

## Proposed Revisions to RESNET National Standard for Energy Audits

### Chapter Seven RESNET Standards

#### 700 RESNET NATIONAL STANDARD FOR HOME ENERGY AUDITS

#### 701 GENERAL PROVISIONS

##### 701.1 Purpose

The provisions of this Standard are intended to define a framework for a home energy audit process. An accredited Provider or a program may apply this Standard to improve the energy performance of existing homes through uniform, comprehensive [home](#) energy audits for existing residential buildings. This Standard is intended to result in investments by building owners that produce the following outcomes:

- Increase the energy efficiency of homes;
- Increase the comfort of homes;
- Increase the durability of homes;
- Ensure that energy improvement recommendations are portrayed with reasonable and consistent projections of energy savings;
- Reduce the risk that energy improvement recommendations will contribute to health, safety, or building durability problems; and
- Reduce waste and pollution, protecting the environment.

**701.2. National Standard for Home Energy Assessment Levels.** There are [two](#) categories of assessment defined in this standard:

1. [Home](#) Energy Survey
  - a. [On-Line Home Energy Survey](#)
  - b. [In-Home Home Energy Survey](#)
  - c. [Diagnostic Home Energy Survey](#)
2. Comprehensive [Home](#) Energy Audit

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**701.3 Relationship to Other Standards.** This Chapter is a companion Chapter to the “National Accreditation Procedures for Home Energy Rating Systems” (Chapter 1 of this Standard), “National Rater Training and Certifying Standard” (Chapter 2 of this Standard), and “National Energy Rating Technical Standards” (Chapter 3 of this Standard) as promulgated and maintained by the Residential Energy Services Network (RESNET) and recognized by the mortgage industry and programs promoting the improved energy performance of buildings.

Deleted: **701.2.1 Alternative Paths to the Comprehensive Energy Audit.** The Comprehensive Home Energy Audit may be based on either of three methodologies as defined by this Standard:¶  
<#>Home Performance Assessment ¶  
<#>Home Energy Rating (HERS)¶  
<#>An equivalent home performance program recognized by the Residential Energy Services Network¶  
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**701.4 Relationship to State Law.** This Standard specifically recognizes that some state laws or regulations have additional requirements to those specified in this document. To

the extent that such state laws or regulations differ from these Standards, state law or regulation shall govern.

## 701.5 Scope

### 701.5.1 Application of Standards

This Standard applies to existing site-constructed or manufactured, single- and multi-family residential buildings three stories or less in height, with the exception of hotels and motels.

## 702 DEFINITIONS AND ACRONYMS

**BPI:** Building Performance Institute

**Certified Building Analyst (BA):** An individual who successfully passes the BPI written and field examination requirements for certification in order to evaluate the performance of a home taking into account systems, physical conditions and other energy and non-energy characteristics of the home.

**Certified Contractor:** A contractor accredited by the Building Performance Institute (BPI) or an equivalent certification organization recognized by the Home Performance with ENERGY STAR Program to complete specific home performance improvement work.

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**Certified Home Energy Rater:** An individual who is certified by an accredited home energy Rating Provider to inspect and test a home in order to evaluate the minimum rated features established by RESNET and prepare a home energy rating according to Chapters One and Three of the RESNET Mortgage Industry National Home Energy Rating Standards.

**Comprehensive Home Energy Audit:** A level of the RESNET Home Energy Audit process defined by this standard to include the evaluation, diagnosis and proposed treatment of an existing home. The Comprehensive Home Energy Audit may be based on a Home Performance Assessment ("Comprehensive Home Performance Energy Audit") or Home Energy Rating ("Comprehensive HERS Audit"), in accordance with the criteria established by this Standard. A homeowner may elect to go through this process with or without a prior Home Energy Survey or Diagnostic Home Energy Survey.

**Auditor:** An individual who is certified by a RESNET accredited Comprehensive Home Energy Audit Provider to conduct comprehensive home energy audits.

**Data Collection:** The gathering of information on building energy features, energy use history and other relevant building and building operation information.

**Diagnostic Home Energy Survey:** A level of the RESNET Home Energy Survey in accordance with this standard, consisting of an In-Home Home Energy Survey and additional diagnostic testing.

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**Diagnostic Testing:** The use of building performance-testing equipment (e.g. blower door, duct blaster, flow hood, infrared camera, CO monitor, etc.) to measure, assess and document specific performance characteristics of the building system.

**Energy Efficiency Rating or Energy Rating:** See Home Energy Rating

**Energy Saving Measure or Feature:** Any material, component, device, system, construction method, process or combination thereof that will result in a reduction of energy use.

**Evaluation:** An analysis of the data collected from any survey or audit, on-site data collection and performance testing, available energy usage records to determine energy use and potential savings from improvements.

**HERS:** Home Energy Rating System

**HERS Index:** A numerical integer value produced by a Home Energy Rating that represents the relative energy use of a Rated Home as compared to the energy use of the HERS Reference Home, and where an Index value of 100 represents the energy use of the HERS Reference Home and an Index value of 0 (zero) represents a home that uses zero net purchased energy.

**HERS Provider:** An organization accredited by RESNET in accordance with section 102 of the Mortgage Industry National Home Energy Rating Systems Standards to develop, manage, and operate a home energy rating system.

**Home:** A building with one or more dwelling units that has three or fewer stories above grade, or a single dwelling unit within a building of three or fewer stories above grade.

**Home Energy Assessment:** Defined by this standard as one of two levels of energy assessment of a home, including Home Energy Survey, and Comprehensive Home Energy Audit.

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**Home Energy Rating:** An unbiased indication of a home's relative energy performance based on consistent inspection procedures, operating assumptions, climate data and calculation methods in accordance with the "National Energy Rating Technical Standards" (Chapter 3 of this Standard).

**Home Energy Rating System or HERS<sup>®</sup>:** The materials and procedures needed to operate a home energy rating program including, but not limited to: marketing materials, training materials, publications, rating software, quality control system, data collection and maintenance systems, agreements, data collection sheets, home owner reports, and other related materials and services.

**Home Performance Assessment:** A detailed evaluation of the condition of a home as a building system, including evaluation of all materials, components, features, systems and subsystems that affect the energy use of the home.

**Home Performance with Energy Star (HPwES):** A national program developed by the Environmental Protection Agency (EPA) and the Department of Energy (DOE), that offers a comprehensive, whole-house approach to improving energy efficiency and comfort of homes, while maintaining or improving safety.

**Home Energy Survey Provider:** An organization accredited by RESNET in accordance with Section 703 of the Mortgage Industry National Home Energy Rating Systems Standards to certify individuals to perform Home Energy Surveys in accordance with this standard, and to maintain quality assurance of the Home Energy Survey process.

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**Home Energy Survey Professional:** An individual who is certified by an accredited Home Energy Survey Provider to conduct Home Energy Surveys.

**In-Home Home Energy Survey:** A level of the RESNET Home Energy Assessment process defined by this standard intended to assess both the general energy performance of the home and the level of the commitment to action on the part of the homeowner. The survey may include data be collected and reported on-line by the homeowner or by a home energy survey professional for the purpose of further analysis and general identification of home performance problems. The intent of the energy survey is to refer homeowners to the next level if it is determined that the home needs further analysis, and the homeowner is motivated to invest in improvements. The On-Line or In-Home Home Energy Survey is not required if the homeowner wishes to directly pursue a Diagnostic Home Energy Survey or Comprehensive Home Energy Audit.

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**On-Line Home Energy Survey:** A basic energy review of a home using an internet-based tool or software.

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**Performance Testing:** Testing conducted to evaluate the performance of a system or component using specified performance metrics.

**Rating Software:** A computerized procedure that is accredited by RESNET for the purpose of conducting home energy ratings and calculating the annual energy consumption, annual energy costs and a HERS Index for a home.

**RESNET:** Residential Energy Services Network

## 703 HOME ENERGY AUDIT ACCREDITATION CRITERIA

### 703.1 Home Energy Survey Provider Accreditation

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**703.1.1 Home Energy Survey Provider** A Home Energy Survey provider shall be accredited in accordance with the following provisions. The accreditation requirements encompass both In-Home and Diagnostic Home Energy Surveys.

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**703.1.2 A Home Energy Survey** Provider shall be accredited by RESNET as specified in Section 102 of the Mortgage Industry National Home Energy Rating Systems Standards.

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**703.1.3** Home Energy Survey Professional Certification Standard. Certification and recertification of Home Energy Survey Professionals shall be by accredited Home Energy Survey Providers, who shall abide by the following provisions:

**703.1.3.1** A Home Energy Survey Provider shall provide documentation that their home energy survey professionals meet the following certification provisions:

**703.1.3.1.1** Performance evaluation of ability to perform accurate Home Energy Surveys in accordance with sections 704 and 705. Each Home Energy Survey Professional shall complete a probationary period where close supervision is provided by the provider's QA designee. The probationary period covers a minimum of three home energy surveys after which the QA Designee shall determine if additional training is needed. A Home Energy Survey Professional shall be certified only for the category of survey for which he or she has been tested and evaluated.

**703.1.3.1.2** Continuing Education, Home Energy Survey Professionals shall have 12 hours of continuing education and training units approved by the Home Energy Survey Provider in every three year period.

**703.1.3.1.3** Home Energy Survey Professional Testing. All certified Home Energy Survey Professionals shall pass the national Home Energy Survey Professional test administered by RESNET.

**703.1.3.1.4** Recertification of Home Energy Survey Professionals by the provider shall occur not less than every three years.

**703.1.3.1.5** Home Energy Survey Professional Agreements. As a condition of Home Energy Survey Professional certification, each Provider shall ensure that each certified home energy survey professional enters into a written agreement with the Provider to provide Home Energy Survey field verification services in compliance with these standards. An unexecuted copy of the Home Energy Survey Professional written agreement shall be provided to RESNET with the provider's accreditation application, and again within 60 days of making changes to the agreement. The written agreement shall, at a minimum require Home Energy Survey Professionals to:

- a.** Provide Home Energy Survey verification services in compliance with these standards;
- b.** Provide accurate and fair In-Home Home Energy Surveys; and
- c.** Comply with the RESNET Code of Ethics. The "RESNET Code of Ethics" is posted at <http://www.resnet.us/auditorethics.htm>. The Code of Ethics shall be attached to the written agreement.

**703.1.4** Minimum Standards for Home Energy Survey Provider Operation Policies and Procedures shall be submitted in written form to RESNET for approval, and shall at a minimum provide for the following:

**703.1.4.1** Written conflict of interest provisions that prohibit undisclosed conflicts of interest, but may allow waiver with advanced disclosure. The "Home Energy Survey Standard Disclosure" form adopted by the RESNET Board of Directors shall be completed for each home that receives a Home Energy Survey and shall be provided to the Home Energy Survey Professional's client and made available to the homeowner. Each form shall include, at a minimum, the address of the

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home. Each form shall accurately reflect the proper disclosure for the home that it represents. For the purpose of completing this disclosure, "Survey professional's employer" includes any affiliate entities. Recognizing that a number of different relationships may exist among the Home Energy Survey Professional or the Home Energy Survey Professional's employer, other contractors that may complete work on the home, and the survey client and/or homeowner, the Home Energy Survey Provider shall ensure that all disclosures are adequately addressed by the provider's quality assurance plan, in accordance with the relevant quality assurance provisions of the standards.

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**703.1.4.2** Written Home Energy Survey Professional discipline procedures that include progressive discipline for probation, suspension, and decertification.

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**703.1.4.3** A written Home Energy Survey quality control process that includes, at a minimum, the following:

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**703.1.4.3.1** Quality Assurance Designee

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**703.1.4.3.1.1** A Home Energy Survey Provider shall designate an officer, employee, or contractor to be responsible for quality assurance within the organization. This definition does not prohibit a rating provider's Quality Assurance Designee from having a qualified certified Home Energy Survey Professional perform the required quality assurance file review functions. The responsibilities of the designee shall include:

- a. Maintenance of quality assurance files
- b. Review of in-home energy surveys during the probationary period of the Home Energy Survey Professional
- c. Monitoring on the in-home energy surveys by certified Home Energy Survey Professionals.

**703.1.4.3.1.2** The designated officer, employee, or contractor responsible for quality assurance shall demonstrate sufficient experience with the Home Energy Survey Professional knowledge base and skills given in Section 705.1 of the Standard to review the work of certified Home Energy Survey Professionals. Sufficient experience shall be demonstrated by either of the following:

- a. Certification as a Rating Provider Quality Assurance Designee
- b. Certification as a home energy rater and completing accurate ratings on a minimum of 25 homes

**703.1.4.3.1.3** Proof of qualification shall be submitted with an application for accreditation.

**703.1.4.3.2** The Provider's quality assurance designee shall be responsible for the internal review of Home Energy Surveys submitted by its Home Energy Survey Professionals, including:

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**a.** Review of the Home Energy Surveys conducted during the home energy survey professional's probation period. Prior to certifying a Home Energy Survey Professional candidate, the Provider shall review at least three probationary Home Energy Surveys performed by the Home Energy Survey Professional within 12 months.



b. Review of energy survey reports. For each Home Energy Survey Professional, the Provider's quality assurance designee shall annually evaluate a minimum of 10% of each Home Energy Survey Professional's Home Energy Survey reports. The Provider shall resolve any problems detected during these reviews.

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703.1.4.4 Home Energy Survey Professional Registry. The provider shall maintain a registry of all of its certified Home Energy Survey Professionals. The provider shall also keep on file the names and contact information for all certified Home Energy Survey Professionals, including company name, mailing address, voice phone number, fax number, and email address. Upon request, the provider shall provide to RESNET its registry of certified Home Energy Survey Professionals.

703.1.4.5 Complaint Response Process. Each Provider shall have a system available for receiving complaints. The Provider shall respond to and resolve complaints related to Home Energy Surveys and reports. Providers shall ensure that Home Energy Survey Professionals inform clients about the complaint process. Each Provider shall retain records of complaints received and responses to complaints for a minimum of three years after the date of the complaint.

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### 703.2 Comprehensive Home Energy Audit Provider Accreditation

A Comprehensive Home Energy Audit provider shall be accredited by RESNET as a Rating Provider in accordance with the provisions of Section 102 of the Mortgage Industry National Home Energy Rating Systems Standards.

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## 704 NATIONAL HOME ENERGY AUDIT PROCEDURES

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### 704.1 Home Energy Survey.

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The purpose of the Home Energy Survey is to determine the general condition of the home with respect to energy performance and the homeowner's potential willingness to improve the home's energy performance. The Home Energy Survey shall produce a report that shows a general range of a home's energy efficiency based on specific criteria (insulation, equipment age, general condition, energy usage and costs) and a lookup matrix based on regional norms and climate, as approved by RESNET. An example includes the U.S. Department of Energy's Home Energy Saver. The Home Energy Survey is not required if the homeowner wishes to directly pursue a Diagnostic Home Energy Survey or a Comprehensive Home Energy Audit. The Home Energy Survey may take one of two forms: a computerized On-Line Home Energy Survey approved by RESNET or an In-Home Energy Survey conducted by a certified Home Energy Survey Professional.

704.1.1 On-Line Home Energy Survey. The On-Line Home Energy Survey shall collect substantially the same data and information and shall be subject to the same limitations as the In-Home Home Energy Survey. On-line Home Energy Survey instruments shall be hosted by a RESNET accredited Survey Provider or another organization approved by RESNET and the on-line instrument shall be approved by RESNET.

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**704.1.2 In-Home Home Energy Survey.** This Home Energy Survey shall include on-site visual inspection of the energy features of the dwelling unit, and documentation of its general condition, including envelope features and ages; equipment types, characteristics and ages; and, appliance and lighting characteristics. Where available, the In-Home Home Energy Survey shall include a review of utility use and billing history. The In-Home Home Energy Survey is a visual inspection only and does not require the use of a blower door, duct leakage test, an infrared camera or other test equipment. An In-Home Home Energy Survey is not a prerequisite for the Diagnostic Home Energy Survey or Comprehensive Home Energy Audit.

**704.1.2.1** The Home Energy Survey Professional shall interview the homeowner regarding energy and comfort problems. The Home Energy Survey Professional shall explain the limitations of the In-Home Energy Survey and provide an overview of the Comprehensive Home Energy Audit. The interview shall include, but is not limited to, the following subject areas:

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**704.1.2.1.1** Comfort complaints, including areas of the home that are too hot or too cold.

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**704.1.2.1.2** Energy billing concerns.

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**704.1.2.1.3** The potential for the homeowner to move to a Comprehensive Home Energy Audit.

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**704.1.2.1.4** Interest in potential home energy performance improvements.

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**704.1.2.2** The Home Energy Survey Professional shall inform the homeowner of low cost/no cost improvements that can be implemented by the homeowner.

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**704.1.2.3** The Home Energy Survey Professional shall request copies of utility bills or written permission to obtain the energy use information from the utility company, and use them to produce an estimate of generalized end-uses (base, heating, and cooling).

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**704.1.2.4** The Home Energy Survey Professional shall advise the homeowner on where to locate qualified individuals to conduct a Diagnostic Home Energy Survey or a Comprehensive Home Energy Audit and/or qualified contractors to complete the work on the home.

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**704.1.2.5.** Minimum Procedures for an In-Home Energy Survey:

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**704.1.2.5.1** The Home Energy Survey Professional shall complete a standardized survey form approved by the Residential Energy Services Network (RESNET). The survey form will require the Survey Professional to visually review the home and to measure or estimate the following features:

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**a.** R-values of wall/ceiling/floor insulation

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**b.** Square footage and approximate age of home

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**c.** Type of windows: glazing type(s) and frame material(s)

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**d.** Type, model number, and location of heating/cooling system(s)

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**e.** Type of ductwork, location and R-value of duct insulation, and any indications of previous duct sealing

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- f. Type of foundation is crawl, basement, or slab Deleted: 704.1.1.5.1.6
- g. Checklist of common air-leakage sites indicating likely opportunities for leakage reduction Deleted: 704.1.1.5.1.7
- h. Estimated age and efficiency of major appliances such as dishwashers, refrigerators, freezers, washing machines and dryers Formatted: Font: Bold  
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- i. Number and type of hardwired light fixtures and screw-in bulbs in portable lamps that are suitable for energy efficient re-lamping Deleted: 704.1.1.5.1.9
- j. Visual indications of condensation Deleted: 704.1.1.5.1.10
- k. Presence and location of exhaust fans, and determination of whether they are vented outdoors Deleted: 704.1.1.5.1.11
- l. Number and type of water fixtures (e.g. faucets, showerheads) Deleted: 704.1.1.5.1.12
- m. Presence and type(s) of combustion equipment; identification of visually identifiable evidence of flame rollout, blocked chimney, and corroded or missing vent connector. Deleted: 704.1.1.5.1.13

- 704.1.2.5.2** The following elements are outside the scope of an In-Home Home Energy Survey:
- a. The use of blower doors, duct leakage test equipment or an infrared camera. Formatted: Indent: Left: 1", Hanging: 0.5"  
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  - b. Any other diagnostic testing of the home Deleted: 704.1.1.5.2.1  
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  - c. Quantification of any levels of air tightness, duct tightness, or ventilation. Deleted: 704.1.1.5.2.3
  - d. Energy savings estimates may only be generalized and presented along with the qualification that a Comprehensive Home Energy Audit must be obtained to calculate energy savings estimates. Deleted: 704.1.1.5.2.4
  - e. Combustion appliance testing Deleted: 704.1.1.5.2.5

**704.1.2.6 Minimum In-Home Energy Survey Report**

- 704.1.2.6.1** At the completion of the In-Home Energy Survey the Home Energy Survey Professional shall provide the homeowner a standardized report approved by the Residential Energy Services Network (RESNET), signed by the Home Energy Survey Professional. The report at a minimum shall provide information to the homeowner that addresses:
- a. All data collected in accordance with Section 704.1.2.5.1, above Deleted: 1
  - b. Whole-house solutions overview of how the home works as a system and how to prioritize actions. Deleted: 1
  - c. Quality installation of HVAC equipment including: proper sizing of equipment, duct sealing, and refrigerant charge and air flow. Deleted: 704.1.1.6.1.1  
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  - d. Quality building envelope air sealing and proper levels of insulation. Deleted: 704.1.1.6.1.4  
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  - e. Overview of ENERGY STAR or better products and appliances. Deleted: 704.1.1.6.1.5
  - f. Information regarding access to a Comprehensive Home Energy Audit. Deleted: 704.1.1.6.1.6
  - g. Non-energy benefits of improving the energy efficiency of the home including reduction of carbon emissions. Deleted: 704.1.1.6.1.7
  - h. General statement regarding opportunities to improve the thermal envelope, mechanical equipment, lighting and appliances in the home. Deleted: 704.1.1.6.1.8  
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j. General discussion of concerns regarding combustion safety.

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i. A safety notification form adopted by the Residential Energy Services Network that is filled out and presented when obvious problems are observed in accordance with 704.1.2.5.1.m.

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### 704.1.2.7 Limitations

Unless certified as a Home Energy Rater, Building Analyst, or by another program recognized by RESNET, the Home Energy Survey Professional shall not produce a detailed written work scope for improvements as part of an In-Home Energy Survey.

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**704.1.3 Diagnostic Home Energy Survey.** A homeowner may elect to go through this process with or without a prior In-Home Home Energy Survey. The Diagnostic Home Energy Survey includes all of the provisions of the In-Home Energy Survey (Section 704.1.2), with the exception of the diagnostic testing and reporting restrictions listed in section 704.1.2.5.2, and with the inclusion of diagnostic testing as follows:

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**704.1.3.1** A Home Energy Survey Professional completes a Diagnostic Home Energy Survey by performing the following:

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**704.3.1.1.1** Carry out the provisions of Section 704.1.2 Energy Survey with the exception of the restrictions given in section 704.1.2.5.2.

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**704.3.1.1.2** If a blower door air leakage test is performed on the home, it shall be conducted in accordance with the envelope testing requirements contained in the "National Energy Rating Technical Standards" (Chapter 3 and Appendix A of this Standard). The results shall be presented on the Diagnostic Survey report.

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**704.3.1.1.3** If a duct leakage test is performed on the home, it shall be conducted in accordance with the duct testing requirements contained in the "National Energy Rating Technical Standards" (Chapter 3 and Appendix A of this Standard), whenever one or more duct systems are present for heating or cooling systems in the house. The results shall be presented on the Diagnostic Survey report.

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**704.3.1.1.4** Additional diagnostic testing and reporting is optional and left up to the discretion of the Home Energy Survey Professional, program or entity offering the Diagnostic Home Energy Survey.

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## 704.2 Comprehensive Home Energy Audit

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The purpose of the Comprehensive Home Energy Audit is to cause improvement to be made to the audited home. The Comprehensive Audit includes an evaluation, performance testing and proposed treatments for improvement of an existing home. The evaluation shall include a review of the data collected from any previous energy audit or survey, any further required measurement and performance testing, combustion appliance testing, and a computerized simulation analysis of the home's energy performance and a calculation of the energy and environmental savings from improving the energy performance of the home. The performance analysis shall determine the scope of work for the home. The qualified Auditor shall guide the homeowner to a Certified Contractor. A homeowner may elect to go through this process without a requirement of a prior Home Energy Survey or a Diagnostic Energy Survey. A

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properly certified employee or agent of a Certified Contractor may complete a Comprehensive Audit, provided that a standard financial interest disclosure is provided to the homeowner in accordance with Section 703.1.5.1 of this Standard.

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**704.2.1** The Comprehensive Home Energy Audit shall include all of the following procedures:

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**704.2.1.1** The procedures adopted by the Residential Energy Services Network for the certified Home Energy Rater classification and

**704.2.1.2** The procedures adopted by the Building Performance Institute for the certified Building Analyst classification.

Deleted: home energy rater classification, in addition to combustion appliance testing and work scope in accordance with BPI Building Analyst standards. The Comprehensive HERS Audit shall provide the homeowner with calculated energy and environmental savings that will result from making the recommended improvements. The performance analysis shall also provide the homeowner with a label that indicates the relative energy efficiency of the home.

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## **705 REQUIRED SKILLS AND CERTIFICATION**

### **705.1 Minimum skills and knowledge base required for an individual to conduct an In-Home Home Energy Survey**

**705.1.1** Basics of heat transfer concepts

**705.1.2** Basics of building performance testing

**705.1.3** Basics of air distribution leakage

**705.1.4** Calculating gross and net areas

**705.1.5** Definitions/energy terminology

**705.1.6** Basic combustion appliance concerns

**705.1.7** Basics of envelope leakage, thermal bypass, thermal bridging

**705.1.8** Determining envelope insulation

**705.1.8.1** Presence/absence of insulation and when observable, the quality of its installation

**705.1.8.2** Recommended levels of insulation by climate zone

**705.1.9** HVAC – determining equipment efficiencies from model numbers or default tables

**705.1.10** Household appliances – determine efficiency from model numbers or vintage

**705.1.11** Energy units

**705.1.12** Measuring building dimensions

**705.1.13** Identification and documentation of energy survey inspected features of the home

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705.1.14 Basics of specifications

705.1.15 Determining window and door efficiency

705.1.16 Determining building orientation and shading characteristics

705.1.17 Defining the thermal boundaries

705.1.18 Basics of measure interaction, expected life, and bundling for optimal performance considering the house as a system and the emerging need for deep savings

**705.2 Minimum skills and knowledge base required for an individual to conduct a Diagnostic Home Energy Survey**

705.2.1 The skills and knowledge required for an individual to conduct a Home Energy Survey in accordance with section 705.1 of this standard.

705.2.2 Ability to perform building envelope leakage testing in accordance with the envelope testing requirements contained in the "National Energy Rating Technical Standards" (Chapter 3 of this Standard).

705.2.3 Ability to perform duct leakage testing in accordance with the duct testing requirements contained in the "National Energy Rating Technical Standards" (Chapter 3 of this Standard).

705.2.4 Familiarity with local climate conditions and climate specific practices.

**705.3 Minimum certification required for an individual to conduct a Comprehensive Home Energy Audit**

705.3.1 The certified Auditor shall be a Home Energy Rater certified by a RESNET accredited Rating Provider, and a Building Analyst certified by the Building Performance Institute. At a minimum, the certified Auditor shall be trained and certified to accomplish the following functions:

705.3.1.1 Prepare a detailed work scope in accordance with the BPI Building Analyst Standards; and

705.3.1.2 Perform combustion testing in accordance with the BPI Building Analyst Standards; and

705.3.1.3 Conduct building simulation and performance analysis and provide HERS Ratings in accordance with the requirements of the Mortgage Industry National Home Energy Rating System Standards.

705.3.2 A person certified by another home performance certification program recognized by the Residential Energy Services Network.

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Deleted: The Home Energy Auditor shall be a Building Analyst certified by the Building Performance Institute. In addition, the certified Building Analyst shall have been trained to complete the following functions:

705.4.1.1 Building

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or

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## 706. GENERAL LIMITATIONS AND EXCLUSIONS

### 706.1 General limitations:

| **706.1.1** The energy use information contained in the In-Home [Home](#) Energy Survey report does not constitute any warranty of energy cost or savings.

**706.1.2** Inspections that are performed in accordance with these standards:

706.1.2.1 Are not technically exhaustive.

706.1.2.2 Will not identify concealed conditions or latent defects.

| 706.1.2.3 The [Comprehensive Home Energy Audit](#) is not intended to be an inspection of the structural soundness of the home or any other attributes of the home other than the home's energy features.

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| 706.1.2.4 The [Home Energy Survey](#) is not applicable to building design and construction features except those specified in the minimum required features listed in section 704.1.1..5.

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