

Overview of Enhancements to The National Home Energy Rating Standards

2005 RESNET Building Performance Conference
February 28, 2005

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Comprehensive Enhancement of RESNET Rating Standards

Standards Development Process

- Two year drafting process
 - Proposal period open to all
 - All proposals considered by Drafting Committee
- Pre-vetting offered to national groups
 - NAHB Energy Committee
 - U.S. Department of Energy
 - Environmental Protection Agency
 - Building America Team
 - National Association of State Energy Officials
- 75 Day Public Comment Process

Comprehensive Enhancement of RESNET Rating Standards

Two Categories of Enhancements

- Program Administration (Will not affect rating score) – Goes into effect on April 1, 2005
- Technical (Will impact how rating scores are calculated) – Goes into effect on January 1, 2006

To Download Enhancements

www.natresnet.org/standards/enhancements

Goal of Program Administration Enhancements

Enhance the Quality and Consistency of Ratings as Rating Industry Expands to Meet Growing Demand for Rating Services

Quality Assurance

QA: 2004-01 “Rater Quality Assurance Procedures”

- Establishes quality assurance procedures for Rating Providers, including
 - Code of Ethics
 - Quality Assurance Designee
 - Review of ratings
 - RESNET Ethics Committee
 - Submission and disposition of complaints

Rating Program Administration Amendments

ADMIN: 2004-01 “Rater Financial Interest Disclosure

- Standardize Disclosure Form That Raters Must Complete and Give to Their Clients on Their Financial Interest in the Home Being Rated.
- Requires Rating Providers to Disclose on Request from Builder/Homeowner

Rating Program Administration Amendments

ADMIN: 2004-02 “Testing and Verification of
Rating Software Programs”

- Requires Rating Providers Use Only Rating Software Accredited Through RESNET Software Verification Process

Rating Program Administration Amendments

ADMIN: 2004-03 “Rating Software Documentation”

- Requires Rating Providers to Document that the Program will use a RESNET Accredited Rating Software Program as part of the Rating Provider Application.

Rating Program Administration Amendments

ADMIN: 2004-04 “Using Updated Rating Software”

- Requires Rating Providers to Use Latest Version of Rating Software Program.
- Grandfather clause

Rating Program Administration Amendments

ADMIN: 2004-05 “Period of Rating Provider Accreditation”

- Requires Annual Renewal of Rating Providers Accreditation.

Rating Program Administration Amendments

ADMIN: 2004-06 “Rater Continuing Education Requirements”

- Mandates that 10 of the 12 Hours of Required Rater Continuing Education be Approved by RESNET.

Rater Training Amendments

TNG: 2004-01 “Rater Trainer Testing”

- Requires that Rater Trainers Must Pass RESNET National Core Test.

Rater Training Amendments

TNG: 2004-02 “Administration of National Rater Test”

- Provides for RESNET to Administer Rater National Core Test.

Rater Training Amendments

TNG: 2004-03 “Rater Training Provider Accreditation Committee”

- Provides for RESNET Board to Appoint Members of Committee.

Rater Training Amendments

TNG: 2004-04 “Data Analysts and Data Collectors”

- Allows raters to use data analysts and collectors.

Rater Training Amendments

TNG: 2004-05 “Minimum Rater Competencies”

- Mandates that the rater national core test include energy and building science concepts.

Goals of Technical Enhancements

- Enhance the Technical Basis of Energy Ratings
- Update Rating Standards to Bring Into Alignment with Current National Standards (IECC, Zero Energy Homes, Proposed Tax Credits)

HERS Reference Home

REF: 2004-01 “Amending the Rating Reference Home”

- Establishes the HERS Reference Home as equivalent to the proposed DOE Residential IECC Code Change (RICC)

Expanded HERS Score

EXP: 2004-01 “Incorporating lighting, appliances and on-site energy production in the rating score”

- Establishes technical guidelines and procedures for expanding the rated features of the rated home.

Expanded HERS Score

- HERS “Classic” score based on
 - Heating
 - Cooling
 - Hot water
- HERS “Expanded” score based on
 - “Expanded denominator” method
 - Heating, cooling, hot water,
 - Lighting and appliances, and
 - On-site power generation.

Expanded HERS Score

- “Classic” HERS score will be mandatory for all rating reports
- “Expanded” HERS score will be a second score that is optional as determined by:
 - HERS Provider
 - Programmatic requirements
 - Rater, if not specified by one of the above

Technical Amendments

TECH: 2004-01 - Insulation Inspection Procedures

- Provides procedures for assessing and applying insulation installation quality – Grades I, II and III
- Establishes standards for grading insulation R-value due to compression.

Technical Amendments

TECH: 2004-02 - Definition of Standards for Measuring House and Duct Tightness

- Amends Appendix A: On-site Inspection Procedures
- Establishes standard testing procedures for measuring air infiltration and duct leakage
- Establishes door, vent, damper positions during testing

Technical Amendments

TECH: 2004-03 - Blower Door Test Procedures

- Amends Appendix A: On-site Inspection Procedures
- Requires that all pressure testing equipment be annually field tested for calibration, or re-calibrated
- HERS provider must maintain a log of testing/calibration.

Technical Amendments

TECH: 2004-04 - Surface Area: Procedures for Measuring for Floor Dimensions

- Establishes uniform method of calculating conditioned floor area of home – ANSI Standard Z765-1996.

Technical Amendments

TECH: 2004-05 - Auxiliary Energy Consumption

- Includes furnace/boiler auxiliary energy consumption (i.e., combustion/blower fans) in HERS rating score
- Establishes reference/default consumption
- Allows credit for ECM motors

Technical Amendments

TECH: 2004-06 - Coefficients for Oil Heat

- Changes nMEUL a,b coefficients for heating oil to be same as natural gas
- Eliminates differences in HERS score associated with different fossil fuels

Technical Amendments

TECH: 2004-07 - Renewable Energy Sources in the Reference Home

- Specifically removes from the HERS Reference home any renewable energy systems present in the Rated home

Technical Amendments

TECH: 2004-08 - Natural Ventilation in Reference Home

- Establishes standard ventilation strategy for both reference and rated home
- Ensures consistency for this occupant behavior

Technical Amendments

TECH: 2004-09 - Discount Rate and the Life of Measures by a Rating Provider for Fannie Mae Energy Efficient Mortgages

- Clarifies source of data for EEM Present Value calculation
 - RESNET to provide discount rate annually
 - Established weighted life of energy efficiency measures at 23 years

Technical Amendments

TECH: 2004-10 - Standardize Economic Calculation of Present Value for Energy Mortgages

- Establishes how EEM Present Value shall be calculated
 - Fannie Mae's Energy Value and Annual Energy Savings
 - FHA and Freddie Mac's Present Worth of Energy Savings

Technical Amendments

TECH: 2004-11 - Default Framing Factors for Enclosed Elements

- Establishes default framing factors for wall, floors, ceilings to be used in Rated homes

Technical Amendments

TECH: 2004-12 - EIR for Heat Pumps

- Establishes consistent method of converting HSPF and SEER to inputs appropriate for models that separately model compressor / evaporator / fan / defrost (e.g., DOE-2)

Technical Amendments

TECH: 2004-13 - Correction of Local Climate Conditions and Proper Sizing for Heat Pumps and Air Conditioners

- Requires that software adjust HSPF and SEER to account for climate and mis-sizing of equipment
- Establishes rule base for determining design loads for sizing purposes

Technical Amendments

TECH: 2004-14 - Bio Mass Fuels Efficiencies

- Establishes all data and rules needed to include wood burning stoves in the HERS process
- Establishes reference/default values
- Defines when they should be included in rating

Technical Amendments

TECH: 2004-15 - Home Inspection Standards

- Establishes minimum content requirement for on-site inspection procedural manual that providers must supply to raters

Technical Amendments

TECH: 2004-17 - Definition of Home

- Refines definition of home
- Includes individual units in small multi-family buildings

Technical Amendments

TECH: 2004-18 - Future Guidelines

- Deletes section that dealt with additional software requirements to be phased in
- All requirements dealt with elsewhere