

CO2 reduction project advice:

This information is put together from personal experience and is used at the reader's own risk. There are many more suppliers out there than I have noted so my suggestions are only a start.

Solar panels

Here is a video of our experience at St George's church: <https://www.youtube.com/watch?v=XHC4TwfSfdE>

We contracted with Synergy Power Ltd – contact details:

Kuki Dattani

kuki@synergypowerltd.co.uk

07752 333433

www.synergypowerltd.co.uk

We also had a helpful quote from Stratford Energy:

Jason Savidge

01789 262 411

E-mail: jason@stratfordenergy.co.uk Web: www.stratfordenergy.co.uk

The Church of England 'Parish Buying' has further information and contacts for installing panels on churches:

<https://www.parishbuying.org.uk/45-categories/net-zero-2030/230-solar-pv>

The suppliers will be happy to quote – probably from a google satellite image initially - and will describe the different types of panel. In essence there are two main options, series or parallel installation. In series, if one panel is shaded, they all lose power, but in parallel then only that one would lose power.

We do not have a battery, and I do not recommend them. They can only store enough energy to allow some use in the evenings or mornings when the sun is not shining, but they cannot store enough from the summer to winter. They are not environmentally beneficial as they don't generate anything and cost resources to make, but may be commercially interesting if you have high evening use.

The following link describes planning considerations:

<https://www.planningportal.co.uk/permission/common-projects/solar-panels-non-domestic/planning-permission>

The supplier will need to check out your roof to make sure it's strong enough and will arrange grid connection permissions.

Two useful government sites are:

https://www.ofgem.gov.uk/sites/default/files/docs/2020/02/seg_generator_guidance_-_final_for_publication.pdf and

<https://www.gov.uk/government/publications/register-energy-devices-in-homes-or-small-businesses-guidance-for-device-owners-and-installation-contractors/register-energy-devices-in-homes-or-small-businesses-guidance-for-device-owners-and-installation-contractors>

and this site shows which companies are obliged to buy your export:

<https://www.ofgem.gov.uk/publications/seg-supplier-list>

An additional piece of advice – try to get your meter changed to a SMETS2 smart meter if you don't already have one. It will make it easier to sell your excess power. I have found Octopus to be the most responsive supplier/purchaser. If you do sign up with them, you can use the referral <https://share.octopus.energy/ore-wasp-52> to share a reward with me.

Heat pumps

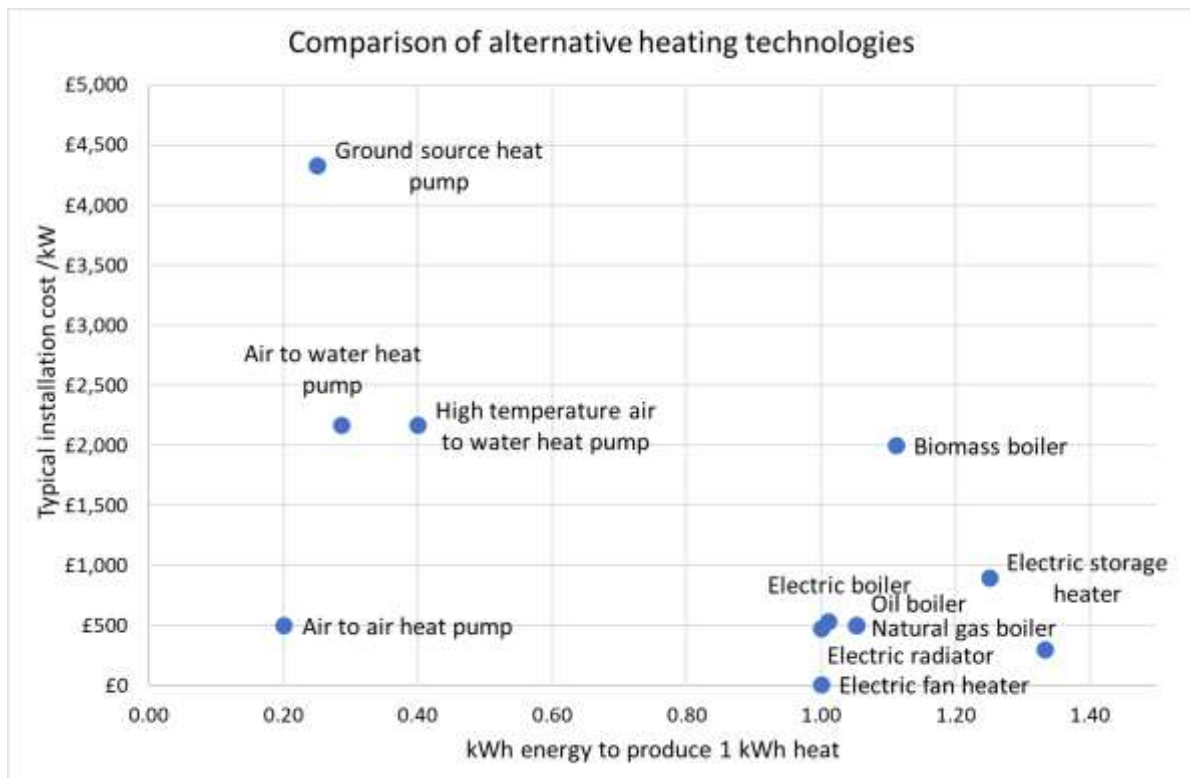
Here are my blog posts on our experience of domestic air to air heat pump:

<https://philhemsley.wordpress.com/2021/11/15/a-cost-effective-way-to-get-your-co2-down/>

<https://philhemsley.wordpress.com/2022/08/24/a-heat-pump-strategy-that-works/>

Here's a helpful video explaining the difference between different heat pump types (from about 2 minute in). <https://www.youtube.com/watch?v=dziURTVfIVY>

And this is a chart I've put together of the relative costs and effectiveness of different heat generators:



To find local installers for heat pumps, look for 'air conditioning' rather than heat pumps, or try searching the FGas register: <https://fgasregister.com/company-directory/>

Here are some local companies that I am aware of:

Nationwide

Steve Varley

steve@airconditioningnationwide.com

<https://www.airconditioningnationwide.com/>

Custom Heat

Tom Price

office@customheat.co.uk

www.customheat.co.uk

Accutemp

Dave Horsley

sales@accutemp.co.uk

<https://accutemp.co.uk/>

Northants air conditioning

Justin Rawlings

info@northantsrefrigeration.co.uk

<https://www.northantsaircon.co.uk/>

John Earl Electrical Services

Adam Earl,

adam@johnearlservices.co.uk

<https://www.johnearlservicesltd.co.uk/>

Chillaire

John Stacey

j.stacey@chillaire.co.uk

<https://www.chillaire.co.uk/>

LED lighting

LED lighting is far more efficient than either incandescent or fluorescent lighting. There are different ways to convert to LED. For standard (e.g bayonet) bulbs you can just buy straight replacements. Fluorescent bulbs can be replaced with some adaptation to the fitting – probably best to get an electrician to do that. Other lighting may need a complete fitting replacement, and again it's best to get an electrician to do that. If you have dimmer switches, you need to ensure that your LEDs are compatible – some are, some aren't.

How to find a tradesperson / company

One good way to find an electrician (or other tradesperson) is to post the job on a site such as:

- <https://www.checkatrade.com/>
- <https://www.mybuilder.com/how-it-works>

These sites give good advice on how to go about it too.

How to find the money

You may have enough money without asking for assistance, but if you do need financial help then in addition to directly asking the congregation or parish there are grant making bodies:

The Coventry Diocese Church Improvement Fund makes grants for various improvements including Net Zero projects. The Diocesan Synod voted that Net Zero grants could be up to £25k, although the webpage below does not yet reflect that:

<https://www.coventry.anglican.org/info-for-parishes/church-buildings-dac/church-improvements-fund/>

Warwickshire County Council have been offering grants, and it's worth keeping in touch with your local councillor. Here are two examples:

<https://www.warwickshire.gov.uk/greenshootsfund>

<https://www.warwickshire.gov.uk/cllrgrants>

The Church of England has a list here: <https://www.parishresources.org.uk/resources-for-treasurers/funding/>

Parish Buying link to a few funding agencies here: <https://www.parishbuying.org.uk/categories/net-zero-2030/financial-assistance>

Here is another 'portal' to potential funders: <https://www.heartofenglandcf.co.uk/available-grants/>

Where to find insulation:

B&Q are very good value for insulated tile backer board. But google search shows many options.

Search for "Insulated Tile Backer Board"

Toolstation or Wickes may stock a few rolls of ~5mm thermal lining paper but may need to buy online

Search for "Thermal Lining Paper"

Some good insulation suppliers I've used who all delivered:

<https://www.celticsustainables.co.uk/insulation/>

<https://www.insulationsuperstore.co.uk/>

<https://www.melbros.com/product-page/rigid-pir-insulation-board-2400-x-1200-x-100mm> - a local company...

Here's another company who also do insulating plaster:

<https://www.ecologicalbuildingsystems.com/products/insulation-and-materials/solid-wall-insulation>

Also worth looking on Facebook Marketplace for insulation or other materials, as people often over order and offer the remainder for sale.

If you find this helpful, then please consider donating to a small charity that I am trustee of that helps the poorest in Beira, Mozambique:

Charity name: **1 JOHN 3:17-18 BEIRA**
Charity number: **1191669**

For details of the activities see <https://register-of-charities.charitycommission.gov.uk/charity-search/-/charity-details/5165667/accounts-and-annual-returns>

Account Name: **1 JOHN 3 BEIRA**
Sort Code **08-92-99**
Account Number: **67198719**

Thanks,
Phil Hemsley
Email: Phil.Hemsley@tiscali.co.uk