Software Persistence and How It Will Affect Your Business

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Setting the **Standards** for **Home Energy Efficiency**

2017 Conference — Scottsdale, AZ · Feb 27–Mar 1

February 27, 2017

Presentation Outline

✓ Introduction and History

✓ Software "Persistence"

- The Problem

- Steps to Address

✓ EnergyLogic proposal

✓ D.R. Wastchak proposal

✓ Final Adopted Standard Amendment

✓ Software "Persistence" and ANSI software

Pole Questions

When do you believe the new ANSI software needs to be adopted and used by Energy Rating Companies in the field?

1. July 1, 2016
2. January 1, 2017
3. July 1, 2017
4. January 1, 2018

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Pole Questions

When beginning to use the new ANSI version of the software in to a rating company….

1. Companies only have to use the ANSI software on new projects. i.e. new homes being started with a projected rating.
2. Companies do not have to transition projects over to the new software if they began with a projected rating using an older version of the software.
3. Companies have 6 months to transition completely to using the new ANSI version of the software.

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Persistence

per·sist·ence

pərˈsistəns/

noun

PERSISTENCE.

1. Firm or obstinate continuance in a course of action in spite of difficulty or opposition.
2. The continued or prolonged existence of something.

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History

☐ August 2012 - RESNET began the ANSI consensus public review and comment process

☐ March 2014 – Following two public reviews ANSI/RESNET 301-2014 was approved by ANSI as an American National Standard

☐ June 2014 – After a public review and comment process Chapter 3 of the Mortgage Industry National Home Energy Rating System Standard was amended to incorporate ANSI 301, with November 1, 2014, as the effective date for HERS software tools to be compliant with the new standard

☐ October 2014 - RESNET informed by NORESCO that REM/Rate would be unable to meet the November 1, 2014 deadline

☐ October 2014 - Compliance date on the 301 Standard extended to August 1, 2015

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History

- July 2015 - REM/Rate requests 30 day extension. Compliance date on the 301 Standard extended to September 1, 2015

- August 1, 2015 - EnergyGauge USA and Ekotrope meet the deadline

- November 9, 2015 – NORESCO releases REM/Rate 15.0

- December 2015 – Because of inconsistencies in interpretation of Standard 301, compliance date on the 301 Standard extended to May 1, 2015, with an effective implementation date of July 1, 2016

- March 10, 2016 – NORESCO releases REM/Rate 15.1 with corrections to inconsistencies

- June 16, 2016 – Board adopts policy:
  - As of **July 1, 2016**, HERS Raters <u>can use</u> the new ANSI 301 compliant versions of the software tools.
  - As of **January 1, 2017**, HERS Rater <u>must use</u> ANSI 301 compliant software

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Software "Persistence"

- Current RESNET Standard language:

  103.2.3 Persistence. Once a Projected Rating has been made on a property, the version of the rating software that was used initially may be used for the Confirmed Rating on that property. Providers, at their option, may update to the latest software version for in-process ratings.

- Vague…
  - Does not clearly define a "property"
  - Does not put a time limit on how long a projected rating can be used for a confirmed rating and does not address sampled ratings

Software "Persistence" – The Problem

As the standard was written, homes in a community with a buildout of 20 years could use old software until completion

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Software "Persistence" – The Problem

For example, one Projected Rating could be applied to multiple building permits in production housing, allowing "Persistence" based on a Projected Rating to extend the use of older software versions to 5, 10, or even 20 years.

Software "Persistence" – The Problem

- ☐ Every time standards and software are updated, the HERS Index score can change
- ☐ In the case of ANSI/RESNET/ICC 301-2014, the score change is dramatic, 3-8 points on average
- ☐ Builders with a particular specification level in their sales models may need to change specifications, i.e. SEER/AFUE, windows, appliances, etc., to maintain the same HERS scores
- ☐ Utility rebate programs based on HERS scores are not easily changed, and builders can loose hundreds or thousands of dollars per home if they no longer meet HERS thresholds
- ☐ Municipalities are establishing minimum HERS thresholds for code compliance

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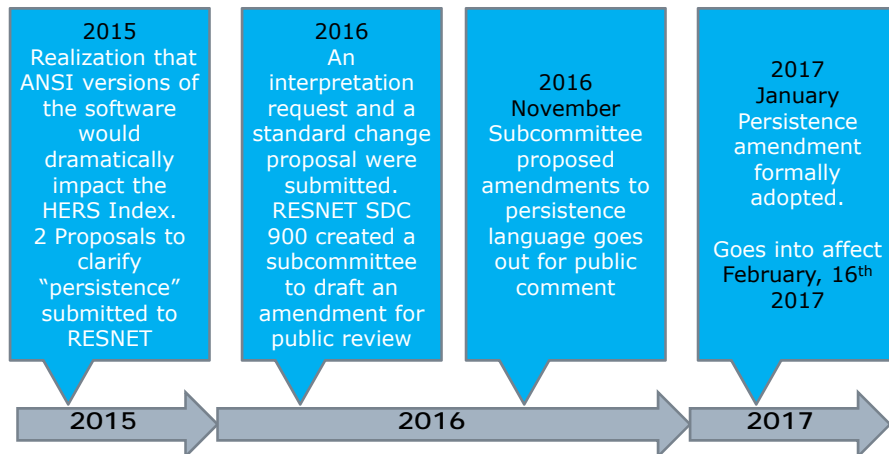

Software "Persistence" – The Problem

- ❑ National exposure of the HERS Index is on the rise
- ❑ 1,942,252 Rating Complete, 206,583 in 2016
- ❑ 2015 IECC and the Energy Rating Index (ERI)
- ❑ ENERGY STAR for Homes
- ❑ DOE Zero Energy Ready Homes
- ❑ LEED for Homes
- ❑ Passive House
- ❑ Green Appraisal Addendum

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Software "Persistence" – Steps to Address

2015
Realization that ANSI versions of the software would dramatically impact the HERS Index. 2 Proposals to clarify "persistence" submitted to RESNET

2016
An interpretation request and a standard change proposal were submitted. RESNET SDC 900 created a subcommittee to draft an amendment for public review

2016 November
Subcommittee proposed amendments to persistence language goes out for public comment

2017 January
Persistence amendment formally adopted.

Goes into affect February, 16th 2017

2015 → 2016 → 2017

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EnergyLogic's Proposal

❑ Due to the nature of the changes in the software and their reflection of the new ANSI/RESNET 301-2014 standard EnergyLogic believed the intent of the adoption date was to uniformly transition **all** HERS Providers and Raters to the upgraded software by October 1st, 2015. The original date set by RENSET.

❑ We believed there was a potential for either confusion and misinterpretation of that intent of the transition to the ANSI software due to the original language regarding Persistence in the standard.

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EnergyLogic's Proposal

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- ❑ Recommended that a programmatic phase-in of the new software be considered by the RESNET board.
- ❑ Our recommendation was to adopt the model Energy Star used which employs a cutoff date tied to the building permit.
- ❑ Under this model, any home that had a permit date on or after October 1st, 2015 would be required to utilize the new ANSI/RESNET 301-2014 accredited software.
- ❑ Any home permitted before October 1st, 2015 would be allowed to complete using the current version of the software it is utilizing.

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- ❑ 103.1 For the purposes of conducting Home Energy Ratings, as defined in these Standards, ~~QA Providers~~ <u>all RESNET accredited software users</u> shall be required to use the most current version of one of the RESNET approved rating software programs contained in the "National Registry of Accredited Rating Software Programs" posted on the RESNET website.

- ❑ 103.2 Rating Software Changes. <u>When RESNET accredited software programs release new versions</u> ~~Should changes that affect the calculated results of the home energy rating occur in the engineering algorithms of a RESNET approved home energy rating software program,~~ ~~QA Providers~~, <u>all RESNET accredited software users</u>, shall be required to do the following:

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8

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- ❑ 103.2.1 ~~Transition period. On announcement of a new software version release, QA Providers have a maximum of 60 days to begin all new ratings with the new version.~~ <u>Once updated software has been release all RESNET accredited software users shall transition all projects, including all Projected and Confirmed Ratings, to the new software on the schedule provided in section 103.2.2</u>

- ❑ 103.2.2 ~~This requirement only applies to changes mandated by the technical standard or otherwise affecting the calculations of the rating score or projected energy savings.~~ <u>When updated RESNET Accredited software is released all Projected and Confirmed Rating must transition to the new software within 6 months of the software release. When software is released RESNET will publish and publicize the 6 month date deadline for transition.</u>

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- ☐ <u>Homes with a permit date that is on or after the 6 month transition date must utilize the newly released updated software. Homes with a permit date before the 6 month transition date will be allowed to complete a Confirmed Rating based on whatever version of the software that was utilized for the Projected Rating.</u>

- ☐ ~~103.2.3 Persistence. Once a Projected Rating has been made on a property, the version of the rating software that was used initially may be used for the Confirmed Rating on that property. Providers, at their option, may update to the latest software version for in-process ratings.~~

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D.R. Wastchak's Proposal

Proposed Interpretation:

"Property", as noted in Section 103.2.3, shall apply to a property with a single home or a property with a group of homes, such as in a to-be-built community, which have received Projected Ratings. The version of the rating software that was used to create the Projected Ratings may be used for the Confirmed Rating on the single home property or for the Confirmed or Sampled Ratings on a property with a group of homes. In either case, persistence shall only apply for a period of twenty-four (24) months from the date of the original Projected Rating, after which time the single home or group of homes qualifying for persistence shall use the latest software version for completing the final Confirmed or Sampled Ratings.

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PERSISTENCE.

ADOPTED PERSISTENCE AMENDMENT

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Final Adopted Standard Amendment

103.1 For the purposes of conducting Home Energy Ratings, as defined in these Standards, ~~QA Providers~~ all users of RESNET accredited software shall be required to use the most current version of one of the RESNET approved rating software programs contained in the "National Registry of Accredited Rating Software Programs" posted on the RESNET website.

Final Adopted Standard Amendment

103.2 Rating Software Changes.

When RESNET accredited software programs release new version ~~Should changes that affect the calculated results of the home energy rating occur in the engineering algorithms of a RESNET approved home energy rating software program, QA Providers~~ users of RESNET accredited software, shall be required to ~~do the following:~~ transition to the new version based on the following schedule:

Final Adopted Standard Amendment

103.2.1 Confirmed or Sampled Ratings on homes with a building permit date that is on or after the 6 month anniversary of the release of the software must utilize the newly released software.
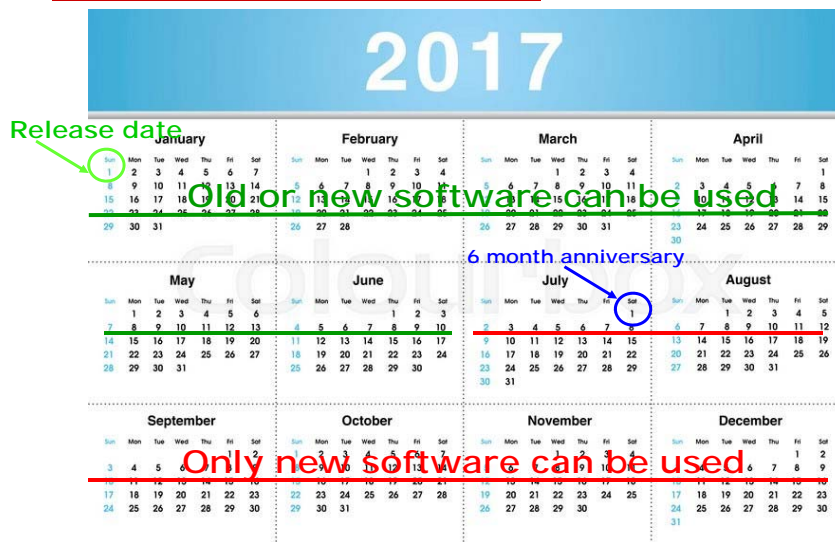
103.2.2 Homes with a building permit date before the 6 month anniversary of the release of the software shall be allowed to complete a Confirmed or Sampled Rating based on the previous version of the software that was utilized for the Projected Rating.

103.2.3 The RESNET Board of Directors may stipulate a timeframe other than the 6 month anniversary of the building permit date.

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Example

Release date

Old or new software can be used

6 month anniversary

Only new software can be used

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Software "Persistence" and ANSI software

- ☐ **January 1, 2017**
    - ■ All new energy models <u>created</u> on or <u>after</u> January 1, 2017 must use versions of the HERS software that comply with the new ANSI Standard.
    - ■ Any home with a <u>permit</u> issued <u>before</u> July 1, 2017 can be <u>certified</u> using a pre-ANSI version of the HERS software.

- ☐ **July 1, 2017**
    - ■ Any home with a <u>permit</u> issued on or after July 1, 2017 must be <u>certified</u> using an ANSI version of the HERS software.

Presentation Review

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Questions?

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