

## Q & A Panel

Parish	Question	Response
St Peter's, Belper	We wanted to insulate fully our loft/roof space, but the cost was astronomical would there be any grants available for this?	<p><b>Gareth:</b> In relation to environmental improvements to your buildings' energy efficiency, if you are looking to match fund any grant money, one way would be to work out your energy cost savings over the first five years and borrow some of the money (up to £10k) interest free from the Bishop of Derby's St Peter's Churchyard fund</p> <p>Please also see list of funding organisations on handout.</p>
St James, Barlborough	Large amount of stonework which has deteriorated and needs replacing. We also have a failing organ. Any information regarding grants/funding would also be most welcome.	<p><u>Stonework</u></p> <p><b>Gareth:</b> Funds - National Churches Trust – major urgent repairs fund that will fund up to a maximum of 50% of a project. The overall cost of the project must be over £100,000. <a href="https://www.nationalchurchestrust.org/get-support/grants/which-grant">https://www.nationalchurchestrust.org/get-support/grants/which-grant</a></p> <p><u>Organ Repairs</u></p> <p><b>Gareth:</b> Some small grants available from specialist trusts. Usually around £500-£1000. Sometimes churches choose to set aside some of the organists' fees from weddings and funerals to build up a small pot of money.</p> <p><b>Nigel:</b> Derby Organists' Association - <a href="https://derbyorganists.co.uk/resources">https://derbyorganists.co.uk/resources</a> <a href="https://derbyorganists.co.uk/wp-content/uploads/Restoration-Grant-Criteria.pdf">https://derbyorganists.co.uk/wp-content/uploads/Restoration-Grant-Criteria.pdf</a></p>
St Mary the Virgin, Denby	What evidence needs to be submitted to the DAC to show that gas is the only practical option for a replacement heating system?	<p><b>Nigel:</b> Might find it difficult to rule out electricity on a green tariff as an option <a href="https://www.churchofengland.org/sites/default/files/2021-09/Heating_options_appraisal.pdf">https://www.churchofengland.org/sites/default/files/2021-09/Heating_options_appraisal.pdf</a></p> <p><b>John:</b> Do you need to heat your entire building? If you do, do you need to heat it all to the same temperature</p>



Is it possible to 'zone' your building? If this is possible, then you are heating smaller areas which means that your replacement boiler can be smaller. It can then be set so that particular zones are heated to specific temperatures at particular times.

You can reduce your consumption by insulation. This will also mean that you need a smaller replacement boiler with lower, ongoing energy costs.

If you stick with gas, you won't decarbonise.

Have you considered an air-to-air heat pump system ? These heat up the building more quickly.

See: <https://www.leicester.anglican.org/content/pages/documents/framland-rcef-technical-document.pdf>

page 20. Would this be impractical in your building ?

If you wanted to see an example, you could visit St Egelwin's, Scalford, see <https://www.achurchnearyou.com/church/3465/>

Churchwarden of Scalford is Penny Clemons:

Mobile: 07443 618746

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Also see: <https://www.achurchnearyou.com/church/10125/page/43744/view/>

**Kat:** If your church is relatively low use and has fixed pews, could you consider installing under pew heating, so that you are heating the people rather than the building?

**Nigel:** Wormhill Church has got electric panel radiators on the wall.

Middleton by Wirksworth Church has an LED/radiant heater chandelier (See left).

<p>All Saints, Risley</p>	<p>What grants are available for installing solar panels?</p>	<p><b>Gareth:</b> If your church is within 5 -10 miles of a landfill site, then Entrust can fund community projects for buildings/community spaces where you are looking to environmentally improve places and community facilities. Entrust claims up to 90% tax relief of what they pay on community projects but the extra 10% needs to be paid to the landfill organisation by a 3<sup>rd</sup>-party funder. Entrust then passes on 100% of the funding for the project.</p> <p>Entrust - <a href="https://www.entrust.org.uk/landfill-community-fund">https://www.entrust.org.uk/landfill-community-fund</a> Please see list of other funding organisations on handout.</p> <p><b>John:</b> When considering installing solar panels, it is important to think about how you use the energy provided. If the building is low-use, then most of the energy will go into the grid.</p>
<p>St James, Riddings</p>	<p>In our church we have a very old boiler run by electricity. We need to replace our boiler with something more economical. We would be interested to be advised about replacing our boiler. We do not have a gas supply to our church.</p>	<p><b>John:</b> Probably sensible to think about some kind of heat pump, and air to air might be a lower cost and more responsive option than the others.</p> <p>A three-phase electricity supply is generally necessary for large heat pumps. Does your church have this?</p>
<p>St Werburgh, Derby</p>	<p>How do churches measure their carbon footprint and the impact of potential changes in order to determine if they are making progress towards the net-zero target?</p> <p>What does the panel consider to be the high-value carbon savings in old energy inefficient buildings?</p>	<p><b>John:</b> There are many online tools, and there may be good ones adapted for Churches. If you can't find something off the shelf that works as you'd like it, I could do a 'skill share' type event to explain how to work out your footprint from government emissions factors, and your energy bills, vehicle use etc.</p> <p><b>Stella:</b> Re Carbon foot print and net zero: I hope I have answered this question in particular 6a comprehensively via a new webpage under the heading of Environment: <a href="https://derby.anglican.org/en/our-mission/environment/net-zero-next-steps.html">https://derby.anglican.org/en/our-mission/environment/net-zero-next-steps.html</a> your feedback is welcome.</p> <p>'Using the Energy Footprint Tool in the Parish Returns system. The tool is open this year up until the end of July 2022. If you've not done this before it will give you a baseline. This information went out in enews and Eco Church news at/ just after Easter. If you don't yet receive these and want them do ask to be added to the mailing.</p> <p><b>John:</b> In general, thinking about heating, insulation, ventilation and moisture control in a more integrated way. (A 'fabric first' approach.)</p>

		<p>When looking at retrofit approaches you are now being encouraged to think in terms of a 30-year timescale plan. The necessary detailed design by experts, and 'deep retrofit' work, can be very expensive, and it is unlikely that you will be able to do it all at once. However, this does allow you to look at what needs to be done and prioritise accordingly.</p> <p>Ideally these aspects of building fabric would be considered in a holistic way along with heating, to maintain the fabric, minimise energy use, and provide adequate levels of comfort when heating is required.</p> <p>It's also worth noting that using a heat pump should give rise to much lower emissions than a condensing gas boiler (perhaps only 30 or 40% as much as gas). But again, most heat pumps are significantly more expensive than gas boilers to install.</p> <p>Given current energy price changes, I wouldn't like to predict if a gas boiler or a heat pump would be cheaper to run in 5 or 10-years' time, but the heat pump will be much lower carbon, especially as our electricity supply is likely to decarbonise further and gas might increase.</p> <p>When considering which experts to contact for advice – it's worth contacting Historic England to guide you. <a href="https://historicengland.org.uk/">https://historicengland.org.uk/</a></p> <p><b>Stella;</b> Also consider the Centre for Alternative Technology at Machynlleth <a href="https://cat.org.uk/info-resources/free-information-service/">https://cat.org.uk/info-resources/free-information-service/</a></p>
<p>St. John, Newhall</p>	<p>The Heating Boiler at St John's Newhall is having problems and we are thinking of replacing it, at present it is oil fired.</p> <p>What more environmentally friendly options might we be able to explore?</p> <p>We have a large south facing roof and the question has been raised if we could fit solar panels, where would we start to explore this?</p>	<p><b>John:</b> Again, air to air heat pumps are probably worth exploring.</p> <p>I'm happy to come and have a chat about solar panels and possibly storage, or indeed to do a skill share on this topic.</p> <p>Keep in mind though, that while heat pumps are great and solar panels are great, the time of year that heat pumps need most energy, is the time of year when the sun shines least.</p>
<p>St Giles, Hartington</p>	<p>Do you give advice on heating options?</p>	<p><b>Nigel:</b> DAC has a heating adviser – Richard Taylor. Please email Nigel for his contact details, if required.</p>

		<p><b>John:</b> I'm happy to, as long as it's low carbon heating or energy saving controls on conventional systems.</p> <p><b>Stella:</b> Church of England has produced a list of suppliers that they deem to be 100% renewable. <a href="https://www.churchofengland.org/sites/default/files/2021-08/Green-Energy-Companies-and-the-Energy-Footprint-Tool-August-2021-FINAL.pdf">https://www.churchofengland.org/sites/default/files/2021-08/Green-Energy-Companies-and-the-Energy-Footprint-Tool-August-2021-FINAL.pdf</a></p>
St Helen, Etwall	Given the move towards renewable energies, are the DAC likely to look more favourably on visually obtrusive schemes such as solar panels or air ducts, than they may have done in the past?	<p><b>Nigel:</b> Yes!</p> <p>Melbourne Church is a grade 1 listed building and has got solar panels on its roof. Air ducts – more a case of where they will be sited.</p> <p>The DAC strives to find ways in which it can support applications. 98% of applications get a positive recommendation from the DAC. The DAC has no decision making powers and exists solely to advise the Chancellor who <i>is</i> the one who makes the decisions.</p>
Question from the Floor	When calculating carbon footprint, do we exclude for example the purchasing things, paper that we use for photocopying etc?	<p><b>Stella:</b> Currently the Energy Footprint Tool is in its early stages (Scope 1 and 2), so at present, it is only looking at energy and fuel. Good environmental practice is to stick with what you've got until you need to replace it. When it comes to replacing something, then think renewables in terms of your purchases and energy.</p>