



Canterbury Diocesan Advisory Committee

Sustainable Heating and Lighting Policy

Introduction

1 This new DAC Sustainable Heating and Lighting Policy for churches is set against the background of the Diocesan Synod motion of November 2019 and particularly the General Synod motion passed in February 2020 calling for the Church of England to be Net Zero by 2030. That sets a timescale currently standing at a little more than 9 years for the diocese to have reduced carbon emissions to zero. This Heating and Lighting Policy, agreed at the DAC meeting on 13 November, 2020, replaces previous heating and light policies.

2 Behind this new policy lie several requirements:

- The need to reduce carbon emissions within churches to zero by 2030 and sooner where possible
- The need to be pragmatic and flexible as to how this might be brought about
- The need also to bear in mind other sustainability targets, for instance the imperative to reduce the use of single use plastic

3 The DAC has agreed that a graduated approach towards net zero would be sensible and pragmatic. On the one hand some generating systems are more fuel efficient than others (oil-fired heating, in particular); that modern gas-fired boilers are now comparatively fuel efficient but only have a relatively short life span (probably not more than ten years); and that some suggested forms of heating are not currently viable (hydrogen, etc), are unlikely to be useful in all circumstances (air-source heat pumps), or present other difficulties (the archaeological and therefore also cost implications of ground-source heat pumps). The group agreed that a pragmatic approach is sensible in the current landscape of heating options available for parishes and their churches and halls. However, it is thought that the development of alternatives, particularly electric boilers, will speed up significantly in the next few years.

4 Other parts of the policy will need to be taken on a strictly pragmatic basis. For instance, the proposal to suggest insulation of church roofs may be necessary in a small number of cases, particularly where a church is being re-roofed and the intensity of use of the space would suggest its usefulness. In most cases, however, it would almost certainly lead to greater carbon output than would be saved. The policy needs to be read with the zero carbon imperative in mind. It is also certain that this policy will need to be up-dated in the light of sustainable heating and energy developments.

5 This accounts for the necessarily rather miscellaneous nature of this proposed policy. See also:

- [A practical path to “net zero carbon” for our churches](#), published by the Church Buildings Council

DAC Heating and Lighting Policy

1 Introductory points

- Underline the importance of maintenance and the need to bring churches up to a good state of repair at the time of changes towards sustainable heating and lighting.

2 Energy Tariffs and Billing

- Encourage all churches to adopt a 'green' tariff.
- Parishes wishing to undertake modifications, replacements or upgrades to any gas or electrical systems will need to demonstrate that they are purchasing from a renewable or green electricity or gas supplier.
- Call to all parishes to check that they are paying only 5% VAT and are not charged Climate Change Levy.

3 Heating

- Standing advice to parishes to check timings and temperatures and to avoid background heating.
- Replacement of oil boilers no longer to be allowed (unless under exceptional circumstances), those churches generally encouraged to consider electric heating options, though new gas boilers may be permitted where circumstances suggest it – large, particularly urban, churches where the church is in daily use, etc.
- Gas boilers permitted for replacement by modern gas boilers – i.e. those which are most fuel efficient – where a case can be made and on the understanding that they will need to be replaced in good time for zero carbon in 2030. This should give them plenty of time to programme in replacement of the gas boiler by then.
- Smaller, low use, churches may move to a mixture of electric heating and under-pew heating.

Notes

- Electric boilers are currently understood to be quite expensive to run - it is thought they will become cheaper and more flexible as 2030 approaches.
- Ground source and air source heat pumps lack evidence of practical use in churches at the time of writing. However, this position will very likely change, possibly soon, and they are therefore likely to become more attractive as development continues.
- Ground source heat pumps requiring area excavation in churchyards may have archaeological and therefore also cost implications.

3 Lighting

- All churches and halls encouraged to convert to low energy/LED lighting by 2025.
- Proposals for additional flood lighting must demonstrate that they will not increase the churches' energy consumption.
- Advice on using motion sensors and reducing timing of external flood lighting.

4 Insulation and draught-proofing

- Advice to have pipework in boiler rooms insulated.
- Advice to churches to consider draught proofing measures especially around doors.

- Any proposals for re-roofing should include insulation within them or provide a compelling justification as to why this is not appropriate.
- Consideration should be given to insulation underneath pew platforms.

5 Renewables

- Encourage renewable energy generation generally (there are examples of photovoltaics, biomass and heat pumps in the Diocese dating back 10 years).
- Churches should show that they have addressed all energy efficiency measures BEFORE installing renewables (through a recent energy audit).

Note

- Biomass may not be an appropriate heating solution, due to the need for bulk storage.
- Photo voltaic panels may be unsustainable due to their questionable single use characteristics.

6 Churchyards and outside areas

- Promote the use of grants for wildlife churchyards/God's Acre, etc.
- Any proposal to remove or significantly reduce size of trees must be accompanied by proposals to plant at least two new trees elsewhere on church land.
- Any car parking proposals must show that it will not generate surface run off and will include an EV charging point and/or bike rack.

7 Major development and re-ordering

- Advice to parishes contemplating major development to use a 'whole building' approach to energy efficiency - ensures that energy efficiency works are suitable, robust, well-integrated, properly coordinated and sustainable.
- Consider extending the 'whole building' approach to all churches, except those with vestigial heating needs (the church is closed during the winter).
- Advice on designing to avoid single use and purchase A+ or better rated appliances.
- Statements of Need must include details of how the proposals will have a positive impact on the environment.
- All timber used must be FSC certified.

8 Support and further information

- Support and advice available through DAC.
- A Rocha UK <https://arocha.org.uk> has lots of advice and is also the key resource for EcoChurch.
- Church of England, Church Buildings Council - <https://www.churchofengland.org/environment>.

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Agreed 13 November, 2020