There can be a lot of uncertainty and misinformation when new energy codes take effect. Below is a summary of the most important energy and building envelope requirements of the 2019 Maryland Building Performance Standards. Maryland adopted the 2018 IECC with changes to the air exchange rate on March 25, 2019. Local jurisdictions have until March 25, 2020 to make local amendments and enforce the code.

**TOP 5 TAKEAWAYS OF THE NEW ENERGY CODE**

1. **Prescriptive Insulation Requirements.**
   The envelope prescriptive insulation requirements remained the same as the previous code.

2. **Prescriptive Window Requirements.***
   The prescriptive window requirement changed to a U-factor of 0.32 in climate zone 4 and 0.30 in climate zone 5.

3. **Air Exchange Rate.**
   The required air exchange rate was changed so it can be traded off up to a maximum level of 5 ACH50 in either the performance or ERI paths.

4. **Duct Leakage Rate.**
   Ducts are required to have a total leakage rate of less than or equal to 5 CFM25/100 SF of duct and a leakage rate to the outside of less than or equal to 4 CFM25/100 SF of duct. R401 through R404 still need to be met when using the ERI compliance path.

5. **Energy Rating Index (ERI).**
   Homes built in Maryland must have an ERI of less than or equal to 62 unless located in Garrett County where they are required to have an ERI of less than or equal to 61.

*All of Maryland is within Climate Zone 4, except for Garrett County, which is in Climate Zone 5.

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**KEY CHANGES TO BUILDING ENVELOPE REQUIREMENTS OF THE 2019 MD ENERGY CONSERVATION CODE**

| CODE PATH | 2018 IRC CODE SECTION BUILDING ENVELOPE | CHANGE SUMMARY
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Prescriptive</td>
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<td>ALL COUNTIES EXCEPT GARRETT</td>
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<tr>
<td>R402.1.2 – Wood Frame Wall</td>
<td>R-values &amp; U-factors</td>
<td>R-values &amp; U-factors</td>
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<tr>
<td>R402.1.2 – Ceilings</td>
<td>R-values &amp; U-factors</td>
<td>R-values &amp; U-factors</td>
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<tr>
<td>R402.1.2 – Basement Walls</td>
<td>R-values &amp; U-factors</td>
<td>R-values &amp; U-factors</td>
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<tr>
<td>R402.1.2 – Crawl Space Walls</td>
<td>R-values &amp; U-factors</td>
<td>R-values &amp; U-factors</td>
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<tr>
<td>R402.1.2 – Windows &amp; Sliding Glass Doors</td>
<td>U-factor</td>
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Note: All R-values are minimums and U-Values maximums.
WHAT IS ERI?

The Energy Rating Index (ERI) path provides an alternative path for code compliance. When using the ERI path, the building must meet 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. Certified software needs to be used to determine code compliance. In Maryland, the target ERI score is 62 in Climate Zone 4 and 61 in Climate Zones 5 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 International Energy Conservation Code.

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 to demonstrate building code compliance.

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

The HERS rating system allows for the use of renewable energy to reduce the building’s score. However, to ensure that renewable energy is not used as a substitute for more permanent and reliable energy efficiency measures, the code contains minimum provisions for the building envelope.