

## LOW CARBON BUILDINGS PROGRAMME SPECIAL

# 35% OFF HEAT PUMPS

## Join the energy savers – get your grant with Dimplex

It's 'green for go' with Dimplex, following the company's selection by the Government as one of a limited number of suppliers of ground source heat pumps for schools and other public sector and not-for-profit organisations, as well as local authority and housing association housing projects.

Dimplex has collected its latest accolade by being appointed by the Government as one of only three 'framework suppliers' given approval to supply ground source heat pumps as part of the DTI's Low Carbon Buildings Programme Phase 2 grant scheme.

"Dimplex's appointment means that the public sector can access grants for heat pumps from a trusted and established name offering a product range that has a 25 years-plus heritage of delivering high performance heat pumps. The race is now on for public sector projects to claim their share of the Government £50 million grant fund and we've set up a national network of approved installer partners to deliver high quality, low carbon solutions with the minimum of fuss," says Chris Davis, head of the Dimplex renewables division.

Read all about it – and how to access grant funding through Dimplex – in this special edition of Ecotalk!



### LCBP Explained

Phase 2 of the DTI's Low Carbon Building Programme (LCBP) provides up to 35% of the total cost of green energy installations to the public sector.

There is £50 million in grants available over the next 18 months to support the installation of ground source heat pumps and other microgeneration technologies for public sector and not-for-profit organisations. Calling for applications for the programme, the Secretary of State for Trade and Industry Alistair Darling commented, "It is vital that we cut the CO<sub>2</sub> emissions from our buildings if we are to reach the UK's 60% reduction target by 2050. Combining energy efficiency measures with the fitting of microgeneration technologies on schools and other public sector buildings can and will make a real difference."

The grants provide subsidies of 35% of the total purchase and installation cost of ground source heat pumps. Dimplex, through its national network of ClearSkies approved Heat Pump Installer Partners, provides a complete service from heating system design and installation to commissioning and after sales support.

For more information on Dimplex's support for public sector heat pump projects, **please call 0800 023 2243, visit [www.dimplex-resource.co.uk](http://www.dimplex-resource.co.uk) or email [lcbp@glendimplex.com](mailto:lcbp@glendimplex.com).**

See back page for LCBP fact file.

## Heat Pump range expands

The Dimplex heat pump range will be expanding throughout 2007 with both a design facelift and new ranges joining the 50-strong model line up.

### Ground Source

- The popular 'SI' range of single phase ground source heat pumps (5 – 14kW) will get a new look, together with enhancements in the form of new WPM 2007 controller software.
- A new line up of 3 phase units from 50 – 130kW capacity will provide the ideal solution for non-domestic applications such as commercial premises or educational establishments.
- New high temperature models will offer output flow temperatures of up to 70°C where connection to a radiator-based heating system is required.

### Air Source

- New designs for indoor units and controller upgrades for all models.
- New 'medium' temperature outdoor models offering capacities from 9 – 21kW, with water heating temperatures up to 65°C, will provide an ideal product for retro-fitting to existing properties with radiator-based heating systems.



SI ME  
Ground Source  
Heat Pump



LIK 8 ME  
Air Source Heat Pump



SI TE  
Ground Source  
Heat Pump

## CASE STUDY: Edale visitor centre

### Dimplex heat pumps hit the peaks for energy savings

A flagship new £1 million visitor centre project with a seal of approval from HRH the Prince of Wales, has been built in the heart of the Peak District using a Dimplex heat pump as part of its model for conservation present and future. Located at Edale, near the start of the famous Pennine Way in the UK's busiest National Park, the Moorland Centre is the first of its kind in the country, providing an important environmental learning experience, a national focus for moorland research as well as facilities for the local community.

### Low carbon heating

Working with Earthwise Scotland, one of Dimplex's approved and ClearSkies accredited installer partners, the National Park Authority specified a Dimplex SI30CS ground source heat pump to operate the building's underfloor heating system. There was plenty of room in the grounds for Earthwise to install the two ground loop collection systems but availability of space in the plant room was a practical aspect to consider as part of the specification, explains Jonathan Wilson of Earthwise. "There were a number of different



Edale visitor centre

routes we could go but Dimplex was the outstandingly obvious solution. Not only is the product range reliable, it also gives us high power performance, with 30kW output from just one unit as opposed to the two we might otherwise have had to specify," he said.

### Low environmental impact

Paul Harrop, head of property for the Peak District National Park Authority said that the energy usage was carefully forecast and will be monitored over the coming years. "It was vital for us that this important project is able to demonstrate minimal adverse environmental impact. Energy use is a significant part of the running costs of this hardworking building and

our energy saving measures had to be not only environmentally friendly but also practical," he says.

### Energy savings

As well as the Dimplex heat pump, other energy saving measures include a trombe wall that absorbs and stores the sun's natural energy plus a living roof of sedum turf, intersected by a waterfall tumbling over glass panels into a pool at the entrance. The Moorland Centre is the cornerstone in the development of a £4.7million 'The Moors for the Future Partnership', a project funded largely by the Heritage Lottery Fund and hosted by the Peak District National Park.

### Heat pumps for sustainable homes

There's a new national standard for sustainable design and construction in new homes, and heat pumps can help projects to meet the assessment criteria by providing low carbon heating.

The Code for Sustainable Homes measures the overall sustainability of a property, with a heavy emphasis on energy efficiency in terms of reduced carbon dioxide emissions. It's part of a package of measures with the goal of zero carbon developments being introduced as legislation catches up with the increasing importance placed on environmental issues.

### Reducing carbon emissions

Heat pumps can play a major part in helping projects to comply with the new code, as they can reduce CO<sub>2</sub> emissions by 50% or more over conventional fossil fuel heating systems.

When being assessed, each property gets a star rating and minimum standards of CO<sub>2</sub> reduction (against Part L target emission rate) apply at each level, with one star being 10% better than Building Regulations standards, through to a zero-carbon development at level six.

The Code will be introduced as a voluntary standard for private developments in July 2007 although public sector developments will need to achieve a minimum level 3 rating to attract Government funding. Incorporating a heat pump into the design of the heating system can help a development to gain a higher star rating by dramatically reducing its carbon emissions.

Full Technical Guidance on how to comply with the Code will be published in April 2007 and further details can be found on our information website [www.dimplex-resource.co.uk](http://www.dimplex-resource.co.uk)

# Air Source: the natural solution

With heat pumps set to be one of the leading low carbon heating solutions over the coming years, Dimplex believes it will be air source (or 'air-to-water') heat pumps that move the technology into the mass market.

Dimplex head of renewables Chris Davis explains, "As the name suggests, air-to-water heat pumps use the ambient air as their source of heat, so (unlike ground source heat pumps) they don't have the cost or space requirements of installing ground collectors. This makes them more practical and cost-effective in many domestic and light commercial applications, both new build and retro-fit."

Sales of air-to-water heat pumps have already overtaken ground source in countries such as Germany and France where heat pump technology is well established and the same technology is ideally suited to the UK climate with its comparatively mild winters.

Dimplex air source heat pumps are able to

extract heat from the air at temperatures as low as -20°C, but above 0°C the efficiency improves dramatically. With UK average winter temperatures of around 4°C, average co-efficients of performance of around 3.4 - 4.0\* are reasonable to expect. While this may be lower than ground source heat pumps in some cases, total installation costs are considerably lower, making air source technology a very attractive low carbon option.

Air-to-water heat pumps also have simplified system design and installation, and the training requirements are less specialised making them an ideal option for heating and plumbing engineers wanting to diversify into renewables and heat pumps.



\*based on Dimplex LA16MS air source heat pump at A2/W35 - A7/W35.

## Air source heat pumps: THE FACTS

- Freely available, inexhaustible solar energy is all around us, not only stored in the ground but also in the ambient air. So it stands to reason the outside air can also be used as an energy source for a heat pump.
- The Dimplex range of air-to-water heat pumps can extract heat from the air at temperatures as low as -20°C.
- The heat pump efficiency (co-efficient of performance) improves dramatically as the temperature of the heat source (the air) increases, so in relatively warm winter climates such as the UK, air-to-water heat pumps can reasonably be expected to achieve co-efficients of performance of around 3.4 - 4.0\*.
- In the UK, air source performance is comparable to that of many ground source heat pumps, without of course the cost or space requirements of installing ground collectors.
- Air source heat pumps are ideal for either new build or retro-fit applications, particularly where space is limited. They can be installed either indoors or outdoors.
- To optimise cost, running cost and energy efficiency the heat pump is normally sized to meet all the heating and hot water requirements down to at least 0 degrees Celsius. At lower temperatures the heat pump is automatically supplemented by an electric immersion heater.
- The Dimplex range of air-to-water heat pumps includes models suitable for indoor or outdoor installation, with heating capacities ranging from 6-28kW.

\*based on Dimplex LA16MS air source heat pump at A2/W35 - A7/W35.

## AIR SOURCE HEAT PUMP GRANTS



### SCOTLAND

Dimplex air source heat pumps have now been accredited under the Scottish Communities and Householder Renewables Initiative (SCHRI), making them eligible for grants of up to £4000 per installation in Scotland.

The scheme provides grants to individual householders, community groups and housing developers for the installation of heat pumps

and other microgeneration technologies and is funded by the Scottish Executive and managed jointly by the Energy Savings Trust and Highlands and Islands Enterprise (HIE).



### ENGLAND & WALES

Air source heat pumps are due to receive a further boost in Spring 2007, when the Low Carbon Buildings Programme, which

provides grants for microgeneration technologies to householders, community groups and public sector bodies throughout England, Wales, Scotland and Northern Ireland, will accept accreditation for air-to-water heat pumps allowing further options for grant funding.

For more information on these schemes, go to: [www.dimplex-resource.co.uk](http://www.dimplex-resource.co.uk)

## CASE STUDY:

### Moray Housing Partnership

Dimplex heat pumps are at the leading edge of a pioneering energy savings test by Scotland's Moray Housing Partnership (MHP). Installed in Autumn 2006, the heat pumps' performance is being closely monitored in two properties.

Prior to the start of the trial, energy audits were carried out, with NHER Surveyor 3 software used to predict the annual energy consumption, and a 70% saving on running costs is forecast, with a CO<sub>2</sub> reduction of 3.7 tonnes per annum. As the project is the first of its type trialled by MHP, it's difficult to confidently predict the energy savings which will be achieved, but the early feedback is encouraging, says Moray Housing Partnership's Raymond Duguid.



Dimplex LAMR heat pump

"We wanted to examine how we can help reduce our properties' CO<sub>2</sub> emissions while improving comfort for our tenants and Dimplex air source heat pumps provided the practical solution for retro fits. The systems have only been running for a couple of months but the tenants are already telling us that they are delighted with their systems and there's a significant fuel bill reduction," he says.

MHP selected Dimplex approved installer Earthwise Scotland to provide the systems in the two properties after a detailed tender process. As the homes were already complete with gardens and landscaping and limited surface area for a ground loop system, air source heat pumps were the most viable option and the Dimplex LA8MR and LA10MR were selected for outdoor installation.



The Dimplex LA MR outdoor air source heat pump range provides a cost effective, low carbon heating and hot water solution.

# LCBP FACT FILE

Phase 2 of the Low Carbon Buildings Programme (LCBP) covers England, Wales, Scotland and Northern Ireland (excluding Isle of Man and the Channel Islands). For ground source heat pumps, grants will cover 35% of the costs relating to:

- The heat pump, ground collectors and other equipment (such as water cylinders, buffer tanks and hydraulic accessories)
- All ground works relating to the installation of boreholes or horizontal ground collectors
- Connecting the heat pump to the electrical supply and heat distribution system of the property.

The range of Dimplex products available under the programme includes single phase ground source heat pumps from 5 – 14kW suitable for domestic applications as well as larger capacity 3 phase models from 17 – 45kW suitable for schools and other non-domestic buildings.

Applications for Phase 2 are managed by the BRE (Building Research Establishment). Applications can be made either online or by post, although online applications can be more promptly processed.

**If you would like to discuss a Low Carbon Buildings Programme project with Dimplex or for a copy of our LCBP Phase 2 information pack, please call 0800 023 2243 or email [lcbp@glendimplex.com](mailto:lcbp@glendimplex.com)**

General information on the scheme is available at [www.lowcarbonbuildingsphase2.org.uk](http://www.lowcarbonbuildingsphase2.org.uk)



## INSTALLER NETWORK



Dimplex offers an in-house consultancy service for free advice on projects, backed by 25-plus years of experience.

All installation work is carried out by the Dimplex network of fully trained installer partners who can also provide full consultancy and planning guidance.

For more information, please contact one of our installer partners direct or ring 01489 773336.

### ENGLAND

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### WALES

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07813 618003 / 01792 386276

## WANT TO KNOW MORE?

As the market leader in heating solutions for over 60 years, Dimplex has provided full support for the introduction of its established range of heat pumps to the UK.

### Literature

Easy to use literature in the form of a general guide to heat pumps, a folder with comprehensive specification leaflets containing full product details, as well as information on the accessories such as buffer tanks and hot water cylinders for heating and hot water, plus a new technical guide. For brochures call 01489 773336 (quoting Ecotalk2).

### Events

Dimplex is attending a wide range of events in 2007, so there are loads of opportunities to meet the team and to find out more about our heat pumps and the grants available. If you have any particular questions on heat pumps relating to your requirements, please feel free to ask our experts. Dimplex will be showing its heat pumps at the following exhibitions:

<b>Sustainable Development 2007</b>	22 February, Barbican Conference Centre, London
<b>Ecobuild</b>	27 February – 1 March, Earl's Court 2, London, Stand No. E58
<b>Homebuilding &amp; Renovating 2007</b>	22 – 25 March, NEC, Birmingham, Stand No. 1227
<b>All Energy Conference, Scotland</b>	23 – 24 May, Exhibition Centre, Aberdeen, Stand No. F19
<b>Chartered Institute of Housing</b>	19 – 21 June, Exhibition Centre, Harrogate, Stand No. 247 Hall M



We will also be participating in The Construction CPD Certification Service Road Seminar Tour this year. Please visit [www.dimplex-resource.co.uk](http://www.dimplex-resource.co.uk) for a list of venues and dates.



### New faces on the Dimplex heat pump team



Committed to the highest levels of customer service, Dimplex has welcomed two new members to its renewables team.

**Allen Griffiths** (above) joins Dimplex as Business Development Manager to support heat pump commercial activities, while **Mike Doherty** as commissioning engineer will provide field support and after sales service.

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Space and water heating