

Upgrade Insulation and Seal Air Leaks

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If you're searching for renos that offer the biggest eco-benefits, look no further—we've rounded up our top picks. Insulation and air sealing keep you cozy (and cool) while saving money.

This edition: Upgrade insulation and seal air leaks

Upgrading your home's insulation and sealing air leaks is like wrapping your home in a thick, airtight blanket. All of the heat stays inside during the winter, and cool air can't escape in the summer.

An energy audit will tell you where the air leaks are occurring. "Every house is different," says Ross Elliott, president of Homesol Building Solutions in Almonte, Ont. "Two houses with the same design have different air leaks in them." An Energy Star simulation study revealed that upgrading insulation and sealing air leaks in a 1,500-square-foot home in the northern United States would reduce energy use by 14%—and Canadians could expect comparable or greater savings.

Based on data from Natural Resources Canada's Office of Energy Efficiency, homes with natural-gas heating could expect to save about 15.6 gigajoules of natural gas energy annually, which would be enough energy to run about three 60-watt light bulbs continuously for a year. They would also reduce their greenhouse gas emissions by 0.77 tonnes of CO₂e* (equivalent carbon dioxide), which is roughly 300 litres of gasoline.

The average home with electric heating can also expect to save about 15.6 gigajoules of electricity each year. Their greenhouse gas emissions would fall by 0.93 tonnes of CO₂e each year, about the same as saving 372 litres of gasoline.

*CO₂e stands for "equivalent carbon dioxide." Carbon dioxide is the standard unit of measurement for

greenhouse gas emissions, but many greenhouse gases are far more potent than carbon dioxide. CO₂e takes into account the different potency of each gas; for example, nitrous oxide is 310 times as potent as an equal amount of carbon dioxide, so 1 tonne of nitrous oxide would be 310 tonnes CO₂e.

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