



Setting the Standards for Home Energy Efficiency

Minutes of RESNET Board of Directors Meeting

April 9, 2020

Members Present	Members Absent	Staff Present
Jim Amarin Jacob Atalla David Beam Dave Bell Thiel Butner Philip Fairey Matt Gingrich Emelie Cuppernell Glitch David Goldstein John Hensley Roy Honican Mark Johnson Cy Kilbourn Abe Kruger Clayton Morris Paulette McGhie Chris McTaggart Curt Rich Brian Shanks	Clayton Traylor	Steve Baden Emma Bennett Scott Doyle Laurel Elam Billy Giblin Cardice Howard Neal Kruis Ryan Meres

Meeting Called to Order

Matt Gingrich, RESNET Board President, called the meeting to order at 2:02 p.m. Eastern Time.

Roll Call

Philip Fairey, RESNET Board Secretary, called the roll. A quorum was present.

Approve Agenda

Philip Fairey made a motion to approve the agenda that was sent prior to the meeting. Cy Kilbourn seconded the motion. Motion approved by a voice vote.

RESNET Anti-Trust Policy

Curt Rich reminded the RESNET Board of the RESNET Anti-Trust Policy that was sent prior to the meeting.

Approval of Draft February 11, 2020 Board Meeting Minutes

Philip Fairey made a motion to approve the draft minutes, as modified, from the February 11, 2020 board meeting that were sent prior to the meeting. David Beam seconded the motion. Motion approved by a voice vote.

Recommendation of the RESNET Software Consistency Committee on Implementation of the Hourly Calculation Policy (Attached)

Neal Kruis, RESNET Energy Modeling Director reviewed the RESNET Software Consistency Committee's (SCC) recommendation on implementing hourly calculation policy that was sent prior to the meeting (attached as Appendix A).

The SCC has been investigating the changes in HERS Index calculations following the January 1, 2020 requirement for hourly calculations. One software tool needed to replace their calculation engine to comply with the hourly requirement. Limited analysis indicates that HERS scores have become less consistent as a result of the requirement. In response, Neal was formally requesting that the RESNET Board of Directors consider delaying the permit date requirement for hourly HERS rating calculations until the SCC can further resolve inconsistencies across the accredited HERS software engines.

The SCC had unanimously proposed;

- Temporarily reinstate the use of accredited non-hourly software for RESNET HERS ratings through October 1, 2020.
- Task the SCC with accomplishing the following by October 1, 2020:
 - Identify why the new hourly software engine shows significantly different HERS scores, and resolve the inconsistencies:
 - Modify Publication 002, to including the following:
 - Updated acceptance criteria to allow state-of-the-art simulation engines to pass
 - Update all accreditation tests to be consistent with RESNET Standard 301-2019
- Defer the Mandatory Compliance Date for RESNET Standard 301-2019 (and other relevant components of MINHERS set to expire on July 1, 2020) until October 1, 2020.

Chris McTaggart commented that he would prefer a date of January 1, 2021 because mid-year changes can cause confusion and it would allow for more time to implement the policy. Philip Fairey stated that this would be consistent with the MINHERS policy, however, the use for the 2019 standard has already passed so software can implement this without the hourly calculation requirement.

Thiel Butner asked if the EPA was made aware of this change. Chris McTaggart suggests informing the EPA and they could come up with the recommendation if necessary. Steve Baden stated that he would contact EPA on this.

As a result of the discussion, it was agreed that the following recommendation did not require a formal Board vote:

- Task the SCC with accomplishing the following by October 1, 2020:
 - Identify why the new hourly software engine shows significantly different HERS scores, and resolve the inconsistencies:
 - Modify Publication 002, to including the following:
 - Updated acceptance criteria to allow state-of-the-art simulation engines to pass
 - Update all accreditation tests to be consistent with RESNET Standard 301-2019

Philip Fairey stated that Standard 301-2019 did not require hourly simulation. With the information the Board agreed that it did not need to take action on the proposed deferring the mandatory compliance date for the ANSI/RESNET/ICC Standard 301-2019.

Roy Honican made a motion for the RESNET Board of Directors to change the original policy for hourly software calculation required for homes permitted after January 1, 2020 be moved to January 1, 2021. John Hensley seconded the motion.

The RESNET Board discussed the motion and the extension of deadline.

After discussion a voice vote was taken. Cy Kilbourn and Abe Kruger voted against the motion and Philip Fairey abstained. The remainder of members voted in favor of the motion. The motion was passed.

Amended Agenda

Due to time constraints, Steve Baden recommended to remove the following agenda items into a written report:

- ***RFP on Development of New Automated QA Tool***
- ***Status of North Carolina Building Performance Association Grant***
- ***Provisions of \$2.2 Trillion COVID-19 Recovery Legislation***

The remaining agenda item to be discussed is RESNET's Response to COVID-19 Pandemic – focusing solely on the 45L waiver discussion.

Philip Fairey made a motion to amend the agenda as proposed by Steve Baden, RESNET Executive Director. Thiel Butner seconded the motion. Motion passed by voice vote.

RESNET's Response to COVID-19 Pandemic – Temporary Waiver of 45L Reporting and Recording Requirements Discussion

Steve Baden provided the background on waiving the 45L record keeping and reporting requirement in Sections 102.1.4.9 and 904.9.8 of the RESNET Mortgage Industry National Home Energy Rating Standards. The goal was to temporarily reduce administrative and quality assurance burdens during the disruption caused by COVID-19 emergency. Mr. Baden reported that feedback was received that the waivers did not reduce the administrative burden and has led to confusion.

Steve Baden asked for a sense of a board on whether or not the waiver should be lifted.

Clayton Morris stated that lifting the waiver might cause too much confusion. Emelie Glitch said she has received a lot of questions regarding the 45L waiver of non-HERS Rated homes that RESNET does not have jurisdiction over and would suggest clarifying the language.

Steve Baden suggested retracting the statement, with language clarifying that RESNET does not oversee requirements for non-HERS rated homes. Steve asked if any other board members would oppose rescinding the language and drafting language to send. It was the consensus of the Board to lift the waiver.

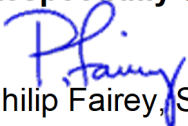
New Business

No new business was presented.

Adjournment

Abe Kruger made a motion to adjourn. Meeting was adjourned at 3:28 p.m. Eastern Time.

Respectfully Submitted,


Philip Faurey, Secretary

Attachment A

TO: RESNET Board of Directors
FROM: Neal Krus, PhD--RESNET Energy Modeling Director (on behalf of the RESNET Software Consistency Committee)
DATE: April 7, 2020
SUBJECT: Request to delay the permit date requirement for hourly HERS rating calculations

The RESNET Software Consistency Committee (SCC) has been investigating the changes in HERS Index calculations following the January 1, 2020 requirement for hourly calculations. One software tool needed to replace their calculation engine to comply with the hourly requirement. Our limited analysis indicates that HERS scores have become less consistent as a result of the requirement. In response, I am formally requesting that the RESNET Board of Directors consider delaying the permit date requirement for hourly HERS rating calculations until the SCC can further resolve inconsistencies across the accredited HERS software engines.

I want to share some observations from my perspective to consider:

- I believe that all software providers have demonstrated that they were able to comply with the hourly requirement by the January 1, 2020 deadline.
- The new hourly simulation engine was accredited through the “Process for Exceptions and Appeals” because it did not fall within the established acceptance criteria. Exemptions were justified, in part, because the current acceptance criteria are known to be outdated (based on engines that don’t use state-of-the art simulation practices). The SCC is in the process of updating these criteria and expects that, when the new criteria are enforced, other engines may need to make adjustments that could also cause changes in calculated HERS Indices.
- There is no evidence that the subsequent inconsistencies are a result of negligence in adhering to the requirement.
- I believe that, overall, the hourly calculation requirement has served to increase the rigor of the underlying calculations of HERS Indices.
- The existing software testing protocols are not designed to assess the impact of the software changes on the HERS Index. For the first time, the SCC has utilized a larger test suite of 80 homes with different configurations and in different climates to compare all accredited software engines. This test suite is not comprehensive, but it has informed the recommendations described in this document.
- The processes of both preparing for the hourly requirement and comparing engine results after enforcement of the requirement has highlighted some areas of RESNET’s standards and testing procedures that warrant further interpretation and clarification.
- We have not yet determined whether the cause of inconsistency is due to a problem within the new hourly software or if it is due to some combination of 1)

justifiable differences in the underlying building physics calculation methodologies and 2) justifiable differences in the interpretation of the RESNET 301 standard.

While the individual software change motivated by the hourly requirement resulted in HERS scores that are significantly different and decrease overall consistency, I believe the hourly requirement will over time result in not only greater consistency, but also a stronger, more reputable HERS product.

The primary concern of the SCC under the current requirements is the reputation of RESNET's HERS Index amongst providers, raters, and builders. Part of that reputation is tarnished when sporadic software updates cause meaningful changes in HERS Indices. To help alleviate this issue, the SCC would like to reintroduce the hourly requirement along with other changes that collectively improve HERS Indices consistency AND when the RESNET community is already expecting changes (e.g., mandatory compliance with RESNET Standard 301-2019).

Resolving this and future inconsistencies will continue to depend on the comparative analysis of several implementations of the HERS Index calculation to determine whether the inconsistency is related to algorithmic differences in the calculation of building physics or in the interpretation and implementation of the RESNET 301 Standard. I strongly believe that continuing this collaborative modeling approach is the only way to improve consistency while (possibly more importantly) also improving the accuracy of HERS Index calculations.

My recommendation to the board includes the following measures:

- Temporarily reinstate the use of accredited non-hourly software for RESNET HERS ratings through October 1, 2020.
- Task the SCC with accomplishing the following by October 1, 2020:
 - Identify why the new hourly software engine shows significantly different HERS scores, and resolve the inconsistencies:
 - Modify Publication 002, to including the following:
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