

## Guidance for Churches Off the Mains Gas Grid

Much Net Zero guidance focuses on how to move away from gas fired heating systems to low carbon alternatives. But what can those churches who are off the mains gas grid do? Estimates suggest approximately 15% of households across the UK are off the mains gas grid (rates are higher in Scotland and Wales), so the move to low carbon heating has implications for manse too, particularly in rural areas, as well as for the church's local community. With recent global events highlighting the instability of oil prices in particular, moving to low carbon heating systems particularly when combined with on-site electricity generation, can help to insulate churches from these price rises. The Rural Services Network has written on this [here](#) and [here](#).

For buildings off the mains gas grid, they typically rely on electric heating systems, oil or LPG to heat the building.

For those with an electric heating system already, to become a Net Zero church, you should switch to a renewable electricity tariff. The Church of England has commissioned a piece of work to identify green tariffs- you can find [the list here](#). If you are a high energy user, such as a building used throughout the week, you may also wish to install [solar PV](#) to generate your own electricity. The array should be sized to meet your electricity demand- an installer can use your energy bills to work this out.

Whilst an electric heating system combined with a renewable tariff and onsite energy generation makes a church net zero, you may still be able to undertake fabric works to make the building more energy efficient. This could include switching to LED bulbs throughout, increasing insulation levels, installing double or secondary glazing and dealing with any damp or draught issues. The [Net Zero Checklist for Churches](#) will help you to identify what works would be needed in your building.

For those on an oil-fired heating system, the church will need to switch to a low carbon alternative. This could be a [heat pump, infrared heating or another electric heating option](#). Switching to an electric system is preferable to switching to Hydrotreated Vegetable Oils (HVO), which churches may have heard of as an alternative to heating oil. There are concerns about the traceability and transparency of the supply chain, including concerns that supplies may contain virgin palm oil and therefore be linked to [deforestation and biodiversity loss](#). Both [the Church of England](#) and [Balfour Beatty](#) do not support the use of HVO. If switching to an electric system is not possible, churches should ensure that they find a supplier of HVO who can provide full details of the supply chain, as a [Kehelland Methodist Church](#).

LPG (Liquified Petroleum Gas) heating systems use stored gas to power a boiler for a wet central heating system, functioning like a mains gas system. Therefore, switching to an [air source heat pump](#), and retaining the existing wet system of radiators and pipework, may be a suitable low carbon alternative.

Examples of churches who have switched to low carbon systems include;

- [Trinity Methodist Church, Newport](#) switched from an oil fired system to gas before moving to electric heating
- [Holy Trinity in Sibford](#) switched from oil fired heating to electric under pew heaters
- [St Andrew's Chedworth](#) moved from oil fired heating to a combination of electric heating options

If you are making the switch and need funding for your project, you can find [guidance and funders here](#). You can also contact the [Net Zero Project Officer](#) for guidance.