

Energy Efficiency Guidance

Over the coming months there will be a step change in energy costs, as both the winter months and the new energy contract prices approach. This brief guidance is an aide memoir of things that can be done to manage energy usage and hopefully parish bills in churches and church halls, and in presbyteries.

Churches and church halls

The churches across the Diocese are of various ages and types of construction, which present different challenges to energy efficiency. Some can be easily insulated, and others cannot, some are listed buildings, some are of a size and scale that make heating challenging.

Making simple changes such as better use of heating timers and timings, lagging, draft proofing and similar can improve energy efficiency and at the same time retain or improve comfort. Comfortable temperatures for parishioners and those using our buildings depends on what is 'felt' to be the temperature, rather than the number on the thermostat, and it is dependent on the air temperature as well as that of surrounding surfaces.

In addition, for the last two winters we have had the added need to maintain ventilation in churches as part of Covid prevention measures. Heating churches at the same time as opening windows seems counter-intuitive and is something which we may have to contend with over the coming winter. However, even in these circumstances there are some things that can be done to help reduce heating bills by good husbandry, by thinking about how we use churches and church buildings, or by making physical improvements. Not all suggestions will be possible or viable in all buildings, however it is worth considering what may be possible to help manage your energy usage.

Good husbandry

This comes down to how we manage and maintain assets, and here are some practical tips:

Boilers:

Each building may have its own boiler, with a mix of large-scale boilers for churches and smaller domestic ones of presbyteries. Some more modern boilers can be more complex and it is worth taking the time to properly understand the boiler, no matter what its age. There are some factors to consider in efficiently operating them, for example:

- Is the boiler service up to date?
- Is it the right size for the number of radiators it has to heat?
- How old is the boiler and should there be some planning now to consider replacement with a more energy efficient one? A newer boiler can be as much as 40% more efficient than an older one. A planned replacement is always better than an emergency, particularly where the parish may need to fundraise to replace the asset.
- Are all pipes lagged, and is the lagging in good condition?
- Have you asked the engineer to look at the optimal settings for the type of boiler? It can potentially save a significant amount of money if settings are correct.

Heating and radiators

- Is there adjacent furniture which may be blocking or are they covered?

- Have the radiators been cleaned recently, as dusting increases efficiency. Tips on how to do this can be found here <https://www.bestheating.com/info/how-to-clean-a-radiator-2/>
- Are radiator thermostats turned down in rooms which are not often used? Trickle heating is important to prevent damp however a seldom used office or storeroom does not need to be heated to the same temperature as a sitting room, for example.
- Has the time the heating is on been reviewed? In a Church of England study across 50 churches, the heating could be switched off 30-45 minutes before the end of the service and the temperature was still maintained throughout. It might take a little bit of trial and error to fix the timings that work best in your church, but it is worth trying.
- Are the flow and return pipes monitored? Monitors can be purchased relatively for this purpose. A flow pipe which takes a long time to heat up could indicate a poorly performing boiler or one which is not big enough to support the system. If the return temperature is close to the flow temperature it means that the radiators are not effectively heating the area, which would require further investigation.
- Is the porch door left open throughout the service, or could some doors be closed (fire and COVID restrictions permitting) then reopened at the end? Welcome ministers may be able to monitor and help with this.
- Is it possible to draft proof areas? Advice on this can be found at <https://historicengland.org.uk/images-books/publications/eehb-draught-proofing-windows-doors>

External lighting

- Where you have it, is it on a timer or motion sensor?
- Could it be on for fewer hours?
- Is it properly angled to light the areas needed and not unnecessary areas?
- Have LED bulbs been fitted?

Changing how we use buildings

Encouraging good habits in users

- Are users reminded to turn off lights when they leave rooms, especially hirers?
- It is possible to amend timings of groups of users, volunteers and/or staff to coincide to reduce the need to heat areas? For example, could those preparing newsletters be in at the same time as a parish group or a parish secretary rather than on different days, meaning the building needs to be heated less frequently.
- Are thermostats tamper-proof particularly where there are third party hirers of halls?
- Is equipment left on standby when it should, or could, be switched off? Computers and photocopiers in parish offices would be an example of this.

Lighting

One of the quickest ways to improve energy efficiency is to install LED lights and light bulbs. These use only a fraction of the power of ordinary bulbs or lighting. Over recent years the Diocesan policy has been to install LED lights where there are lighting works to a church, or where there is other work at height. Whilst there is scaffolding in place, the lights are changed at the same time. It may

be worth considering replacements in, say, offices and parish rooms if these have not already been done.

Presbyteries

Many of the points listed above also relate to presbyteries. Turning off lights and ensuring correct boiler settings will all go a long way to reducing energy usage. There is currently a lot of advice around in the press and social media aimed at domestic users and some of the suggestions are:

- Consider showers rather than baths
- Consider washing clothes at 30 degrees
- Consider drying washing on the line rather than using a dryer (where possible)
- Check loft insulation is adequate. Guidance for the right amount of insulation changes all the time. Currently, it is recommended that the insulation has a minimum thickness of 270mm
- Consider cavity wall insulation if this is right for your presbytery. If you do wish to consider it, check whether the installer is signed up to a code of professional practice and that the installation is guaranteed for 25 years by CIGA, or through an independent insurance-backed guarantee and ensure any installer is registered with the installer should be a member of one of these organisations:
 - The National Insulation Association (NIA)
 - The Cavity Insulation Guarantee Agency (CIGA)
 - The British Board of Agrément (BBA)

Further advice can be found on <https://energysavingtrust.org.uk/> website.

Who to contact

If you would like any further help or support please contact Richard Crawford, Property Director, who would be happy to help.