

Neutral Citation Number: [2022] ECC Chd 2

IN THE CONSISTORY COURT OF THE DIOCESE OF CHELMSFORD

IN THE MATTER OF DEDHAM, ST. MARY THE VIRGIN: PETITION NO. 2021-064454

JUDGMENT

Introduction

1. There has been a church in Dedham since at least 1322. Construction began on the present church, which is dedicated to St Mary the Virgin, in 1492. It is a Grade I listed building, and stands at the heart of the village of Dedham, which has a population of 1850. Its 131-foot tower is visible for many miles around. As well as being the focus of Christian worship in the village, the church attracts thousands of visitors every year, who are drawn to this attractive part of Essex, featured in the paintings of John Constable (his "Ascension" is in the church). Both the exterior and interior of the church building are very fine.
2. The church's current heating system comprises an oil fired boiler which heats water which in turn circulates through 12 convector fan coils that provide heat into the church. The boiler is located underground with access through the cellar in the vicarage. It was installed in 1987. Given its age, the church has been considering its replacement since 2008. But the system has now come to the end of its life: there has been a major failure to the heating chamber in the boiler and the parts which would be required to repair it are no longer available.

The Petition

3. The Petitioners in this matter are Mr Peter Wilson and Ms Virginia Druitt, the churchwardens. The church is in vacancy. By the Petition, which is dated 29 November 2021, and with the support of the parochial church council, the Petitioners seek permission to install a new gas boiler in the church to replace the old boiler.
4. The DAC "does not object" to the Petition. However, it has not recommended the proposals for approval by the Court. The reason is given in the DAC's Notification of Advice, as follows:

"[T]he DAC expressed its disappointment that the parish has not opted for the more environmentally friendly option of under pew heating, a system that would take full account of the General Synod's target of the Church of England achieving carbon neutrality by 2030. Having said this, the DAC recognises that the replacement of gas boilers has been granted faculties elsewhere and is therefore minded to raise no objection to this application."

5. St Mary's is by no means the only church in this Diocese that is having to grapple with the question of how best to deal with the need for a new heating system in circumstances where it is necessary to take into account environmental concerns. That is so especially in the light of the General Synod's February 2020 commitment on behalf of the Church of England to achieve net zero carbon emissions by 2030, and the subsequent "roadmap" to achieving net zero carbon (see various documents, but most usefully for parishes, here: <https://www.churchofengland.org/resources/churchcare/net-zero-carbon-church/practical-path-net-zero-carbon-churches>). I shall refer to this as "the Net Zero Roadmap". I shall also refer to the subsequent guidance issued by the Church Buildings Council on ways of moving from fossil-fuel based heating systems ("the CBC Guidance"), which can be found here: https://www.churchofengland.org/sites/default/files/2021-03/Heating_principles.pdf (see also the guidance on the Church of England website at <https://www.churchofengland.org/resources/churchcare/advice-and-guidance-church-buildings/heating>).
6. The need to take into account environmental considerations when installing a new or replacement heating system has also been the subject of a number of recent judgments in other Dioceses: see the judgments of Petchey Ch. in *Re St. Mark's, Mitcham* [2020] ECC Swk 5 and in *Re St. Mary, Oxted* [2021] ECC Swk 1, of Humphreys Ch. in *Re St. Thomas & St. Luke, Dudley* [2021] ECC Wor. 2, and of Eyre Ch. in *Re St. Peter's, Walsall* [2021] ECC Lic 4. The approach adopted to the issue in those judgments is not, as I discuss below, exactly the same.

The need addressed by the Petition, and the proposed solution

7. As Eyre Ch. observed in *Walsall* (*supra*), "*there is clearly a real need for any church to be adequately heated. If a church building is cold there can be a significant negative impact on the life and mission of the Church in that place*". There is no question but that St. Mary's needs a new heating system that works.
8. However, on an initial review of the papers comprising this Petition, I, like the DAC, was concerned that the Petitioners had not alighted on a more environmentally friendly option than a gas boiler. Some explanation for the landing which they had reached appeared from the report of the DAC Heating Advisor, Mr Oliver Clarke, who visited the church on 12 March 2021. It appears that this was before the present boiler finally failed, but his report notes that even when working, the convectors which it powered were "*noisy, particularly at high speed and are only just sufficient to heat the church to an adequate temperature particularly in colder weather conditions*". As to the various options that might be available, his views were as follows:
 - (a) He considered that the problem with a new oil-fired system was that it "*does not meet the General Synod Net Carbon Zero Resolution, particularly using one of the more carbon intensive fossil fuels, which is likely to attract increasing carbon penalties*".

However, he went on to note that an interim solution using oil might be appropriate (see below).

- (b) He did not recommend a gas-fired boiler for similar reasons, pointing out that, *“The same objections to the fuel supply apply although possibly not to the same extent. There is a possibility that the gas grid will change to Hydrogen or a Hydrogen/Bio-Methane hybrid in time, however this may only occur in local urban areas of the country”*. He also concluded that because of the need to dig a trench to carry the new mains gas supply, the option was *“uneconomic”*.
 - (c) As to an electric plant, he considered that, *“These oil option [oil and gas] probably leads to the eventual replacement with electric boiler plant, which is unlikely to prove cost effective in running costs compared to other options for some time. Currently there is not enough space in the toilet block for the number of electric boilers and a new external boiler house would be required needing DAC and Planning Approval, however there is new technological research on-going which is promising and may result in electrical generation for heating becoming comparable in cost to mains gas, meaning that an interim solution using oil may be acceptable”*.
 - (d) He considered that under-pew heaters might be a possibility, but noted that, *“There are concerns that fixing the heaters to the pews may cause damage to the timber and fixing them to the floor will cause cleaning problems”*.
 - (e) He suggested heated pew cushions, as being cheaper and using less electricity than under-pew heating, but noted the parish’s view that these would not be adequate as any more than supplementary heating.
 - (f) He suggested that the existing fan convectors could be replaced with electric fan convectors, and indicated that this might be part of a phased approach to an electric system.
 - (g) He indicated that solar panels would become viable only if the roof finish needed to be replaced in the near future.
 - (h) He considered that ground source heat pumps were not suitable for the layout or use of the church.
9. Mr Clarke does not appear to have felt able to make a final recommendation. Instead, he indicated that, *“Quotations should be sought on a no-obligation basis for whichever options the PCC wishes to pursue or compare and a phased approach may be viable and acceptable to the DAC”*.

10. In their Statement of Need, the Petitioners indicated that the following options had been considered, in the light of Mr Clarke's report and their own further discussions and researches:
- (a) A new oil fired boiler – i.e. a like-for-like replacement – but to be located in the church's old toilet block (now replaced by new inside facilities), with a new location being found for the oil tank. This option was rejected by the Petitioners on environmental grounds.
 - (b) A new condensing gas boiler, also to be located in the old toilet block, and involving the installation of a new gas line to be run from the main road to the boiler house, and the connection of the boiler to the church's existing hot water pipe system. This is, of course, the option which the Petitioners favour and which is the subject of the Petition, though it had not found favour with Mr Clarke.
 - (c) An electric boiler plant. This was rejected on the grounds that the plant required would be very large and would need to be housed in a new building. It was also said that the ongoing running costs would be exorbitant: it was estimate that the costs would be four to five times that of gas.
 - (d) Infra-red electric heaters: on the basis of discussions between the parish and a number of suppliers and contractors, the Petitioners advised that heaters of this sort could provide the heat required, but would be unsightly and not suitable for a building with the age and history of St. Mary's.
 - (e) Heat cushions/under pew heaters: these were ruled out for the reasons given in Mr Clarke's report.
 - (f) Electric fan coil heaters: these were investigated but the suppliers did not feel they could deliver sufficient heat for the size of the building.
 - (g) Solar panels: these were not considered viable, principally because of the need for heat in the winter.
 - (h) Ground source heat pumps: the Petitioners advised that these "*were not considered suitable for the church and were very expensive*".
11. The Petition therefore proposes the installation of two 'Vaillant' 120kW gas fired commercial boilers in the old toilet block, with gas and water lines to be laid through new trenches in the churchyard, and the new system to be connected to the existing hot water system. The present heaters inside the church are to be retained, and the necessary conversion works carried out to achieve this. The total costs estimated for the works as at the date of the Petition were approximately £89,000, excluding V.A.T.

12. I could thus see that the Petitioners had considered a number of options, and that they had some awareness of the environmental issues that might arise. But it was not clear to me whether they had specifically considered the impact of the Net Zero Roadmap, nor the CBC Guidance. As to what ought to be considered by a parish contemplating a new heating system, the effect of the CBC Guidance is summarised by Humphreys Ch. in Dudley at [33] as follows:

“It states that that careful consideration should be given to moving away from fossil-fuel based heating (gas and oil burners) towards electric based heating such as air- or ground-source heat pumps, pew heaters and infra-red radiant heaters with these being powered by ‘green’ electricity. Other options to be considered include hybrid boilers that combine a heat pump and a conventional boiler and (if well implemented) biomass... It must be noted that the guidance does not insist that gas and oil powered heating is never the right solution for a particular building, but does require a proper assessment of the needs, investigation of the options and consideration of zero carbon alternatives.”

13. I was especially concerned, in view of the remarks of the DAC, that insufficient consideration had been given to the option of under-pew heaters powered by electricity.

14. Following my initial review of the Petition, I therefore directed a number of additional questions to the Petitioners, by a letter from the Registrar to the Petitioners dated 9 March 2022, as follows:

- (a) Had they considered, specifically, the Net Zero Roadmap?
- (b) Had they considered, specifically, the CBC guidance?
- (c) Could they provide a more detailed explanation of the options considered, with costings, to include costs over time, in circumstances where the proposed new gas boiler would not have an indefinite life expectancy?
- (d) What was the expected lifespan of the proposed new gas boiler?
- (e) How was it envisaged that the works would be funded?
- (f) What would the views of the PCC be on the imposition of a condition of Faculty that the PCC should adopt a “green” energy tariff and/or be required to offset carbon emissions created by non-renewable gas (i.e. conditions similar to those that were imposed by Humphreys Ch. in Dudley and by HHJ Eyre Ch. in Walsall)?

15. I also asked for the views of the Archdeacon of Colchester, the Deanery in which Dedham is situated, on the Petition.

16. By an e-mail dated 14 March 2022, Mr Wilson responded to my questions fully and fairly. He indicated that the Petitioners were familiar with and had considered both the

Net Zero Roadmap and the CBC Guidance, and that they recognised that those documents clearly promote a preference for the use of zero carbon solutions. He explained that for that reason they had, from the outset, sought the guidance of the DAC Heating Advisor as well as the Church Architect. He noted that *“We fully support the aims and ambitions of both documents, but I am sure you will appreciate that it is far easier to put these aims into a paper than it is to implement in practice – especially in a Grade I listed church dating back to its dedication in 1492”* and which is in an Area of Outstanding Natural Beauty. He provided some detail as to other, commendable, steps which the church takes to improve its environmental footprint.

17. In relation to the consideration that had been given to more environmentally friendly heating options, Mr Wilson provided the following further information:

- (a) Solar panels: these would face objections on aesthetic grounds from the Dedham Vale Society, and in any case would not produce sufficient energy in the winter months;
- (b) Ground source heat pumps: these were not considered suitable because it would be difficult to find a suitable borehole; because the pipe routing from the borehole to the church would need archaeological assessment; because the church floors would need to be lifted, with attendant risk of damage and at high cost; and because the insulation and draught-proofing which such a system requires would be difficult to achieve, given the age of the building. Air source heat pumps were ruled out for similar reasons, together with the fact that finding a location for the pumps would be an issue;
- (c) Infra-red heaters: it was considered that these could meet the church’s heating needs but that they would be very unsightly;
- (d) Under-pew heaters: Mr Wilson advised that *“There would be issues in running the electrical cabling required as we do not want to raise or damage the flooring. Because there are not backs to the pews they would have to be fitted to the underside of the pews and the heat would quickly cause cracking and damage. Fixing to the floor would not look good and would create difficulty in cleaning the church”*;
- (e) Heated cushions would not meet the church’s heating needs.

18. Mr Wilson justified the decision to proceed with a gas boiler in the following terms:

“Whilst [gas] is still a hydrocarbon it is less polluting than oil, and provides the necessary heat needed at minimum disruption to the church fabric. It has one other important potential benefit. Hydrogen is seen by many people to be the fuel of the future and it is considered possible that the current gas grid will be able to transmit this alternative fuel to new boilers replacing gas. It is estimated that these could be in place by the late 2020s. We would expect the gas boiler to have a life of 10 to 15 years. Three quotes were received and detailed discussions held prior to us deciding on Thameside Engineering as the preferred contractor”.

19. Mr Wilson advised that the church would be receiving a grant from the Dedham Ecclesiastical Trust for £75,000, with the remaining cost of the works to be met from PCC funds or from gifts and legacies. He also stated that the parish had not considered the possibility of a green tariff but were concerned about the extra costs that this would entail, especially in circumstances where the church was struggling to pay the Parish Share.
20. The Archdeacon, in response to my query as to her views, indicated that she considered that the parish has demonstrated its commitment to eco-principles in a number of respects and that she knows the churchwardens to be diligent and thorough in their roles, not least with regard to the fabric of the church. She recognises that the DAC were disappointed that the parish has not opted for under-pew heating, but she believes that the Petitioners have given it due consideration, and that it would have a significant negative impact on the fabric of the building. On balance, therefore, she supports the proposal to install a gas boiler.

Analysis

21. In both Mitcham and Oxted, the Chancellor took the view that *“so long as the petitioners ... had considered the implications of a proposal for the ‘carbon neutral’ agenda, it was generally not appropriate for [the Chancellor of Southwark] to substitute [his] own judgment of the matter (whatever that might be)”*. In Dudley, however, Humphries Ch. disagreed, taking the view that the Court could, and indeed should, consider the environmental implications of a proposal, whether or not the petitioners had already done so.
22. If it were necessary to take a view as to which of these approaches was preferable, I would be inclined to agree with Humphries Ch., for the reasons that she gives in her judgment at [39]-[43]. However, I find myself in the same position as Eyre Ch. in Dudley: that is to say, I do not need to decide to follow one approach rather than the other. That is because I have concluded both that:
 - (a) the Petitioners have in fact considered, with some care, the implications of their proposal for the carbon neutral agenda (in view of the exchanges which I have detailed above);
 - (b) on the basis of the materials before me, there are proper grounds for concluding that the gas heating system proposed by the Petitioners is in any event the most appropriate system in the circumstances.
23. In reaching that second conclusion, I am supported by the views of the Archdeacon. I do give due deference to the views of the DAC, but it seems to me that an under-pew heating system would not be satisfactory for the reasons which the Petitioners give. I consider that, whilst installing a new gas boiler is far from ideal, it is the best compromise solution. That compromise takes into account the need to have the building properly heated, environmental issues (bearing in mind the hope that it might

be possible to convert the gas-powered system into something more environmentally friendly in due course), aesthetic considerations, the impact of the different proposed solutions on the fabric and special character of the Grade I listed building, and the costs involved.

24. However, and despite the observations of Mr Wilson, I do consider it appropriate to impose conditions similar to those imposed by other Chancellors in the decisions referred to above. I set out the precise conditions in the concluding paragraph of this judgment. Whilst I note the Petitioners' representations in this regard, the reality is that greener gas tariffs are not always vastly more expensive than regular tariffs. In any event, I consider that any difference in cost is the *quid pro quo* for being permitted to install a gas boiler: the purpose of the conditions is to seek to minimise the adverse effects of the use of that boiler.
25. I also impose a number of conditions relating to what is to be done if human remains are uncovered when the trenches for the gas and water pipes are dug in the churchyard, and in relation to insurance requirements for the contractors involved, bearing in mind the risks inherent in any gas installation. Those conditions reflect the standard conditions in use in this Diocese as drawn up by my predecessor as Chancellor, the late George Pulman Q.C.

The approach in future

26. I also take this opportunity to indicate the sort of information which I would encourage future petitioners to provide in relation to applications for new or replacement heating systems which come before me. Many contemplated works to a church building raise environmental issues, but these are especially acute with regards to heating. As the Church of England notes on its website, "*A church's heating system affects its fabric, its contents, its congregation and its mission. Heating makes up the vast majority (over 80%) of its energy use and carbon footprint. Heating costs money to run, maintain and replace*".
27. I would therefore expect a petition for a new or replacement heating system to include the following:
 - (a) Evidence that the petitioners are aware of, and have considered, the Net Zero Roadmap and the CBC guidance;
 - (b) Evidence that the petitioners have considered options other than oil/gas, and in particular zero carbon options;
 - (c) Insofar as the petitioners nonetheless wish to seek permission for an oil or gas-fired heating system, an explanation as to why they consider such a system to be justified;
 - (d) An indication as to the ways in which they propose to minimise or mitigate the negative effects of an oil or gas-fired heating system.

Conclusion

28. I grant this petition subject to the following conditions:
- (a) So far as is practicable, gas supplied under a green tariff is to be used for the new system;
 - (b) So far as is practicable, the carbon emissions created by any non-renewable gas used is to be off-set (either via the tariff or separately or a combination of both depending on the tariffs available);
 - (c) The DAC is to be advised of the precise route where the trenches for the new gas and water pipes to be dug in the churchyard, which trenches are to avoid, if possible, any areas where there are thought to have been interments in the past;
 - (d) Any human remains disturbed during the works shall be immediately covered from public view and must be treated decently and with reverence at all times. The discovery of any human remains shall be notified immediately to the churchwardens, who will ensure that they are labelled and preserved as an entity in locked premises until they are reburied in the churchyard at the direction of a priest, in a place as close as is practicable to the location in which they were uncovered;
 - (e) If any articulated human remains, or any structural remains are encountered, then the PCC, architect and Diocesan Archaeological Adviser should be informed and the work paused;
 - (f) Any gas contractor to be appointed is to be 'Gas Safe' registered;
 - (g) No works may be commenced until the Petitioners have lodged at the Diocesan Registry a letter from the church's insurers consenting to the works and that any conditions required by them are complied with;
 - (h) No work may be commenced until a copy of the certificate of insurance evidencing the contractors having £10 million of both public liability risk insurance and employer's liability risk insurance has been lodged at the Registry.
29. I waive my fee for the writing of this Judgment.

23 May 2022

PHILIPPA HOPKINS, Q.C.
Chancellor