

Request for Proposals for

RFP 10382: Northwest ENERGY STAR® Homes Provider for State of Idaho

RFP Issued	February 13, 2009
Deadline for Intent to Respond	February 23, 2009
Deadline for NEEA receipt of proposals	March 16, 2009
Contract begins	May 1, 2009



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February 13, 2009

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RFP 10382: Northwest ENERGY STAR® Provider for State of Idaho

Request for Proposals

SECTION 1: Introduction and Project Information

The Northwest Energy Efficiency Alliance (“NEEA”) is seeking proposals for an ENERGY STAR Homes provider for the state of Idaho. The awarded contract is for May 1, 2009 through December 31, 2009 with an option to renew for the 2010 timeframe contingent upon performance to the contract and funding approval for NEEA’s 2010 to 2014 funding cycle.

The Northwest ENERGY STAR Homes (NWESH) is a multi-year, phased initiative that parallels the national ENERGY STAR Homes program developed by the US Environmental Protection Agency (EPA) to improve residential new construction building practices. The initiative promotes and facilitates the design and construction of new single family homes that feature ENERGY STAR lighting, appliances, prescribed building measures, and performance testing to ensure increased “whole house” energy efficiency. Prescriptive combinations of measures define the Northwest Builder Option Packages (BOP) that qualify homes for certification under the program.

The primary market transformation mechanism for the NWESH program involves providing a certification process for identifying an energy efficient new home while simultaneously giving builders a mechanism, to differentiate themselves in the market. The NWESH initiative addresses market barriers through education and training, marketing and promotion, coordinated and leveraged incentives, technical support, and infrastructure development activities. Once the NWESH brand and label are firmly established for new homes, consumers will value and demand these homes. Builders and subcontractors will promote and provide NWESH because of increased value, sales and profit.

This contract specifically encompasses the implementation of Building Performance Specialist (BPS) training that complies with RESNET standards as well as performance testing of duct systems and heat pump commissioning training that complies with Regional Technical Forum (RTF) requirements, home certification, and quality assurance to support the NWESH program in Idaho.

1.1 Northwest Energy Efficiency Alliance Background

NEEA is a non-profit group of electric utilities, state governments, public interest groups and efficiency industry representatives. Under this partnership, these entities support regional market

transformation projects that make affordable, energy efficient products and services available in the marketplace.

NEEA operates projects in Idaho, Montana, Oregon and Washington. The organization is funded by the region's electric utilities including the Bonneville Power Administration (BPA), which pays on behalf of its electric utility customers. NEEA also receives public benefit money from the states of Montana and Oregon.

1.2 Northwest ENERGY STAR Background

In 2003, the NEEA Board adopted the Residential Sector Initiative ("RSI") including the Northwest ENERGY STAR Homes project. The original scope of the RSI was based on five-year goals, implementation strategies and budgets through 2009. Funding was approved in July of 2006 for the 2007 through 2009 time period. Funding for the 2010 to 2014 time period is currently under consideration by the NEEA board.

Northwest ENERGY STAR Homes targets homebuilders in Montana, Idaho, Oregon and Washington to encourage them to construct new houses to the Northwest specification for ENERGY STAR Homes. This specification, negotiated through the EPA by NEEA on behalf of its funders and other stakeholders in the region, is designed to provide meaningful construction standards 15% more efficient than the Northwest's best building code.

The NWESH initiative addresses market barriers through education and training, marketing, coordinated incentives, technical support, and infrastructure development activities.

The goals of the NWESH project that are facilitated by this contract are:

1. Maintain and expand the certification, verification and quality assurance infrastructure for ENERGY STAR Homes in the state with a goal to become self-funded. This infrastructure should be straightforward and simple to use from the residential building industry point-of-view.
2. Achieve 11% market share throughout the Northwest region by the end of 2009. (Idaho achieved 5.7% market share in 2008 with 360 homes. Anticipated market share for Idaho for 2009 is 11%, likely exceeding 500 homes for the year.
3. Develop a sustainable infrastructure of professionals who can verify ENERGY STAR Homes.
4. Implement a quality assurance process that ensures program integrity and encourages improved performance from participating BPS companies and builders.
5. Assist NEEA and its stakeholders including BPA, the Northwest utilities and Public Benefits Administrators in achieving efficiency goals.

SECTION 2: Proposed Tasks and Project Implementation Roles

In addition to the role as provider for the state of Idaho, the Contractor must develop relationships and interface with the following organizations: NEEA, the region's electric utilities, and the primary project management contractor (PMC) for the Northwest ENERGY STAR Homes program. The specific roles of the Contractor are outlined below.

2.1 Role of the Idaho Provider

The provider for Idaho should at minimum anticipate complying with RESNET standards for BOP providers. Proposals submitted that also allow for federal tax credit compliance will be viewed favorably.

Task 1: Project Management

Project management responsibilities include regional coordination on technical issues pertinent to the program and coordination with utilities in the state of Idaho on technical aspects of the program. These activities include participating in setting technical specifications and technical equivalents to the NW BOP and communicating this information to the BPS network. Structured meeting schedules include: approximately 1 meeting per month one hour in length via phone with the Oregon, Washington and Montana providers, the project management contractor and NEEA, one face to face meeting in Portland, Oregon per year, 2 days in length, a maximum of 4 technical review committee meetings per year 2 hours in lengths. Other meetings within the state of Idaho to ensure tight coordination with utility programs may also be necessary.

Project management activities also include informing NEEA and the PMC of key quality assurance and BPS management issues or other technical issues pertinent to the integrity of the program, and keeping informed on PMC efforts to recruit and train builders and other market actors, and educate consumers.

Task 2: Quality Assurance and Certification

The quality assurance portion of the program is viewed as an important aspect of achieving program integrity. It is anticipated that quality assurance expectations will be communicated clearly to BPS's and through them to the builder community. It is imperative that quality assurance policies are consistently and fairly enforced so that builders and BPS's are held to account in such a manner that encourages consistent meeting of specifications, continued participation and improvements in performance by builders and BPS's. Quality assurance results are also seen as opportunities for identifying additional training or improving program technical support.

The Northwest ENERGY STAR Homes quality assurance requirements are that 95% of the homes certified meet the ENERGY STAR specification at the 90% confidence level. Historically across the four state region, quality assurance visits have occurred on 5% to 10% of the homes each year. This number is dependent on the performance of individual BPS companies in the program. As homes perform well on quality assurance inspections, the inspection rate drops, if issues arise in quality assurance, the quality assurance visits increase. The Contractor will be responsible for ensuring ENERGY STAR Homes are meeting the specifications and will use their best judgment on required sampling % to achieve those goals.

Minimum quality assurance sampling rates should not be less than 5% for the given level of funding.

It is imperative that quality assurance visits occur in a timely manner. Some challenges have been experienced in obtaining timely final inspection dates from the BPS allowing the provider to inspect homes before they are occupied. Proposals should address this challenge.

The program uses an online database to house and track individual homes and quality assurance data for the region. This information must be updated in a timely manner and accurately reflect all required homes data and active BPS companies. Quality assurance results also must be entered into this regional system such that it can be viewed by various stakeholders.

Tracking of homes status and BPS status within the regional database is the responsibility of the Contractor. The Contractor is responsible for working with the BPS's to ensure home initiation, inspections and certification status are tracked in a timely manner. Processes should be in place for providing builders with certificates and labels to ensure homes are properly identified as ENERGY STAR in the market place. Labels and certificates can be generated from the regional database. BPS companies also have the ability to input homes data directly into the system through secure logins and are doing so in Montana, Oregon and Washington. However, currently in the state of Idaho BPS companies fax data sheets to the present provider that then inputs data into the system.

Task 3: BPS Training and Technical Assistance

The provider for Idaho will provide initial training for the BPS network in Idaho that complies with RESNET standards for either HERS Raters or otherwise authorized status for federal tax credits approved by RESNET. A training template for "otherwise authorized" status is available from the Northwest ENERGY STAR Homes program. It is anticipated that one BPS training will be required for Idaho in the 2009 time period.

The Contractor will manage the performance of the BPS's ensuring that they are adhering to program standards, providing home verification information in a timely manner, maintaining ethical business standards and providing satisfactory customer service to the building community. It is anticipated the Contractor will lead this effort in a manner that looks to motivate excellent performance rather than resorting initially to punitive methods. The Contractor will communicate and implement program policies consistently to ensure a satisfactory level of program integrity.

The Contractor will provide additional technical assistance, primarily to BPS's, to ensure they have the skills needed to properly assist builders. Occasional need for builder technical assistance may be required depending on the level of expertise of the BPS.

2.2 Role of the Project Management Contractor

The Idaho provider will interact with the PMC who performs the following role for the program;

- Develop/refine and produce all project messaging and marketing materials, application forms and any other material or management systems needed to implement the project;

- Develop and implement individual, coordinated marketing plans for the Northwest ENERGY STAR Homes program. Marketing of the program will be the responsibility of the PMC, including direct project outreach and recruitment (builders, developers, manufacturers, retailers, etc.), as well as any broad-based marketing or cooperative promotions;
- Ensure high levels of coordination with utility partners including on-going communications and support to enable these stakeholders to benefit from the project offerings and the market access provided by the initiative efforts;
- The PMC will be expected to actively coordinate with the Contractor to capture program data efficiently and effectively, augment verifier trainings (e.g., with lighting education) to ensure a successful business model is developed for BPS organizations, recruit HVAC participants and encourage proactive participation from this channel. They will also provide technical training and support to builders such that program QA goals are met cost effectively.
- Promote, coordinate and generally facilitate the use of incentives available through the project and other programs such as local/regional utility rebates and promotions, tax credits, and loans;

2.3 Role of NEEA

For Northwest ENERGY STAR Homes initiative, NEEA staff will perform the following roles:

- Design the overall initiative framework and the individual project concepts and clearly articulate program goals, objectives, budgets and other information required for the ENERGY STAR Homes program;
- Provide direction and oversight regarding Northwest ENERGY STAR Homes project strategy, development, implementation and management;
- Provide funding and contract management for individual projects and project-related elements as outlined in this RFP;
- Provide funding and contract management for other elements of the initiative including emerging products demonstration and commercialization, and codes and standards efforts across projects;
- Monitor implementation progress and expenditures to assure that projects stay within budget limits;
- Manage technical support for alternative “trade-off” options to the Northwest ENERGY STAR Homes Builder Option Package, and coordinate technical equivalency approval with EPA/ENERGY STAR and the Regional Technical Forum;

- Track overall Northwest ENERGY STAR Homes project impact and financial status and report to the Board; and,
- Develop evaluation plans, hire evaluation contractor, and evaluate project and market progress.

2.4 Role of Utilities

Electric utilities in Idaho may choose to participate in the ENERGY STAR Homes program. Their role may vary but may include:

- Providing incentives for ENERGY STAR Homes and individual measures.
- Acting as a BPS company in a verification role.
- Educating consumers.
- Contributing to training efforts of builders, Realtors, or other industry players.

SECTION 3: Proposal Request and Submission Process

3.1 RFP Schedule

A.	RFP Issued	February 13, 2009
B.	Deadline for Intent to Respond	February 23, 2009
C.	Deadline for questions (written)	March 2, 2009
D.	Deadline for NEEA receipt of proposals	March 16, 2009
E.	Interviews with selected bidders	March 30, 31, 2009
F.	Final selection of PMC	April 3, 2009
G.	Contract begins	May 1, 2009

3.2 Intent to Respond

NEEA will only consider proposals from parties who have submitted an intent to respond ("Intent to Respond") form (Appendix A) indicating their intent to respond. All Intent to Respond forms must be received by NEEA no later than **4:00 p.m. Pacific Standard Time on Monday, February 23, 2009** via fax or as an attachment to an email.

FAX: 503.827.8437,
Email: RFP10382@nwalliance.org.

Respondents must provide a copy of the form with the required signature.

3.3 Requests for Additional Information

Any requests for clarification or additional information regarding this RFP must be submitted in writing via e-mail **no later than 4:00 p.m. Pacific Standard Time on Monday, March 2, 2009** to:

Email: RFP10382@nwalliance.org

Copies of the questions and answers will be transmitted to all respondents who have properly submitted an Intent to Respond form to NEEA by March 6, 2009.

Respondents can access the program website <http://www.northwestenergystar.com/partner-resources/index.html> for more information about aspects of the program. For respondents wishing to have a better understanding of the program database we can schedule a webinar upon request to walk through the basic functionality.

3.4 Proposal Submission

NEEA will accept proposals until **4:00 p.m. Pacific Standard Time on Monday, March 16, 2009**. Proposals are to be submitted **electronically** to:

Email: RFP10382@nwalliance.org.

SECTION 4: Proposal Format

Responses to this RFP shall include the following sections and information.

4.1 Executive Summary

Present the main focus of your proposal. This would include the key tasks (see Section 2) and how your team will address these, the proposed costs, and the reasons NEEA should select your team. The Executive Summary should be no more than two pages.

4.2 Introduction

State your understanding of the project and any unique perspective you have in one page or less.

4.3 Northwest ENERGY STAR Homes Implementation Strategy

In no more than 8 pages, describe how your team will implement actions to achieve Northwest ENERGY STAR Homes goals and objectives. Proposals should address the following elements:

- a. The organization and structure of the bidder/bidder's team responsible to implement, manage and administer these projects. Please include a simple organization chart relevant to the implementation of these projects and the Northwest ENERGY STAR Homes initiative.
- b. Examples of actual experience performing all Tasks outlined in Section 2, with reference to how these tasks will be performed in Idaho. (also see Roles). Specific mention should be made of data collection processes and the ability to provide quality assurance in Idaho.
- c. Experience balancing the need to obtain consistent conformance to meeting program specifications and the need to develop solid working relationships with independent contractors or employees who provide inspection services.
- d. Strategies for achieving implementation economies and increased effectiveness through project coordination, and leveraging the resources of market actors, vendors, and other energy efficiency organizations.
- e. Other innovative marketing and/or implementation strategies to achieve NEEA goals for this Initiative within the projected timeframe and estimated budget.

4.4 Project Schedule

Based on your team's understanding of the proposal, provide a schedule of key activities, timeframes and deliverables.

4.5 Experience and Qualifications of the Team

NEEA encourages proposals from all firms with relevant experience and from teams of experienced contractors and individuals that have a track record of working together to meet the individual project goals. Describe your team and address the following key elements:

- a. Organizational relationships of the bidder's team and resumes of key personnel responsible for implementing the Initiative.
- b. Background and project implementation experience working with market-based home certification programs such as the Northwest ENERGY STAR, HERS ratings or green building programs including successful management of budgets, goals and objectives.
- c. Ability to obtain RESNET approval for providership in Idaho within 30 days.
- d. Ability to obtain RTF approval for Performance Testing within 30 days, see APPENDIX C.
- e. Background and experience related to residential building science and capability of providing credible training and quality assurance in the state of Idaho.
- f. Contacts and references (name, title, address, telephone, e-mail and fax numbers) knowledgeable of the key participants in the Initiative.

4.6 Price Proposal

The price proposal must include an estimate of the time and materials required to complete each of the proposed tasks to achieve the goals for the NWESH program (see Section 2). The successful proposal will provide annual costs by budget/task category and will provide a summary of hours and labor rates associated with project team members. A budget of \$33,500 has been allocated for all labor, materials and travel by NEEA for the provider in Idaho to implement the specified tasks included in this RFP for May 1, 2009 through December 31, 2009. Additionally, BPS companies are presently charged a per home certification fee that is paid directly to the provider. The proposal should include the cost of home certification fees, keeping in mind the ultimate goal for eventual full market subsidizations when economies of scale are achieved. Any training fees to be charged to the market place to supplement NEEA funding and prepare the market for eventual full subsidization should also be indicated in the price proposal. Current certification fees in Idaho are \$50 and are \$75 in Washington, Oregon and Montana.

SECTION 5: Proposal Selection Criteria

Proposal selection will be the responsibility of NEEA Residential RFP review team, including NEEA staff, the PMC and utility stakeholders. The following selection criteria will be used to rank and select proposals received.

Proposals may be eliminated from consideration at NEEA's sole discretion for any reason, but at minimum, including and not limited to:

- The proposal is substantially incomplete or exceeds page limits;
- The proposal is not responsive to the objectives and requirements of this RFP;
- Proposal is inconsistent with NEEA policies or requirements;
- Proposal does not meet financial criteria;
- A conflict of interest exists.

The following selection criteria, and any other criteria which NEEA deems relevant, will be used to rank and select proposals received. The selection criteria below will be applied to proposals that are not eliminated for the above reasons.

5.1 Strength of the Proposal

Considerations will include the responsiveness of the proposal to this RFP, the strength of the approach to the proposed tasks, and the creativity in leveraging resources to meet the Northwest ENERGY STAR Homes program goals and objectives.

5.2 Qualifications and Experience

The selected team will need individuals with the management experience and technical capability to address the considerations in this RFP. Team strength will be judged not only by the experience of the personnel, but also by the relative contribution of the personnel with the experience to this specific project (i.e., hours matter).

- Ability to meet the qualification of RESNET providership and the RTF requirements for trainers of duct testing are key needs for this contract.

5.3 Cost

Proposals will be evaluated on the relative efficiency in using the available budget resources to achieve NEEA goals for the Northwest ENERGY STAR Homes market-based projects. Rates for various classes of management and implementation activity will be considered, as will as the reasonableness and credibility of the time and materials estimates. Any innovative cost reduction strategies including efforts to improve cross-project integration or leverage the resources of others should be explicitly presented.

SECTION 6: Additional Provisions

All submitted proposals are subject to the following additional provisions.

6.1 Right to Accept or Reject Proposals, Multiple Awards

NEEA reserves the right to make multiple awards, reject any and all proposals and to waive any formality in proposals received, to accept or reject any or all of the items in the proposal, and award the contract in whole or in part if it is deemed in NEEA's best interest. NEEA may also choose to negotiate any of the details of proposals prior to contracting.

6.2 Confidentiality

Respondents shall clearly identify portions of their proposals that they do not want revealed to parties beyond NEEA staff and Northwest ENERGY STAR Homes initiative PMC selection team. Normal business practices will be observed in handling proposal materials.

6.3 Ownership and Return of Proposals

Materials submitted in response to this RFP shall become the property of NEEA and shall not be returned to the bidder.

6.4 Proposal Costs

Each proposal prepared in response to this RFP will be prepared at the sole cost and expense of the respondent and with the express understanding that there will be no claims whatsoever for reimbursement by NEEA.

6.5 Evaluation

NEEA will develop and implement evaluations of the Northwest ENERGY STAR Homes initiative and these projects under a separate contract. Evaluations will include market share and progress reporting, documentation of major project events and activities, review of cost-effectiveness assumptions and an ongoing assessment of the approach and progress of the Northwest ENERGY STAR Homes initiative. The selected PMC will need to contribute to and support these evaluations.

APPENDIX A: INTENT TO RESPOND FORM

Request for Proposals for RFP 10382: Northwest ENERGY STAR Homes Provider for State of Idaho

Company: _____
Address: _____

Contact Name: _____
Contact Title: _____
Telephone #: _____
Facsimile #: _____
E-mail Address: _____

The company named above intends to submit a proposal in response to NEEA's RFP for the Northwest ENERGY STAR Homes Provider for State of Idaho for the Northwest ENERGY STAR Homes initiative. Deadline for submission of this "Intent to Respond" form is no later than 4:00 p.m. Pacific Standard Time on February 23, 2009.

Signature of authorized representative:

Name: _____
Title: _____
Date: _____

Submit via FAX or electronically to:

FAX: 503.827.8437

Email: RFP10382@nwalliance.org

APPENDIX B: Northwest ENERGY STAR Homes BOPs

Builder Option Packages (BOPs) are a prescriptive method for labeling new homes ENERGY STAR. All requirements of the NWBOP shall be met in order to qualify a home for ENERGY STAR Homes Northwest certification and verification by an ENERGY STAR Homes Northwest Verifier.



NWBOP 1 – Natural Gas Fired Furnaces & Electric Heat Pumps

Single Family Certification Requirements

Insulation										
Ceiling		R-38	Flat or vaulted.							
Wall		R-21	R-19 is optional with advanced framing techniques.							
Floors Over Unconditioned Space		R-30	Insulation in floor joist cavity. Perimeter insulation not allowed.							
Slab Floors	Unheated	R-10 Perimeter	Applies to all concrete slab floors above or below grade. R-5 thermal break at slab edge. Perimeter insulation shall be installed for a distance of 2 feet vertical, horizontal, or combined distance. In areas east of the Cascade mountains, 4 feet is recommended.							
	Heated Radiant	R-10 Full Slab								
Basement Wall		R-19	Below grade walls can extend up to 24 inches above grade.							
Windows & Doors										
Glazing	Windows	U-0.35	Skylight area shall not exceed 5% of heated floor area.							
	Skylights	U-0.50								
	Max. Glazing Area	21% of Heated Floor Area	Combined window and skylight area. Up to 1% of heated floor area exempt.							
Doors		R-5	One door up to 28 ft² exempt.							
Ducts										
Insulation		R-8	Ducts inside heated space exempt.							
Sealing		Mastic	Tapes not allowed.							
Max. Leakage		<0.06 CFM per ft² OR 75 CFM Total @50Pa	All forced air heating and cooling system ducts shall be installed according to ENERGY STAR Homes Northwest Specifications for sizing and leakage. Performance testing is required.							
Ventilation & Air Sealing										
Ventilation System		Exhaust Ventilation	Local code requirements are deemed to satisfy this requirement.							
Envelope tightness		7.0 ACH @ 50 Pa	Local code requirements for air sealing are deemed to satisfy this requirement.							
Heating & Cooling Equipment										
Gas Furnace		90 AFUE	Installed according to ENERGY STAR Homes Northwest specifications for sizing, controls, airflow and refrigerant charge. Performance testing is required.							
Heat Pump		8.5 HSPF* / SEER 13								
Air Conditioner		SEER 13	* As of July 1, 2006 any home initiated in the ENERGY STAR Homes Northwest database utilizing a heat pump must be an 8.5 HSPF. Homes initiated prior to July 1, 2006 will qualify with an 8.0 HSPF/SEER 13 heat pump.							
Water Heating										
Natural Gas	≤ 60 gal	0.61	Gas commercial tank water heaters may be used if they have standby losses that do not exceed the following (btu/hr):							
	> 60 gal	0.60								
Electric	≤ 70 gal	0.93	Gallons	70-74	75-79	80-84	85-89	90-94	95-99	100+
	> 70 gal	0.92	Max Standby Loss	930	960	980	1010	1030	1060	1080
Appliances & Lighting										
Appliances		ENERGY STAR Qualified	Applies to built-in appliances only.							
Lighting		ENERGY STAR Qualified	A minimum of 50% of sockets to be either ENERGY STAR bulbs, fixtures, or both							



NWBOP 2 – Zonal Electric, Propane & Oil Furnaces*

Single Family Certification Requirements

Insulation										
Ceiling		R-38	Flat or vaulted.							
Wall		R-21 + 2.5 sheath	R-21 is optional with advanced framing techniques.							
Floors Over Unconditioned Space		R-30	Insulation in floor joist cavity. Perimeter insulation not allowed.							
Slab Floors	Unheated	R-10 Perimeter	Applies to all concrete slab floors above or below grade. R-5 thermal break at slab edge. Perimeter insulation shall be installed for a distance of 2 feet vertical, horizontal, or combined distance. In areas east of the Cascade mountains, 4 feet is recommended.							
	Heated Radiant	R-10 Full Slab								
Basement Wall		R-19	Below grade walls can extend up to 24 inches above grade.							
Windows & Doors										
Glazing	Windows	≤ U-0.30	NFRC rated: Up to 1% of heated floor area exempt.							
	Skylights	≤ U-0.50	Skylight area shall not exceed 5% of heated floor area.							
	Max. Glazing Area	21% of Heated Floor Area	Combined window and skylight area.							
Doors		R-5	One door up to 28 ft² exempt.							
Ducts										
Insulation		R-8	Ducts inside heated space exempt.							
Sealing		Mastic	Cloth duct tapes not allowed.							
Max. Leakage		< 0.06 CFM per ft² OR 75 CFM Total @ 50 Pa	All forced air heating and cooling system ducts shall be installed according to ENERGY STAR Homes Northwest Specifications for sizing and leakage. Performance testing is required.							
Ventilation & Air Sealing										
Ventilation System		Central ventilation with 70% heat recovery								
Envelope tightness		2.5 ACH @ 50 Pa	Air tightness in this path must be verified by blower door test before certification is granted.							
Heating & Cooling Equipment										
Propane or Oil Furnace		≥ 80 AFUE	Installed according to ENERGY STAR Homes Northwest Specifications for sizing, controls, airflow and refrigerant charge (if applicable). Performance testing is required.							
Water Heating										
Natural Gas	≤ 60 gal	EF ≥ 0.61	Gas commercial tank water heaters may be used if they have standby losses that do not exceed the following (btu/hr):							
	> 60 gal	EF ≥ 0.60								
Electric	All sizes	EF ≥ 0.93	Gallons	70-74	75-79	80-84	85-89	90-94	95-99	100+
			Max Standby Loss	930	960	980	1010	1030	1060	1080
Appliances & Lighting										
Appliances		ENERGY STAR qualified	Applies to built-in appliances only.							
Lighting		ENERGY STAR qualified	A minimum of 50% of sockets to be either ENERGY STAR bulbs, fixtures, or both							

* Requirements apply to homes heated with unit heaters, electric baseboards, fan-forced, radiant or other zonal controlled, ductless, electric resistance systems. Ducted, forced-air electric furnaces are not allowed.

APPENDIX C: RTF REQUIREMENTS FOR PERFORMANCE TESTING OF DUCTS AND HEAT PUMP COMMISSIONING



Regional Technical Forum Performance Tested Comfort Systems® Service Provider Standards

January 8, 2008

1. **Introduction and Scope of Services** - This document sets forth the minimum qualifications and standard procedures for providing the Performance Tested Comfort System® (PTCS) services. Additional requirements may be established by individual PTCS Providers. These program standards will be used as basis for determining equivalency for all current and future certified technician trainers, registrars, quality control providers, and quality assurance providers of PTCS services. The PTCS “program” has been divided into five categories of service. PTCS service providers may be approved for any or all of these individual categories.
 - 1.1. **PTCS Technician Trainer Accreditation** - The purpose of this service is to ensure that well-informed and highly skilled trainers deliver accurate, thorough training programs to the technicians of PTCS Duct Systems and PTCS Heat Pump Commissioning.
 - 1.2. **PTCS Technician Training and Certification** - The purpose of this service is to ensure that technicians performing PTCS testing and certification services are competent to perform those services.
 - 1.3. **PTCS Technician and Certified System Registry** - The purpose of **Registry** service is to ensure that there is a consistent and current regional database of all certified PTCS Technicians, a list of duct system and heat pumps that have been certified in accordance with PTCS specifications.
 - 1.4. **PTCS Quality Control** - The purpose of this service is to ensure 1) documentation submitted by certified technicians is systematically inspected by qualified personnel to verify technicians are satisfying PTCS standards and specifications and 2) that the data entries in the Registry for each certified system are complete and accurate.
 - 1.5. **PTCS Quality Assurance** - The purpose of this service is to ensure that processes used by Quality Control service providers meet PTCS standards and specifications through an on-site systematic review and verification of a sample of certified systems by an independent third party.
2. **PTCS Technician Trainer Accreditation**
 - 2.1. **Duct Trainers**
 - 2.1.1. **Minimum Trainer Qualifications** - Trainers of certified PTCS Duct Technicians shall meet the following minimum standards:

2.1.1.1. Minimum two (2) years full time experience (or demonstrated equivalent) in duct system testing and remediation and combustion zone depressurization testing, or conducting quality assurance inspections for duct tightness programs using these tests.

2.1.1.2. Minimum two (2) years experience teaching building science concepts.

2.1.1.3. **Exception:** An individual may be certified as a PTCS Duct Technician Trainer by an existing PTCS Duct Technician Trainer based on direct observation of the individual's classroom and field instruction.

2.1.2. Training Curriculum

2.1.2.1. The minimum training curriculum outline is shown as Appendix A - "Performance Tested Comfort Systems® Instructor's Guide."

2.1.2.2. Training programs shall be a minimum of one (1) to two (2) days for new construction certification (Level One) and three (3) days for retrofit certification (Level Two), and shall include on-site real time applications.

2.2. Heat Pump Trainers

2.2.1. Minimum Trainer Qualifications – Trainers of certified PTCS Heat Pump Technicians shall meet the following minimum standards:

2.2.1.1. Minimum two (2) years full-time experience (or demonstrated equivalent) in testing heat pump auxiliary heat controls, indoor coil airflow, and refrigerant charge.

2.2.1.2. Minimum two (2) years experience teaching heating and cooling system efficiency concepts.

2.2.1.3. **Exception:** An individual may be certified as a PTCS Heat Pump Technician Trainer by an existing PTCS Heat Pump Technician Trainer based on direct observation of the individual's classroom and field instruction.

2.2.2. Training Curriculum

2.2.2.1. The minimum training curriculum outline is shown as Appendix B – "....."

2.2.2.2. Training programs shall be a minimum of one (1) day.

3. PTCS Technician Certification

3.1. Duct Technician Training and Competency – There are two levels of certification for duct technicians. In order for a duct technician to be certified as a PTCS Duct Technician he/she shall meet the following qualifications:

3.1.1. Level One: Successfully complete one to two days of PTCS duct system classroom focused on new residential systems and field training on a new home by a Duct Trainer meeting the requirements of Section 2.1 or the Master Technician Path.

3.1.1.1. **Written Demonstration of Competency** - Technician shall score at least 70% on a written test, given after demonstration of competency in the field per the Duct System Diagnostic Field Guide, that covers the following:

- Basic understanding of air leaks and air pressure dynamics
- PTCS duct test standards for new homes
- PTCS duct materials and installation standards
- Combustion safety

- PTCS quality assurance program
- Proper reporting requirements

3.1.1.2. **Field Demonstration of Competency** -Technician shall perform accurate measurements, adhere to PTCS protocols, accurately record measurements on accepted forms, and evaluate whether PTCS specifications have been met in a field location for the following PTCS tests:

- Total duct leakage
- Duct leakage to outside
- Combustion appliance zone (CAZ) depressurization test

3.1.2. **Level Two:** Successfully complete three days of PTCS duct system classroom and field training focused on new and retrofit systems in both new and existing homes by a Duct Trainer meeting the requirements of Section 2.1.

3.1.2.1. **Written Demonstration of Competency** - Technician shall score at least 70% on a written test, given after demonstration of competency in the field per the Duct System Diagnostic Field Guide, that covers all topics in the Field Guide including the following:

- Advanced understanding of air leaks and air pressure dynamics
- PTCS duct test standards for new and existing homes
- PTCS duct materials and installation standards
- Total duct leakage test
- Duct leakage to outside test
- Combustion appliance zone (CAZ) depressurization test
- Finding location of leaks—use of pressure pans as diagnostic tool
- Repair of duct systems in existing homes (test, repair, retest)
- Calculate minimum ventilation level needed in houses
- Split system tests
- Manufactured home duct sealing requirements
- Retrofit duct sealing requirements
- Combustion safety—advanced understanding of CAZ test
- PTCS quality assurance program
- Proper reporting requirements

3.1.2.2. **Field Demonstration of Competency** -Technician shall demonstrate mastery of all tests and protocols described in the Duct System Diagnostic Field Guide for both new and retrofit systems; a working knowledge of duct design and sealing for new and existing homes; and a thorough understanding of the PTCS system and its requirements for new and existing homes with particular regard to the state and utility service area(s) in which the technician is working.

3.1.3. **Master Duct Technician Path** – Working HVAC technicians may become certified as Master Duct Technicians who are authorized to train technicians on the job and prepare them to challenge the PTCS competency tests. There are Master Duct Technicians for New Construction (Level One) and Master Duct Technicians for New and Existing Homes (Level Two).

3.1.3.1 To become a Master Technician, Level One, the HVAC Technician must:

- 3.1.3.1.1. Work as an installation and duct sealing assistant in new construction: observe duct sealing, insulation and testing and perform the same in new homes;
- 3.1.3.1.2. Become a Certified Technician on Level One: certify PTCS jobs with testing, sign and submit jobs, gain experience;
- 3.1.3.1.3. Become a Master Technician:
 - a. Certify at least 15 new construction jobs;
 - b. Pass at least 3 QA inspections;
 - c. Achieve a 90% or higher score on the Level One PTCS test for Certified Duct Technician;
 - d. Apply to Provider in writing to become a Level One Master Duct Technician.
 - e. Be approved by the PTCS Provider after it reviews the application, completion of requirements and determines, in the Provider's sole discretion, that the applicant will competently demonstrate and teach the PTCS Level One duct system skills.
- 3.1.3.1.4. Utility program staff and technical staff for HVAC efficiency contractors may qualify as Level One Master Duct Technicians by:
 - a. Co-testing at least 15 certified systems in new homes;
 - b. Achieving a 90% or higher score on the Level One PTCS test for Certified Duct Technician;
 - c. Applying to and receiving approval from Provider as required in 3.1.3.1.3.d and e.
 - d.
- 3.1.3.2. To become a Master Technician, Level Two, the HVAC Technician must:
 - 3.1.3.2.1. Work as an installation and duct sealing assistant in new and existing construction: observe duct sealing, insulation and testing and perform the same in new and existing homes;
 - 3.1.3.2.2. Become a Certified Technician on Level Two: certify PTCS jobs with testing, sign and submit jobs, gain experience;
 - 3.1.3.2.3. Become a Master Technician:
 - a. Certify at least 30 construction jobs (15 new and 15 retrofit);
 - b. Pass at least 6 QA inspections (3 new and 3 retrofit);
 - c. Achieve a 90% or higher score on the Level Two PTCS test for Certified Duct Technician;
 - d. Apply to Provider in writing to become a Level Two Master Technician for duct systems.
 - e. Be approved by the PTCS Provider after it reviews the application, completion of requirements and determines, in the Provider's sole discretion, that the applicant will competently demonstrate and teach the PTCS skills.
 - 3.1.3.2.4. Utility program staff and technical staff for HVAC efficiency contractors may qualify as Level Two Master Duct Technicians by:

- a. Co-testing at least 30 certified systems (15 new and 15 retrofit);
- b. Achieving a 90% or higher score on the Level One PTCS test for Certified Duct Technician; c. Applying to and receiving approval from Provider as required in 3.1.3.2.3.d and e.

3.1.3.3. The Provider shall remove Master Technician status upon learning that the Master Technician has failed to:

3.1.3.3.1. Maintain PTCS certification in good standing;

3.1.3.3.2. Train technicians that consistently pass Quality Assurance inspections and tests;

3.1.3.3.3. Promptly do any rework required if Quality Assurance finds a problem with a system the Master Technician is responsible for.

3.1.3.3.4. Maintain a record without egregious or intentional errors in certification of PTCS duct systems.

3.1.3.4. A Duct Technician may become PTCS certified through the Master Technician path for Levels One and Two through the following processes:

3.1.3.4.1. Level One

a. Doing duct installation, sealing, and testing in new homes under the tutelage of a Master Duct Technician or Utility Master Duct Technician on at least 5 actual PTCS certified jobs.

b. Study the PTCS training packet or online course for Level One duct technicians.

c. Demonstrating competency with the PTCS Duct System Diagnostic Field Guide plus program requirements related to systems in new homes including:

- Duct tightness requirements;
- Duct and component installation requirements;
- Housing types;
- Safety issues and rules;
- Total duct leakage
- Duct leakage to outside
- Combustion appliance zone (CAZ) depressurization test
- CAZ test; and
- Report card.

d. Successfully completing the competency challenge test consisting of:

- Demonstrating competency in conducting duct blower tests; and
- Scoring at least 70% on an online test covering PTCS rules.

3.1.3.4.2. Level Two

- a. Doing duct sealing, insulation and testing in new and existing homes under the tutelage of a Master Duct Technician on at least 6 actual PTCS certified jobs (3 new and 3 retrofit).
- b. Study the PTCS training packet or online course for Level Two duct technicians.
- c. Demonstrate competency with the PTCS Duct System Diagnostic Field Guide plus program requirements related to systems in new and existing homes including:
 - Total duct leakage
 - Duct leakage to outside
 - Combustion appliance zone (CAZ) depressurization test
 - Advanced understanding of air leaks and air pressure dynamics
 - PTCS duct test standards for new and existing homes
 - PTCS duct materials and installation standards
 - Finding location of leaks—use of pressure pans as diagnostic tool
 - Repair of duct systems in existing homes (test, repair, retest)
 - Calculate minimum ventilation level needed in houses
 - Split system tests
 - Manufactured home duct sealing requirements
 - Retrofit duct sealing requirements
 - Combustion safety—advanced understanding of CAZ test
 - PTCS quality assurance program
 - Proper reporting requirements
- d. Successfully completing the competency challenge test consisting of:
 - Demonstrating competency in conducting duct blower and blower door tests; and
 - Scoring at least 70% on an online test covering PTCS rules.

3.2. Heat Pump Technician Training and Competency - In order for a heat pump technician to be certified as a PTCS Heat Pump Technician he/she shall meet the following qualifications:

- 3.2.1.** Successfully complete PTCS heat pump commissioning classroom and field training by a Heat Pump Trainer meeting the requirements of Section 2.2.
- 3.2.2. Written Demonstration of Competency** - Technician shall score at least 70% on an online test, given after demonstration of competency in the field per section 3.2.4 of these specifications, that covers the following:
 - 3.2.2.1. Auxiliary heat control requirements
 - 3.2.2.2. Airflow testing using approved methods
 - 3.2.2.3. Refrigerant charge methods
 - 3.2.2.4. PTCS quality assurance program

3.2.2.5. Reporting requirements

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3.2.3. Field Demonstration of Competency -Technician shall perform accurate measurements, adhere to PTCS protocols, accurately record measurements on accepted forms, and evaluate whether PTCS specifications have been met in a field location for the PTCS airflow test.

3.2.4. Master Heat Pump Technician Path – Working HVAC technicians may become certified as Master Heat Pump Technicians who are authorized to train technicians on the job and prepare them to challenge the PTCS heat pump test.

3.2.4.1. To become a PTCS Master Heat Pump Technician, the HVAC Technician must:

3.2.4.1.1. Have a minimum two (2) years full-time experience in testing heat pump auxiliary heat controls, indoor coil airflow, and refrigerant charge;

3.2.4.1.2. Be a PTCS Certified Heat Pump Technician: commission PTCS heat pumps with testing, sign and submit jobs, gain experience;

3.2.4.1.3. Become a Master Heat Pump Technician:

a. Commission at least 30 jobs (minimum 15 retrofit and 15 new);

b. Pass at least 6 QA inspections(3 new and 3 retrofit);

c. Achieve a 90% or higher score on the PTCS test for Certified Heat Pump Technician;

d. Complete a review by the PTCS Provider. Apply to Provider in writing to become a Master Heat Pump Technician.

e. Be approved by the PTCS Provider after it reviews the application, reviews completion of requirements and determines, in the Provider's sole discretion, that the applicant will competently demonstrate and teach the PTCS heat pump commissioning skills.

3.2.4.1.4. Utility program staff and technical staff for HVAC efficiency contractors may qualify as a Master Heat Pump Technicians by either:

3.2.4.1.4.1. Following the work experience path:

a. Co-commissioning at least 30 certified systems;

b. Achieving a 90% or higher score on the PTCS test for Certified Heat Pump Technician;

c. Applying to and receiving approval from Provider as required in 3.2.5.1.3.d and e.

3.2.4.1.4.2. Following the instructional path by attending a class of least two days duration by instructors approved directly by the RTF that includes the hands-on testing of heat pumps. In addition, this path includes compliance with 3.2.4.1.4.1., subsections b and c.

The class must include the following topics:

- a. PTCS Heat Pump Commissioning process and specifications
- b. PTCS Quality Assurance process
- c. Airflow measurement using acceptable PTCS methods
- d. Air handler performance curves as function of external static pressure (including ECM air handlers)
- e. Function of outdoor thermostat/sensor (including placement and measurement of sensor output)
- f. Basics of refrigeration cycle including role of reversing valve and function of TXV and accumulator
- g. Effect of substandard airflow (indoor and outdoor) on coil performance
- h. Diagnosis of malfunctioning TXV
- i. Compressor function, including suction and discharge pressures and expected amp draw
- j. Refrigerant handling, system evacuation, system charging, gauge handling/calibration
- k. Electrical component function and troubleshooting (contactors, capacitors, control boards)
- l. Defrost system checkout, defrost strip heat usage and effect on system efficiency
- m. System performance (output and COP) vs manufacturer's target (based on ambient temperature)
- n. Attendees must have a valid EPA refrigerant card (or the card may be included as part of the class)

3.2.4.2. The Provider shall remove Master Technician status upon learning that the Master Technician has failed to:

3.2.4.2.1. Maintain PTCS certification in good standing;

3.2.4.2.2. Train technicians that consistently pass Quality Assurance inspections and tests;

3.2.4.2.3. Promptly do any rework required if Quality Assurance finds a problem with a system the Master Technician is responsible for.

3.2.4.2.4. Maintain a record without egregious or intentional errors in commissioning of PTCS heat pump systems.

3.2.4.3. A Heat Pump Technician may become PTCS certified by:

3.2.4.3.1. Doing heat pump commissioning under the tutelage of a Master Heat Pump Technician on at least 10 actual PTCS certified jobs.

3.2.4.3.2. Study the PTCS training packet or online course for heat pumps.

3.2.4.3.3. Becoming familiar with PTCS heat pump rules and requirements including:

a. Auxiliary heat control requirements;

b. Airflow testing using approved methods;

- c. Refrigerant charge methods;
 - d. Safety issues and rules;
 - e. PTCS quality assurance program; and
 - f. Reporting requirements.
- 3.2.4.3.4. Successfully completing the competency challenge test administered by a PTCS Instructor consisting of:
 - 3.2.4.3.5. Successfully demonstrating competency in commissioning heat pumps; and
 - 3.2.4.3.6. Scoring at least 70% on the PTCS heat pump certified technician test.

3.3. Exam Questions, New Technicians, De-certification and Re-certification

3.3.1. Online Exam Questions

3.3.1.1. The RTF will maintain the pool of questions used on the online exam for both levels of duct certification and heat pump certification.

3.3.1.2. PTCS Training providers, trainers and Master Technicians are responsible for the security of exam questions.

3.3.2. Technician De-certification -Technicians will be decertified for any of the following reasons:

- 3.3.2.1. If the technician's ability to meet PTCS specification does not improve after receiving notice or after completion of re-training
- 3.3.2.2. If the technician falsifies reported data
- 3.3.2.3. If the technician has not certified at least one system for 12 consecutive months.

3.3.3. Recertification of de-certified technicians – De-certified technicians may, at the discretion of the PTCS Provider, be re-certified upon passing the online test. Service Provider shall re-implement the requirements for demonstration of field competency.

3.3.4. Accelerated Inspections/Audits for Newly Certified Technicians - The PTCS Technician Training and Certification Providers shall ensure certifications by newly certified technicians receive accelerated Quality Assurance site audits and/or Quality Control inspections. Technicians must successfully pass one of the following accelerated Quality Assurance/Control plans in order to maintain certification status:

- 3.3.4.1. A PTCS Quality Assurance site audit on the first three (3) systems submitted.
- 3.3.4.2. PTCS Quality Control data review on the first 10 systems within 5 business days of the systems being certified and a PTCS Quality Assurance site audit on one of the first 10 systems.
- 3.3.4.3. **Exception** - PTCS Training and Technician Certification Programs operating in widely dispersed areas may submit to the RTF an alternative approach for technician certification.

3.3.5. Ongoing Field Support to PTCS technicians. It is the responsibility of the training/certification program to ensure follow-up technical support is available to technicians operating in the field.

3.3.6. Notification - PTCS Technician Training and Certification Providers shall provide the names and professional contact information of those individuals they deem to satisfy the minimum requirements for PTCS Certified Technician designation to at least one PTCS Technician Registry provider.

4. **PTCS Registries** - Registry service providers shall establish and maintain a data base of PTCS technicians and certified systems that is up to date and readily available to organizations and individuals inquiring about technicians or previously certified systems and ensure that individual home owner information remains private.

4.1. Technician Registry - Such registries shall contain the names and professional contact information of PTCS Certified Technicians. Each Technician Registry shall meet the following specifications:

4.1.1. Provide the technician name, certification type, address, phone and fax numbers and e-mail address where available in a format that is consistent with "Appendix C - Performance Tested Comfort Systems Duct Sealing and Quality Control Tracking Data Base" or with "Appendix D – PTCS Heat Pump" for certified duct systems or certified heat pumps, respectively.

4.1.2. Provide the unique PTCS certified technician identification number assigned to that technician, if such a number has been assigned.

4.1.3. A list of PTCS certified technicians shall be made available to any program or person wishing to contact a PTCS certified technician. Establishing an Internet web page that provides a list of PTCS certified technicians and/or contractors employing at least one PTCS certified technician and supplying a link to this page to programs involved with PTCS Duct Systems will satisfy this provision.

4.2. Certified System Registry - Such registries shall contain the minimum data contained in and be formatted consistent with "Appendix C - Performance Tested Comfort Systems Duct Sealing and Quality Control Tracking Data Base" or with "Appendix D – PTCS Heat Pump" for certified duct systems or certified heat pumps, respectively. Each PTCS Certified System Registry shall meet the following specifications:

4.2.1. Each system shall be assigned a unique identification number

4.2.2. The RTF, utility or authorized program operator providing service to that homeowner for Quality Control or Quality Assurance and customer follow up shall have access to home registry information subject to legal restrictions on transfer of personal information. Where such restrictions exist, the Provider shall distribute all information that does not violate the law to the RTF, requesting utility, governmental agencies or public benefits administrator for the limited purposes of Quality Assurance, Quality Control and customer service.

4.2.3. The RTF, in conjunction with utilities or other program operators using the PTCS system, shall approve all methods for data collection and access.

- 4.2.4. Data in a PTCS Certified System Registry shall be made available to any approved PTCS Quality Assurance entity as well as the RTF upon request and in a timely manner.

5. Quality Control

- 5.1. **Ducts** - Entities who provide Quality Control on PTCS Duct System certifications shall meet the following requirements:
 - 5.1.1. Verify all technicians who certify PTCS Duct Systems have valid PTCS Duct Technician certification.
 - 5.1.2. Review all PTCS test data required to certify a PTCS duct system prior to its submittal to an entity providing “PTCS Registry” services to ensure that such data represents accurate, complete, and internally consistent testing and that it is in the correct format set forth in the Performance Tested Comfort Systems® Duct System Diagnostic Field Guide “PTCS Duct Sealing Checklist and Reporting Form”
 - 5.1.3. Prepare and carry out action plans for technicians failing to comply with PTCS Duct System standards.
 - 5.1.4. Notify PTCS Training and Certification service providers of the need for field support of PTCS technicians who fail to satisfy PTCS Duct System standards.
 - 5.1.5. Make available all duct leakage test data and arrange the implementation of a Quality Assurance program through an RTF approved Quality Assurance service provider.
- 5.2. **Heat Pumps** – Entities who provide Quality Control on PTCS Heat Pump Commissioning certifications shall meet the following requirements:
 - 5.2.1. Verify all technicians who certify PTCS Commissioned Heat Pumps have valid PTCS Heat Pump Technician certification.
 - 5.2.2. Review all PTCS test and installation data required to certify a PTCS Commissioned Heat Pump prior to its submittal to an entity providing “PTCS Registry” services. The review shall ensure such data are accurate and complete as set forth in the PTCS Heat Pump Commissioning reporting forms.
 - 5.2.3. Prepare and carry out action plans for technicians failing to comply with PTCS Heat Pump Installation Standards where they apply to heat pump commissioning:
 - 5.2.3.2. Auxiliary heat controls
 - 5.2.3.3. Airflow
 - 5.2.3.4. Refrigerant Charge
 - 5.2.4. Notify PTCS Training and Certification service providers of the need for field support of PTCS heat pump technicians who fail to satisfy PTCS Heat Pump Installation Standards where they apply to heat pump commissioning.
 - 5.2.5. Make available all heat pump commissioning data and arrange the implementation of a Quality Assurance program through an RTF approved Quality Assurance service provider.

6. Quality Assurance

- 6.1. PTCS Quality Assurance shall be performed by an independent third party entity.

Exception - Utilities that satisfy the requirements of “Appendix C - Requirements for Utility Exemption from Independent Third Party Quality Assurance” shall be exempt from the requirements of Section 6 where related to PTCS Duct System certifications.

6.1.1. At no time can a Quality Assurance provider stand to gain financially as a result of passing or failing a subject of the Quality Assurance process.

6.1.2. Utilities, governmental agencies and system benefits administrators may contract for third party Quality Assurance services.

6.1.3. Site Audits - The Quality Assurance provider shall conduct site audits to verify that PTCS performance test results certified by PTCS Technicians are accurate and inspect the certified system to confirm compliance with Performance Tested Comfort Systems® Specifications.

6.1.3.2.Duct Systems - Quality Assurance site audits for certified PTCS Duct Systems shall verify the certified technician’s work meets the PTCS Duct System specifications.

6.1.3.3.Heat Pumps – Quality Assurance site audits for certified PTCS Commissioned Heat Pumps shall verify the certified technician’s work meets the Auxiliary Heat Controls, Airflow, and Refrigerant Charge sections of the PTCS Heat Pump Installation Standards.

6.1.4. The Quality Assurance provider shall have the authority to fail any certified system that it finds does not meet PTCS specifications, and shall have the authority to initiate a technician de-certification process and/or corrective actions required to bring substandard certified systems up to PTCS specifications.

6.1.5. The systems audited by the Quality Assurance entity shall be selected to represent a random sample of those claimed as certified to the PTCS specifications and shall not in any way be influenced by the program contractor being evaluated.

The random sample must be at a minimum of 10% of the level of activity of a program, or aggregated group of programs.

Exception – Quality Assurance Providers and associated PTCS programs that satisfy the requirements of “Appendix D - Exception Requirements to PTCS Service Provider Standard 6.1.5” shall be exempt from the requirements of this section.