

EnergyLogic specializes in the simulated performance path for code compliance

There are three paths to choose from to demonstrate compliance with the international energy conservation code (IECC): the prescriptive, UA tradeoff, and the simulated performance path. All three pathways have requirements that are mutually consistent and address certification; air barriers and insulation; vapor barriers; windows; and HVAC. The prescriptive path dictates specific component R-values and U-values to accompany the other requirements. The UA trade-off approach uses software like ResCheck to allow trade-offs between R-values and U-values to show code compliance by raising R-values in one component and lowering them in another while focusing only on the thermal envelope. The simulated performance path utilizes a whole-house systems approach to demonstrate code compliance.

Currently there are two distinct benefits to utilizing the simulated performance path for IECC compliance. First, the greatest flexibility in design and construction is afforded by the performance path. Utilizing 2x4 walls and trading performance characteristics of other materials and equipment in the house are only fully integrated when using the performance path. When combined with the mandatory aspect of the code, a builder can optimize safety, comfort, durability, and efficiency in the most cost effective manner. Secondly, we are at a unique cross road where the 2006 IECC and the current Energy Star for Homes programs are in almost complete alignment. The performance path utilizes the same verification process as the Energy Star program, which enables a company like EnergyLogic to offer not only code compliance but also Energy Star compliance during one inspection process for the house. In this way the code's simulated performance path creates houses that offer more flexibility and cost effectiveness to builders, greater energy performance, and, importantly, a means of marketing the home to the consumer.

Energylogic is staying involved and abreast of the IECC code changes which may be of special interest to our builder clients. The final action hearings took place in Minneapolis in late September for the 2009 IECC. On the agenda at the hearing was an initiative proposed by the Energy Efficient Code Coalition (EECC) called "The 30% Solution".

"The 30% Solution" is a comprehensive proposal designed to boost the residential energy efficiency of America's model energy code, the International Energy

Conservation Code (IECC), by 30%. Recognized officially as EC14 07/08 by the ICC, "The 30% Solution" was developed and submitted to the International Code Council by the Energy Efficient Codes Coalition and is the only proposal before the ICC that has been independently estimated to achieve roughly a 30% improvement over the current IECC. "The 30% Solution" boosts energy efficiency in virtually every part of the house subject to code requirements – space heating and cooling (including ducts), thermal envelope, air sealing, hot water heating and lighting. " (From the EECC web site)

Although "The 30% Solution" failed to be adopted at the final hearings, energy efficiency will substantially improve in the nation's 2009 model energy code governing new home construction, as several individual measures were passed. The 2009 IECC will have several significant new provisions to boost energy efficiency, including:

- Increased insulation in basements, floors and walls;
- Improved window efficiency;
- Reductions in wasted energy from leaky heating & cooling ducts;
- Reductions in tradeoffs that fail to capture energy savings from efficient heating & cooling equipment;
- High-efficiency lighting; and
- Improved air sealing within the building envelope.

EnergyLogic is not certain at this time how these and other provisions will directly impact energy code compliance and the simulated performance path. We are, however, continually working on gaining further understanding of the new code and its implications in order to share that information with our clients in the future.