St Thomas' Heating & Net Zero Project 2024

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Introductory Summary

Two main factors have come together to bring about this project.

First, the modern extension to our building, built in 1980, has gas-fired heating that is now 44 years old, well beyond end of life, and in 2023 one of the two gas-fired units was condemned. The second boiler was recently condemned, leaving us without heating for the lounge and entrance hall.

Second, as part of the Church of England's net zero project, an audit took place of our buildings and energy use, which included recommendations of options to reduce our carbon footprint. One of these options was the replacement of the gas-fired heating in the extension with air-to-air heat pumps. (For more information on what these are see below).

The PCC took the view that the choice of the way forward must take account of our financial situation (bearing in mind that we are running a planned deficit budget), as well as our responsibility to be good stewards of our environment. We therefore made a detailed analysis of the capital and running costs of two options:

a. A like-for-like replacement of the gas-fired units with the most efficient modern equivalent condensing units and

b. A replacement system using air-to-air heat pumps.

Our conclusion was that the air-to-air heat pump solution was the better option both in terms of running costs, and the ability to provide heat effectively where it is needed: reflecting the variety of uses that are made of the building. Further, that although the capital costs of the air-to-air heat pump solution will be higher, this will be more than offset by the running cost savings together with the potential for grant funding for a low-carbon solution.

We are therefore confident that as well as making a substantial contribution to net zero, the air-to-air heat pump solution is also a cost-effective option that takes account of our financial situation.

The total capital cost of the Project will be £40,000. Of this, we are fairly sure of receiving up to £8,000 in Grant funding from Carlisle Diocese. We also have good reason to hope for a further £17,000 from national net-zero funding, although this is not certain. Other grant funding is also being sought. This means that we will need to raise somewhere between £15,000 and £32,000 to fund the project.

Can we trust air-to-air heat pumps – are they suitable?

You will most likely have heard and read about heat pumps which replace central heating boilers. That type are called “air-to-water” heat pumps, rather than “air-to-air”. Air-to water units are not suitable for our extension because there is no water-filled system in most of the extension to which they can be connected. So the units that have been selected for this project are not of that type. Air-to-air units have been chosen. These are well suited to our building, and they are also much more efficient than air-to water units.

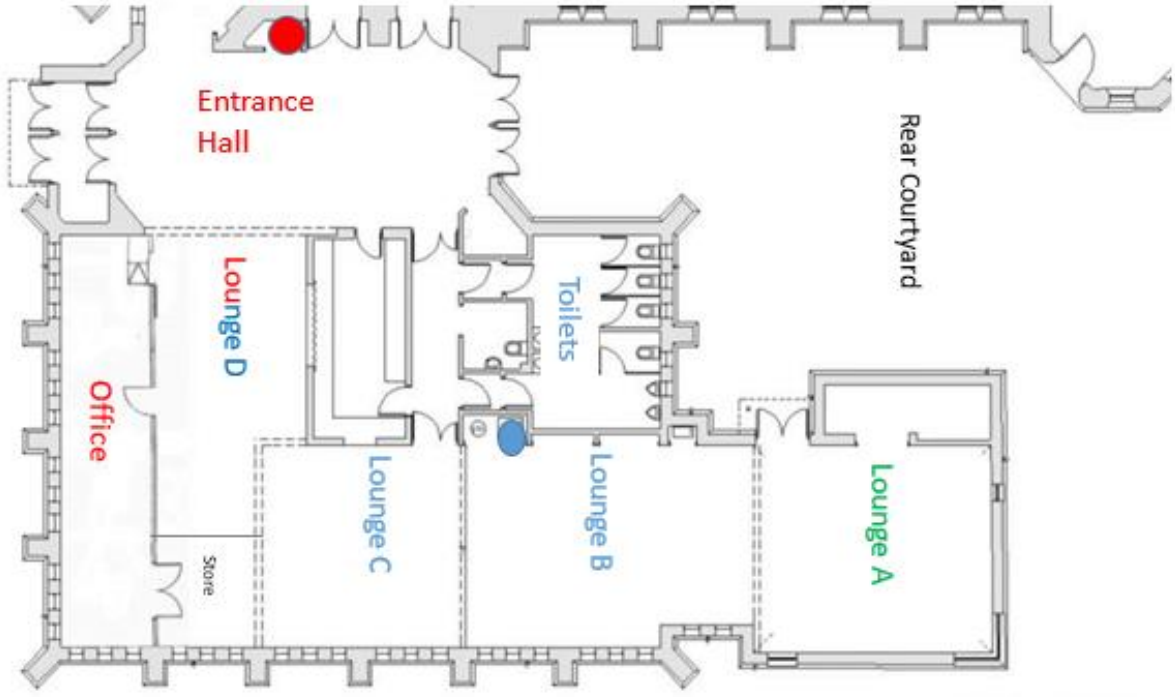
For more detailed information, go to “Extension Heating Project” under “Home” on our website at Stkweb.org.uk.

Zoning

The two gas-fired systems were designed to heat the whole of the extension between them. So there were in effect just two zones. One of those heaters heated the entrance hall and the front of the extension where the office now is. The other heater used to heat the toilets and the remainder of the building. Both of these boilers are now condemned.

The rear lounge (where the projector is) has its own underfloor gas-fired system, but that takes a long time to heat up and cool down and is not well suited to the use that we now make of the room.

The new system will allow independent heating of each of the following areas: entrance hall, each of the two ends of the office, each of the four lounge areas.



Funding sources

Funding from the following sources is being sought:

Church of England funding including diocesan funding, and national Net Zero Project funding.

In addition we are applying to the following sources:

- Benefact Trust
- Baywind Energy Community Trust
- Cumbria Community Foundation
- Suez Communities Fund
- Landfill Community Trust
- Community Energy Trust
- Listed Places of Worship Scheme for recovery of applicable VAT

Other sources that we will approach are community users of the building (e.g. scouts and guides), and where appropriate donations will be sought from the wider local community.

The PCC have committed to fund any shortfall, and to fund the start of the project in full where necessary, so that contractors can be engaged and work planned in, in a timely fashion, to enable work to start in the autumn, subject to the necessary permissions.

Prayer

Please pray for this important project, which secures the sustainable, low-cost use of our extension buildings for the future, as well as providing a substantial annual carbon foot print reduction estimated at over 12,000 tons.

Pray for favour with all the aspects of this complex project, and in particular for the necessary permissions to be granted, especially Planning Permission. Pray for favour with funding that we need, especially the grant funding. Pray for the PCC as we work to progress and implement this work.

Pledged Giving and Donations

Please prayerfully consider pledging a financial contribution towards the cost of this important project. This would be an amount of money that would be called on if and when needed, depending on the final costs of the work, and on the amount of grant funding received. If we receive more pledged funding than we need, we will ask you only for a proportion of your pledged amount, rather than for the whole sum. Donations are also very welcome. Any unused donation will be used for buildings work and wherever possible in a way that benefits the environment, or contributes to Net Zero.