**RESNET® SDC 1550 Technical Task Group Meeting Minutes**

May 27th, 2025

12:30 PM – 1:45 PM ET

[MEETING RECORDING](https://zoom.us/rec/share/cDIA8wLLlVvoYv9YzYjAUDu2wpkwlwEiSqNgyuPXas_pFkvrrk7n7dh7E5oP-VTZ.q3ON0KnnvX4goR10)Passcode: 0?Z@E11q

Present: Brian Shanks, Philip Squires, Alexis Minniti, Corey Self, Matthew Cooper, Megan Cordes, Chris Magwood, Tracy Huynh, Yatharth Vaishnani, Karla Butterfield, David Eisenberg, Ari Rapport, Jacob Racusin, Andy Buccino, Charlie Haack, Erin Bordelon, Amanda Hickman

Staff: Katie Stewart

**Meeting started at 12:31 PM ET**

[Link to Comments](https://www.dropbox.com/scl/fi/q3hav075rr9lqavu8v7zt/250306_1550-Comments_PDS01.xlsx?rlkey=qsse0tkxemk66xzfqyqlpixze&e=2&st=0he7g79s&dl=0)

[Link to Draft Standard PDS-01](https://www.dropbox.com/scl/fi/4ine3cvrj4hs91lh8v8t2/250306_PDS02-RESNET-C1550.docx?rlkey=ldaow0956tyw1qiflzc69ewco&e=2&st=bldtfv8p&dl=0)

Resume addressing comments

**Row 138, Column L – Balcony, Porches, Ramps, and Drip Line.**

The issue here concerns what should be included or excluded within the “drip line.” The current language is inconsistent: it shows exclusions for areas within the drip line when, in fact, areas inside the drip line should generally be included, while areas outside it are excluded. The language around the drip line needs to be clearer.

Consider placing balconies/porches/decks in the “excluded” section, as these areas are sometimes included, but the criteria for their inclusion could cause confusion. Footnote A1 addresses the concept of extensions beyond the drip line (such as decks/porches/patios/balconies), but the footnote itself only addresses the roof, according to Tracy Huynh. There was agreement that elements beneath the house (e.g., a deck attached to the building) should be included, unless they are independent structures.

**Column L Row 41 – Windows in Foundation.**

The commenter feels the windows in the foundation should be included, but these are part of area calculations, and double counting the concrete should be avoided. The intent is to keep these in the section but address them separately (refer to Table 10.1.1, Dimension Takeoff Guidance).

It would be helpful to clarify this language further. Consider “unstriking” the language and keeping the explanation intact, as suggested by Mathew Cooper and Ari Rapport, confirming that fewer words should be used to reject the recommendation. In the context of HERS® ratings, we should either exclude non-wall areas or include them, depending on the specific wall area.

**Column L Row 46 – Certified Rater and Approved Inspector**

There was a discussion about the use of "Certified Rater" versus "Approved Inspector." The intention was to ensure that only certified raters within the RESNET ecosystem are part of the process to maintain Quality Assurance (QA).

The ambiguity about circular references needs to be addressed. As Matthew Cooper pointed out, using certified raters ensures compliance with RESNET QA standards. If "Approved Inspector" is to be used, it should fall under a different QA process.

**Column L Row 50 – Exclusion of Fasteners**

The current section excludes fasteners, but the commenter requested more specificity. Chris Magwood explained the commenter's request for a clearer definition of fasteners, including nails, screws, staples, washers, etc.

Since fasteners are difficult to quantify, leaving the language in general (as "fasteners") might be the better option, as Chris suggests. The Task Group does not want raters to count individual fasteners, and there's insufficient data to support detailed inclusion. To avoid confusion, either specify a list or retain the broader language.

**Column L Row 54 – Garage Area and GFA Calculations**

The Task Group’s intention is to include attached garages in the Gross Floor Area (GFA) calculation but exclude detached garages. However, there is ambiguity regarding detached garages, particularly in terms of embodied carbon calculations.

The Task Group should clarify the definition of garage and ensure consistency across all standards. There was an agreement to include attached garages and exclude detached ones, unless they are outside the "drip line." A potential solution would be to update the definition of GFA to explicitly include attached garages. The term “garage” was not initially part of the definition, but further refinement may be needed to avoid confusion. Chris also pointed out that accessory dwelling units (ADUs), whether livable or not, should be excluded from the table in Section 5.

1. **Argument on Intensity:** Philip Squires raised concerns about how embodied carbon is calculated for garages versus interior spaces. If the garage is attached or detached, it may affect the carbon intensity, and this needs to be considered when calculating the total embodied carbon.
	1. This point may require further clarification in terms of how the intensity differs based on whether the garage is included in the GFA calculation or not. Philip's point about whether the garage has living space above is also important—consider including such cases under the same criteria for carbon intensity calculation.
2. **Concern about Homebuyer Clarity:** Ari emphasized that the homebuyers must clearly understand which spaces (like garages) are included in carbon calculations. There is potential confusion if the numbers imply a garage was excluded when it was not, or vice versa.
	1. This is an important issue and should include language that makes it clear whether garages are included or excluded in the calculation. Transparency is key to ensuring homebuyers can compare carbon intensity figures accurately.
3. **Clarification on Detached Parking:** Tei stated that the Task Group is leaning towards including detached parking as one exception to the drip line and excluding everything else outside it.
	1. This clarification needs to be carefully communicated to avoid loopholes. Perhaps adding language like, "Detached parking is an exception to the rule and can be included if within the defined area," would help clarify this point.

**Column L Row 87 – Editorial Notes**

Brian Shanks noted that some editorial comments in Row 87L are no longer relevant and need verification. Remove unnecessary editorial notes if they do not add value to the standard or clarification process. If "shall" has been replaced with "may," we don't need to address it further unless it's contextually significant.

**Column L Row 111 – Inspection of Embodied Carbon Assessment**

The phrase "inspection of an embodied carbon assessment" might not be the best choice. Tracy suggested replacing "inspection" with "assessment" to avoid confusion.

Given the nature of carbon assessments, "assessment" seems more appropriate than "inspection." This change would make the language clearer and more accurate in describing the process.

**Row 121 & 122 Responses**

There is concern about double jeopardy when using the highest values for product calculations in the context of different scenarios. It might help to find an alternative word for “scenarios” to reduce redundancy and improve clarity. Consider using terms like "contexts" or "conditions" instead.

**Row 125 – Resolution on Percentile**

The issue regarding the 80th percentile has been resolved, but the response must be consistent with the decision to remove the 80th percentile from the calculation. Ensure that all references to the 80th percentile are consistent throughout the document. If it has been removed, the language should reflect that decision.

**The Task Group was polled via roll call on whether the proposed public comment responses should be sent as written. Below are the results of the vote:**

|  |  |  |  |
| --- | --- | --- | --- |
| Yes (16) | No (0) | Abstain (0) | Not Voting (1) |
| Brian Shanks |  |  | Erin Bordelon |
| Philip Squires |  |  |  |
| Alexis Minniti |  |  |  |
| Corey Self |  |  |  |
| Matthew Cooper |  |  |  |
| Megan Cordes |  |  |  |
| Chris Magwood |  |  |  |
| Tracy Huynh |  |  |  |
| Yatharth Vaishnani |  |  |  |
| Karla Butterfield |  |  |  |
| David Eisenberg |  |  |  |
| Ari Rapport |  |  |  |
| Jacob Racusin |  |  |  |
| Andy Buccino |  |  |  |
| Charlie Haack |  |  |  |
| Amanda Hickman |  |  |  |

**Proposed Revised Formula for Refrigerant Calculations**

Jacob Racusin led the group through the final version of the refrigerant calculations discussed at the end of the previous meeting. Jacob and Tracy have developed two revised formulas for handling refrigerant inputs. Both approaches aim to improve accuracy and usability in refrigerant charge assessments.

1. The first formula assumes that the user inputs the refrigerant charge directly from the equipment’s specification sheet. This method also requires the user to calculate the contribution from the line set, applying a correction factor based on the diameter of the lines. Since the liquid and vapor lines are not equivalent in terms of volume or behavior, the formula incorporates adjustments to account for these differences. This approach is designed to provide a more granular and technically accurate estimate of total refrigerant charge, especially for systems with variable or non-standard line configurations.

2. The second formula is a more streamlined method used when the line's set length must be factored in, but the primary refrigerant charge still comes directly from the equipment specifications. In this approach, the additional refrigerant volume due to the line set is estimated by multiplying the length of the line by the square of its diameter and a constant factor of 1.54. This factor effectively solves the volume of the line set based on its cross-sectional area. To convert this volume into mass, the result is multiplied by the refrigerant’s density (represented as variable P). For example, the average density for R-410A is approximately 194.4 kg/m³. Once mass is determined, it can then be multiplied by the Global Warming Potential (GWP) of the refrigerant to assess environmental impact. However, accurately determining density can be challenging, as the ratio of liquid to vapor varies by refrigerant and system design. This variability introduces uncertainty into the calculations and is considered the most ambiguous element of the method.


**Next Steps**

Chris advised Jacob to loop in Mike Browne regarding the American National Standards Institute (ANSI)/RESNET/ International Code Council (ICC) 310 standard. Mike may be able to assist with reviewing the proposed refrigerant calculation methods to ensure they align with the 310 methodologies. The goal is to have a proposed calculation prepared for review ahead of next week's meeting.

As a final item, Chris noted that a draft response was sent to the Standards Development Committee (SDC) concerning the single "No" vote received. Edits and comments on the draft have already been submitted.

If anyone else is interested in reviewing these inputs, they will be compiled into a revised version and circulated for group feedback prior to next week’s meeting.

**Meeting adjourned at 1:40 PM ET**