

Energy Saving Tips for Historic Homes

As we put an unseasonably hot summer behind us and look forward to winter, many historic home owners' thoughts are on the rising energy costs experienced with their houses. There are many strategies to reduce these costs, some more expensive than others, and some that are certainly more detrimental to both the appearance and structure of historic homes.

First steps

The first step in reviewing your home's energy costs is reviewing how you use the home itself. It is imperative to maintain reasonable temperature controls and not try to super heat the home in the winter or over cool in the summer. The new family of programmable digital thermostats helps with these costs. It is important not to turn the heat off or way down in the winter when you leave the home, as older homes take longer to heat back up due to the M-Factor, or thermal transfer/inertia, of plaster walls and older wood framed un-insulated walls. Rather, a constant and reasonable temperature should be maintained at all times, with slight variations between occupied and un-occupied times of day. Any local HVAC contractor will be able to come out and inspect your systems, check their efficiency and repair as necessary, and install a programmable thermostat.

It is important to use a home's original climate control measures as well. These include operable windows, shutters, blinds and curtains. Operable windows create great air flow on warmer days, and operable shutters can be used to regulate the sun and provide additional insulation and privacy on cold winter nights. Wilson-Covington recently restored all of the operable louvered shutters on a 1900 home and they give great service to the owners in regulating sunlight. Curtains on the interior of the home can also give additional insulation over historic windows.

Next steps

Following a review of the passive measures that can be taken to improve a home's energy efficiency, it is important to inspect the structure itself and identify areas of increased air flow and determine if insulation is correct and sufficient in the home. Most home owners can easily inspect their home for areas of increased air flow. This can most often be found around windows and at exterior doors. At the doors, weather-stripping can be installed. Do be aware if caulking any exterior cracks or joints to not create a situation that might trap moisture in a wall. Walls of wood-framed structures must be allowed to breathe when condensate forms in the wall voids.

Replacement of historic windows is a much-discussed topic. Older windows, when left to deteriorate, can be areas of much air flow. However, there are options beyond replacement with vinyl or other non-conforming elements. In fact, studies have shown that older wood windows, when supplemented with exterior triple-track storms, outperform new metal windows with double-pane insulated glass. The large air space between the outer storm and the window, plus the high wood to glass ratio in older windows, greatly enhance the insulation qualities. From a preservation perspective, exterior storms are preferred as they can be removed with little harm to the structure and allow the original window to stay in place. Interior storms can be more aesthetically appealing; however, the moisture buildup caused on the interior of the original window can be detrimental and should be taken into account prior to installation.

Insulation is another hot topic. Basically, attic insulation is always good. This can be in the form of batts or blown in. Insulation in basements and crawlspaces can help with cooling loss, however, moisture in these areas can cause more harm than it is worth. Wall insulation can be extremely damaging to wood and timber framed structures. Condensate typically forms in wall voids, especially in our warm southern climate, and must have room to weep out. Trapping this in insulation or with vapor barriers can cause rot, mold, and lead to termite and other structural damage. Consult an insulation or general contractor prior to installing any insulation to determine the best placement and type of insulation for your particular home.

There are many other great energy saving and preservation tips that can be found in the National Parks Service Preservation Briefs at <http://www.nps.gov/history/hps/tps/briefs/presbhom.htm>.

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