

Praise the Lord and pass the insulation

by Cam McNeil

Tips for saving energy and dollars

At the conventions of Lutheran Church–Canada and the LCC East District, delegates passed resolutions pointing to our responsibility as stewards of God's resources and the need for energy efficiency in church buildings.

Saving energy in our churches is a God-pleasing way to save significant dollars that can be better spent on missions, outreach and preaching the Gospel.

There have been a number of significant advances in technology and technique that must be part of any church's energy saving program.

Lighting efficiency

Compact fluorescent bulbs are now more cost-effective than regular light bulbs and should replace them. While compact fluorescents are more expensive, they last so much longer that the purchase cost over time is much the same. The real saving is in the energy used, which is about one third of conventional bulbs. Timers and motion detectors on outside lighting also make great sense and save real dollars.

Air tightness

As in a home, plugging leaks of expensively heated air escaping to the great outdoors is often the most cost effective measure. Caulking from the inside and weather stripping around doors, windows and sill plates where the concrete foundation meets the walls is easy and has an almost instant payback.

Windows

In our climate and with climbing energy costs, all windows, including

stained glass, should be double-glazed. Replacing windows for energy savings is not overly cost effective. If, however, you are replacing windows, do so with low emissivity coated, argon-filled windows, which should cost no more than older conventional windows.

You can also use low-cost clear plastic window covers during winter or permanently to save energy



and dollars. Lucite or other clear plastic glazing on the outside of stained glass not only protects from vandalism but also acts as energy saving double-glazing.

Basements

If the basement walls are not adequately insulated to the floor, significant and costly heat loss occurs. Bare concrete should be insulated to R10 at least by building a 2x4 stud wall with batts and using 10-mil poly as an air-vapour barrier.

Attics

Attics over heated spaces should now be insulated to at least R40 or 12 inches of batt or "pored" insulation. Make sure adequate ventilation is maintained and vents

to the outside are not blocked. Summer heat needs to be vented from the attic to aid cooling. Power vents may be a solution if this is a problem.

Heating, ventilating and air conditioning

Good maintenance saves energy and money. Set-back thermostats are a must. If you need a new or replacement system, consider earth energy heat pumps (geo-thermal). They are four times as efficient as resistance electrical furnaces or baseboard heaters and Ontario Hydro called them "the most efficient heating and cooling system available." It is by far the most environmentally effective system since most of the energy it supplies comes from solar energy stored in the ground.

Installation costs can be higher than conventional systems, but there is always a payback. (See www.earthenergy.ca)

For further energy-saving information go to www.lutheranchurch.ca/resources and follow the Congregational Resources link.

For professional assistance in assessing this option at no charge, call Cam McNeil at 613-592-3977

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