There can be a lot of uncertainty and misinformation when new energy codes take effect. Below is a summary of the most important changes impacting the building envelope requirements of Virginia’s Uniform Statewide Building Code (USBC). The effective date for compliance with the new code is September 4, 2018.

**TOP 2 TAKEAWAYS OF THE NEW USBC**

1. **Energy Rating Index (ERI) Path and renewable energy are new additions.**
   This new ERI compliance path represents a huge change in the Virginia Uniform Statewide Building Code. Market adoption of this approach won’t occur overnight but understanding how builders can cost-effectively meet the ERI target of 62, with and without renewable energy, is critical to understanding the impact this will have on design and specification decisions.

2. **Insulation levels remain the same.**
   Prescriptive R-values and U-factors remain unchanged. Ceilings: R-38; Wood-Framed Walls: R-15 or R-13+1; Floors: R-19; Basement walls: R-10 continuous or R-15 cavity fill.

**KEY CHANGES TO BUILDING ENVELOPE REQUIREMENTS OF THE 2015 VIRGINIA USBC**

<table>
<thead>
<tr>
<th>CODE PATH</th>
<th>2017 CODE SECTION</th>
<th>CHANGE SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Rating Index (ERI)</td>
<td>R406</td>
<td>Creates new compliance path, the ERI, with compliance target of 62 (rather than 54 in 2015 IECC model code).</td>
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<td></td>
<td>R406.4 – Footnote a</td>
<td>When the ERI compliance path is used, insulation levels must meet or exceed 2009 International Energy Conservation Code (IECC) model code prescriptive requirements. If on-site renewable power is used (e.g., solar), insulations levels must meet or exceed 2015 IECC requirements (i.e., R-49 ceilings, R-20 or 13+5 walls, R-19 floors), which is higher than the insulation levels used for the prescriptive path alone.</td>
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KNOWLEDGE. LEADERSHIP. CONFIDENCE.
THE ENERGY RATING INDEX provides a new path for code compliance. If you are using the ERI path, you must achieve a certain numerical score, from 0-100, to achieve energy code compliance. The score of 100 on the scale is designed to align with the 2006 IECC model code. With ERI, a lower score means a more energy efficient home. In Virginia, the target ERI score is 62, and RESNET-accredited software is used to calculate the ERI score. While the ERI is a performance path approach, it also carries certain mandatory elements. For example, if a builder uses the ERI path, the insulation levels must still meet or exceed the prescriptive levels found in the 2009 IECC.

How does it relate to HERS?

Technically speaking, the ERI path is distinct from the Home Energy Rating System (HERS), as other approved home rating programs could, in theory, be used for ERI compliance. As a matter of practice today, using the ERI path means builders need to use HERS for demonstration of building code compliance.

What do ERI and HERS have to do with renewable energy?

The HERS system allows for the use of renewable energy to reduce your score, so effectively ERI does as well. However, to ensure that renewable energy is not used as a substitute for more permanent and reliable energy efficiency measures, the code contains backstop provisions. If ERI is used for compliance, and renewable energy is incorporated, builders must construct a building envelope that meets the prescriptive envelope requirements of the 2015 IECC.

This summary is offered for informational purposes only. It does not purport to be an exhaustive analysis of code changes or provide advice that will ensure guaranteed compliance with any energy code provision. Please consult with local authorities before finalizing your installation plans.

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