During services that occupy the entire internal floor space, temporary seating is installed in areas without pews, necessitating additional heating at the rear of the church.

Our assumption is that when people travel to church, their clothing typically reflects the outdoor weather. In colder conditions, they will layer up - often including a coat - to stay warm. Upon arrival, they currently expect the indoor temperature to be comfortable enough to remove their coat and remain at ease throughout the service.

As our plans now focus on localised heating to keep individuals warm at their seats, rather than heating the entire space, people may experience lower ambient temperatures in other areas of the church.

Option 1: Appropriate Clothing
We will inform attendees of services requiring temporary seating that, while those seated in pews can expect a comfortable temperature, individuals in temporary seats may need to keep their coats on to stay warm during their time inside the building.

Option 2: Additional Electrical Heating
Our calculations indicate that, under the 80% rule, our current plans suggest that we would use 97.3 Amps. What this means is that the actual figure is 77.9kW, but we have given ourselves a 20% safety buffer so that the 100Amp supply does not get overloaded.

If required, when needed we could reduce this to 66.6 Amps (under 80% rule) by closing down: 1st row of lights at front of Church; 6th row of lights at the back of church; the photocopier; everything inside the 'church' room; and the sockets in the Heritage Zone. This would give us 33.3 Amps (on the 80% rule basis), equivalent to 8kW free capacity to bring in additional electrical heating on a short-term rental basis.

Our planned application of diversity ensures adequate capacity to operate the intended appliances. Diversity accounts for the fact that not all connected electrical loads will function at full capacity simultaneously. By incorporating diversity factors, we can design the distribution board and associated circuits more efficiently - balancing safety with practical load expectations and avoiding unnecessary overspecification.

Our plans are to ensure that we avoid overloading any single circuit – by spreading high-demand appliances across multiple ring mains or radial circuits, and they will be exposed to less than 80% of their designed limit.

We have at least two free access points in our distribution board that are free, and we have two ring mains within the area where temporary seating may be required that are well underused. As such we are confident that we can provide control measures that will allow us to use additional heating capacity of not more than 8kW, and remain within our 80% rule for all circuits.

The choice of heating unit will depend on the specific circumstances. As such, we anticipate using hired equipment that best suits the requirements of each situation. These heaters are available from multiple UK rental providers.

For 8kW of additional electricity heating, running for two hours per service, for the anticipated maximum of 10 services per year, this would increase our tonnes CO_2 by 0.031 tonnes, increasing our total overall anticipated tonnes of CO2 to ~0.214 tonnes

Option 3: Self-Contained LPG Cabinet Heaters
We have the option to rent fully self-contained LPG cabinet heaters - portable gas units well-suited for heating homes, offices, and temporary spaces. These heaters are available from multiple UK rental providers.

LPG cabinet heaters operate independently of electricity. They run solely on liquefied petroleum gas (typically butane) and feature a piezo ignition system for safe and reliable startup.

When used correctly, these heaters are considered safe. To ensure safe operation, it is essential to maintain adequate ventilation, conduct regular safety checks, and follow all manufacturer guidelines. In practice, a minimum clearance of one metre around the heater must be maintained at all times.

We concede that the use of a fossil fuel is against the basic requirements of moving to net zero. If we were to rent 10 units for the anticipated maximum of 10 services per year, then a 3.4kW unit, running for two hours per service, for the anticipated maximum of 10 services per year, would increase our tonnes CO_2 by 0.146 tonnes, increasing our total overall anticipated tonnes of CO_2 to ~0.329 tonnes

Option 4: A mix and match of Options 1,2 and 3 above

We have no plans to provide direct heating to the Heritage Zone

It is important to carefully assess the impact on the Heritage Zone during the winter months, as the lack of background heating may reduce its comfort, appeal, and accessibility in colder conditions. This change prompts a seasonal reassessment of how the space is used and whether alternative low-level heating or conservation strategies are necessary to preserve its functionality.

Option 1: Applying additional heating
These measures will closely align with those outlined in Scenario above.

Option 2: Move the Portable Exhibitions
It is expected that most displays will be portable. Should Heritage events be held during colder periods, the displays could be relocated to the adjacent community centre to ensure a more comfortable environment.

Most individuals entering the church arrive in a naturally “warm state,” having retained body heat from prior activity or external conditions. However, when the ambient temperature falls below 20°C, the body begins to lose heat. The goal of our project is to maintain the temperature in each person’s immediate vicinity as close to 20°C as possible. By achieving this, we can ensure that attendees remain comfortable throughout their time in the space, without the need to heat the entire building volume unnecessarily.

We believe that a layered approach - combining carpet underfoot, underpew heating for the backs of the legs, and optional personal heated pads for top of the legs, bottom and the lower back - offers the most effective and considerate heating solution for our congregation. This strategy prioritises comfort while remaining energy-efficient and adaptable, making it our preferred option for services held within the church.