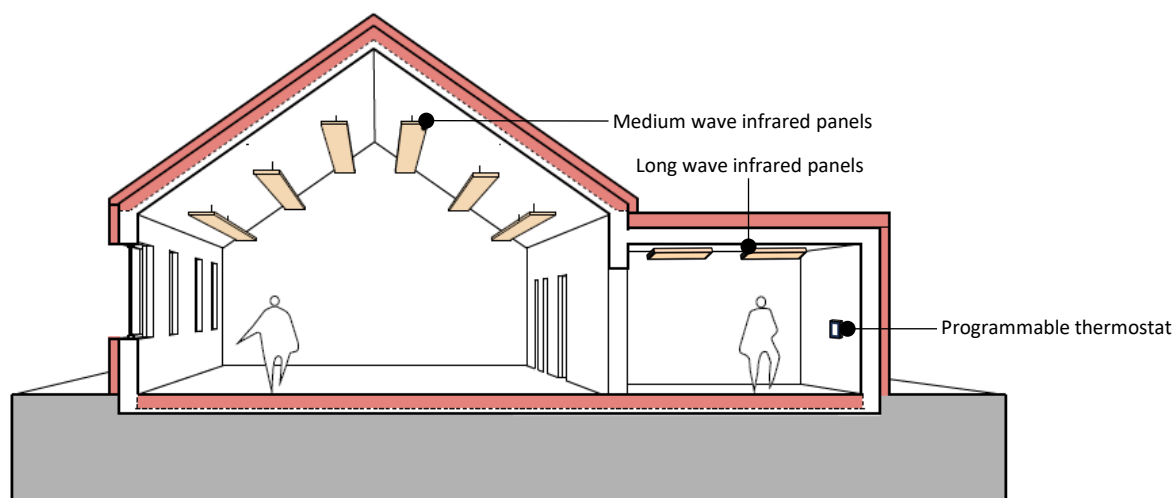


Turning heating on it's head with Infrared

In the past, using electricity to heat buildings was an expensive business with technologies such as storage heaters, which relied on cheap night tariffs, gaining a reputation for poor performance. However, technology has moved on and today there are two main ways to heat a village hall using electricity at reasonable cost, electric infrared heating and heat pumps. Both are good systems and suitable for different applications. Ultimately it will be for village hall management committees to decide which is the most suitable system for them, taking into consideration advice from professional advisers. The following provides details about electric infrared heating.

Village halls are quite a distinct typology and usually have one large main hall with a pitched roof and a high ceiling, and a series of smaller ancillary rooms such as a kitchen, meeting room, lobby and toilets with standard ceiling heights. It is important to use the right type of infrared in each area. The smaller rooms are relatively easy to address but the main hall is a special issue due both to its size, as well as the intermittent and varied nature of its use. Some halls may be used for one activity per day whilst others may host back-to-back groups and activities throughout the week, many with different room temperature preferences. In our view, the size of the hall and the nature of its use are two important considerations when deciding which heating system to choose.



Example village hall now insulated, with infrared panels suspended from the ceiling

Electric infrared heating systems

Infrared heating works by gently radiating heat to warm people, furniture and the fabric of the building. It is the same warming effect as sunlight. The heaters can either be mounted on the ceiling, suspended or wall mounted. Infrared heaters can be used to directly heat people when in use, or if run for longer periods of time can heat the whole building.

This differs from convection heating (radiators or underfloor) which needs to heat the entire volume of air and requires more energy to heat the whole space. This is especially a problem in halls with high ceilings (warm air rises to the ceiling void where you don't want it) and in less well-insulated buildings where transmission losses from the building are greater.

For halls with high ceilings, suspending the infrared heaters lower will improve the effectiveness of infrared heating systems as this optimises the direct heating effect of the heaters on the occupants.

Infrared heating has many advantages in that it is easy to install, highly controllable, has no maintenance requirement, and is mounted out of reach of people. Infrared heating systems can be installed in both insulated and uninsulated spaces, although running costs will be lower and comfort levels higher in insulated spaces.

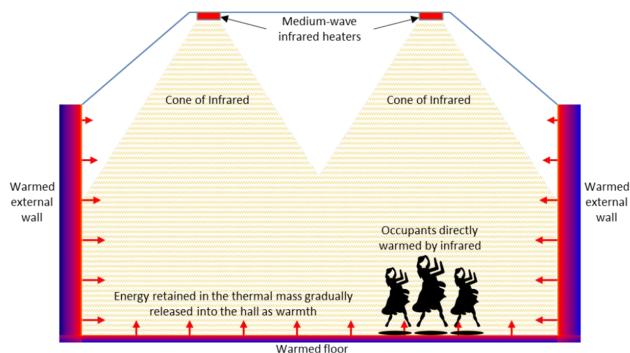
Unlike older style "quartz" heaters, modern infrared space heaters are usually zero-light and completely silent in operation. For more enclosed rooms such as kitchens and WCs infrared heaters are available as slimline white panels and mirrors.

Infrared heating can be combined with solar, battery and smart renewable energy tariffs for net zero heating. It can be a compelling alternative to heat pumps and has the advantage that there are no specialist skills required for installation, no ongoing maintenance, no risk of there being no heating in the event of a system failure, and none of the typical problems sometimes associated with wet systems such as leaks.

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Infrared Heating

Infrared heating uses radiant heat to warm people and objects directly, rather than heating the air. It's similar to the way the sun heats the earth. When infrared warmth hits our skin, it instantly releases a pleasant sensation of heat, and it is therefore also called "radiant warmth". Infrared heating is based on this principle of direct warmth and provides particularly efficient heat, saving on energy costs and reducing the generation of dust and allergens.



Benefits of Infrared Heating

Infrared heating will significantly improve the thermal comfort for those using the hall which is a very important but less tangible benefit. Heating with ETHERMA Infrared has a number of benefits:

- ease of Installation
- maintenance free operation from a quality product
- no requirement for regular servicing
- long life service of 20yrs +
- lower heating cost from a silent system
- better insulation – walls infused with infrared are drier and therefore a better insulator
- healthier environment for asthma sufferers or others with respiratory issues
- improved peripheral circulation resulting from infrared directly warming the body

Consultation, Design and Specification

At ARC Thermal, we offer personalised thermal heating consultations designed to help you find the most efficient and cost-effective heating solutions for the building. Our team of experts will assess your space, energy needs, and goals to recommend the ideal infrared heating systems tailored to your unique environment. We offer:

• Comprehensive Energy Assessment

We'll evaluate your hall's layout, insulation, and existing heating systems to identify energy-saving opportunities.

• Customised Heating Solutions

Based on your specific needs, we'll recommend the right infrared heating systems to maximise comfort and efficiency.

• Installation Guidance

We provide professional advice on optimal installation techniques to ensure peak performance for either supply only or full turnkey solutions.

Quality Products

Efficiency and build-quality has a long-term effect on energy consumption/cost of heating and the overall life expectancy of the heating system. It is the same principle as investing in quality LED lighting.

Our products from ETHERMA made in Austria are innovative technical devices and designed to make optimum use of the highly efficient infrared radiation as a source of heat. This is why we have the right ingenious warmth solution for every application.



ETHERMA°
EFFICIENT. ELECTRIC. HEATING.



"ARC Thermal Solutions were terrific and everyone says how good the new system is. It all works really well,"
Phil Bowman, Committee Member, All Saints Church Hall

A Commitment to Excellence from Start to Finish

At ARC we do more than supply high-quality heating solutions, we build lasting partnerships. From the initial consultation to installation and aftersales support, we work alongside our customers and carefully selected installation partners every step of the way. We understand that choosing the right heating system is a life-style choice and long-term investment, which is why we only offer products that deliver outstanding comfort, performance, energy efficiency and durability.

Our solutions are built to last, engineered with precision, and designed to perform in even the most demanding environments. Our long-term partnership with leading manufacturers like ETHERMA ensures we know their products as if they were our own which means we are 100% confident they meet the high standards we expect, because we don't compromise on quality, and neither should you.

More than just a supplier, we're your partner in comfort and efficiency, providing expert guidance, seamless installation, and dedicated aftersales support. When you choose ARC, you're choosing reliability, expertise, and a commitment to working together from start to finish.