence to HPC principles, we guarantee at least a 25% energy savings or we pay the customer double the difference for two years," says Knox. "Being able to deliver consistently on this guarantee is rare in the industry."

GreenHomes has helped more than 10,000 New York families to improve the comfort and energy efficiency of their homes. Through strategic acquisition of two of the most successful existing HPC companies, GreenHomes has become the largest single-source provider of HPC in New York.

"The HPC model has provided GreenHomes with a competitive advantage in the residential home market," says Knox. "It has allowed us to expand our service and product offerings, deliver greater customer value, and establish credibility and confidence with our customers. HPC has also allowed GreenHomes to do its part to help protect the environment, reduce greenhouse emissions, and reduce the country's dependency on foreign oil."

GreenHomes' efforts to advance HPC and educate consumers about its benefits have been acknowledged by the industry. Most recently, GreenHomes won BPI's highest honor, the 2006 Leadership through Excellence in Building Performance award. GreenHomes has also won NYSERDA's Excellence in Energy Savings and Outstanding Achievement in Home Performance awards every year since 2001.

GreenHomes' commitment has also made the company an HPC and energy efficiency authority in New York and around the country. Working closely with the state of New York, GreenHomes has helped to improve and expand the Home Performance with Energy Star program and has provided input on other home improvement initiatives.

RICHARD KORNBLUTH

A GreenHomes America technician searches for the source of a pipe freezing in a bedroom wall.

GreenHomes chose to start its operations in New York because of its groundbreaking implementation of Home Performance with Energy Star and because New York is the nation's leading proponent of HPC. With headquarters in Buffalo and offices in Rochester and Syracuse, GreenHomes is now the largest HPC provider in the state. "Almost one out of every three HPC projects in New York is performed by GreenHomes," says Knox.

As more and more states adopt HPC programs, GreenHomes plans to expand its organization, through strategic acquisitions and a franchise network, nationwide.

In 2008, GreenHomes will provide a turnkey franchise model to help independent contractors overcome the significant barriers to entering the home performance market that most new contractors encounter when building their own HPC businesses. There are approximately 100,000 HVAC and plumbing contractors in the United States. These contractors struggle constantly to grow their business, establish best-in-class service processes, differentiate their services from those of the competition, and establish credibility with homeowners.

"The HPC opportunity is huge, but typical residential contractors lack the resources to pull together all the pieces needed to build a successful and scalable HPC business on their own," says Knox. "We can provide these contractors with a proven business methodology and value-added service offerings that help them address all of these issues and quickly create a profitable HPC business with average project revenues that are double, even triple, the amount of an average HVAC job."

In the near future, GreenHomes will be expanding its product and service offering to include PV panels, geothermal heat pumps, and other renewable energy technologies. Value-added solutions such as these allow GreenHomes to focus on gaining customers for life, as opposed to engaging in one-time interactions, like most other HPC vendors and residential contractors.

"Long-term service agreements; continuous IAQ monitoring; and other health, comfort, and environmentally friendly offerings will allow us to generate solid, ongoing customer relationships, as well as to ensure GreenHomes continues to reduce dependency on foreign oil, protect the environment, and put more money in our customers' pockets," says Knox. "With the HPC industry just in its infancy, the opportunity it presents is enormous. GreenHomes' goal is to become a name every American turns to when they think about home energy efficiency and comfort."

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For more information:

Home Performance with Energy Star, a program sponsored nationally by DOE and EPA, and available in select cities, offers a comprehensive, whole-house approach to making energy-efficient home improvements. The program is managed locally by a program sponsor that recruits and trains contractors and helps ensure that the contractors deliver quality work. The local sponsor may also offer financial assistance to homeowners in the form of low-rate loans for construction projects. Participating contractors provide recommendations and services to homeowners to make their homes more comfortable and energy efficient, while reducing their utility bills and protecting the environment.

For more information about Home Performance with Energy Star, visit www.energystar.gov/homeperformance.