
Shedding Light on Energy-Efficient Window Upgrades by **Tony Olsen**

How do I know if I should upgrade my windows?

If your home is more than 20 years old, chances are you should be thinking about upgrading your windows.

When justifying the cost of an upgrade to new “energy-efficient” windows, consider all the benefits. First and foremost, expect savings of 9-18% on your home heating costs, and additional savings on your cooling costs.



Energy-efficient windows have benefits beyond energy cost savings, including reducing fabric-fading UV radiation.

Energy-efficient windows let in more daylight, which may also mean reduced use of electric lighting.

Apart from the dollars and sense, you can also expect energy-efficient windows to reduce drafts and cold spots near windows, virtually eliminate condensation and reduce fabric-fading UV radiation.

I've heard that I don't actually need to *replace* my windows. Is that true?

When it comes to upgrading your windows, your choices include reglazing, retrofitting or replacing.

At first glance, reglazing or retrofitting seem attractive – they are generally less expensive and take less time. Unless you replace the entire window, however, there is a risk that the existing frame may not be perfectly square. If it isn't, it will be difficult – or impossible – to install the new window plumb and square.

Completely removing your existing windows also gives the installer a chance to properly insulate between the window frame and the house frame. In older homes there may not be sufficient insulation, and this is a major source of heat loss that can negate the benefits of your new energy-efficient windows.

In the long run, replacing your windows makes for a better, more energy-efficient result, and the additional installation cost can be offset through lower energy bills over the life of your windows.



When upgrading your windows, replace vs. retrofit them for the most energy-efficient result.

So many choices! How do I know which energy-efficient windows to choose?

The rule of thumb when selecting energy-efficient windows is to go with the best you can afford. Choosing between different window types and comparing the performance claims of different manufacturers can be tricky, but there are two industry ratings that can help you.

As a minimum, you should look at a window's Canadian Standards Association (CSA) A440 ratings. CSA-A440 describes how to rate a window for airtightness, watertightness and wind resistance. Windows must be rated at least A1 for airtightness, B1 for watertightness and C1 for wind resistance in order to meet building codes. The higher the number in the rating, the better the performance of the window.



For the energy-conscious consumer, a window's Energy Rating (ER number) may be the best way to comparison shop. A window's ER rating is a single measure of its overall performance, regardless of its construction. The ER system puts windows into one of seven categories, based on window type and size, to help make apples-to-apples comparisons. The higher the ER number, the better the window's performance, but don't be alarmed by negative ER numbers – the best high-performance commercially-available windows have a typical ER of +1.

I've just spent a fortune on windows! Is it OK to take the cheapest installation quote?

Buying the most energy-efficient window you can afford is only a good investment if you put equal effort into choosing your installer. To find the best installer, look beyond the bottom line on the quote. Ask questions about installation techniques. How will they ensure your windows are installed properly? How will they ensure good thermal resistance? Will they stand behind their workmanship? Do they have references?

Don't negate the benefits of your investment in energy-efficient technology by skimping on installation.

Sloppy window installation can negate all of the benefits of your new energy-efficient windows. Spending a little more for professional installation today can save you money in the long run by

preventing problems ranging from drafts and higher energy bills, to water infiltration and repair bills.

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