

## Energy Code FAQs

What are the new targets for house air leakage?

- The new target for house air leakage is < 5 ACH (Amended by GA from <3 ACH)
- Refer to Section R402.4.1.2 of the 2015 International Energy Conservation Code and acknowledge the corresponding Georgia amendments.

What are the new targets for duct air leakage?

- The new target for duct leakage is 6 CFM per 100 sq. ft. of conditioned floor area. The new code no longer recognizes the leakage to outdoors test. The total leakage test can be performed at the rough-in stage of construction or at the post-construction stage. The target remains the same for either test.
- Duct testing is not required if the air handler and duct system is located completely within the thermal envelope, such as a conditioned crawlspace or attic.
- Refer to Sections R403.3.3 and R403.3.3 of the 2015 International Energy Conservation Code and acknowledge the corresponding Georgia amendments.

When must mechanical ventilation be installed?

- When the air exchange rate is less than 3 ACH. This The methods and rates for mechanical ventilation did not change.
- Refer to Section M1505 of the 2018 International Residential Code.

What are the new targets for ceiling/attic insulation?

- R38 is now required in the ceiling. If using a standard truss, the exterior wall top plate must be covered by at least an R30.
- R30 is deemed to comply if the insulation covers 100 percent of the ceiling area by using a raised-heel or energy truss.
- Ceiling insulation less than R38, but no lower than R30, can be installed using a UA trade-off approach. The lower values in the ceiling must be made up for in other areas.
- Air-impermeable insulation such as spray polyurethane foam may be installed to R20 in a vaulted, unvented attic roofline. The lower values in the ceiling must be made up for in other areas.
- Refer to Sections R402.2 of the 2015 International Energy Conservation Code and the revised Table R402.1.2 from the Georgia State Supplements and Amendments.

What is the new target for wall insulation?

- The target for wall insulation remains R13. This a Georgia amendment, down from R20 (or R13 with R5 continuous in the generic 2015 IECC) in zones 3 and 4.
- Refer to Sections R402.2 of the 2015 International Energy Conservation Code and the revised Table R402.1.2 from the Georgia State Supplements and Amendments.

How do I use the UA trade-off compliance pathway?

- If a building component falls below the prescriptive value but not below the minimum value, the loss of U-factor can be traded off with other building components.

- Mandatory requirements, such as air sealing and duct sealing, cannot be traded off.
- Depending on the scope of the project, RESCheck can be used. RESCheck does not acknowledge the Georgia amendments, so RESCheck might not always be an option.
- If RESCheck cannot be used, the UA trade-off calculations will have to be shown to the code official. That can be done by using a spreadsheet such as the one Southface has developed. The authority having jurisdiction determines if the documentation complies with the code.
  - If using the UA trade-off spreadsheet, it is recommended to use RESCheck to determine U-factors and input those values into the calculations. This method is consistent with the ASHRAE Handbook of Fundamentals and includes thermal bridging effects of framing materials.

When is pipe insulation required on hot water piping?

- Insulation with an R-value of R3 or higher is required when:
  - Piping is  $\frac{3}{4}$  inch and larger
  - Piping serves more than one dwelling unit
  - Piping is located outside the conditioned space
  - Piping that serves a distribution manifold
  - Piping located under a slab
  - Buried in piping
  - Supply and return piping in recirculation systems other than demand recirculation systems
- Refer to Section R403.5.3.

Are additions and alterations subject to code compliance?

- Additions must meet the prescriptive requirements
  - Additions comply if any of the following is demonstrated:
    - The addition alone complies with the provisions of this code
    - The existing building and addition together comply as a single building
    - The existing building and addition together use no more energy than the existing building
- Any alterations on an existing home must comply with the new energy code with some exceptions:
  - Storm windows over existing fenestration
  - Surface-applied window film installed on existing single pane
  - Exposed, existing ceiling, wall or floor cavities if already filled with insulation
  - Where existing roof, wall or floor cavity isn't exposed
  - Roof recover
  - Roofs without cavity insulation and neither sheathing nor insulation is exposed during the reroofing
- How do I verify compliance with the energy code?
  - Building tightness (blower door) and duct tightness (duct blower) testing shall be conducted by a certified duct and envelope tightness (DET) verifier.

- Refer to Section R402.4.1.2 and R403.3.3
- The Georgia amendments define a certified DET verifier as:
  - A Home Energy Rating Systems (HERS) rater
  - A Building Performance Institute (BPI) Building Analyst, or having a BPI Infiltration Duct Leakage (IDL) certification
  - Successfully complete a certified DET verifier course that is approved by the Georgia Department of Community Affairs.
- For a list of DET verifiers certified by Southface, please visit:  
[https://www.google.com/maps/d/viewer?mid=179qtViKoVPhu14VQ5KaKpr\\_6tnhoxTce&usp=sharing](https://www.google.com/maps/d/viewer?mid=179qtViKoVPhu14VQ5KaKpr_6tnhoxTce&usp=sharing)
- For more information about DET verifiers, please visit:  
[https://www.dca.ga.gov/sites/default/files/duct\\_and\\_envelope\\_tightness\\_information.pdf](https://www.dca.ga.gov/sites/default/files/duct_and_envelope_tightness_information.pdf)