Media Information

Abdul Raaj, Commercial Manager for Süka Electro Heating Systems in the UK, says that 21st century technology could save rural schools from closure.

New technology heating for rural schools

Recent reports show that on average one rural school is closing every month in the UK.

Dwindling pupil numbers and high overheads are said to be the cause, but communities hate to see the local school close. They're probably witnessing the local shop and pub close for good as well.

High heating costs are a factor because many of the schools have ageing heating systems. Indeed some rural schools use oil-fired heating systems because gas isn't available and with these old systems, come rising fuel costs and the need for regular servicing.

As with everything in communities and business, schools need to look at how they reduce costs and also reduce their carbon footprint.

The standard wet system we have come to accept as the normal feature in our homes and schools in the UK over the last 40 years isn't the most cost effective way of heating a building. And if it's an oil-fired system there's the additional impact of delivery tankers on the road.

So when we come to look at the different systems available, what is it we should examine? Well, wet systems cause the hot air to rise quickly so the ceilings are warm and the floors are cold. The result is warm heads and cold feet.

Also, thermostats on traditional radiators measure the temperature of the water in the radiator, not the temperature of the room.

The alternative, an electric system providing heat via convection, causes the air to warm and circulate in the room to reach the required temperature. Convected air is also usually very dry and this too is unhealthy.

Twenty first century technology means that electric heaters radiate their heat through an ‘intelligent’ core and the simplest illustration of radiated heat is the sun.

Even on a winter’s morning, when the temperature outside is just above freezing, the sun feels warm on your face. That’s because the receptors in the skin's surface react very quickly to radiant heat. In fact the reaction is much quicker than that with warm or hot air.

And with all buildings, but especially larger ones such as schools, it’s important to note that radiant heat also warms up the walls and furniture of a room and these too store heat and radiate it out. So the building’s shell -and its contents - are used as thermal mass and become a store of heat. This means only top-up heat is required.

This technology has been used extensively in Germany for more than 30 years. Thanks to storage capacity and sensitive thermostatic control (which measures the temperature at floor level), radiant heaters require approximately 15 minutes of electricity to provide up to 60 minutes of warmth.

Sophisticated time and temperature controls allow users to set room heaters at different temperatures.

Each Süka heater can be controlled independently, giving a flexibility of use impossible with boiler-based systems. Therefore there’s a significant reduction in energy waste and a saving on running costs.

The great advantage for a school is being able to warm a room to a desired temperature – which you can vary at any time of the day – and maintain that temperature accurately.

Electric heaters, which are easy to install, also represent a relatively low level of investment. For a start there’s no maintenance and overall lifetime costs are lower than many other systems.

And, importantly schools and the children that use them, electric heaters are comfortable and clean.

There are no emissions. The heating element is fully embedded within the fire plate and there's no direct exposure to the surface atmosphere, so less oxygen is burnt (if any at all).

The heater provides warmth without causing carbon dioxide or toxin emissions. The radiators are truly eco-friendly systems – which is just what the next generation of young people and adults need.

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