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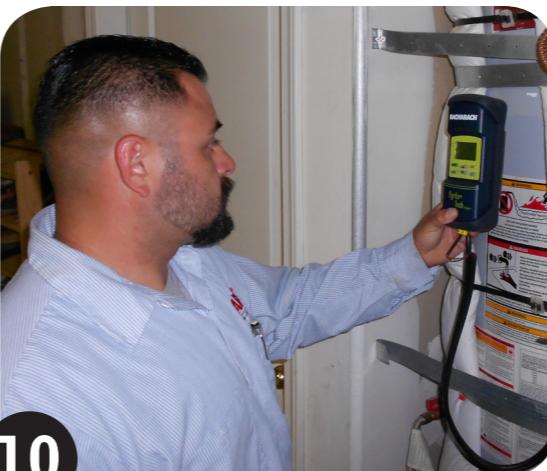
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4

# Contents

<b>Chapter 1</b>	Information Key to Selling Home Performance.....	4
<b>Chapter 2</b>	Latest Model Codes Mandate Duct, Envelope Testing .....	7
<b>Chapter 3</b>	Culture Change Leads to Growth in HPC.....	10
<b>Chapter 4</b>	Transitioning Into a Successful Home Performance Contractor.....	14
<b>Chapter 5</b>	More Building Science Coursework Needed in HVAC Schools.....	18
<b>Chapter 6</b>	Multiple Trades Under One Roof Questioned.....	20



10



14

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# Information Key to Selling Home Performance

**W**hen it comes to home performance contracting, most customers are searching for two very important things: comfort and energy savings. Luckily for home performance contractors, that's exactly what they come into the home to do.

"We can do both of those things, so it works out well," said Domenic DeLeo, Department Manager, Isaac Home Energy Performance, Rochester, NY.

Keith Hilligoss, President, Air Solutions Heating & Cooling Inc., Sand Springs, OK, said it's those two things he keys in on when broaching the subject with a customer.

"We talk about that, and we're looking for any opportunity we can to get in the door," he said.

## Information Matters

Bill Alber, President, Alber Service Co., Pennsauken, NJ, said he tries everything he can to give the most amount of information possible to the homeowner. His website is 100 percent dedicated to educating the client in an effort to get them to call for an audit, he said.

"My approach to home performance is to let the customer know everything they could possibly do to save energy," Alber said. "They get two reports. The first is a comprehensive report that talks about a different topic on every page with what's wrong, how to deal with it, and our recommendation. The second



Many states offer incentives for homeowners who have home performance projects done. While they vary from state-to-state, it often gives the contractor something else to discuss with customers who might be on the fence about doing a job.

report is the proposed measures, and it's an itemized list of everything we are recommending. It comes ranked from fastest payback to slowest payback, so if they don't want to do everything, they can start at the top of that list and get the biggest bang for their buck."

DeLeo has customers go with him on audits so they can see and feel the issues the house has, and find out where the problem spots are located.

"We get the blower door going, and they're going right along with you with the smoke pencil," he said, adding he's never lost a job because people don't know what the issues are.

But the person doing the audit isn't the only one armed with information. Service technicians also gain an education on the matter so they can accurately present information to the homeowner when they are doing an installation or repair of an existing HVAC system in the home.

"We do anything and everything we can to inform," DeLeo said. "We do home shows. Any way we can get into the community, we'll go out there and do it, but a lot of times it starts with our customers because they'll see the benefit and pass it along to someone else."

Hilligoss said his salespeople in the field are sometimes more educators than salesmen. "You have to have that sales ability still, but you have to have that communication ability to teach and show them, explain things in layman's terms so the general public understands," Hilligoss said. "You have to make it very understandable and make it very easy for them to make a good decision."

## Incentive Effort

Many states offer incentives to customers who undertake home performance projects. Alber said his home state of New Jersey offers homeowners big incentives, which in turn makes those a big selling point for him, not to mention something many customers key in on.



As the economy has rebounded and consumers have become more educated, so has the demand for home performance contracting. Many contractors make sure to fully educate the customer in order to help them see the value of the work.

"New Jersey is offering a rebate of up to \$5,000, and they're also willing to finance an additional \$10,000 at zero percent interest for 10 years," Alber said, noting payments for the loan go directly on the customer's utility bill. "New Jersey's model for promoting home performance is probably something a lot of the other states are going to start adopting."

Alber said those incentives dramatically help his closing rate, which was at 84 percent in 2012 if he got as far as doing an audit.

"People are willing to open up the wallet and spend money as long as they're not opening up the wallet and spending it immediately," he said. "They're doing it over the 10-year period that the loan lasts, so it's a lot easier for them to say yes."

While New Jersey might be booming, for Hilligoss in Oklahoma, it's been more of an uphill battle, he said, even with "utilities throwing money at it like crazy trying to get it to stick." That's because utilities come so cheap in Oklahoma, making the energy-saving gap not as great as it is in other states. But people are coming around to the idea, he said.

"It hasn't quite rolled over the top yet," Hilligoss said. "It's been quite the battle. The ones who do it, they love it. They're sold. Their referrals are golden. The ones that do it are extremely satisfied with it, but we just have to get them over that mentality that we're not just changing boxes. That's the challenge we face."

## No More Doubt

As the economy bounces back, so does demand for things like home performance work.

"This year, in particular, people seem a little more confident, they're more willing to talk about spending a significant amount of money than they have

been in the last five years," Alber said. "I don't know how long it will last, but for now, it's been pretty dramatic. We have way more demand than we have supply right now, and it's all home performance driven."

In fact, Alber is so confident in his work and in home performance, he's willing to guarantee it.

"Depending upon what I recommend, and what they potentially agree to do, I'll give them a temperature guarantee that the space will be no more than, typically, two degrees different," he said. "A lot of folks have second floors that are a good 10 degrees hotter than the first. Depending on what they've agreed to let us do for them, I'll give them a guarantee it'll be within two degrees of the first floor when we're done."

Most important, home performance gives homeowners a complete picture of their house and what it needs, DeLeo said.

"You're not just replacing things because you think you need it, or because it may be time to do it," DeLeo said. "It's actually based on deficiencies in the house, and this is what's going to make the most sense and here's why. It answers that why question from the homeowner standpoint. And with the health and safety issues, there's hidden dangers they didn't even know they had."

DeLeo had one piece of advice for fellow contractors in the home performance field: Make sure you pay attention to what your customer is saying.

"The first thing is to be comprehensive, to really go through and do a really solid audit, to get a good picture of the house and what's going on so you're dealing in facts and not opinions," DeLeo said. "Then you have to listen to the customer. They're the ones living in the house, and know what their pains are. Listen to them, and before you propose, make sure their wants and needs match what you're proposing." **N**

# Latest Model Codes Mandate Duct, Envelope Testing

## Few States Have Passed IECC 2012

To help spur economic growth in the midst of an intense recession, the American Recovery and Reinvestment Act of 2009 (ARRA) offered stimulus money to states whose residential build communities met or exceeded the 2009 version of the International Energy Conservation Code (IECC). The model code mandated duct leakage testing, though only required a visual inspection of the home's airtightness while leaving blower door testing as an option.

Now, the 2012 IECC requires both a visual inspection of the home as well as a blower door test for building tightness in addition to duct tightness testing, though only a few states have adopted the 2012 version of the code.

Meanwhile, California has opted to develop its own codes for testing building tightness, including developing new training and certification programs for the individuals who perform the testing.



Left: A technician performs a blower door test to determine the airtightness of a new home. (Photo by Tõnu Mauring)

### Energy Codes Gain Traction

To receive stimulus money from the ARRA, many states chose to adopt the 2009 IECC. Some adopted it as-is, while others made a few modifications to the code. But for the first time, a majority of U.S. states had a current energy code in place.

"That seemingly small act probably got more traction with helping to get an energy code in some places than we ever would have been able to," said Mike Barcik, Southface Energy Institute's director of technical services. "It's a huge boost for the country in terms of energy efficiency."

Still, not every state has jumped on the energy-efficient building code bandwagon.

"There are about 35 states that have adopted the 2009 code or something similar to it," Barcik

said. "The 2009 code is by no means perfect, but it's a great start if we enforce what's in it."

The 2012 IECC sets even more ambitious energy-efficiency standards, especially when it comes to building tightness. With a blower door running and the house pressure at -50 pascals, the new code requires that the maximum allowable air changes per hour (ACH50) not exceed 3 ACH50, down from 7 ACH50 in the 2009 code. Whereas 7 ACH50 was a relatively easy target for most builders to hit, Barcik said achieving 3 ACH50 could prove difficult. As a result, some states are modifying the new code.

"Maybe three or four states have adopted the 2012 IECC," Barcik said. "I know Maryland was the first, and Illinois has adopted it, but they've watered down some of the testing provisions and changed their passing criteria to 5 ACH50."

## Who Does the Testing?

The 2012 model code, as written, allows for duct leakage and building tightness testing and inspection to be performed by a RESNET Home Energy Rating System (HERS) Rater, a Building Performance Institute (BPI) Building Analyst, or "an approved third party."

"BPI and RESNET are the two national entities that have this certification," Barcik said. "Here in Georgia, we said, if you have one of these certifications, you're grandfathered in."

But in order to make duct and building tightness testing more accessible and affordable, especially in rural areas where there may not be a HERS Rater or Building Analyst nearby, Southface created its own DET Verifier certification program, which was added into Georgia's building code.

"DET is a new term introduced by some organizations that are certifying people to do these tests," ASHRAE fellow and residential ventilation expert Max Sherman explained. "It stands for 'Duct and Envelope Testing', as they

are two distinct, yet related, activities."

Southface's DET certification, which has been picked up by a handful of other states, requires a field test as well as a written test. "Ideally, it's a two-day course that focuses on how to use the testing equipment correctly," Barcik said. He added that, in Georgia, they opted to encourage code compliance by including the results of the tests on the energy label that is placed on the home's electrical panel box.

## How to Test

While the 2012 IECC mandates blower door testing and duct leakage testing, the code does not specify how to perform that testing, which Sherman said is par for the course when it comes to building codes. "Details are often lacking in codes, and this is no exception," Sherman said, adding that "envelope and duct airtightness testing are important determinants of energy savings."

Luckily the American Society for Testing and Materials (ASTM) provides testing methods, Sherman said, and "organizations like RESNET or BPI have specific protocols for using them in homes."

In California, the California Energy Commission revised its building energy code, Title 24, in 2012 to incorporate RESNET's airtightness testing protocols. In Georgia, Southface's DET Verification Training includes protocols for blower door and duct leakage testing, including how to calculate percent duct leakage and ACH50.

"We're trying to get this program out there," Barcik said. "It's not that we don't like HERS or BPI, but in most states there's not a mature market of enough of those folks, so it's good to provide options for people."

## Getting Up to Code

While most states have passed IECC 2009 or something similar, only a few have adopted IECC 2012, and several states still do not have an energy

code at all. And the states that do have energy codes may not be fully compliant with their own codes, Barcik said.

"It's hugely terrific and amazing that this testing that we previously had only been using in Energy Star programs now have made their way into the 2009 code," he said, though he lamented the fact that most states still do not require blower door testing for building tightness. Still, he said fully enforcing the 2009 visual inspection standard in the meantime could go a long way

toward improving energy efficiency in new homes.

"If the visual inspection were really enforced or had to be done by a third party that was qualified, and the code official confirmed it was a legitimate checklist, then the visual inspection would probably be more legitimate," he said. "But in reality, it's a piece of paper that ultimately just doesn't carry the same legitimacy as proving something with a test."

For more information on current energy codes, visit [www.energycodes.gov](http://www.energycodes.gov). 

# Culture Change Leads to Growth in HPC

## Contractor Found Embracing HPC at Every Level Was the Recipe for Success

When contractors first start looking at home performance contracting (HPC), many think of adding it as a separate department, much like they would a plumbing or electrical department. Jerry Unruh, owner, ABC Cooling and Heating, Fresno, CA, was no different when he considered adding HPC about four years ago, but he soon discovered that making it a separate division was the wrong way to go.

"I found out that the entire culture of our company needed to change — it needed to permeate everything we did. Everybody needed to understand what it meant to look at a whole house and recommend improvements that would truly benefit our customers' comfort, safety and savings," he said.

Unruh worked quickly, and within a few months, everyone in the company was trained and on board with HPC, from the customer service representatives, to the service technicians, to the plumbers. That strategy paid off, with Unruh noting that "HPC literally changed our company, differentiating us from other contractors, and causing growth that has been way beyond our expectations."

### Anxious To Start

ABC Cooling and Heating focuses primarily on residential retrofit, service and maintenance, with some light commercial work, which made it a perfect fit for



At ABC Cooling and Heating, BPI-certified analysts assess a home by testing the envelope, walls, and ceiling for leakage and then offering suggestions for affordable improvements.



With the promise of significantly lower utility bills, customers are often choosing home performance contracting over solar energy systems.

HPC. "We're always interested in looking at things that fit with our core competency and ultimately benefit the homeowner," said Unruh. "After doing a little research on HPC, it made sense that if we could fix the building envelope, it would take less to heat and cool the space. So we decided to explore it a little further."

To that end, Unruh sent three employees to become trained and certified through Building Performance Institute (BPI), and it was an eye-opening experience. "About 60 percent of our sales are high-efficiency systems, and we always test, seal, and/or replace the ductwork because we don't want to give customers a top-of-the-line unit and have it leak all over the attic or under the house. But while attending the training, my installation manager called me to point out that we had been installing these expensive systems with sealed ductwork in houses that leak significantly."

With his newly certified BPI employees anxious to start implementing HPC, Unruh still felt that additional guidance was needed, so he obtained more training through GreenHomes America. After 90 days and more than 300 hours of training, the company was ready to start offering HPC to customers.

But first Unruh needed to choose which services to offer. Initially he thought his company would handle only the heating and air conditioning needs of customers and sub out other work, such as insulation and caulking. "That was a mistake," he said. "The scope of work involved with upgrading a home's envelope is huge, from sealing and insulating the house, to putting in baffles and building barriers, to ensuring the house is tight and there is proper ventilation. There was no way we could give that detailed work scope to somebody else. We had to control it. We had to make

sure that everything was done correctly. The bottom line, in my opinion, is you have to do every task yourself, except for windows."

So Unruh invested in trucks and insulation blowing machines, as well as all the tools necessary to test and upgrade a building envelope. And then he made a big investment in his employees, as entrusting someone with the tools and the technology to upgrade someone's home is not a minimum wage task. "We pay the same wage for our installation technicians as we do for the guys who insulate and seal. We raised the caliber, because it is a sophisticated task that takes training to do it right."

## Selling HPC

With eager employees with the proper tools ready to go, Unruh found customers to be extraordinarily receptive, once they were educated about how the building envelope could negatively affect their comfort and energy savings. "Long-term customers asked why we never mentioned this before, and we say we wished we would have. Now we almost always recommend HPC, and it's not just to generate business for us — it's to benefit our customers. When we start talking about it, they see that it makes sense, especially if they're going to invest in high-efficiency equipment."

For customers interested in HPC, Unruh starts with a thorough assessment of the home, followed by a priority list of upgrades that focuses on comfort, safety and energy savings. "The most surprising thing we've found is that people usually do not choose home performance because of the lower utility bills — what they want is comfort, so we emphasize that first. We explain how we can eliminate their hot and cold spots in the house with better insulation and zone control."

Safety is another issue that Unruh stresses, noting that fully 25 percent of the homes he works on have gas leaks, usually from water heaters and stoves. He noted that anyone offering HPC services needs to test for spillage from water heaters, furnaces, and the like, as well as test for carbon monoxide and overall air quality.

Finally, Unruh discusses reducing the energy bills by focusing on those items that will provide the greatest energy savings. "We break down every task, showing them how much it will cost, and how much it will save on their energy bills. We usually find we can help them save at least 40 percent on their utilities, if they do everything we recommend."

An interesting aside to this point is that with the promise of these significantly lower utility bills, customers are often choosing HPC over solar energy systems. "Our solar work has been cut almost in half because we can reduce the energy usage down so far that customers really don't need solar," said Unruh.

But that's OK because the benefits of offering HPC have more than made up for any diminishing sales of solar equipment. "Thanks to HPC, we've experienced record growth, our employees are energized, and our customers are phenomenally happy, which has led to numerous referrals," said Unruh.

That's why Unruh is passionate about urging the HVAC industry to hurry up and capture this market. "If we don't move soon, out-of-work contractors are going to be out there doing remodels, and they're going to sub out the HVAC work to the lowest bidder and the insulation to the blow-and-go guys. HPC fits our trade because the ductwork, heating, and air conditioning are always top priorities after the envelope is fixed. It's our market, and it should be our business to do this work. We need everybody to jump into this and make it our industry." 

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# Transitioning Into a Successful Home Performance Contractor

## A Best-Practices Checklist to Whole-Home Performance

There is a lot that goes into becoming a successful home performance contractor. One doesn't just flip a switch to engage home performance profits. It takes training, determination, connections and proper knowledge.

### Step-by-Step

Michelle Knaszak, Vice President, GreenHomes America, said it's important for prospective home performance contractors to connect with their peers and slowly add new offerings — one skill at a time.

"Adding home performance is best done in steps. We recommend you start with attic insulation, wall insulation and air sealing first," said Knaszak. "If you are going to get into whole-home performance, it is important you do your homework. There are a ton of great resources out there. HPC is the right thing to do, and you need to make sure your customers are aware of this. You don't want other companies capitalizing on this op-



Left: Home performance contracting sharply focuses on air sealing services, which include addressing drafty windows. (Photo by Rick Reinhard)

portunity and running off with your best customers."

Jerold Sit, owner, AC Doctors, Brandon, MS, said he recommends contractors initially acquire a blower door, Duct Blaster® and a thermal imager.

"Thermal imagers are great sales tools. You can actually put one in a customer's hand and ask him to do the work himself," he added. "Imagers will allow the homeowner to actually see the hot and cold spots on his own, which allows you to initiate the discussion on adding insulation where it is needed."

During its 2009 HPC startup process, Green-Street Solutions, Cleveland, OH, performed energy assessments and subcontracted the work out. While this philosophy works for some, the company recognized that it was leaving potential profits behind and, in less than 12 weeks, began offering all home performance services in-house.

"Our initial model was to have a network of contractors who would do all of the installation work for us," said Sean Smith, General Manager, GreenStreet Solutions. "It took us all of about three months to realize that wasn't a good idea because there was an additional margin to capture by doing the work ourselves. That's when we began to internalize work we had been subbing out."

Through its home performance offerings, GreenStreet Solutions has increased its revenue 300 percent each year. The company that registered just \$35,000 in 2009, flaunted an astonishing \$600,000 in 2011, — just two years later.

## Pay it Forward

The Department of Energy's (DOE) Better Buildings Neighborhood Program examined the transition from an HVACR contractor to a home performance contractor. The results state that, regardless of the starting point, contractors will endure common startup costs during the home performance orientation process.

This amount varied based on the size, location and experience of the company.

Neil Kelly Inc., Portland, OR, dove into the home performance contracting market in 2006. The contractor, boasting an extensive history dating back to 1947, utilized its weatherization background to smoothly transition into the field. After only \$25,000 in training, equipment and marketing, the company hit the ground running, netting \$72,764 from 57 projects in its first year. With a little more experience, that number ballooned to more than \$2.9 million from 206 projects in 2011.

Dan Thomsen, President, Building Doctors Inc., Los Angeles, CA, started his business as a home flipper in the early 2000s. He eventually established his home performance division in 2009, spending \$15,000 in equipment; \$7,500 in branding costs, which included uniforms, signage, promotional materials,



Sealing drafty windows offers HVAC contractors an untapped source of income. and decals; and an additional \$150,000 for four work vehicles, training and other general management costs.

In one year, the company's revenues grew 780 percent.

Initially, Thomsen and his crew only performed the energy checkups before subcontracting all the work out. But, eventually, Thomsen wisely brought all the work in-house.

"Doing the work in-house is more efficient," he said. "We take the home from the start to finish with only having to set up the house once — protecting the floors, covering the furniture and running lights in the attic. This helps us work more efficiently and lets us get in and out of the home faster."

GreenHomes America, Syracuse, NY, launched its first franchise in 2008. They have since grown to include more than 35 locations in nine states. In 2011, GreenHomes America's average project size is \$8,100 and total revenues are a whopping \$3.5 million.

"We want all of our customers to know what we can do to make their homes more comfortable and efficient," said John Scipione, General Manager, GreenHomes America. "Helping homeowners resolve their comfort issues and maximize their energy savings is what it's all about. Our employees really believe in delivering benefits to homeowners, not selling them something they don't need."

## Training

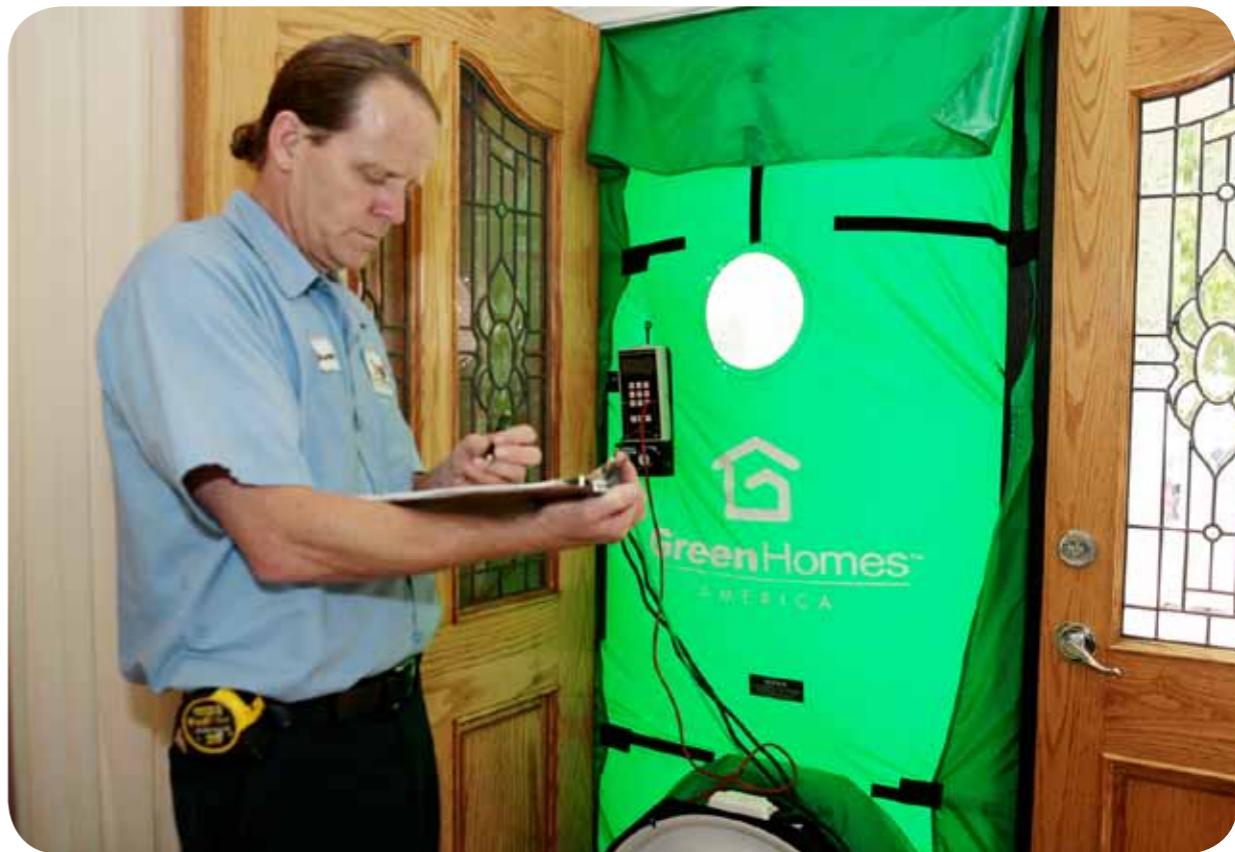
Most successful home performance contractors recognize that education is the most effective way to make the transition into the market. It is also a proven way to inform homeowners of the many advantages that whole-home performance provides, which helps create a desire and, ultimately, increased sales.

"Training is certainly essential to getting a home performance program off the ground," said Martin Hoover, owner, Empire Heating & Air Conditioning, Atlanta, GA. "The best way to promote and build an HPC business is through your own service department. Without a full buy-in from your technicians, the program is certainly doomed to a short life."

Home performance training is offered by numerous organizations including, Air Conditioning Contractors of America (ACCA), Affordable Comfort Institute (ACI), Building Performance Institute (BPI), Leadership in Energy and Environmental Design (LEED), the National Comfort Institute (NCI), amongst others.

ACCA formed its Building Performance Council in 2012 to help contractors grow into their HPC markets. ACCA also hosts an annual building performance forum featuring 12 learning labs taught by successful contractors who are willing to share their knowledge.

"Not every HVAC contractor was meant to be a home performance contractor. Not every consumer will agree to become a home performance customer,"



A technician with Green Homes America performs a residential blower door test.

said Paul Stalknecht, President and CEO, ACCA. "If we can show HVAC contractors how to become home performance contractors and bring their customer base along gradually, they will grow their businesses and accomplish the goals of government regulators more quickly than the already discounted low-volume model of starting a new home performance business with no customer base."

BPI is one of the nation's fastest growing home performance organizations, reporting an 11 percent growth in active certifications in 2012 over 2011. BPI's 585 accredited contracting companies operate in 30 states nationwide and are recognized as specialists in their chosen fields. BPI certifications are currently available in numerous areas including energy auditor, retrofit installer, crew leader, quality control inspector, building analyst, envelope, residential build-

ing envelope whole-house air leakage control installer, manufactured housing, heating, air conditioning and heat pump, multifamily and more.

"Our certifications verify that workers have the house-as-a-system building-science knowledge, skills, and abilities necessary to diagnose and solve critical performance factors in a home that impact the comfort, health, and safety of occupants, and energy efficiency and durability of the home," said Leslie McDowell, Director of Marketing and Communications, BPI.

## A Change in Philosophy

David Wagner, owner, Advanced Home Performance, Jacksonville, FL, said home performance contracting is not for everyone and contractors looking to make a quick buck through immoral business decisions, leaving customers' homes unhealthy and inefficient, need not apply.

"Contractors need to change the focus from sales and service to providing solutions. Success is largely measured on the amount of sales generated, but the last concern of a home performance contractor should be sales volume. The main goal of a home performance contractor should be to provide homeowners with solutions that enable their home to have optimal performance in regard to comfort, healthy air quality and energy efficiency," he said.

"The HVAC contractor should take a long look at their goals and the structure of their business. If the primary goal of the contractor is sales and service, the home performance contracting industry is not the direction they may want to choose," he added.

"If a contractor wants to succeed in home performance contracting, he needs to focus on performing the work correctly. If he does this, he's already halfway there."

Sit credits his home performance experience as a blessing to himself and his company. "I love the home performance business because it's absolutely



Checking windows is only part of the equation when addressing the house as a system. made me a better HVAC contractor. When I do my work, there is nothing in the code that says I can't check moisture levels, or air leakage, or perform a blower door test. So, I do these things, and it's made me a better contractor. Perhaps most importantly, it's made my customers more comfortable, which is key because I can't collect a bill from a customer I kill. When customers are satisfied and comfortable, they'll always remember your name the instant something goes wrong in the future." **N**

# More Building Science Coursework Needed in HVAC Schools

**T**hough the idea of optimizing whole-building performance and comfort is not brand new, it is an emerging and rapidly growing field that presents ample opportunities for HVAC contractors and technicians. But as home performance contracting and energy auditing become increasingly popular, many HVAC educational programs are struggling to provide coursework and opportunities to adequately prepare technicians for those jobs.

## A Gap in Learning

Though it is a broad subject, building science is an important concept for technicians to know and understand. "Building science is not just any one thing," HVAC Excellence board member Erik Rasmussen explained. "It's the entire complex world of the house as a system, or a building as a system, where it's not just the shell of the structure, but everything within the structure that plays a role.

"You've got the building shell, or the enclosure. You've got the insulation, the walls, the doors and the windows. You've got the mechanical parts, including the HVAC system. You also have separations between conditioned and unconditioned space, as well as the thermal boundary that separates the conditioned and unconditioned space. Building science is the study of all these things."

Warren Lupson, Director of Education for the Air-Conditioning, Heating, and Refrigeration Institute (AHRI), agreed that adding more coursework in building science would be beneficial to the industry.



An energy auditor measures for insulation during a home energy audit. (Courtesy of U.S. Department of Agriculture)

"It puts technicians on the next level," he said. "We have to take the student and contractor and give them a much better understanding of building science, both inside and outside the envelope."

Reneé Tomlinson, Director of Strategic Partnerships at The ESCO Group, agreed that adding more building science courses to HVAC educational programs is a good idea.

"We highly recommend and are looking at steering some programs into implementing that type of coursework," she said. "We're seeing the industry trending toward things like energy auditing and other things to improve energy efficiency, which all relates back to building science."

But adding those courses isn't as pressing as fixing current issues with HVAC educational programs, Lupson said, citing several areas where technicians are consistently lacking skills or knowledge.

"From what we see from the North American Technician Excellence (NATE) and the Industry Competency Exam (ICE) tests, electricity is the first biggest problem, air movement is second and refrigeration is third," Lupson said. "We have some schools, especially the ones that are for profit, which just push these technicians out. They need more hands-on and book training."

Additionally, Tomlinson said, many HVAC educational programs do not even have programmatic accreditation, which is a huge problem.

"Only 10-15 percent of the total programs that are available in the country have actually gone through an accreditation process," Tomlinson said. "That's not to say that the schools don't have an institutional accreditation, but they may not have that programmatic accreditation."

"It's that additional validation for a program that says we teach what

needs to be taught," Rasmussen added. "There are some schools that teach more than other schools."

## Balancing Act

While Lupson agreed that it would be beneficial for HVAC educational programs to add more building science coursework, he said it shouldn't detract from more important fundamental subjects and skills.

"If you look at a HVAC technician or installer, they have to understand refrigeration, electrical, controls, gas piping, welding and brazing, proper ventilation, plumbing for draining purposes — they're already taking all of that into consideration," he said. "If you add too much building science coursework, it may take away from other HVAC programs they need to be learning."

Still, Lupson said he understands the importance of integrating the broad concept of building science into current programs. "I'd like to see a little better understanding by the student of building science, but have that as an additional course they could take," he said.

"There are some programs that are starting to add these courses as additional courses, so if you're going for your two-year degree and you need 60 credits, you could take it as an elective," Tomlinson said. She pointed to the Community College of Philadelphia, which offers a two-year degree in building science, as another option. "We know that these types of programs — green programs, sustainable programs, energy management, energy auditing — are starting to be implemented in schools," she said. "Since HVAC systems are basically the main component of the whole building as a system, it just makes sense for the HVAC curriculum to start implementing those pieces." 

# Multiple Trades Under One Roof Questioned

## Contractors Discuss Advantages, Obstacles of One-Stop Shop

A growing trend in the HVAC industry is the integration of multiple trades under one business roof. Contractors are finding distinct advantages to being the one-stop shop for trade services, but not all have experienced success with this business model. Some have gone out of business while endeavoring to be all things to all people, while others have flourished in providing multiple service disciplines to their customer base.

Keeping the risk in mind, two questions arguably sum up what contractors considering multiple-trade businesses need to answer before they start: "How do I make this a successful endeavor? Is the one-stop shop truly for me?"

Definitive answers to these questions may not be a possibility, but the one-stop shop versus single trade controversy can be boiled down to three specific categories: the advantages, the obstacles, and the wildcards.



Adding multiple trades to an HVAC business has advantages and obstacles for HVAC contractors.

### Trade Integration Advantages

There are many advantages to integrating multiple trades along with HVAC and housing them under one business roof. Martin Hoover, owner of Empire Heating and Air in Decatur, GA, suggested that one of the primary advantages could be the access to an already established customer base. Many contractors agree it takes a fair amount of money and labor to find and keep new customers. The idea of trade integration would allow HVAC contractors the ability to invest their money into offering broader products and services to their existing customers as opposed to strategically gaining new ones.

"It would be nice to sell more to the customers I already have and not have to gain more customers in order to achieve growth," said Hoover.

Other contractors, like Eric Kjelshus, owner of Eric Kjelshus Energy in Greenwood, MO, further explained the advantage of selling more services to

the existing customer base.

"It costs somewhere around \$300 to get a new customer and if I can land 90 jobs in a year without the overhead, I think that is a good idea," he said.

A second advantage was brought to light by Ann Kahn, president of Kahn Mechanical Contractors in Dallas, TX. She operates a commercial business that offers HVAC, piping, and building controls products and services.

"A multiple trade business is most attractive to customers who are looking for ways to save time," she said. "Poor planning and management is often what makes a multiple trade business unsuccessful, but most all business challenges can be solved with careful thought, planning and patience."

Helping to balance the year-round workload is another advantage mentioned in discussions about multiple trade businesses.

"Offering multiple services can provide technicians with a better flow of work," explained Kjelshus. "It can really help around the first quarter in my business. With heat calls being three months of the year, a/c calls a different three months of the year, and cleans and checks peaking at two months, having multiple services beyond these helps me keep everyone busy year round."

Travis Smith, owner of Sky Heating in Portland, OR, pointed out that having multiple trades under one roof could help keep some of the costs under control as well, and he has considered moving towards this business model.

"We have thought about this opportunity before," he said. "Being able to do plumbing and electrical provides the advantage of keeping better control of your electrical costs, keeping margins lower since it is all one company and not two trying to make a profit, and with everything in house, it provides more opportunities to sell things on a quote."



Plumbing and electrical are two of the more popular trades that HVAC contractors will add to their businesses.

## Obstacles to Success

Although Smith hasn't moved multiple trades under Sky Heating's roof, he does see the advantages in its proposition. Along with those advantages, however, he warned contractors of the frequent obstacles that contractors would have to overcome in order to be successful at employing multiple trades.

One of the biggest obstacles mentioned comes in the form of a cliché: Jack of all trades, master of none.

"Despite the advantages it has to offer, I am not sure a multiple-trade business is always a good idea," agreed Hoover. "How many things can you really do and do them really well?"

Adam Fitzgerald, President of AAC Services in Madison Heights, MI, argues that HVAC is a specialized trade that requires the owner's full attention to keep up with advances in technology.

"I think it is just a bad idea," he went on to explain. "As a consumer, I wouldn't have faith in a jack-of-all-trades, master-of-none company."

Trade competency wasn't the only concern among contractors. Obstacles such as lack of communication, unfocused business intentions, and management challenges have all been experienced in businesses endeavoring to be a one-stop shop. One of the larger problems discussed is the lack of communication and its detrimental effects on the core and peripheral businesses of a company.

"Poor communication in any business can be a killer. This, however, can be solved with training, planning, training, and more planning," said Russ Donnici, president of Mechanical Air Service Inc., San Jose, CA. "Poor planning, poor training, and poor capitalization to handle the additional cash flow requirements will make adding a trade to your business unsuccessful."

Mechanical Air Service Inc. has an electrical license and a boiler license. Each is used in its specific relation to HVAC installation and service. According to Donnici, these licenses are not typical for California contractors and this has proven to be a good differentiator for the firm. Along with the need for extreme competency, the contractor expressed the importance of having management teams, as well as employees, that are on board with the multiple trades concept.

"Set attainable goals and cost out all projects and service calls to be sure you are making the margins you expected and need in order to support the additional trade," instructed Donnici. "If you are considering adding a trade to your business, you must do your due diligence to be sure that the business has the skills, employees and capital to finance the addition. Without this due

diligence, contractors could be undone by one of the biggest potential problems with multiple trades — distraction from your core business."

## Wildcards Contribute to Success

There are a few wildcards that can help balance out the obstacles of adding a trade to an HVAC business. One of them is strong management.

"I believe the way to success using this model is to have a strong manager for each business sector who can run the day-to-day operations," said Jack Beers, General Manager at Preferred Heating & Cooling LLC, WA.

Another is a strong staff that is competent and well trained in each of the disciplines a contractor is trying to offer.

"I think this could work well if you have the correct individuals running the respective departments," said Thomas Schulz, owner at Your Heat and Air Guy LLC, Davenport, IA. "There is potential to save overhead cost and help with the integration of the different trades on a project."

A third wildcard is a strong technology infrastructure.

"You would need a very good system to keep up with all the details and inventories of multiple trade disciplines," said Hoover. "Great department managers would be a plus, but you still have to integrate all the disciplines."

## Wave of the Future?

As some contractors experience success with multiple trades and others failure, the controversy over the one-stop shop will likely continue. In the meantime, contractors across the nation will be weighing the advantages and the obstacles as they look for wildcards to help them succeed in their one-stop shop business endeavors. Like Bob Weber, HVAC Sales Manager at Bender Plumbing & Heating Supply in New York, NY, said, "One-stop shop? Catch the wave." **N**

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