



## ENERGY SOLUTIONS

RESEARCH &  
TRAINING

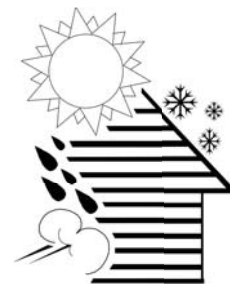
550 Industrial Drive  
Christiansburg, Virginia 24073

Phone: 540-260-9081 Fax: 540-260-9084

[www.CHPTrainingCenter.org](http://www.CHPTrainingCenter.org)



TEST CENTER



Weatherization  
Works

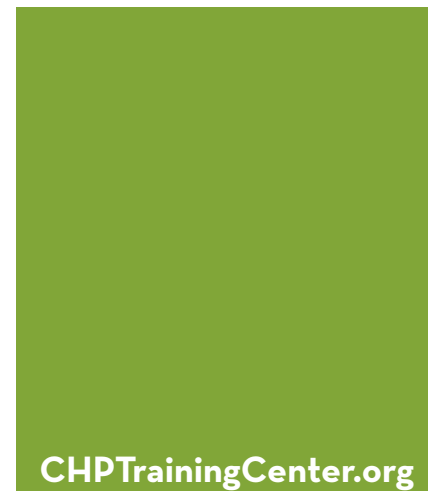
Community Housing Partners (CHP) is a nonprofit community development corporation whose mission is to create affordable, green, sustainable housing opportunities and services for the people and communities we serve.

[www.CommunityHousingPartners.org](http://www.CommunityHousingPartners.org)



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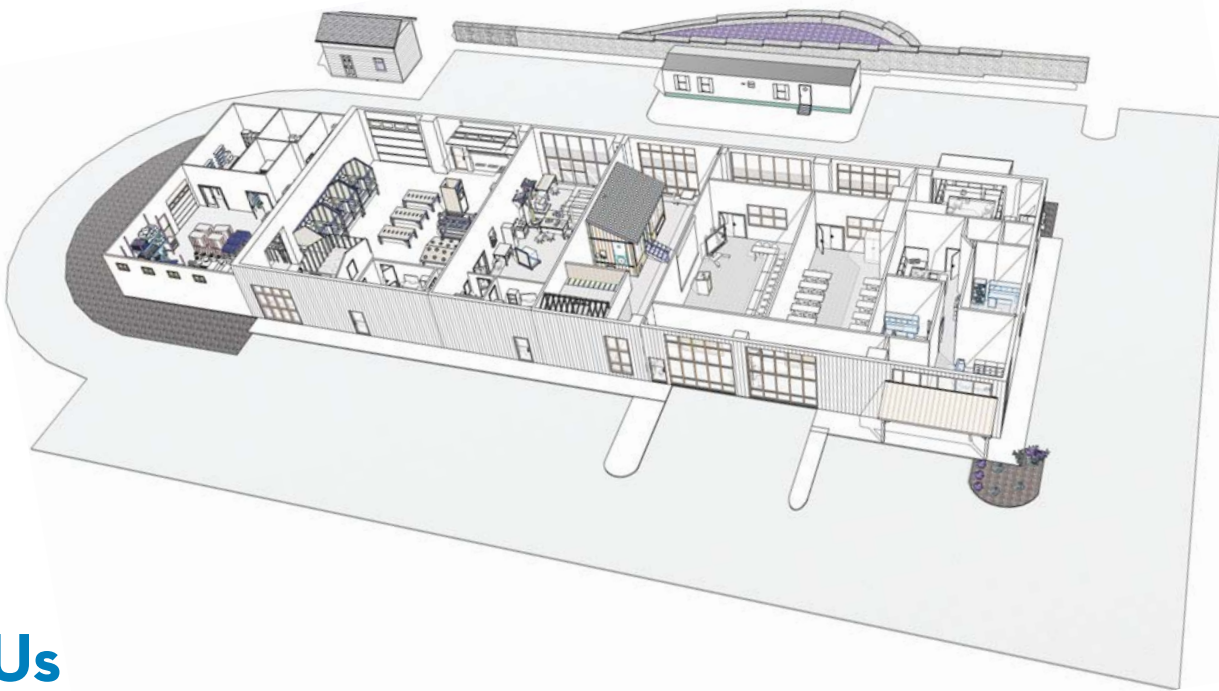
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## About Us

CHP Energy Solutions Research and Training was established in 1999 as a program of Community Housing Partners (CHP), a non-profit regional community development corporation headquartered in Christiansburg, Virginia. (We were formerly known as the New River Center for Research and Training, or NRCERT.) Our goal is to provide both training and research in state-of-the-art residential and commercial energy conservation techniques; home performance testing; and heating and cooling equipment diagnostics, repair, and replacement.

CHP Energy Solutions Research and Training has trained more than 39,000 students across the United States, Canada, Asia, and South America in energy conservation techniques since 1999.

We operate a 12,600-square-foot facility in Christiansburg that serves the training needs of the weatherization and energy efficiency industry workforce. The comprehensive, state-of-the-art learning campus uses three buildings' systems and components as real-time training tools for trainees to observe and study. It is supported by a team of highly experienced and qualified trainers certified by RESNET, EarthCraft™ and the Building Performance Institute (BPI).

In June 2012, CHP Energy Solutions Research and Training was the first weatherization training center to become an IREC Accredited Training Provider™.

Our program is designed to promote a whole-house approach to weatherization in which we begin with assessment/energy auditing and production-mode skills acquisition. We also provide follow-up technical training and administrative training to organizations to help them address problems related to the effective implementation of the whole-house weatherization model.

By providing comprehensive training, we help establish a permanent core of knowledgeable weatherization professionals who will act as technical resources for agencies and contractors in their home states.

### Our Courses Include

Four IREC-Accredited Home Energy Professional courses:

- Quality Control Inspector
- Energy Auditor
- Crew Leader
- Retrofit Installer Technician



Envelope and Duct Leakage Testing  
All Preparatory Courses for BPI Exams  
ASHRAE 62.2

Customized training to meet your needs

**Plus over 120 more instructor-led and online courses**

The following is a selection of testimonials about our services and courses:

"The class was excellent. It was equally beneficial to [inspectors] and contractors."

Bill Aldridge  
Chief Building Inspector

"Thank you so much for taking the time to talk to me this afternoon about the energy auditing program. It can be very difficult to break into a new field with limited information so it meant a great deal to me that you took the time and patience to point me in the right direction to get started."

Pam Martin

"[The trainer] provided a great training with wonderful passion. Folks truly bragged on his ability to convey the material and make a practical difference. Thanks again for partnering with us in this manner. We cannot impact the Charlotte community for good without organizations like [CHP Energy Solutions Research and Training] encouraging, equipping and challenging us to serve. In this particular partnership, a family will be spared from being exposed to a gas leak."

Tim O'Neil  
Director of Habitat for Humanity Charlotte's Critical Home Repair



"I just wanted to thank you and everyone at CHP Energy Solutions Research and Training for a great weatherization training last week. Everyone had a fabulous time learning more about weatherization and getting some hands-on experience with some wonderful trainers. I think everyone came away with a much greater appreciation for what the weatherization crews do on a daily basis."

Alice Gaston  
National Association for State Community Service Programs

"I want to thank you and your staff for the exceptional work that was accomplished...."

The audit team's work was thorough and high quality. Together they produced a document in four days that would normally take two weeks. Your team has demonstrated the persistence, commitment, competence and dedication that any organization would be proud of."

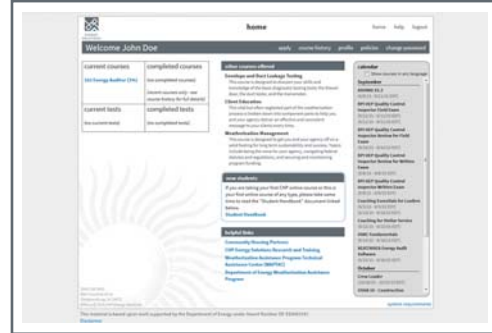
Ted Edlich  
President and CEO of Total Action For Progress



The Media Technology Solutions Team (MTS Team) works closely together to find creative solutions to your technology problems. We are experts in media production (including video, 3D animation, audio, and graphic design), online learning, web design, and technology evaluation. If you have an online training need in English or Spanish, we have the development team and platform to give you the learning experience you want. Below is a partial list of the ways we can bring your vision to reality.



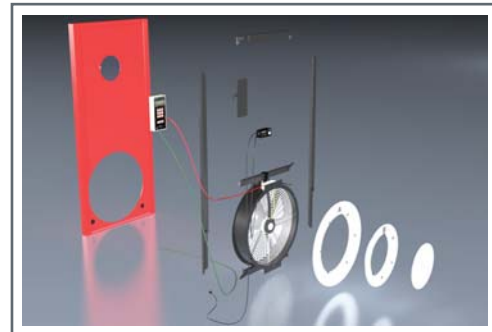
HD video production



learning management system



creative solutions



3D animation



on-demand streaming



live streaming

## Media Production Capabilities

- Streaming of on-demand and live events
- Distance learning
- Online course development
- 3D modeling and animation of complex objects
- 2D graphics
- Audio production

Our 12,600-square-foot facility serves the training needs of the weatherization and energy efficiency industry workforce.

CHP Energy Solutions Research and Training is one of twelve legacy national weatherization training centers.

## Diagnostic Labs

These fully equipped training and testing labs include operational appliances and ventilation systems controlled by iPads.

## Grandma's House

Named after the Grandma's House video, this learning lab is equipped for diagnostic and combustion safety testing.

## Air Sealing Props

These small and large props enable students to refine their air-sealing skills.

## HVAC Lab

This fully operational lab includes a variety of heating and cooling systems that students will encounter in the field.

## Pressure House

This full-size training tool is based on the House of Pressure® and showcases the house as a system.

## Mobile Home

This on-site mobile home enables students to practice air-sealing and insulation techniques specific to this housing stock.

## Entrance

## Classrooms

With interactive SMART Boards, iPads, laptops, and high-definition videoconferencing equipment, our classrooms utilize the latest learning technologies and may be configured to suit a variety of classes and meetings.



Our trainers use high-tech labs and classrooms to give our students the latest learning technology including:

- SMART Boards
- iPads
- Multimedia
- House of Pressure®, Pressure House and other innovative hands-on props housed in the HVAC, Air Sealing & Insulation, and Diagnostic Labs



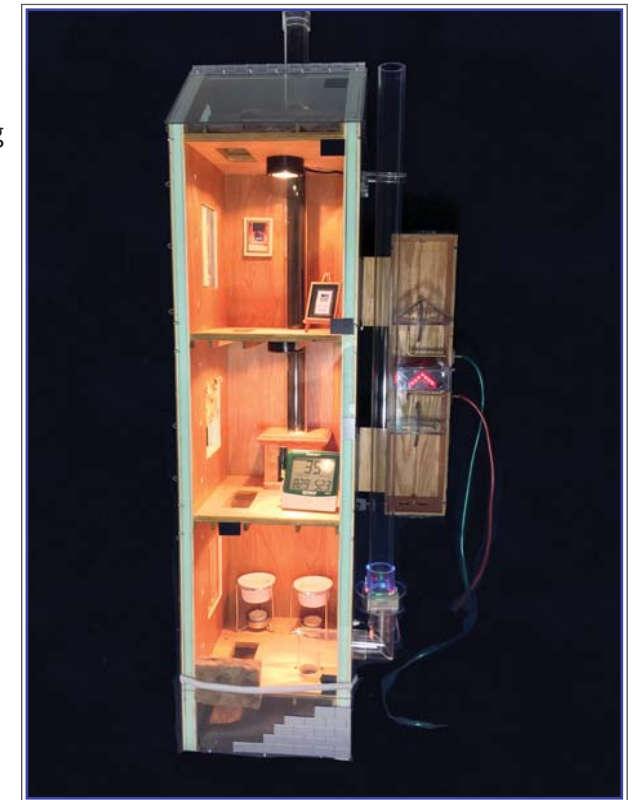
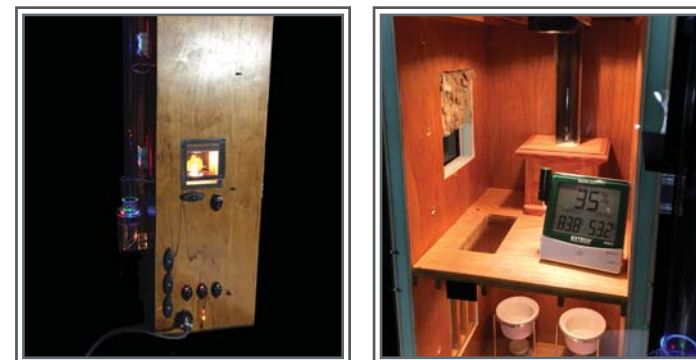
## The House of Pressure®

The House of Pressure® is a nationally recognized prop used to visually demonstrate home performance testing using pressure diagnostics. Combustion appliance zone (CAZ) testing can be demonstrated in addition to blower door testing and zonal testing, among many others. Developed by Anthony Cox, the House of Pressure® has been in use for more than 20 years.



## Heat, Air, Moisture (HAM House)

The HAM house demonstrates how heat, air and moisture move through a building. The understanding of these interactions is crucial in the design, building and retrofitting of houses for higher efficiency and health and safety. This model house allows trainers to demonstrate these concepts, how they affect our living environment and potential solutions to issues involving moisture, comfort and health. The house allows for hands-on interaction for the students as well.

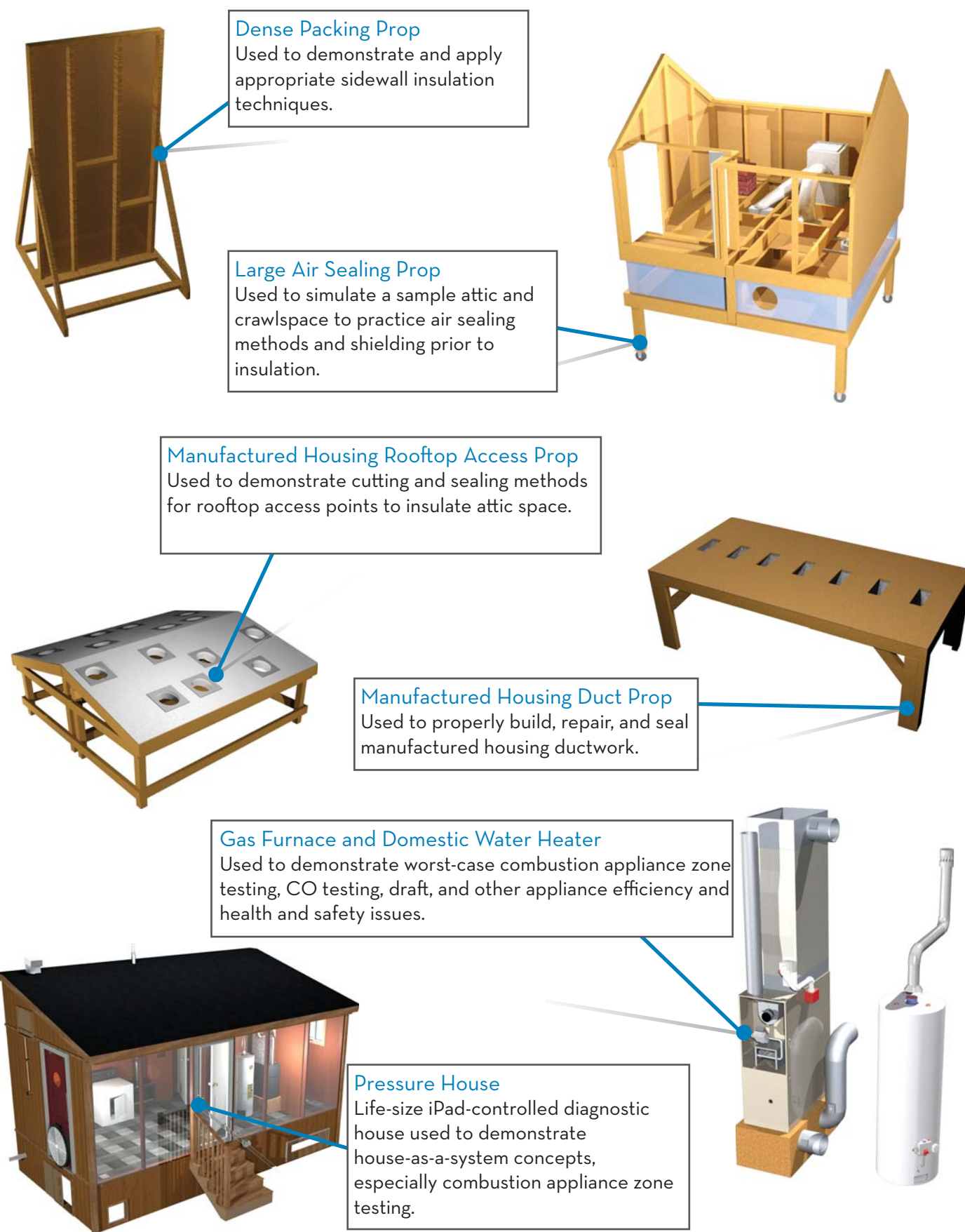


Training centers, community colleges, and technical colleges in 43 states and Canada have purchased our House of Pressure®. It has also been used at DOE regional and national weatherization conferences, Affordable Comfort Inc. (ACI) conferences, as well as numerous state weatherization conferences and trainings. For more information about the House of Pressure® or HAM House, please contact Anthony Cox at 540-260-9081 ext 4006, or [acox@chpc2.org](mailto:acox@chpc2.org).



Customized props in our hands-on labs allow students to practice their skills to prepare them for real-world scenarios in the field.

## Our props include:



To ensure that our students are thoroughly prepared beyond the classroom, we continue to instruct them in the field. This gives our students guided experience with our instructors in their actual work environments and extends the learning experiences, resulting in deeper learning and more effective performance over the long term.

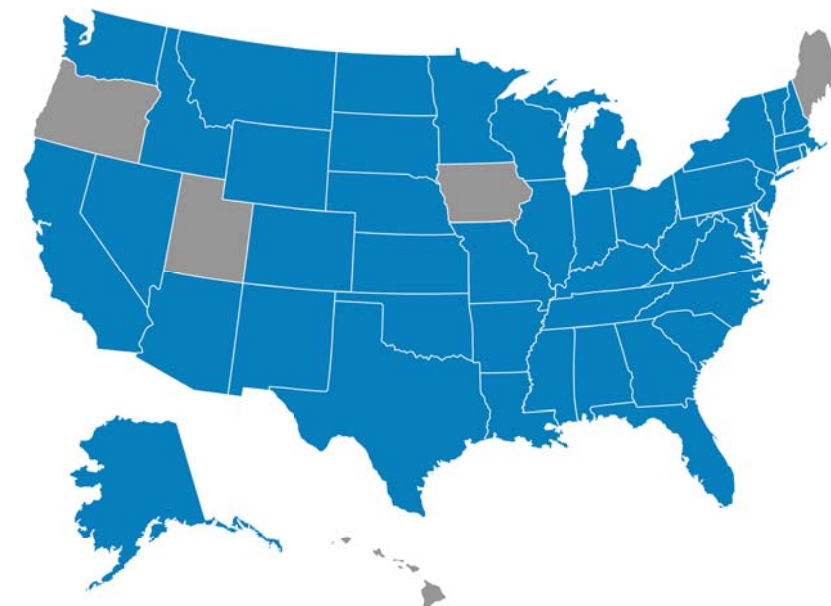
Since a major part of our mission is research, our field training and technical assistance allow us to collect valuable data. We use this data to refine our instruction and work practices, as well as to continue to evaluate and provide feedback on the effectiveness of current industry practices.

Using five mobile units we deliver training and technical assistance, along with collect data in a variety of locations, including single- and multi-family dwellings. This has contributed to our reputation as a long-standing industry leader in single-family auditing and garnered national attention for our multi-family and commercial auditing research.

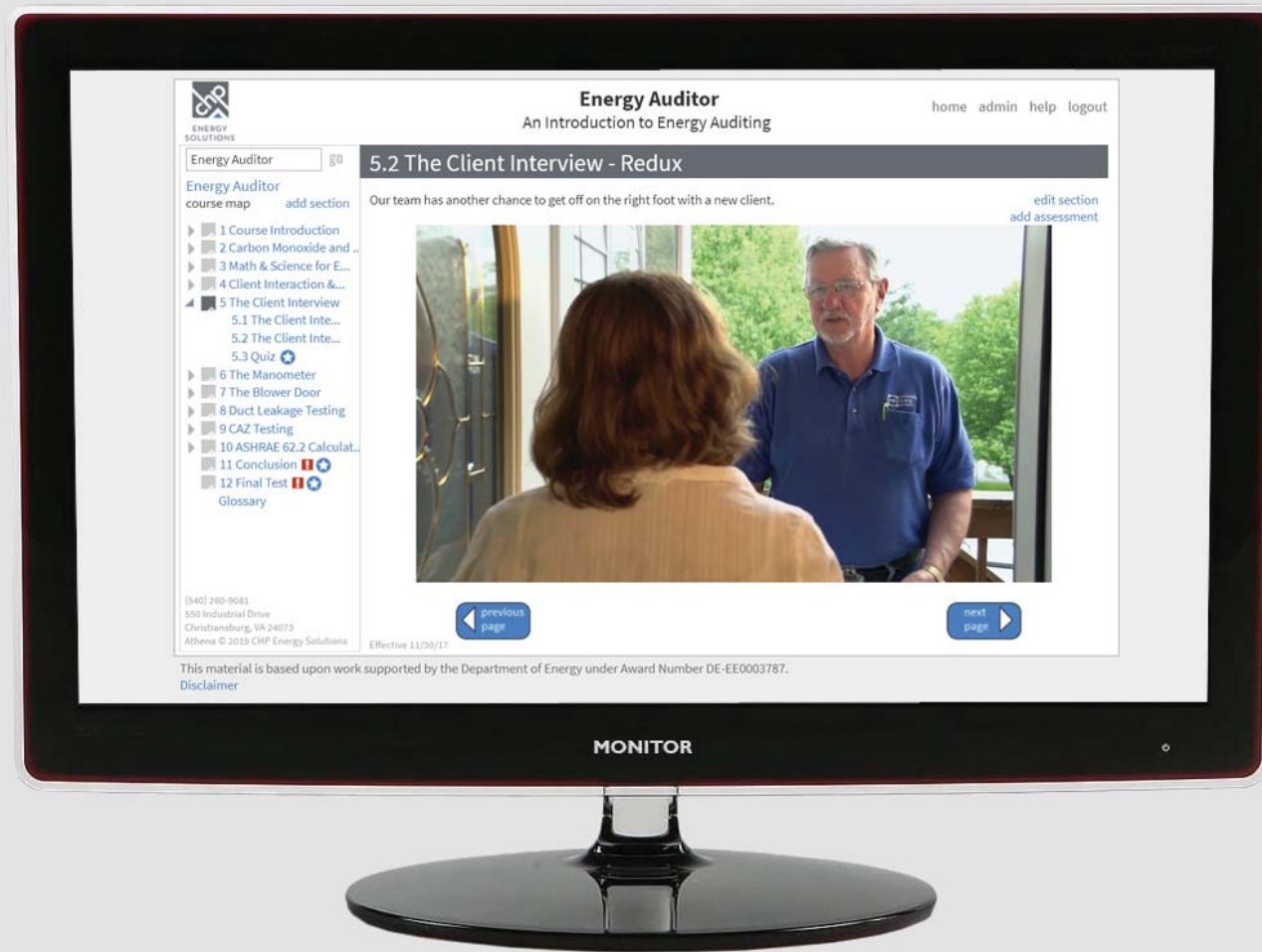
CHP Energy Solutions Research and Training offers training and technical assistance to students throughout the world. We have provided training and technical assistance to students from Asia, Canada, South America, and the following **46** states and District of Columbia:

We present our research at national conferences, including:

- DOE National Weatherization Training
- ACI National Home Performance
- Energy OutWest
- NeighborWorks America
- National Community Action Foundation
- National Association for State Community Service Programs







We are proud to offer online learning opportunities to students through our learning management system (LMS). Available 24/7 via an internet connection, the LMS allows students to apply for and take courses at their convenience. We have built the LMS from the ground up with the learning experience in mind. Features include:

#### Interface

- Intuitive, bilingual interface for English and Spanish users
- Online and instructor-led course applications
- Access to courses and assessments
- Access to course history and grades

#### Courses

- Online courses in English and Spanish
- Blended learning opportunities including quizzes and tests for instructor-led courses
- Original video and graphical content
- Helpful glossaries for technical terms

#### Technology

- Compatibility with computers and mobile devices
- High-definition video
- 3D animation
- Powerful assessment engine

Visit [lms.chplearning.org](http://lms.chplearning.org) to create your account, apply for a course, and begin learning today!

#### Quality Control Inspector Course Information

CHP Energy Solutions Research and Training's Quality Control Inspector course is based on a National Renewable Energy Laboratory/U.S. Department of Energy Job Task Analysis (JTA) for the quality control inspector. This Job Task Analysis may be viewed online at <http://www.energy.gov/sites/prod/files/2014/01/f7/51670.pdf>, at [CHPTrainingCenter.org](http://CHPTrainingCenter.org), or upon request from us. Requests may be made via phone at 540-260-9081 or via email to the admissions office ([admissions@chpc2.org](mailto:admissions@chpc2.org)).

The following are prerequisites for attending the Quality Control Inspector course:

- Students must be 18 years of age or older.
- Students are expected to understand basic math, possess a basic level of literacy, and understand basic building science. Students must pass the Quality Control Inspector (QCI) Pre-Test with a grade of 80% or higher.

#### Energy Auditor Course Information

CHP Energy Solutions Research and Training's Energy Auditor course is based on a National Renewable Energy Laboratory/U.S. Department of Energy Job Task Analysis (JTA) for the energy auditor. This Job Task Analysis may be viewed online at <http://www.energy.gov/sites/prod/files/2014/01/f7/51672.pdf>, at [CHPTrainingCenter.org](http://CHPTrainingCenter.org), or upon request from us. Requests may be made via phone at 540-260-9081 or via email to the admissions office ([admissions@chpc2.org](mailto:admissions@chpc2.org)).

The following are prerequisites for attending the Energy Auditor course:

- Students must be 18 years of age or older.
- Students are expected to understand basic math, possess a basic level of literacy, and understand basic building science. Students must pass the Energy Auditor (EA) Pre-Test with a grade of 80% or higher.

#### Crew Leader Course Information

CHP Energy Solutions Research and Training's Crew Leader course is based on a National Renewable Energy Laboratory/U.S. Department of Energy Job Task Analysis (JTA) for the crew leader. This Job Task Analysis may be viewed online at <http://www.energy.gov/sites/prod/files/2014/01/f7/51673.pdf>, at [CHPTrainingCenter.org](http://CHPTrainingCenter.org), or upon request from us. Requests may be made via phone at 540-260-9081 or via email to the admissions office ([admissions@chpc2.org](mailto:admissions@chpc2.org)).

The following are prerequisites for attending the Crew Leader course:

- Students must be 18 years of age or older.
- Students are expected to understand basic math, possess a basic level of literacy, and understand basic building science. Students must submit a valid Adult First Aid/CPR/AED certification and pass the Crew Leader Pre-Test with a grade of 80% or higher.

#### Retrofit Installer Technician Course Information

CHP Energy Solutions Research and Training's Retrofit Installer Technician course is based on a National Renewable Energy Laboratory/U.S. Department of Energy Job Task Analysis (JTA) for the retrofit installer technician. This Job Task Analysis may be viewed online at [http://www.energy.gov/sites/prod/files/2014/01/f7/retrofit\\_installer\\_jta\\_04112012.pdf](http://www.energy.gov/sites/prod/files/2014/01/f7/retrofit_installer_jta_04112012.pdf), at [CHPTrainingCenter.org](http://CHPTrainingCenter.org), or upon request from us. Requests may be made via phone at 540-260-9081 or via email to the admissions office ([admissions@chpc2.org](mailto:admissions@chpc2.org)).

The following are prerequisites for attending the Retrofit Installer Technician course:

- Students must be 18 years of age or older.
- Students are expected to understand basic math and possess a basic level of literacy. Students must pass the Retrofit Installer Technician (RIT) Pre-Test with a grade of 80% or higher.



## Application Process

For information on tuition please contact our administrative operations manager, Kristie Lowry, at 540-260-9081, ext. 4000, or [klowry@chpc2.org](mailto:klowry@chpc2.org). Prospective students must apply for all courses through our online Learning Management System (LMS) at <https://lms.chplearning.org>. New users must create an account at this website in order to gain access to the course application. Returning users may login with their account credentials to check the status of existing applications, submit new applications, or complete online coursework.

Each student will be notified of CHP Energy Solutions Research and Training's admissions decision, whether accepted or denied. Students admitted to a course will be registered to attend class upon admission. Students are expected to complete a registration packet and submit payment prior to attending class.

Students are expected to read and agree to abide by our policies and procedures as a part of the enrollment process.



**Mark Jackson** - Vice President, Energy Solutions

Mark Jackson joined Community Housing Partners (CHP) in 2009 after 20 years in business management and real estate development, where he gained experience in operations, project management, fiscal oversight, and customer service. As Vice President of CHP Energy Solutions he oversees all operations of the internationally-renowned Weatherization Assistance Program, Research and Training Center, and Utility Energy Efficiency programs. Under Mark's leadership, CHP has delivered weatherization services to more than 40,000 income qualified families and trained over 38,000 participants in building science and energy conservation techniques across the US and Internationally. In addition to his work at CHP, Mark co-founded and serves as the Chief Operating Officer of Weatheriers Without Borders (WWB), an international NGO that develops weatherization programs globally.



**Phil Hull** - Training Center Director

Phil is a BPI HEP Quality Control Inspector, BPI HEP Energy Auditor, BPI-certified Building Analyst Professional, Envelope Professional, Heating Professional, Air Conditioning and Heat Pump Professional, and Residential Building Envelope Whole House Air Leakage Control Crew Chief. Phil joined CHP Energy Solutions in 2010. He has a master's degree in building science from Appalachian State University, and a bachelor's degree in industrial technology management from Berea College. He co-managed the Piedmont Non-Profit Weatherization Assistance Program and was a contractor for the infrastructure program in North Carolina. He has also performed audits on both residential and light commercial buildings.



**Robin Saul** - Administrative Operations Manager

Before joining CHP in 2018, Robin held positions in the consumer goods and global purchasing industries. Her background is in sales planning, event management, logistics, and administration. Robin holds an Associates of Applied Science, Marketing Major, from New River Community College.





**Andrew Woodruff** - Training Center Manager

Andrew Woodruff is the Training Center Manager for CHP Energy Solutions. He oversees training center operations including curriculum development and trainer mentoring/professional development and now manages all things IREC and BPI. He has a broad range of professional experience that includes training, diagnostic testing, architectural design, construction, energy modeling and affordable housing program administration. Andrew earned a degree in Architectural Technology and Design, with a minor in Community and Regional Planning from Appalachian State University and holds many other professional certifications. Most recently, Andrew wrote a feature on “Overcoming Obstacles of Advanced Air Sealing” for the summer 2019 edition of Home Energy Magazine.



**Les Lester** - Project Manager-Building Science Trainer

Les is a BPI HEP Energy Auditor, HERS Rater, BPI-certified Building Analyst Professional, Envelope Professional, Heating Professional, and Air Conditioning and Heat Pump Professional. Les brings 25 years of varied work experience to CHP Energy Solutions. Les’s extensive professional experience includes time spent as an estimator in the insulation and fireproofing industry, and also as a high school teacher. He has been with CHP since 2010.



**Anthony Cox** - Building Science Manager - Lead Trainer

As a Lead Trainer, Anthony develops and provides training in residential energy conservation and diagnostics for the weatherization network and its subcontractors. He is BPI-certified as a Quality Control Inspector, Energy Auditor, Retrofit Installer Technician, Crew Leader, Infiltration Duct Leakage Professional, Healthy Home Evaluator, HERS Rater, Building Analyst Professional, Envelope Professional, Heating Professional, Air Conditioning and Heat Pump Professional, and Manufactured Housing Professional. He also holds Master HVAC and Residential Building Analyst licenses in Virginia. Anthony has over 25 years of experience in the field, and he joined CHP Energy Solutions in 1999. Anthony developed the nationally-recognized House of Pressure® and H.A.M. House® as training tools, and he received a 2005 National Weatherization Recognition Award from the U.S. Department of Energy. Anthony is also the 2016 recipient of the Home Performance Coalition Linda Wigington Leadership Award.



**Kevin Scott** - Project Manager-Building Science Trainer

Kevin Scott has been actively working in the Weatherization Program since 2002. During that time he has been an energy auditor, instructor, and training coordinator. While working with Community Housing Partners his responsibilities have included classroom and field instruction, curriculum development, and quality assurance inspections for programs in several states. He holds multiple Building Performance Institute certifications including Building Analyst, Envelope Professional, Energy Auditor, Quality Control Inspector, Heating Professional, and Healthy Home Evaluator.



**Ethan Heslep** - Project Manager-Building Science Trainer

Ethan Heslep is a trainer and project manager for CHP Energy Solutions with almost ten years of previous experience working in weatherization and general contracting as an energy auditor and quality control inspector. Ethan also served in the Army National Guard for 7 years and was honorably discharged. He is a BPI HEP Quality Control Inspector, Energy Auditor HEP BPI certification, and has his Residential Building Energy Analyst license from the Commonwealth of Virginia. He enjoys weatherization field work and training, and he worked at CHP Energy Solutions Weatherization before joining the staff at the Energy Solutions Research & Training center. Ethan joined CHP in 2008.



**Morgan Currie** - Project Manager and Building Science Trainer

Morgan Currie is a building science trainer and project manager for CHP Energy Solutions. Morgan earned a degree in Biology at Roanoke College before joining the United States Peace Corps where he served as a project manager and community organizer in Mozambique. He is a BPI certified Building Analyst and Home Energy Professional (HEP) Energy Auditor and Quality Control Inspector.



**Van Garnett** - Training Program Specialist Graphic Media Content Designer

Among other projects, Van designs and develops CHP Energy Solutions’ online courses. He is an experienced graphic designer, senior web designer, 3D developer and modeler, and a creative director for companies and corporations in Washington, D.C. as well as Charlotte, North Carolina. Van earned a Bachelor of Fine Arts degree from Virginia Commonwealth University and a Master of Arts degree from Syracuse University. Van has been with CHP since 2010.