THE CHURCH OF ENGLAND

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We have a presence in every community. And our buildings are invaluable tools for mission. They act as witness to our faith and as such should

reflect our responsibility to care for God's earth.

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The first steps toward a sustainable building

If you are starting from scratch and want to improve the sustainability of your church building, then follow these simple steps:

Step 1: Understand your building

To manage what you have, you need to understand it.

- What is your current energy usage? You will need to consider where your meters are and who reads them.
- Use the Energy Footprint Tool to work out what your carbon footprint is.
- Use the Eco Church survey tool to guide you through the different areas relating to your building that you'll want to pay attention to.
- Ask your congregation and others in the community who use your building what their experience is like: are they comfortable in the building?
- Check your VAT. Most churches should only pay <u>5% VAT</u> and no Climate Change Levy (CCL).

Step 2: Switch to a green tariff

Rising prices for electricity and gas are expected. But switching to green electricity and gas (where possible) can help you future proof. Make it missional. Buy green electricity together with other churches. It allows us to negotiate a better price for you.

Sign up to Parish Buying's energy basket.

Step 3: Create a list of soft and hard changes

Soft changes: A list of fairly easy actions to improve energy efficiency, increase comfort and improve the sustainability of your building:

• E.g. installing a thermostat, clearing gutters, refurbishing radiators, reducing draughts, insulating pipework, reviewing floodlighting times, adding pew cushions, reviewing paper usage, cleaning products and transport options.

Hard changes: A low carbon replacement list which will require greater investment:

• E.g. replacing lights with LEDs, buying a new boiler, buying energy efficient electrical equipment, installing renewable energy generation like solar panels and installing a bike rack.

Step 4: Create an action plan

Putting together an action plan will ensure you set goals, help you to work toward realistic timescales, and allocate specific people to specific tasks. How will you know what success looks like? Find out more here about action plans **here**.

Step 5: Tell others what you are doing and why it's important

Ask for people's help in making the building more sustainable. Celebrate achievements and steps toward your goal.

Taking on a building project?

If you are about to do any building works, make sure you have looked at the most energy efficient options and thought about **sustainability**. This is part of good stewardship. And many **funders** now expect you to consider the environmental impact.

Think about:

The materials and products you use to refurbish the building

Try to use the most environmentally-friendly products possible. Think about:

- Where the materials and products come from.
- How much energy it takes to make them.
- How they will be disposed of after use.
- And whether they have an ethical supply chain.
- The life-expectancy of new facilities. Some options may be more expensive up front, but cost-effective in the long run if you opt for longer-lasting materials.

If you're installing a toilet for example, can you use a grey-water system that uses rainwater to flush the toilet, a waterless toilet or even just one that is more efficient?

Can you re-use any existing materials or equipment? If not, is there anywhere you can recycle them locally, perhaps with Freecycle?

Environmental sustainability is an ongoing responsibility. The building's operation should be as environmentally-friendly as possible, so it is worth reviewing sustainability as part of your **Quinquennial Inspection**.

The BRE Environment Assessment Method

BREEAM sets the standard for best practice in the **environmental performance of buildings**.

It looks at the building's performance in areas like:

- Energy use (using LED bulbs is one of the easiest ways to improve energy efficiency)
- Pollution
- Water consumption
- And the materials used

The age and construction methods of your church, however, mean that it might not be possible to attain BREEAM standards. But that doesn't mean you shouldn't always try to achieve the highest environmental standards possible. Make this clear to your architect, when they're writing their detailed brief. Get advice on saving energy in historic buildings.

Heating

Look at:

Efficiency

• Greenness

Meeting conservation requirements

• The different uses of your church (e.g. regular use, mixed uses, heating of different spaces, infrequent or irregular use)

Find out more about heating sources and underfloor heating. See below for more information on generating your own renewable energy.

What will the environmental impact be during the building works?

- What steps will you take to reduce noise pollution while builders are carrying out your refurbishment?
- Will the noise affect those in the church and neighbouring properties too?
- Consider the footprint of the refurbishment process: if your contractors have to travel a long distance to get to the site each day, this will increase your carbon footprint for the project.

The environment around your building

Improving the **biodiversity** of any church land or creating local growing projects are great ways to engage the community.

Generate your own renewable energy

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As the cost of technology goes down, more and more churches are opting to install renewable energy sources. If we are going to meet the target set by General Synod to be **net zero carbon emissions by 2030** then renewable energy sources are going to be a vital part of the Church's collective action.

Find out if a church has installed renewable energy near you

Why consider renewable energy?

Renewable energy has many benefits. It is almost infinite, occurs naturally, causes less damage to the environment than fossil fuels, produces less waste, and can be available where electricity and gas networks don't reach.

In a church context, renewable energy can:

- Enable you to make a big contribution to helping the environment.
- Be a rewarding community project.
- Attract visitors.
- Reduce the environmental impact of a site.
- Serve as an educational tool.
- Make a statement to the outside world that your church, and the Church of England, is taking the care of the environment seriously.
- Save you money in the long term: installation costs remain high for some technologies, but are coming down considerably for solar PV, for example.

Types of low and zero carbon technologies

- Solar panels PV (photovoltaic) cells and solar hot water.
- Biomass heating.
- Ground source and air source heat pumps.
- Combined heat and power (CHP).
- Anaerobic digestion (biogas).
- Wind turbines (generally not thought of as viable on church buildings).

Find out more about installing these technologies on heritage buildings.

Things to remember

Before you install any renewable technology in your church make sure you have done all the simple energy saving measures. If you need help deciding which technology is best for you contact **your Diocesan Advisory Committee** and your architect.

You can also try the **OnGen tool** — be aware that it was not designed with churches in mind.

Funding for renewable energy

Funding is limited but there are a number of ways for you to obtain financial support for renewable energy sources. Why not look into:

• The **renewable heat incentive** from Ofgem.

- The list of grants prepared by Parish Resources, at section 4 on this page.
- Community funding (e.g. crowd-funds or shares).

Case studies

Power Up North London

Power Up North London is a joint project between Transition Dartmouth Park, Transition Tufnell Park and Transition Kentish Town that aims to make communities stronger, greener and more self-reliant.

They helped install solar panels on the roof of St. Anne's Church in Highgate as part of a refurbishment project.

Find out more about the project



Also of interest



Eco Church



er church.



What type of renewable is right for you?



Sustainable cathedrals



Making changes to your building

Let us take you through the steps of a building project

Source URL: https://www.churchofengland.org/about/policy-and-thinking/our-views/environment-and-climate-change/how-you-can-act/sustainable-buildings

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