



FLORIDA SOLAR ENERGY CENTER®

Creating Energy Independence

The Future of the ERI Standard and the HERS Standard

ANSI/RESNET/ICC 301-2019
and MINHERS next Editions

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Important Standards Distinctions

- Energy Rating Index (ERI) versus HERS Index
 - ANSI/RESNET/ICC 301 is the non-proprietary American National Standard for the ERI
 - MINHERS Standards establish RESNET's proprietary HERS Standard that adopts 301
 - The MINHERS establishes standards for Quality Assurance for the HERS Index
 - Standard 301 does not provide Quality Assurance requirements for the ERI.



MINHERS Standards

- MINHERS: Mortgage Industry National Home Energy Rating Systems Standards
- RESNET's proprietary Standards
- Adopts ANSI Standards but provides additional requirements, definitions and quality assurance criteria that make the HERS Index of higher quality than the ERI.
- Modified to closely align with RESNET's ANSI Standards by reference as they are developed.



Standards Development Process

- All RESNET standards actions are governed by RESNET *Standards Development Policy and Procedures Manual (P&P Manual)*
- Two flavors of P&P Manual
 - ANSI Standards Development (ANSI Accredited)
 - MINHERS Standards Development
- Similar to ANSI P&P but MINHERS P&P Manual allows slightly greater latitude
- Both Standards Development Policy and Procedures Manuals are available on RESNET web site under main menu option RESNET Standards.



Continuous Maintenance

- All RESNET Standards are under “continuous maintenance.”
- Anyone may submit a proposal to change a RESNET Standard at any time
- SMB decides if proposed change is “critical” or if it should wait until the next regular update
- “Critical” change proposals are assigned as New Work Items (NWI) to the appropriate Standards Development Committee (SDC)



The Future of the ERI Standard

ANSI/RESNET/ICC 301- 2014

Will be Updated

In 2019



ANSI/RESNET 301-2019 Edition

- 1st Update and 2nd Edition of Standard 301
- Updates are New Editions of Standards
- Addenda are Additions to an Edition
- Updates Integrate Addenda of Previous Editions
- Updates May Also Include New Changes



The Goal

Complete Standard 301-2019

In Time for

Proposed Adoption by the 2021 IECC

(January 2019)



Standard 301-2019 Will Include

- An Expanded Title and Scope
- Enhancements for Attached Dwelling Units/MF
- Language to Align with IECC, IRC and IBC
- All Addenda Approved by Time of Publication
- Interpretations of Standard 301-2014
- Non-Critical/Deferred Amendment Proposals
- Reference to Updated Standard 380-2019



Expanded Title

Standard for the Calculation and Labeling
of the Energy Performance of
~~Low-Rise Residential Buildings~~
Dwelling and Sleeping Units
using an Energy Rating Index



Expanded Scope

Scope. This standard is applicable to ~~all one-~~Dwelling Units and ~~two-family dwellings and to dwelling units~~Sleeping Units in ~~residential~~Residential or Commercial Buildings, excepting hotels and motels. Energy Ratings determined in accordance with this standard are for individual Dwelling Units or Sleeping Units only. This standard does not provide procedures for determining Energy Ratings for whole buildings ~~not over three stories in height above grade~~ containing ~~multiple dwelling units.~~more than one unit.



Enhancements for Multi-Family-Attached Dwelling Units

- Both Standard 301-2019 and Standard 380-2019 will have criteria more specific to dwelling units in multi-family buildings
- Attend the Tuesday 10:30 session ***“How Standards are Evolving to Better Address ‘Multifamily’ Ratings”*** for details



Language to Align with the IECC

- These definitions from the IECC or IBC are included in updated RESNET Standard
 - Residential Building
 - Commercial Building
 - Dwelling
 - Dwelling Unit
 - Sleeping Unit



Addenda Adopted Before Publication

- Current Adopted Addenda:
 - Addendum A, Domestic Hot Water
 - Addendum B, Innovative Design Requests
 - Addendum D, Adopt ANSI/RESNET/ICC 380-2016
 - Addendum E, House Size Index Adjustment Factors
 - Addendum G, Solid State (LED) Lighting
 - Addendum K, Roof Solar Absorptance Test

Note: These addenda are incorporated within draft 301-2019 but are not open for further comment.



Addenda Still Under Development

- Addenda Under Development but Not Yet Final:
 - Addendum F, Insulation Installation Grading
 - Addendum L, Ducts In Conditioned Space Exception
 - Addendum N, Minimum Rated Features

Note: These addenda are being developed through proceedings separate from Standard 301-2019. They will be open to public comment through those proceedings.



Standard 301-2014 Interpretations

- 301-2014-01: Reference Home Air Exchange Rate
- 301-2014-02: Reference Home Whole House Mechanical Ventilation
- 301-2014-03: Hot Water System Gains
- 301-2014-04: Glazing External Shading and Windows Shading
- 301-2014-05: Water Heater Inlet Temperature
- 301-2014-06: Whole House Fans
- 301-2014-07: Water Heater Table EF
- 301-2014-08: Clothes Washers
- 301-2014-09: Reference Home Crawl Space
- 301-2014-10: Clothes Dryer CEF Rating
- 301-2014-11: Guidelines for Multi-Family Ratings
- 301-2014-12: Water Heater UEF
- 301-2014-13: High Efficiency Lighting

The Interpretations are incorporated in draft 301-2019 and are open to comment



Deferred Change Proposals

- Uncontrolled Supply Ventilation
- Whole-House Mechanical Ventilation
- Small Duct High Velocity HVAC Systems
- Solar PV- MicroInverters
- Hot Water Recirculation
- Air Exchange Rate
- Alternative Rating Index (example: energy cost)



Updated Standard 380-2019

- Standard ANSI/RESNET/ICC 380-2016 is being updated for criteria specific to attached Dwelling Unit (MF) testing.
- Comment period on first draft of BSR/RESNET/ICC 380-201x has closed and SDC 300 is developing responses to the public comments received.
- The second draft should be out for public review by April 2018
- Attend the Tuesday 10:30 session, ***“How Standards are Evolving to Better Address ‘Multifamily’ Ratings”***, for details



Preview Copy URL

See the pre-Conference email notice 2/21/18 to find the link

or go to-

http://www.resnet.us/blog/wp-content/uploads/2018/02/Draft-PDS-01-BSR_RESNET_ICC_301-201x_clean.pdf

Another notice will be sent March 1



What Comes After Standard 301-2019

- Enhancements via Major Standards Projects
 - Standard BSR/RESNET 600, Sampling
 - Standard BSR/RESNET 310 HVAC System Installation Grading
- Addenda for Continuous Maintenance Proposals
- Third Edition (by) 2024



The Future of the MINHERS

Transitioning portions of MINHERS Standards to American National Standards

Purpose:

- Position RESNET standards for broad acceptance in government and industry programs
- Position the standards for IECC adoption



Transitioning MINHERS Standard Chapters to ANS

- 2015- Chapter 3 Technical Criteria replaced by Standard ANSI/RESNET 301-2014
- 2016- Chapter 8 Testing Criteria replaced by Standard ANSI/RESNET 380-2016
- 2019- Appendix A MRF replaced by Standard ANSI/RESNET 301-2019 Appendix B
- *20xx Chapter 6 Sampling Criteria replaced by Standard 600*



MINHERS Continues to Govern HERS

- Chapters 3 and 8 will adopt Standards 301 & 380
- Chapters 1, 2, 5, 6 & 9 will govern:
 - Chapter 1- QA Provider & Software Accreditation
 - Chapter 2- Instruction, Assessment & Certification
 - Chapter 5- Revision of Standards
 - Chapter 6- Sampled Ratings (*future-adopt Std 600*)
 - Chapter 9- Quality Assurance



2017 Completed MINHERS Addenda

- 19f: RFI Evaluation
- 20: Adopt Standard ANSI/RESNET/ICC 380-2016
- 21: Compliance with Software Changes
- 22: Software Accreditation
- 23: Revise HERS Scope
- 24: Training and Certification
- 25: Recertification
- 26: CAS Hazards & Probationary Ratings
- 27: Align Scope and Definitions with the IECC
- 31i: Rescind Certified Rater Practical Simulation Test
- 32i: Effective Dates and Transition Period



2017 Unfinished Addenda

- 28: Confirmed Threshold Ratings
- 29: Training & Financial Separation QA Agents
- 30: QA Update
- 31f: Rescind Certified Rater Practical Simulation Test
- 32f: Effective Dates and Transition Period



Finding MINHERS Standards Info

- On the www.resnet.us/professional/ page click on- **RESNET Standards**
- On the www.resnet.us/professional/standards page click on- RESNET Mortgage Industry National Home Energy Rating Standards link under **RESNET'S Standards**
- Find Addenda by Year under “Historical Information”
- Interpretations and draft Addenda under development can also be accessed from this page



How to Make Change Manageable

- Addendum 32 Updates Chapter 5 on Revising Standards
- Addendum 32i- Adopted to provide transition time for Standard ANSI/RESNET/ICC 380-2016
- Addendum 32f Proposes to:
 - Conform Chapter 5 with the Non-ANSI Standards P & P
 - Required the MINHERS Standards be updated continuously
 - Set a Jan/July schedule for amendment Effective Dates
 - Allows a Transition Period after the Effective Date before Mandatory Compliance. Tied to Building Permit Date



Effective Date Schedule

502.4 Effective Dates for Amendments

502.4.1 Effective Date. The Effective Date for amendments shall be the earlier of the January 1 or the July 1 immediately following their approval for publication by the SMB, unless set otherwise by the SMB or RESNET Board of Directors. In no case shall the Effective Date be less than 30 days after the date of SMB approval.

Exception: Interim Addenda take effect immediately upon approval,



Transition Period for Compliance

502.4.2 Transition Period. When amendments to these standards are approved, the SMB shall define a Transition Period not greater than 6 months. The Transition Period for amendments that affect the inspection, testing, registering and certification of Dwelling Units shall be applied as follows:

502.4.2.1 Confirmed, Threshold, or Sampled Ratings on a Dwelling Unit with a Building Permit Date that is after the Transition Period shall comply with the amendment requirements.

502.4.2.2 Confirmed, Threshold or Sampled Ratings on a Dwelling Unit with a Building Permit Date that occurs prior to the end of the Transition Period shall be allowed to comply with the requirements preceding the amendment.



What Comes Next for MINHERS

- Amendments Effective January 1 or July 1
- Not too many of amendments proposed in 2018, so far
 - Addendum 28: Threshold Inspections Criteria
 - Addendum 29 and Addendum 30 ON HOLD





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Questions



Definitions from the I-Codes

- *Residential Building* – Includes detached one-family Dwellings and two-family Dwellings and multiple single-family Dwellings (Townhouses) and Group R-2, R-3 and R-4 buildings three stories or less in height above grade plane.
- *Commercial Buildings* – All buildings that are not included in the definition of Residential Buildings.



- *Dwelling* – Any building that contains on or two Dwelling Units used, intended, or designed to be built, rented, leased, let or hired out to be occupied, or that are occupied for living purposes.
- *Dwelling Unit* – A single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooling and sanitation.



- *Sleeping Unit* – A room or space in which people sleep, which can also include permanent provisions for living, eating, and either sanitation or kitchen facilities but not both. Such rooms and spaces that are also part of a Dwelling Unit are not sleeping units.
- *Attached Dwelling Unit* – A Dwelling Unit sharing demising walls, floors, ceilings, or common corridors with another Dwelling Unit or Occupiable Space.

