Revise Section R406.3 of the 2018 IECC as follows:

R406.3 Energy Rating Index. The Energy Rating Index (ERI) shall be determined in accordance with RESNET/ICC 301. ~~except for buildings covered by the *International Residential Code*, the ERI Reference Design Ventilation rate shall be in accordance with Equation 4-1.Ventilation rate, CFM = (0.01 × total square foot area of house) + [7.5 × (number of bedrooms + 1)] **(Equation 4-1)**~~

Reason Statement:

The language being proposed for deletion was approved during the 2018 IECC development cycle. Here is the proponent's reason statement from the proposal:

"As written the ERI ventilation rate specification is in conflict with the ventilation rate specified by the IRC. The current language references ANSI/RESNET/ICC Standard 301 which references the ASHRAE 62.2-2013. The ventilation rate in the ASHRAE Standard 62.2 is significantly higher than the ventilation rate in the IRC. The IRC rate was reaffirmed in Group A changes this code cycle. Without this ventilation rate correction, the higher ventilation rate would use more energy unnecessarily and thereby increase ERI scores for no good reason. Interestingly the ASHRAE 62.2-2010 used the same rate as is in the current IRC.

Third party organizations should not set ventilation rates for the IRC and the IECC. Ventilation rates in the IRC and IECC should be set by the ICC code development process. This proposal brings the IECC/IRC ERI calculation into compliance with the IRC ventilation rate by using the same ventilation equation as will be in Section 1507.3.3 of the 2018 IRC. The published committee reason expected this update, stating: "The difference in ventilation rate might need to be resolved but the experts can solve that through public comments." This is the public comment they were referring to."

The proponent makes this statement: "Without this ventilation rate correction, the higher ventilation rate would use more energy unnecessarily and thereby increase ERI scores for no good reason." In a study conducted by the Florida Solar Energy Center (FSEC), it was found that this change, as included in the 2018 IECC, actually increases ERI scores from 2-10 points, depending on climate zone. The reason for this is that the rated home under Standard 301 is not allowed to use a ventilation rate less than ASHRAE 62.2-2013. Since the 2018 IECC changed the reference home to require less ventilation than the rated home, the home will be shown to use more energy and increase the ERI score.

In a second statement the proponent says: "Third party organizations should not set ventilation rates for the IRC and IECC." This statement is also false. ANSI/RESNET/ICC Standard 301 does not require any specific ventilation rate, nor does RESNET take a position as to proper ventilation rates. RESNET's Standard Development Committee 300 chose to reference the most recent ANSI-approved standard for ventilation rates which is ASHRAE 62.2-2013. The standard does not require homes to meet those ventilation rates, instead, the standard simply doesn't give any "credit" (in the form of lower index scores) for ventilation rates that are less than required by ASHRAE 62.2.

When the proponent of this change in the 2018 cycle, submitted a proposal to change Standard 301, SDC 300 rejected the change with the following reason statement:

"ASHRAE Standard 62.2 is the sole American National Standard on ventilation for indoor air quality in low-rise residential buildings. RESNET has chosen to not conflict with this indoor air quality standard. ANSI/RESNET/ICC Standard 301 does not require any specific level of outdoor air ventilation. However, in order to not encourage outdoor air ventilation levels that do not meet the indoor air quality requirements of ASHRAE Standard 62.2, RESNET has chosen to provide no Energy Rating Index credit

for ventilation air flow rates that are less than those required by ASHRAE Standard 62.2. There is no other American National Standard on ventilation for indoor air quality and RESNET has chosen to not provide credits for outdoor air ventilation rates that do not achieve this level of indoor air quality. ANSI/RESNET/ICC Standard 301 does not "require" any level of outdoor air ventilation. Rather it simply stops giving outdoor air exchange energy reduction credit at the 62.2 ventilation specification. The commenter would better seek resolution of the issue raised by this comment by working with the ASHRAE to amend ASHRAE Standard 62.2."

This change did not achieve the proponent's stated objectives during the 2018 code development cycle. By NOT approving this change to delete the ventilation requirement for the reference home, the committee would be allowing Section R406 to be out of alignment with Standard 301.

RESNET acknowledges that the scientific and political discussions regarding the "correct" ventilation rate for residential homes is contentious. Neither RESNET nor standard ANSI/RESNET/ICC 301-2014 seek to determine the correct ventilation rate for homes.

At the time ANSI/RESNET/ICC 301-2014 was published, the published American National Standard for *Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings* was ASHRAE 62.2-2013. To align with published American National Standards for indoor air quality, RESNET chose to adopt the ventilation rates prescribed by ASHRAE 62.2-2013. RESNET considers this decision to be procedural. RESNET as an organization acknowledges ventilation is important for homes that are built to modern building energy code standards, which require fairly tight envelopes. However, RESNET is neutral regarding the "correct" ventilation rate. To facilitate this neutrality, RESNET Standards do not penalize homes with ventilation rates that are less than ASHRAE 62.2-2013 Standard minimum ventilation rates but RESNET also does not provide energy credit for such homes.

Regardless of which rate may be best, the ERI calculation procedure does not establish requirements for home ventilation rates. Rather such requirements are established by building code authorities and model codes such as set forth in Section R403.6 of the 2018 IECC. The ventilation rates used in the ANSI/RESNET/ICC 301-2014 procedure do not change or modify any requirements of building codes or standards.