

2010

BUILDING PERFORMANCE INSTITUTE, INC.

End of Year Report



Standards.
Certification.
Accreditation.
Quality Assurance.





Building Performance Institute, Inc.

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Letter from the Chairman of the Board

Dear Fellow Stakeholders:

Together with the promise and potential of the home performance industry itself, the Building Performance Institute's story for 2010 is one of tremendous growth and opportunity.

Those of us who have dedicated many years of our lives and large portions of our careers to building a viable building energy retrofit industry are especially gratified to see the growth of professional credentialing in recent years, and how BPI has stepped up to meet this increased demand. The growth of the energy efficient buildings sector will continue to present new challenges to our industry to maintain standards for building performance work and for training, and BPI is well prepared and positioned to meet those challenges in the years to come.

Not least amongst BPI's achievements this year is its accreditation as a developer of American National Standards for the residential energy efficiency retrofit community by the American National Standards Institute (ANSI). ANSI accreditation helps ensure that consistency is applied throughout the credentialing process using a transparent, consensus-based method. The development and execution of ANSI procedures was a significant undertaking, and BPI committed considerable resources to ensure its success. We are pleased to contribute to ANSI governance programs as a member of the standards community.

We thank our stakeholders and partners in government and industry for your continued commitment to raising the bar in home performance contracting. Together, we are improving the energy efficiency of the country's housing stock, and with it the energy independence and environmental health of the nation.

Sincerely,

A handwritten signature in blue ink, appearing to read "David Hepinstall".

David Hepinstall,
Chairman of the Board

1. Introduction

Responding to explosive demand for nationally recognized credentials in the residential energy efficiency retrofit industry, the Building Performance Institute, Inc. (BPI) experienced tremendous growth in 2010. A confluence of factors has contributed to establishing BPI as the nation's premier home performance credentialing, quality assurance and standards setting organization:

- BPI Certified Professionals are now located in all 50 states and five foreign countries, with western states seeing the most aggressive growth of over 400 percent in 2010
- The number of contracting companies earning BPI Accredited Contractor status doubled for the second year in a row
- Intense demand for training increased BPI's nationwide network of affiliate training organizations 78 percent— to 242 training organizations
- Over 100 utility, state and local incentive programs now call for BPI credentials
- BPI earned accreditation from the American National Standards Institute (ANSI) as a developer of American National Standards for the residential energy efficiency retrofit community
- Revenues jumped 78 percent in 2010 to approximately \$4.7 million after experiencing a 98 percent growth in 2009

- BPI completed the development of a \$500,000 IT infrastructure to handle the processing of exams and the servicing of thousands of newly credentialed professionals and accredited contracting companies
- BPI donated the results of a \$50,000 project — to convene industry experts and develop a set of Standard Work Specifications — to a major Department of Energy (DOE) 2010 initiative that included developing federal Workforce Guidelines for Home Energy Upgrades
- Staff expanded from 23 to 37 employees in three locations over the past year: Malta, NY, Washington, DC and San Francisco, CA

BPI is proud that its credentials or quality assurance protocols are referenced in more than 100 federal, state, local government or utility energy efficiency incentive programs. BPI credentials help protect such programs from undue risk, providing assurance of a highly qualified workforce applying nationally recognized standards and achieving verifiable results in retrofit work.



BPI's Humble Beginnings in Malta, NY

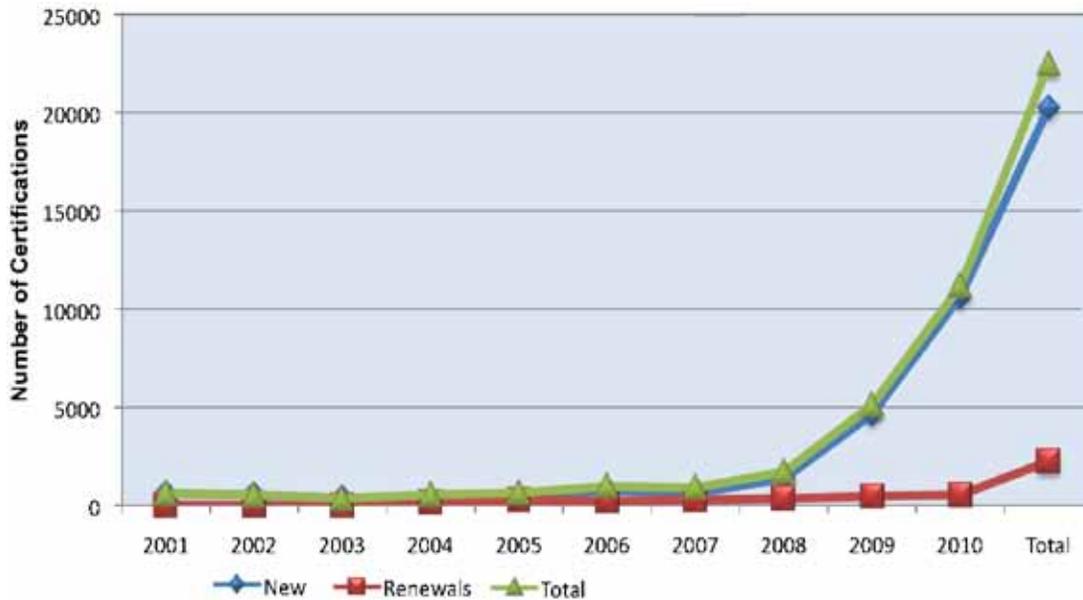
BPI has come a long way since its founding in 1993 by a group of building tradesman, product manufacturers, and public program professionals. Their vision was to create a non-profit resource for independent, third party verification of worker skills in the weatherization industry. In 1996, the first certifications were issued for weatherization auditors and installation personnel. BPI employed three staff members to develop standards, work with training partners to develop curricula and exams, and process applications.

2. Certification Development

2.1 Growth of Certifications

BPI certifications have experienced “hockey stick” growth in the past two years (see illustration in Figure 2.1). A total of 20,236 BPI certifications had been issued in the home performance marketplace as of the end of 2010. Of these, 10,637 were issued in 2010 alone. This is 229 percent of the total certifications issued in 2009 and 110 percent of the total certifications issued from 2001 – 2009. Initial projections to reach an annual total of nearly 8,400 certifications for 2010 had to be revised to the possibility of reaching 10,000 certifications issued this year alone. We have passed this mark.

Figure 2.1: BPI Certifications by Year

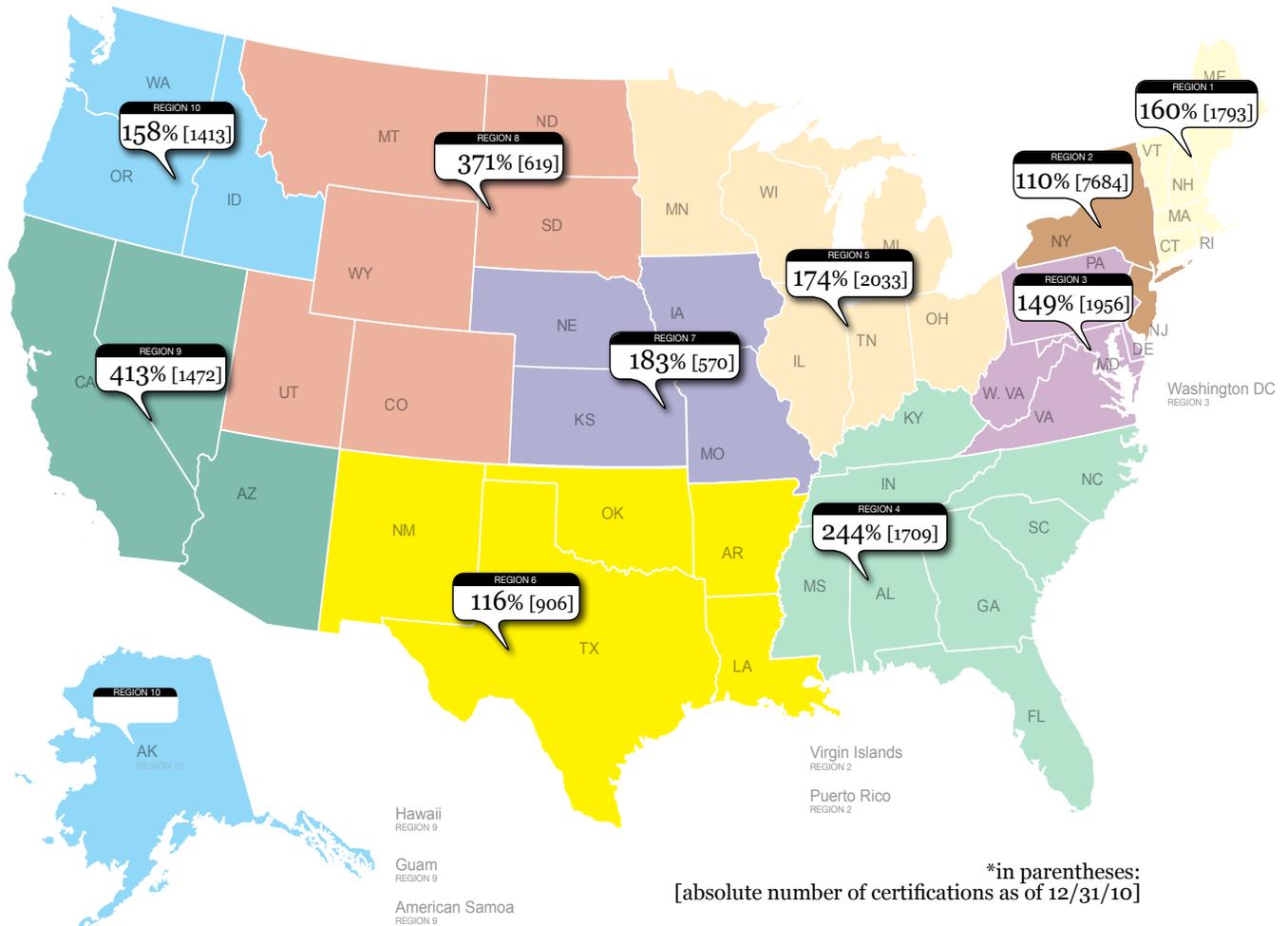


BPI Today: Three Locations - Malta, NY, Washington, DC, and San Francisco, CA

2.2 Regional Certification Coverage

Certifications are now represented in all 50 states, Washington D.C., Puerto Rico, the Virgin Islands, Australia, South Korea and in three Canadian provinces. Five new states or territories gained certification representation in 2010, up 10.4 percent from the previous year. Regions 9 and 8 led certification growth (see map below), with Region 2 having the slowest growth in certifications--although Region 2 still dramatically leads in gross number of certifications.

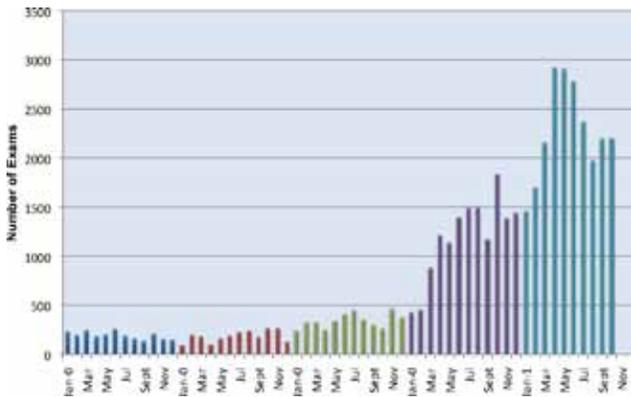
Figure 2.2: 2010 BPI Certification - Percentage Growth by Region *



2.3 Certification Exams

A cumulative total of 26,385 written and field exams had been given by the end of 2010. This is 185 percent of the total number of exams given in 2009 and 116 percent of all exams given from 2006 – 2009.

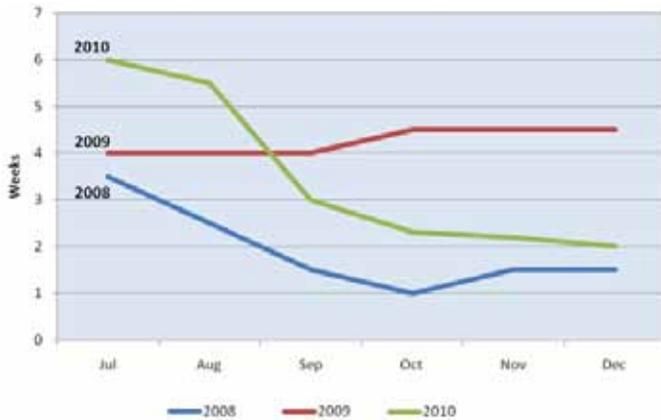
Figure 2.3: Total Exams 2006 - present



2.4 Certification Processing

Over the past year BPI has put IT systems in place to process credentials quickly. Processing time from receiving exams to mailing of certificates was reduced to two weeks by the end of September, and continues to fall. BPI is currently working with system developers to streamline, trouble shoot, and fine tune processes within the new system. For example, BPI is developing an electronic method of field exam entry that will eliminate the need for manual input by BPI staff. The goal is to eliminate paper field exams completely by early 2011. Future planned improvements include automatic notification of Continuing Education Units (CEUs), renewal information, certification activity, and upcoming events.

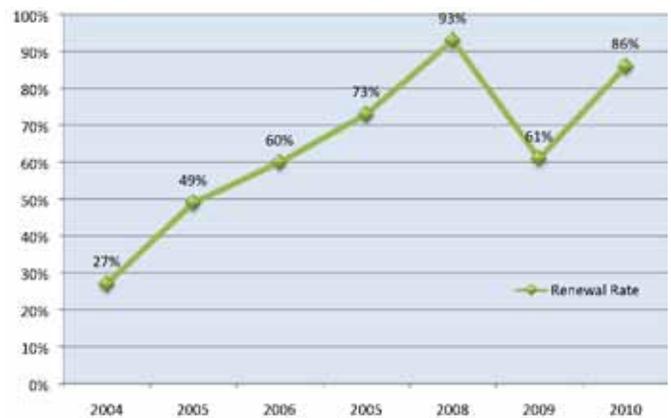
Figure 2.4: Exam Processing Times (estimated)



2.5 Certification Renewals

BPI policy requires that BPI Certified Professionals renew their credentials every three years to keep abreast of emerging industry best practices. The current renewal rate is now 86 percent. To improve the renewal rate over the past year, BPI is placing great emphasis on keeping Certified Professionals engaged throughout their three year activity. The welcome packet received by newly certified professionals had a complete makeover in 2010. Materials include a welcome letter and folder, upcoming event flyers, information on renewing their credential and CEU requirements, and directions to their unique online portal site. A great deal of positive feedback has been received.

Figure 2.5: Renewal Rate of Existing Certifications



3. Accredited Contractor Development

The number of contracting companies achieving BPI Accredited Contractor status grew from 300 to 663 since December 2009, doubling the total for the second year in a row. Thirteen new states gained accreditation representation in the past year (54 percent growth).

BPI Accredited Contractors are elite firms that have taken the extra step in home performance contracting. They've made a commitment to offer their clients solutions based on house-as-a-system building science, backed up by BPI's third-party Quality Assurance Program. Requirements include having employees certified in at least two BPI "whole house performance" professional categories, agreeing to regular on-site office audits, and to random on-site audits of their professional work. Contractors' customers receive customer satisfaction surveys.

BPI is working to provide added value and support to BPI Accredited Contractors in 2011.

Each company will receive:

- Listings on a consumer zip code search map showing accredited contractor specialty certifications
- Guidance on implementing a Quality Management System (QMS) to simplify and improve contractor business processes and reduce risk
- Technical home performance Field Guides developed for BPI by Saturn Resource Management with support from DOE's National Renewable Energy Laboratory
- Invitations to attend free webinars on business development, marketing and QMS processes
- A detailed Contractor Resource Manual and free marketing materials

Figure 3.1: Cumulative Active Accreditations 2001-2010

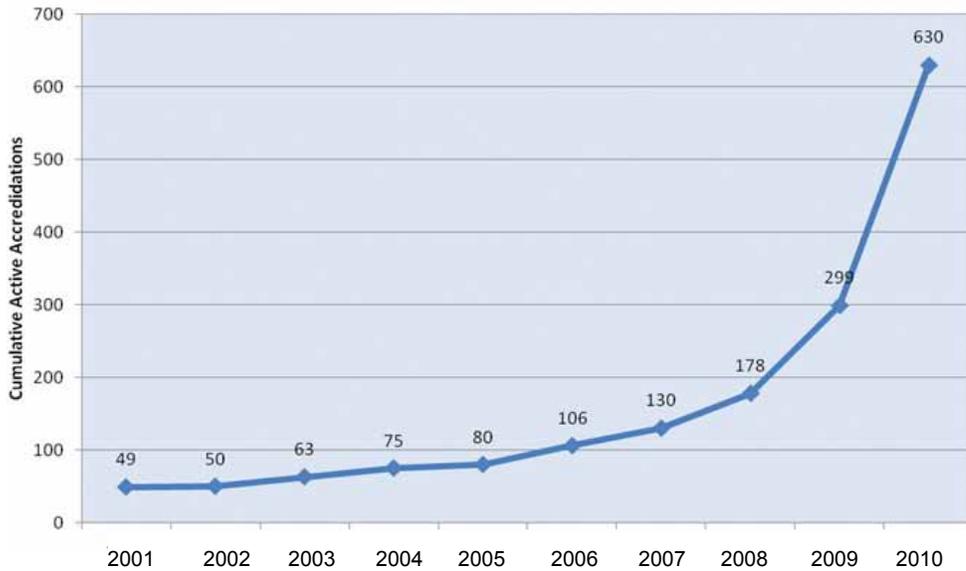
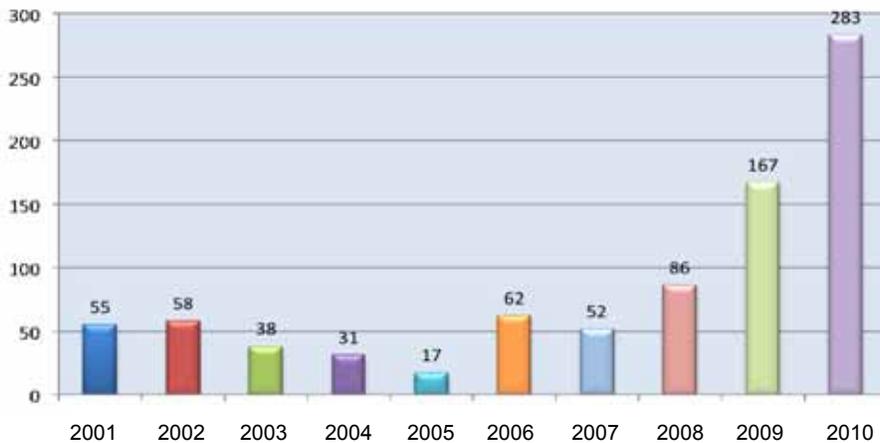


Figure 3.2: New Accreditations 2001-2010



4. Affiliate Training Organizations

4.1 Affiliate Growth

BPI's certification success is rooted in the coast-to-coast network of affiliate training organizations that provide the curricula, training and proctored exams that support BPI certifications. The number of BPI affiliates grew from 136 to 242 during 2010, a 78 percent increase. Six new states

gained affiliate representation in the past year (15 percent growth), predominantly in the western part of the country. The national network includes private companies, not-for-profit organizations and 48 community colleges.

Figure 4.1: Cumulative Active Affiliates 2005-2010

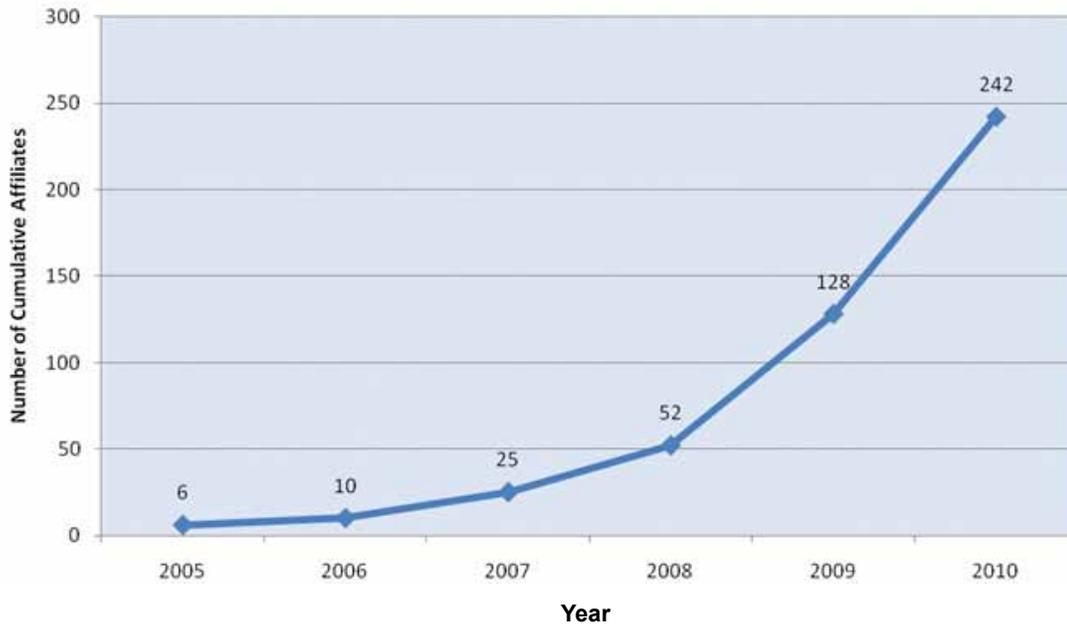
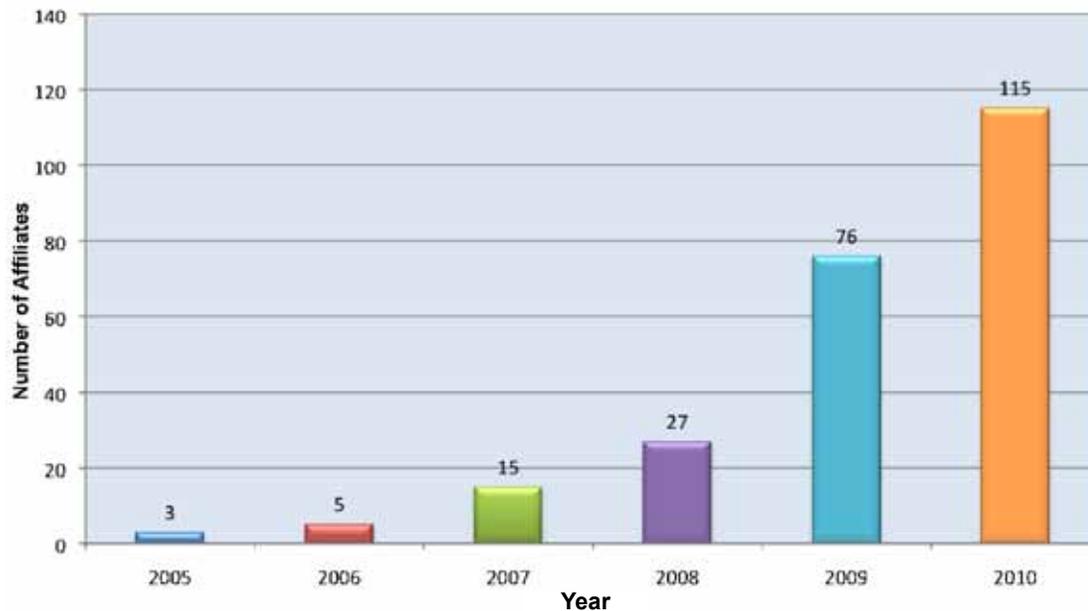


Figure 4.1.1: Number of New Active Affiliates Per Year

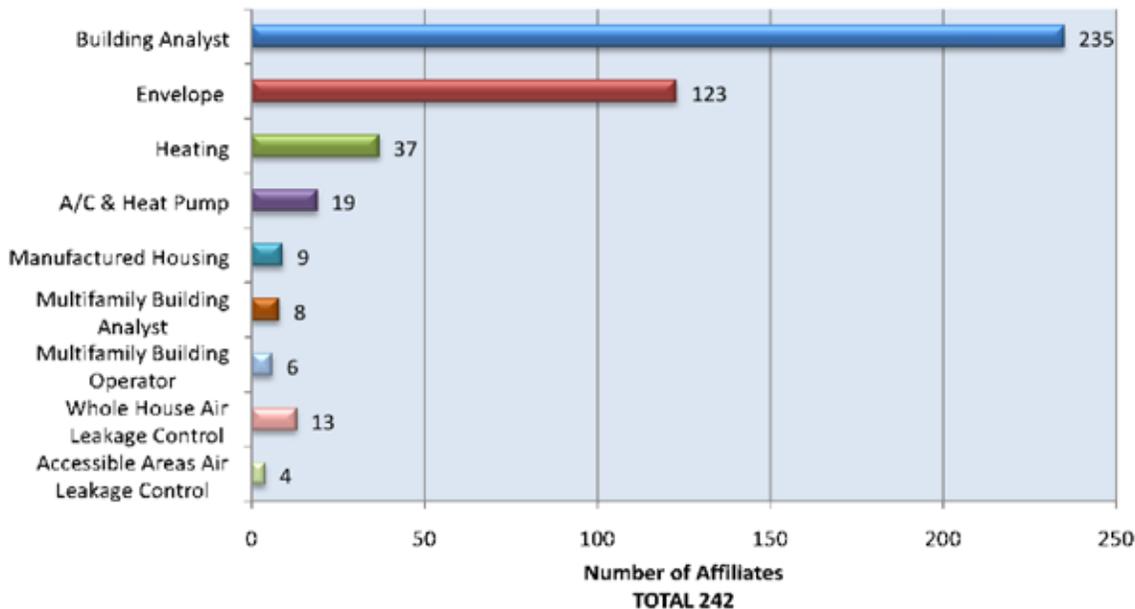


4.2 Affiliate Training

The vast majority of affiliates, 97 percent, offer curricula that prepares candidates to take the Building Analyst certification exam. Courses for the Building Envelope certification exam are quickly gaining ground, as 51 percent of BPI affiliates offer this curricula. Classes for the Heating certification exam are offered by 15 percent

of affiliates, and are followed by A/C & Heat Pump, Manufactured Housing, Multifamily designations, and classes for BPI's newest credentials, Air Leakage Control designations.

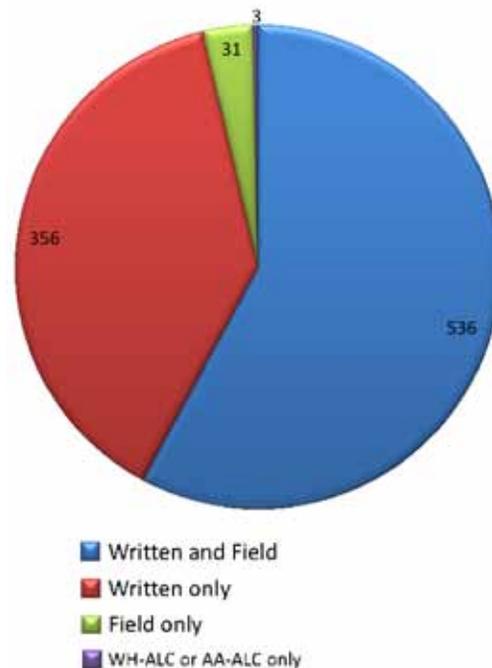
Figure 4.2: Affiliate Training by Certification Designation



4.3 Affiliate Field Proctoring

Proctors administering BPI exams are fast approaching the 1,000 mark. To maintain consistency and strict levels of quality control across disparate markets, BPI is currently building a Quality Assurance Task Force on Affiliate Field Proctoring. New proctoring guidelines and requirements will be developed based on field evaluations. Evaluations will include a candidate survey, randomly observed QA inspections during the proctoring process (5 percent goal), and mystery shopping of affiliate proctor services. BPI will also add a resource to its website to provide direct feedback on current exam experiences.

Figure 4.3: Number of Active BPI Proctors



5. Raising the Bar in Home Performance Standards

In July, BPI achieved accreditation from the American National Standards Institute (ANSI) as a developer of American National Standards—a formidable undertaking and major step in becoming the national source for technical standards in the residential energy efficiency retrofit community. ANSI accreditation provides third-party verification of the openness, balance, consensus and due process BPI offers all stakeholders in establishing standards for residential energy efficiency retrofit work.

BPI's Standards Management Board has approved titles and scopes for the development of 10 new standards covering residential retrofit work in 2011. The drafting of each standard will be overseen by the Standards Technical Committee, a group of 13 volunteer industry experts. BPI is developing policies and procedures to come into conformance with ANSI/ISO 17024 requirements for each of its personnel certifications by early 2012.

Table 5.1: Technical Standards Proposed or Under Review in 2010

BPI Technical Standard	Scope	Status
BPI-101: Home Energy Auditing Standard	Defines criteria for conducting a building-science-based evaluation of homes (residential low rise buildings) in terms of energy usage, durability and occupant health/safety and provides a comprehensive scope of work to improve the home. Will include a cost-benefit analysis.	Under ANSI review as an American National Standard
BPI-102: Standard for Air Resistance of Thermal Insulation Used in Retrofit Cavity Applications – Material Specification	Sets a minimum performance requirement for air retarder insulation materials intended to be used in air retarder applications in existing residential buildings.	Under public review
BPI-103: Standard Test Method for Thermal Insulation Materials Used in Air Retarder Applications	Covers the determination of the air permeance of thermal insulation materials and sets a minimum performance level for air retarder insulation materials intended to be used in air retarder applications in existing residential buildings.	Under public review
BPI-104: Envelope Professional Standard	Covers personal safety of all technicians performing diagnostic tests, inspections or installations of the building envelope; occupant health and safety requirements; and requirements for air flow and mechanical ventilation, duct sealing, insulation and windows.	Approved as a BPI Technical Standard
BPI-105: Standard for Home Performance-related Data Transfer	Provides requirements for an XML standard data transfer protocol used to transfer any home performance-related data between parties in a home performance program, i.e., contractors, program administrators, utilities, DOE and EPA.	In drafting stage
BPI-106: Standard for Home Performance Data Collection	Provides requirements for prescribed fields for collecting home performance-related data and the minimum measure description collection criteria.	In drafting stage
BPI-107: Standardized Qualification of Whole House Energy Savings Estimates	Specifies a process for the calculation of standardized estimated savings: a difference between modeled energy usage before and after an energy upgrade, using approved energy use simulation software.	In drafting stage
BPI-108: Standard for Residential Building Air Distribution System Energy Performance Applications	Provides requirements for the energy performance of air distribution systems in residential buildings. The energy performance measures are designed to reduce heat transfer and air leakage of the air distribution system.	In drafting stage
BPI-109: Standard Practice for Basic Analysis of Buildings	Defines the criteria of a building-science based whole-house analysis of residential buildings through visual inspection and diagnostic testing. Analysis will include the building elements, thermal and pressure characteristics, HVAC performance, durability, health and safety.	Title and scope approved
BPI-110: Standard for Residential Building Envelope Air Leakage Control Applications	Outlines requirements for controlling air leakage in existing single-family buildings, and all residential buildings not greater than three stories.	In drafting stage



From left to right: BPI staff Michelle Watrous, Vikki Murphy, Michelle Trinchitella, Michelle Nochisaki and Nancy Kaplan at BPI Malta's 2010 holiday party.



BPI staff Kirsten Richnavsky and Jeff Hiscox in BPI's Malta office.

BPI-111: Standard for Residential Building Envelope Insulation Applications	Outlines requirements for installation of various applications in existing single-family buildings, and all residential buildings not greater than three stories.	In drafting stage
BPI-112: Standard for Residential Building Quality Assurance Inspection	Provides requirements for a residential building quality assurance inspection of relevant installed measures. Includes requirements to confirm that the retrofit measures have been installed in accordance with the work scope and applicable standards for material, installation and application.	In drafting stage
BPI-114: Standard for Home Performance Related Work – Hydronic Heating Systems	Defines the criteria for the installation, improvement, or repair of residential hydronic heating systems as the result of a BPI-101 energy audit, a contractor assessment, or an emergency repair/replacement. This standard is limited to fossil fuel fired and electric hydronic systems, and includes systems that provide space heating and/or potable water.	Title and scope approved
BPI-115: Standard for Home Performance Related Work – Steam Heating Systems	Defines the criteria for the installation, improvement, or repair of residential steam heating systems as the result of a BPI-101 energy audit, a contractor assessment, or an emergency repair/replacement. This standard is limited to fossil fuel fired and electric steam systems, and includes systems that provide space heating and/or potable water.	Title and scope approved
BPI-116: Standard for Home Performance Related Work – Air Conditioning and Heat Pump Systems	Defines the criteria for the installation, improvement, or repair of residential Air Conditioning and Heat Pump systems as the result of a BPI-101 energy audit, a contractor assessment, or an emergency repair/replacement. This standard is limited to refrigerant-based heating and cooling systems, exclusive of geo-exchange, and includes systems that provide space heating and/or potable water.	Title and scope approved
BPI-117: Standard for Home Performance Related Work - Forced Air Furnace Systems	Defines the criteria for the installation, improvement, or repair of residential forced air furnace systems as the result of a BPI-101 energy audit, a contractor assessment, or an emergency repair/replacement. This standard is limited to fossil fuel fired and electric furnace systems.	Title and scope approved

6. Government Contracts and Coordination with Residential Energy Efficiency Retrofit Programs

BPI's growth has been bolstered by a consensus amongst government, industry and non-profit sector stakeholders of a pressing need for national building performance standards. The U.S. Environmental Protection Agency, U.S. Department of Energy (DOE), U.S. Department of Housing and Urban Development, many state energy offices and industry trade groups have joined together to streamline standards, quality management systems, data collection software tools and other features essential to raising the bar in home performance contracting..

At the federal level, BPI Accredited Contractors or an equivalent credential were specified for conducting work under the GOLD STAR portion of the proposed HOME STAR program (a.k.a. 'Cash for Caulkers'). BPI certification credentials or an equivalent are also required in 25E tax credit legislation and in the DOE's Home Energy Score Pilot Program.

BPI is also pleased to provide technical support to the home performance policy community. Last February BPI provided key support to Vice President Biden's Recovery Thru Retrofit Program by initiating the development of Standard Work Specifications for sealing the attic plane and other areas—drawing on earlier work by Masco WellHome, Conservation Services Group and Advanced Energy. BPI also worked closely with federal agencies, Weatherization Assistance Program (WAP) practitioners and trainers, home performance contractors, building scientists and other stakeholders to help DOE develop preliminary national guidelines, called *Workforce Guidelines for Home Energy Upgrades*.

6.1 U.S. EPA's Northern Virginia Home Performance with ENERGY STAR® Program

BPI provides quality assurance to EPA's Northern Virginia pilot program to reduce program costs and enhance contractor success. BPI provides guidance, education and oversight to program contractors to help them achieve BPI accreditation, a requirement of the program. Each contractor received a pre-accreditation on-site office visit to verify their readiness for accreditation and to establish communications for developing enhanced contractor quality assurance systems. BPI presents special forums, webinars and workshops for contractors to enhance their skills and business processes.

6.2 Standardized HPXML Data Collection Tool

EPA contracted with BPI to develop the "Home Performance XML" (HPXML) standardized open data collection and transfer tool that can be used by all sectors of the growing home performance industry to easily exchange information online. The protocol and associated contractor reporting form will facilitate job data submission, improve program quality assurance, aid in reporting, and keep costs to the contractor low. The HPXML has been integrated with U.S. DOE data collection activities and is now being reviewed by a BPI standards committee to make HPXML an American National Standard (ANSI Standard).

BPI worked with Performance Systems Development, LLC (PSD), which created the draft schema on which the protocol is based. HPXML was reviewed in 2010 by representatives of the National Renewable Energy Laboratory (NREL), utilities, program administrators, home performance contractors and software developers. The advisory group coordinated its work on the standard with other efforts in the home performance industry to standardize data collection and to make data accessible.

6.3 Contractor Field Guides

BPI supported Saturn Resource Management in development of four Home Performance Contractor Field Guides under contract to NREL. The Saturn Field Guides have been a foundation document for training and for implementation of high industry standards. The BPI contract with NREL funded Saturn to update its latest version of the Field Guides to help keep the guides consistent with evolving industry standards.



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