

Frequently Asked Questions about Energy Efficiency & Historic Homes

Will a Local Historic District prevent me from making my house more energy efficient?

No. The goals of preservation are not contrary to the goals of sustainability, in fact they can be quite complimentary. A Local Historic District can restrict what types of alterations are made to protect the historic character of the property and area but that doesn't mean no changes are allowed. It's simply a matter of finding the best energy efficiency measures while taking into account the unique construction, history and aesthetic of your historic home.

Can I put solar panels on my house?

Massachusetts state law states that Local Historic Districts cannot prohibit the installation of solar panels, however they can restrict where they can be located. Putting solar panels on the front facing roof slope of an old house has a much bigger impact than putting them on the rear roof slope, or the roof of an ell, garage, barn, or even installing a ground-mounted solar array. Any Local Historic District around Newbury's Lower Green would encourage the use of alternative energies while minimizing their visual impacts because after all, if there isn't any Lower Green neighborhood to protect due to climate change, then what's the point?

What about replacing my windows with modern vinyl, double-glazed alternatives?

While this may sound like a short-term solution for better energy efficiency, lower cost & lower maintenance, in reality the life cycle costs of new vinyl and most new wood windows are much higher than maintenance costs of historic wood windows. On average, double-glazed vinyl windows last about 20-30 years before the double-glazing seal fails and the window loses its efficiency and starts fogging up. Because of how these windows are constructed, they cannot be repaired, instead they must be replaced and the old ones thrown away. This waste of materials not only costs money but also harms the planet. Many wooden windows too are simply glued together these days and when they start to rot, are much more difficult to repair than historic windows constructed through joinery. Modern wood simply isn't as good quality as old wood anyways. Instead, it is both more eco and budget friendly to maintain your historic wood windows (if you're lucky enough to still have them) and add good quality exterior storm windows. For even better energy efficiency (comparable to modern double-glazed alternatives) consider installing seasonal interior storm windows.

Aren't historic homes big energy users? Wouldn't it be better for the environment if we just built new houses and demolished the old?

Have you ever heard the phrase "The greenest building is one that is already built"? Well, it's true. What Carl Elefante meant when he wrote this is that one metric not always included when looking at building energy efficiency is *embodied carbon*. This is the amount of carbon stored in the physical materials that make up a building. An existing house stores a lot of carbon, sequestering it from being released into the atmosphere. If you were to demolish an existing

home, not only would you be releasing that carbon into the environment by sending the materials to a landfill to be burned, but you also release carbon by driving the demolition equipment, carting the wreckage away, making new materials, moving those new materials to the site, and constructing a new house. The new house may use less energy on the day-to-day than the old house, but it's going to take a long time before the energy savings make up for the carbon released into the atmosphere by the demolition and construction of the previous building. This is what *embodied carbon* is about. It's the idea that existing materials are inherently greener than new materials no matter their provenance or quality and this carbon should be taken into account when debating the merits of demolition versus renovation or restoration.