



# New Primary School benefits from renewable heat pump technology

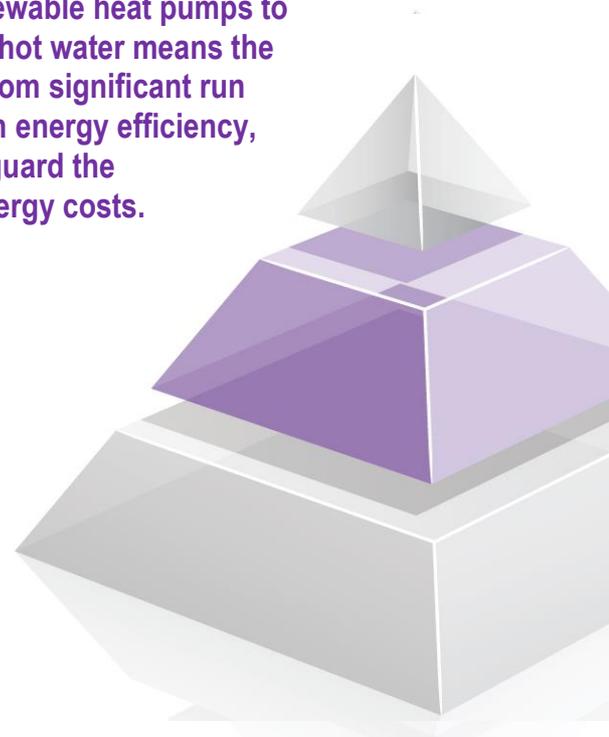
When Warwickshire County Council was looking to amalgamate two local schools into one new building they needed absolute certainty over both the build cost and programme. To do this they selected the unique Sunesis formula which uses Mitsubishi Electric's Ecodan air source heat pump for renewable heating.

Created as a joint venture between Scape and Willmott Dixon, Sunesis is an innovative approach to fixed-cost construction which delivers buildings for the public sector with speed, simplicity and certainty.

The inclusion of renewable heat pumps to provide heating and hot water means the school can benefit from significant run cost savings through energy efficiency, which will help safeguard the school's monthly energy costs.



Air Conditioning | Heating  
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Modern air source heat pumps like the CAHV units can deliver reliable hot water and heating, even in the depths of winter when outdoor temperatures drop well below freezing.



The new school was built with absolute guarantees on quality, costs and timescales.

## Heating Summary

3 x CAHV Ecodan Air Source Heat Pumps provide the hot water and heating for the school via under floor heating.

The school has been built using the Sunesis Education range of standardised, yet personalised designs and comprises 11 classrooms, a hall, catering kitchen, staffroom and offices, as well as an outdoor play area.

“The Sunesis process provides high quality, modern designs delivered on average 12 months faster and 30 per cent cheaper than market alternatives”, explains Tim Carey, Product Director for Willmott Dixon.

**“All local authorities are under increasing pressure to save money, so this system is helping to reduce the cost of building new schools”.**

The use of three Ecodan CAHV heat pumps will provide all the under floor heating and hot water that the school requires, with the Ecodan heating system operating effectively in ambient temperatures between -20°C to 40°C making it ideal for use all year round.

“Including Ecodan means that the school only needs about half the plant room space normally required for a traditional gas or oil fired system, which not only saves on the building costs but also frees up valuable additional space for education provision”, adds Carey.

For every 1kW of electricity used to power an Ecodan CAHV air source heat pump, up to 3.2kW of heat can be delivered to the building; 69% of which is renewable energy, which also means that the school now qualifies for the non-domestic Renewable Heat Incentive. Arley Primary School will receive quarterly payments for the next 20 years.

**“The beauty of this approach is that the Local Authority knows exactly what it is getting, when it will be delivered and how much it will cost, right from the start of the process.**

“In an era of increasing accountability, Sunesis provides councils with viable options which allow them to improve their learning spaces and deliver value for money, without compromising on standards”, adds Mark Robinson, Group Chief Executive at Scape.

Sunesis has delivered more than £25m worth of schools to date, with a further £22m underway.

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Telephone: 01707 282880

email: corporatesolutions@meuk.mee.com

web: www.livingenvironmentalsystems.mitsubishielectric.co.uk

UNITED KINGDOM Mitsubishi Electric Europe Living Environmental Systems Division  
Travellers Lane, Hatfield, Hertfordshire, AL10 8XB, England General Enquiries Telephone: 01707 282880 Fax: 01707 278881

IRELAND Mitsubishi Electric Europe Westgate Business Park, Ballymount, Dublin 24, Ireland  
Telephone: Dublin (01) 419 8800 Fax: Dublin (01) 419 8890 International code: (003531)

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