Tips for Energy Code Compliance Higher Profits, Healthier Homes, Happier Clients

Building to the statewide energy code goes a long way to assuring a new home meets your client's expectations for a safe, healthy and comfortable living environment. The good news is that builders are doing a great job of meeting energy code requirements most of the time. However, non-compliance can result in call-backs and added costs to you, the builder.

A 2017 Dept. of Energy study showed newly-built homes in Kentucky were often non-compliant in these five areas:



Common Issues

High efficiency light bulbs are not being installed as required – 60% of new homes were non-compliant.

HVAC equipment is being over-sized – 90% of new homes had HVAC equipment that was oversized. The average units were 1.2 tons oversized, costing builders \$30 million annually.



HVAC

Lighting

Ventilation is inadequate – Up to 90% of new homes may have inadequate ventilation systems.

Insulation installation needs greater attention to detail – 65% of wall insulation failed to meet installation standards.



Duct sealing needs improvement – 65% failed to meet a 12 CFM25 standard for ducts in conditioned space, and 39% failed to meet the standard for ducts in unconditioned space.

How to Improve Compliance

Install at least 50% high efficiency bulbs (LED or similar bulbs)

Make sure your HVAC contractor is calculating the proper size unit (ACCA Manuals J & S) for each home you build. That is the only way proper sizing can be assured. The old "rules of thumb" will not work for the way new homes are being built.

Whole house ventilation is required for homes with air leakage less than 5.0 ACH50. Provide proper ventilation based on the tested air leakage of each home you build. Remember - the only way to know the air leakage for sure is to test.

Carefully install insulation without gaps or compression. Split batts around pipes and wires. Cut around switch and outlet boxes. See our illustrated insulation guide at **bit.ly/Insulation Guide**.

Framed return plenums are notoriously hard to seal. Most customers expect the quality of a metal ducted return. Be sure to seal framed return plenums at all edges, corners, joints, fasteners and penetrations. Seal supply and return ducts with mastic at all joints, plenums, take-offs and connections, including maintrunks, filter boxes and register boots.

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