



Setting the Standards for
Home Energy Efficiency



Minutes
2016 Annual RESNET Board Meeting
Scottsdale, AZ
Sunday February 28, 2016

Members Present

Ben Adams
Jacob Atalla
David Beam
Dave Bell
Steve Byers
Brett Dillon
Philip Fairey
Matt Gingrich
David Goldstein
Andy Gordon
Roy Honican
Cardice Howard
Mark Jansen
Frank O'Brien-Bernini
Jim Petersen
Nancy St. Hilaire
Kelly Stephens
Daran Wastchak
Barb Yankie

Members Absent

Lee O'Neal

Staff Present

Steve Baden
Laurel Elam
Kathy Spigarelli

Call to Order

The meeting was called to order by RESNET Board President Jim Petersen at 1:00 p.m. Eastern.

Roll Call

The roll was called by RESNET Staff, and a quorum was present. Excused absence accepted for Lee O'Neal due to a death in the family.

RESNET Anti-Trust Policy

Kathy Spigarelli distributed the RESNET Anti-Trust and Conflict of Interest Policy. The policies were previously sent to all members via email.

Approve Agenda

The financial compilation was removed because Lee O'Neal's absence. It was proposed to add a presentation by Philip Fairey on HERS Index sizing adjustment.

David Goldstein made a motion to approve the meeting agenda as amended. Andy Gordon seconded the motion. The motion was approved by voice vote.

Approve Minutes of October 19 & 20, 2015; December 10, 2015 and February 19, 2016 Board Meetings

Brett Dillon made a motion to approve the minutes of the October 19 & 20, December 10, 2015 and February 19, 2016 RESNET Board Meeting. Mark Jansen seconded the motion. The motion was approved by voice vote.

Renewal of Members of RESNET Standard Management Board

Philip Fairey reported on the RESNET Standard Development Committees (SDC). SDC 300 finalized Standard 380 but it is still in the process of being approved by ANSI. It is projected that the standard will be approved in the next week.

Philip Fairey made a motion that David Goldstein and Brett Dillon be re-affirmed as members of the Standards Management Board. Steve Byers seconded the motion. The motion was approved by voice vote. David Goldstein and Brett Dillon abstained.

HERS Index Size Adjustment Factor

Philip Fairey made a presentation on the HERS size adjustment factor.

Experience with the HERS Index score as a performance metric indicates that home geometry and operating assumptions play a significant role in resulting scores:

- All other things equal, as home size increases it becomes easier to achieve lower scores
- The number of bedrooms impacts scores because it determines appliance loads and internal gains

- The number of stories of a home also impacts scores due to changes in ceiling to wall area ratio.

A study was conducted using EnergyGauge on the impact of size and develop the adjustment factor. The factor adjusts the Reference Home building load rather than adjusting result of entire Index calculation. Preserves normalized Modified End Use Load calculations and on-site power production – i.e. purchased energy fraction (PEfrac) calculated in the same way with the same impact on results.

SDC 300 Calculations Subcommittee's next project will be working on the size adjustment factor.

Ben Adams suggested that the impact multi-family buildings be evaluated.

A straw vote taken that the SDC 300 Calculations Subcommittee makes the HERS size adjustment factor a priority and it was approved.

Presentations of Proposals for the 2018 IECC Code Cycle Affecting the Energy Rating Index Option

- **RESNET's Proposals**

Eric Makela, Cadmus, Energy Services Division presented RESNET's 2018 IECC Code Proposals

The RESNET proposals are-

The ANSI RESNET/International Code Council (ICC) Standard 301 defining the Energy Rating Index

Adopting the RESNET/ICC Standard 380 to Define the IECC Envelope and Duct Testing Requirement

- **Leading Builders of America's Proposals**

Clayton Traylor, Leading Builders of America presented RESNET's 2018 IECC Code Proposals.

Mr. Traylor began his presentation stating that the Leading Builders of America sees RESNET as a key strategic partner and values effectively working with RESNET Executive Director Steve Baden.

He also stated that the Leading Builder of America supports RESNET/ANSI 301 Standard being in the 2018 IECC.

The Leading Builders of America proposals are-

Using the 2009 IECC UA calculation for building envelope requirements

Limiting the credit that on-site power production can be used for complying with the energy rating index code compliance

Returning to ERI targets that was proposed by the Leading Builders of America and NRDC in the 2015 IECC cycle.

- **Natural Resources Defense Council's (NRDC) Proposals**
David Goldstein, Natural Resources Defense Council presented NRDC's 2018 IECC Code Proposals

The Natural Resources Defense Council proposals are-

Allowing for limited renewable energy tradeoffs so that that renewable energy is allowed to meet the values in the originally proposed table if the ERI for the building is less than or equal to the values in a newly proposed table.

Their proposal also includes referencing the ANSI/RESNET/ICC Standard 301.

- **National Association of Home Builders (NAHB) Proposals**
Craig Drumheller, NAHB presented NAHB's 2018 IECC Code Proposals

The National Association of Home Builders proposals are-

Modifying the thermal envelope backstop from the 2009 IECC

Adding an option for cost index rather than just a normalized modified load

Modifying the ERI values to be more realistic compared to the prescriptive stringency

- **Energy Efficiency Codes Coalition (EECC)**
Bill Fay, EECC presented EECC's 2018 IECC Code Proposals

The Energy Efficiency Codes Coalition Proposals are-

Verifying the thermal envelope before the ERI can be calculated

Updating thermal envelope to 2015 IECC instead of 2009 IECC

Requiring rating software to produce two index numbers; one with and without onsite power

RESNET Suppliers Advisory Board Report

Frank O'Brien-Bernini presented the RESNET Supplier Advisory Board Report. Mr. O'Brien-Bernini provided an update on the three active committees as follows-

Public Policy- Chair: Ian Hughes

High Priority: Ability to move with agility when needed to assure the RESNET supplier's voice was heard in WDC

Low Priority: Need a better process for broad/fast/agile supplier engagement...and the ability to communicate supplier views to inform RESNET Board decisions.

Brand/Marketing/Social Media- Chair: DeAnna Starn

High Priority: There are lots of opportunities for RESNET and member companies to help each other

Low Priority: Need better connection and collaboration with RESNET staff to develop and communicate opportunities...especially social and web presence.

Training/Certification for Supplier Employees- Chair: Laura Dwyer

High Priority: The team developed and proposed a new RESNET certification level called HERS Associate, targeted for supplier employees, but broadly applicable to anyone wanting/needing a working understanding of RESNET and HERS, for uses other than conducting ratings. Frank brought it to the RESNET Board in the afternoon, and it was approved to move forward, with staff, to finalize content and procedures to execute.

Low Priority: The team felt the process was slow, and, like all the teams, desired more supplier engagement.

The Suppliers Advisory Board wants more engagement so a fourth subcommittee will be formed to focus on supplier board member engagement.

The training/certification committee is working on developing a certification for suppliers called HERS Associate.

Frank O'Brien-Bernini made a motion that the board adopt suppliers advisory board proposal of a certification named HERS Associates as an open certification. RESNET staff will work with that subcommittee to define the designation and will present it to the board Philip Fairey seconded the motion. Motion passes by voice vote.

International Code Council/RESNET Partnership

Mark Johnson, International Code Council (ICC) presented on the ICC/RESNET Partnership

Mr. Johnson started his presentation by giving the RESNET Board of Directors a copy of the printed ANSI/RESNET/ICC Standard 301. Copies of the standard will also be available in their booth at the RESNET Conference as well as online.

Mr. Johnson provided a background on the International Code Council. The ICC wanted to establish training for code officials so they created a video and a one day training program for code officials.

RESNET and the ICC worked together to create standard 301 and he stated that it was a great collaboration and will provide compliance pathways for builders. He passed out to board members the recently published standard.

The ICC is excited about publishing the next ANSI/RESNET/ICC Standard 380 and developing the standard on the Water Energy Rating Index.

ENERGY STAR Homes Update

Jonathan Passe, Environmental Protection Agency presented the ENERGY STAR Homes Update

Mr. Passed gave an update on the numbers of ENERGY STAR Homes certified by year and the number of new partners in 2015.

He provided a review of Revision 8 implementation, successes, next steps and highlighted some new tools including a county level HVAC design temperature tool, new HVAC training video for raters, automated ESTAR HVAC design reports from sizing software.

EPA/RESNET coordination effort includes complaints, rater/provider status updates, the RESNET Registry now displays ENERGY STAR logo on certified homes and incorporating credit for HVAC QI in HERS Index.

Mr. Passe highlighted the new rater field app in development. The new tool will help raters quickly and easily collect high quality field data and documentation during the inspection of a home for both ratings and ENERGY STAR certification. It is planned to be released in mid-2017.

Projects in development for 2016 include manufactured housing, multifamily housing, thermal enclosure grading, and ENERGY STAR incorporating renewable energy technologies.

NORESCO Presentation on REM/Rate

Judith Porter & Amber Wood of NORESCO presented on REM/Rate and NORESCO. They gave an overview of NORESCO which is a unit of United Technologies Corporation and stated that NORESCO is committed to continuing and expanding support to RESNET and its industry participants. They reviewed the staff and management structure.

They highlighted that REM/Rate calculated the HERS Index for 81.7% of all homes rated in 2015 and that they have responded to 995 building science and support questions in 2015.

They reviewed the version history and apologized for delay of version 15 and they are coming out with 15.1 which will include water heating addendum.

Future considerations include a web application, widening support for state code compliance through custom code compliance reports, collaboration with RESNET, NREL and others. They remain committed to RESNET and their providers/raters.

Update on California/RESNET Harmonization

Jacob Atalla and Philip Fairey presented the update on the California /RESNET Harmonization. They are continuing their work with Martha Brook and the California Energy Commission (CEC). Mrs. Brook and Philip Fairey conducted analysis looking at differences and creating recommendations.

The recommendations are-
CEC should adopt:

- IECC 2006 as reference standard
- Other Reference Home specifications:
 - Quality Insulation Installation == “Improved” == “Class I”
 - RESNET appliance & plug loads
 - RESNET thermostat schedule (no setbacks)
- CEC must establish a fuel neutral water heater reference
- CEC should focus CA specific assumptions on Rated Home

The CEC Recommendations for RESNET are-

- RESNET should consider modifying:
 - nMUELS- energy cost valuation
 - Window operation assumptions - provide rating credit for ventilation cooling equipment
- RESNET should add HVAC verification protocols to give appropriate credit to rated home HVAC quality installations
- RESNET & CEC should continue to collaborate:
 - Loads & equipment efficiencies – especially important for existing home ratings
 - Appliance & plug load assumptions

Next steps include CEC finalizing recommendations, RESNET discussing CEC recommendations, RESNET makes decisions about short, mid and long term alignments with CA, CEC integrates recommended Reference Home specs into 2016 CalGreen Design Rating calcs and CEC updates HERS Whole House regulations/technical manual with recommended Reference Home specs

It is a sense Board of Directors that the SDC 300 should consider the HVAC amendment as a priority.

Update on Development of RESNET Water Efficiency Rating Index Guidelines

Jonah Schein, Environmental Protection Agency WaterSense presented the update on Development of RESNET Water Efficiency Rating Index Guidelines

Jonah Schein reviewed the goals of the committee which include leveraging the advances made in the ANSI/RESNET/ICC Standard 301, alignment with the general HERS methodology and providing a low bar for participation.

Mr. Schein showed both the committee structure as well as the workflow and explained the delay in producing the standard. The reasons are that the dominant source of data on residential water use is a study (REUWS I) published in 1999 from 1998 data so there is no IECC equivalent for water and building practices were much different then. The study will be updated later this year with 2013 data (REUWS II) and the committee will be able to use the data in pre-publication.

The straw man reference includes both indoor and outdoor water use developed from both the RESNET standard and the REUWS report. He concluded that the goals set by the committee are being met.

Next steps include deciding to call it “the WER index” or “WERI, reaching consensus in the modeling and reference subcommittee on the reference and referring the modeling approach to other subcommittees.

Report on RESNET - Appraisal Institute New Partnership

Scott Robinson, President of the Appraisal Institute reported on the RESNET/Appraisal Institute Partnership. Mr. Robinson described the relationship with RESNET and Appraisal Institute. The Appraisal Institute recognizes the value added to a home with a home energy rating.

The following are the elements of the partnership:

- RESNET and the Appraisal Institute will develop an access to the RESNET Registry so that residential real estate appraisers can search 24/7 in real time the following information:
 - The HERS Index score of a home
 - The HERS rating company that rated the home
 - The date the home was HERS Rated
 - The projected energy savings of the home
- The two organizations agreed to work together to present educational programs on real estate valuation topics and the HERS Index to appraisers, builders, developers and other interested individuals.

Washington Update

Carl Chidlow, Winning Strategies Washington gave the update from Washington. Mr. Chidlow reported that inversions are currently driving tax reform. He discussed several key players in legislation including Ways & Means Chairman Kevin Brady (R-TX), Finance Committee Ranking Member, Ron Wyden (D-OR) and Finance Committee Chairman, Orrin Hatch (R-UT).

In late 2013, RESNET decided to draft legislation to reform and improve 45L tax credit. The goals are:

- Permanence – no more on again, off again extensions, year by year.
- Self correcting – credit should adjust as technology improves and market penetration increases.
- Performance based – tied to HERS and current ICC code
- Eliminate proscriptive elements

Leading Builders of America (LBA) and NRDC formed working group to draft improvements. NAHB has been consulted and working through drafts with them. Concept paper has been socialized with staff for both Hatch and Wyden. Mr. Chidlow stated that 45L must now survive on its own merits.

45L was combined with many other tax credit extensions which may be problematic. The tactics for keeping and improving 45L include-

- Working with Energy Efficiency champions on Senate Finance Committee to make the preservation of 45L a “do or die” mission.
- Identifying the RESNET and LBA members with influence in Wisconsin. Engage them in senior level conversation with House Chairman Ryan.
- Bringing industry groups to conversation with Chairman Hatch and other pro-business senators on the Committee.
- Convincing other stakeholders to join coalition.
- Utilizing RESNET board member relations with Hatch and other key players.

Adjournment

Mark Jansen made a motion to adjourn. Meeting adjourned at 5:00 PM