



Like it or not, provincial governments across Canada are demanding changes to the way you build. It's an environmental thing, and if stricter code requirements haven't kicked in where you work yet, they will. It's just a matter of time. Windows, doors and wall construction are some of the top factors that influence the energy consumption of a home, and you'll look better to clients if you're informed enough to make logical sense about specific options that meet new code demands. But to do this properly you need to understand the big forces at work.

Higher Standards are Coming

New code requirements ultimately centre around Canada's commitment to curb climate change, and something more specific called E80. It's short for Energuide 80, and it's an energy efficiency rating system that's similar to what's been used to assess household appliances for years. Your clients will be especially interested in this because the homes built to E80

standards are supposed to use 30 per cent to 35 per cent less energy than pre-E80 houses.

The EnerGuide for New Houses program was developed by Natural Resources Canada as a yardstick for measuring energy consumption in homes. Different provinces are working E80-based code requirements into building codes in various ways. British Columbia already has E80-based codes in effect right now and Ontario's will kick in on January 1, 2012. Other provinces are not far behind. Google "Energuide 80 in Canada" for more information.

To give some perspective on all this, unrenovated houses built during the first half of the 1900s typically score below 45 or 50—sometimes way below. Homes built to recent code standards are usually in the high 60s to low 70s, while the average Canadian home scores E66. E100 homes are also possible, and this is where governments are ultimately leading the homebuilding industry. An E100 home consumes no net energy at all, but produces enough on-site energy to compensate for frugal heating, cooling, lighting and appliance needs. Today's E80 code standards are a stepping stone to the ultimate goal of E100 houses, and whether or not we get there remains to be seen. What matters now is exactly how you need to build differently today.

Three Main Gains

Details vary depending on where you live, but three fundamental principles remain the same: reduced air infiltration; greater insulation values for walls, roofs, windows and doors; and more efficient mechanical equipment for space heating, water heating and ventilation are where your E80 challenges come from. And of all three areas, possibly the biggest difference for you as a builder is how walls are framed. In most cases, conventionally insulated 2x6 stud frame walls won't cut it any more. And depending on how E80 code requirements are laid out in your province, you may want to abandon stick

