Dimplex renewables®

A world of expertise

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A world of expertise

Tried. Tested. Trusted.

Specifications

Dimplex policy is one of continuous improvement; the Company therefore reserves the right to alter specifications without notice. The information contained in this brochure is correct at the time of printing. You are advised to consult your dealer before purchasing.

Installation Guidance

This brochure is designed to assist you with your choice of Dimplex products and it is not intended as an installation guide. For safety, products should only be installed by a competent person, in accordance with current regulations and the manufacturer's instructions.

The Dimplex Range

Dimplex offers the widest range of renewable energy, electric space and water heating products in the world – over 400 – to meet this publication, we have a wide range of brochures for both domestic and commercial applications. Please visit our website www.dimplex.co.uk for more information.

Electric fires brochure

Domestic heating brochure

Solid fuel brochure

For more information on our range of renewable solutions, please

visit: **www.dimplex.co.uk/renewables**

email: **pre-sales@dimplex.co.uk**

or call: **0800 022 44 88**

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Renewable Heat for Homes

Working with nature's energy for cost effective heating

Energy efficient heating solutions from a name you can trust

With an unmatched reputation for quality, reliability and innovation, the Dimplex name is well known by home owners and the public and private sectors. Today the brand is synonymous with energy saving products and a commitment to excellence and customer satisfaction.

Renewable technologies such as heat pumps and solar thermal systems are not necessarily new, but expertise in the UK of how to most practically and efficiently apply them is. For Dimplex there's nothing new about renewables. We have been producing innovative heat pumps for over 30 years and our renewable heating solutions are already operating effectively in homes and commercial properties all over the UK.

With the widest range of heat pumps available in the UK today, plus a suite of complementary products dedicated to energy efficient space and water heating we have solutions for a wide variety of heating requirements. Take a closer look, and see how we might be able to help you now.

Our experience

As part of the worldwide Glen Dimplex Group, Dimplex has been producing innovative heat pumps for over 30 years with thousands of installations throughout Europe.

We are committed to developing heating solutions which utilise sustainable and renewable energy, with the aim of minimising energy bills and reducing CO_2 emissions and their impact on the environment.

From our manufacturing plants in the UK and Germany, Dimplex produces the widest range of heat pumps available on the UK market and leads the way in the development of energy efficient heat pump technologies.

Quality assured

Over the years, Dimplex has established strong relationships with its customers in all aspects of the construction and heating industries. Today, Dimplex renewable and electric heating systems are operating efficiently across the UK in homes, schools, offices, hotels, libraries and retail units.

In order to ensure the highest levels of quality and to provide peace of mind, Dimplex has an established network of Accredited Heat Pump Installers, all accredited under the Microgeneration Certification Scheme, fully trained and experienced in the installation of Dimplex heat pump products.

No other company can provide the depth of range, expertise and service back-up for economical, sustainable heating solutions.

Contents

It’s the time to rethink the way we heat our homes

Why? Rising Costs

As fossil fuel sources become increasingly restricted, gas and oil costs will continue to rise. We are all concerned about reducing our energy bills – not least, those of us who live in areas of the UK off the gas grid. Continuing to use oil or LPG will only become more costly, so finding more cost-effective and efficient means of providing and using energy is paramount.

With the introduction of government financial incentives to help individuals invest in their home energy-efficiency improvements, the demand for building-integrated renewable technologies is on the rise.

The Renewable Heat Incentive (RHI) rewards householders for every unit of renewable heat produced. As well as rewarding you for ‘going green’, the RHI will help reduce the national dependence on limited natural fuel sources, bring your heating bills down and help eradicate the risk to you of future price rises.

Legislation

Increasingly, legislation is forcing homeowners and house builders to ensure their homes are as energy efficient as possible. As part of EU-wide action, the UK has committed to source 15% of its energy from renewable sources by 2020.

Building-integrated renewable technologies, such as heat pumps and solar hot water solutions, will all play an important role in achieving this target. With the introduction of standards such as the Code for Sustainable Homes (CfSH), implemented in April 2007, designers and specifiers are being increasingly encouraged to include multiple integrated renewable technologies into new build property designs to provide low carbon heating and hot water.

The Environment

It’s widely accepted that CO_2 emissions from human activities are closely linked to global warming. With the energy used in buildings responsible for nearly 50% of the UK’s carbon burden, it’s imperative that we take steps to reduce the long-term energy and carbon impact of our buildings on the environment.

In fact, over a quarter of the UK’s CO_2 emissions come from heating, lighting and running appliances in our homes. 80% of this is attributed to our space heating and hot water alone. Clearly, we must find alternative and more efficient means of heating our homes and water.

Whether for financial, environmental or legislative reasons, finding a more energy–efficient way to heat our homes is now a priority.

The good news is you can get greener and more cost-effective heat without compromising on system performance. Innovative heating products from Dimplex Renewables make clever use of the energy around us, converting the freely available heat in the air, the ground and the sun into efficient heating and hot water for our homes – even when air temperatures drop to as low as -20°C.

Our products, your benefits

When you choose Dimplex for renewable heating, you get so much more...

Tried and tested technology

All Dimplex products are designed to meet the latest international performance and safety standards, and are subjected to rigorous testing and evaluation using state-of-the-art facilities that recreate challenging environments to ensure our products perform – every time.

Customer service

When you choose Dimplex Renewables, you have the support of our experienced customer service team, as well as backup provided by our specialist service engineers.

Nationwide installer training

We operate a nationwide Accredited Installer Programme and only supply our systems through accredited installers, ensuring our installations are delivered to the highest possible standards to maximise energy savings.

Full design service

Our in-house design team can provide detailed plans for the application of renewable technologies specific to an individual property. These include full heat loss calculations, energy saving estimates, plus a complete product and accessory specification.

Wide distribution network

Our wide distribution network utilises our national and regional partners to ensure full product availability through national and independent installers and distributors.

Standard Assessment Procedure (SAP) Appendix Q listed

As SAP Appendix Q listed products, our ground and air source heat pumps can help achieve higher SAP ratings within a dwelling by including their measured performance data in SAP calculations rather than default values for heat pumps.

Three-year warranty*

All our renewable energy products have the benefit of a three-year warranty*, ensuring their continued performance and quality.

* When installed by a Dimplex Renewables Accredited Installer

Financial incentives

Grants and Funding

The era of capital grant funding for heat pumps is coming to an end, however as the Government endeavours to meet its target of 15% of total energy consumption being generated from renewable sources by 2020, schemes are being put in place to encourage the uptake of renewable heat technologies.

Renewable Heat Incentive (RHI)

The Renewable Heat Incentive (RHI) is a UK Government scheme set up to encourage uptake of renewable heat technologies among householders, communities and businesses through the provision of financial incentives. First announced in March 2011, the Renewable Heat Incentive is the first of its kind in the world. Administered by OFGEM, the scheme has been split into 2 phases:

Phase 1

This phase applies to industrial, commercial, public and not-for-profit sectors including large scale industrial heating systems and community heating projects. It provides financial incentives to eligible non-domestic renewable heat generators and producers of biomethane, for the life of the installation or up to a maximum of 20 years.

Phase 2

The domestic element of the RHI, is aimed at individual households and pays owners of renewable heat technologies a tariff for all renewable heat generated over a 7 year period.

Domestic RHI scheme

The domestic RHI is a financial support scheme for renewable heat, targeted at, but not limited to, off gas grid households. The scheme covers single domestic dwellings and is open to owner-occupiers, private landlords, Registered Providers of Social Housing, third party owners of heating systems and self-builders. New build properties other than self-build are not eligible.
In addition, the scheme is open to anyone in these groups who installed an eligible technology since 15th July 2009 (called legacy applicants), provided they meet the criteria. Under the scheme, payments will be made on a quarterly basis for seven years paid at a set rate per unit of renewable heat produced (kilowatt hour or kWh), to the owner of the heating system. Most payments will be calculated using estimates of heat output, however an extra set payment of £230 a year is available for households with heat pumps that also install a metering system.

Easy steps to the RHI

1. **Find out more about renewable heating technologies and how much you could save**
   Read through the following sections in this brochure to find out more about renewable heating technologies and the products available from Dimplex. Visit the Dimplex website and use the 'Savings Calculator' to make an estimate of the savings you could make by changing to renewable heat and the income you could generate. For an accurate assessment of your requirements you will need a site visit from an installer. Visit the 'Where to Buy' section on the Dimplex website to find a Dimplex accredited installer in your area.
2. **Contact an installer**
   Discuss your requirements in detail and get an accurate assessment of the costs involved and the potential savings that you can make. We recommend that you get quotes from 3 installers. The installer will give you an initial estimate or 'Quick Quote' for your property that is more accurate than the simple 'Saving Calculator' on our website. The installer may do this either by asking some simple questions over the phone or by visiting your home. If the figures in the 'Quick Quote' are attractive and you agree to proceed the installer will produce a 'Full quote to MIS3005' which will involve a site visit to assess the property and establish the most suitable location to site the heat pump.
3. **Get a Green Deal assessment**
   It is a requirement for the RHI that the property should have loft and cavity wall insulation. If this is required your installer will advise you what to do next. Your installer will be able to recommend someone to carry out the Green Deal assessment.
4. **Install the new heating system**
   Your installer installs the system and registers the installation. You will be supplied with a MCS number, which you will need for the RHI application.
5. **Apply for the RHI**
   Visit the OFGEM website to complete your application, which should take less than 20 minutes.
6. **Enjoy the savings**
   Receive the RHI payments from the government every quarter directly into your bank account. ***Save money on your current heating bills.***

For more information regarding the domestic RHI, including some useful downloadable guides, visit the OFGEM website.

Reduced Energy Costs

In addition to generating income through the Renewable Heat Incentive, installing renewable heating technologies can bring further financial rewards in the form of lower energy bills, as well as lowering the property's carbon footprint.

The typical scenarios on the following page demonstrate just how much you could save.

LARGE DETACHED HOUSE

Property size: **(290m²)**
Occupancy: **5**

Assumptions: The building age is 1920-1963 with loft and cavity wall insulation giving a heat loss of 12.9kW. The central heating load is 18926kWh and the DHW load is 3412kWh.

A-Class Air Source Heat Pump

Heating with an air source heat pump

Room heating method	Heat pump bills you pay per year	Annual RHI paid to you per year	Your total running cost	Your yearly savings vs LPG	Your savings after 7 years vs LPG	Your yearly savings vs Oil	Your savings after 7 years vs Oil
Radiators	£1,158	£1,027	£131	£2,176	£15,230	£1,553	£10,874
SmartRads	£1,067	£1,087	- £21	£2,327	£16,291	£1,705	£11,934

SIK ME Ground Source Heat Pump

Heating with a ground source heat pump

Room heating method	Heat pump bills you pay per year	Annual RHI paid to you per year	Your total running cost	Your yearly savings vs LPG	Your savings after 7 years vs LPG	Your yearly savings vs Oil	Your savings after 7 years vs Oil
Radiators	£925	£2,964	- £2,039	£4,346	£30,421	£3,723	£26,064
SmartRads	£867	£3,064	- £2,198	£4,505	£31,532	£3,882	£27,176

LARGE SEMI-DETACHED HOUSE

Property size: **(125m²)**
Occupancy: **3**

Assumptions: The building age is 1920-1963 with a heat loss of 6.6kW. The central heating load is 11272kWh and the DHW load is 2882kWh.

LAMI Air Source Heat Pump

Heating with an air source heat pump

Room heating method	Heat pump bills you pay per year	Annual RHI paid to you per year	Your total running cost	Your yearly savings vs LPG	Your savings after 7 years vs LPG	Your yearly savings vs oil	Your savings after 7 years vs Oil
Radiators	£713	£626	£86	£1,369	£9,586	£962	£6,736
SmartRads	£658	£663	- £5	£1,461	£10,224	£1,053	£7,374

SIH ME Ground Source Heat Pump

Heating with a ground source heat pump

Room heating method	Heat pump bills you pay per year	Annual RHI paid to you per year	Your total running cost	Your yearly savings vs LPG	Your savings after 7 years vs LPG	Your yearly savings vs oil	Your savings after 7 years vs Oil
Radiators	£570	£1,808	- £1,238	£2,694	£18,857	£2,287	£16,007
SmartRads	£535	£1,869	- £1,334	£2,790	£19,529	£2,383	£16,679

Assumptions common to all above scenarios: Seasonal Performance Factor (SPF) for air source and ground source heat pumps taken from the Heat Emitter Guide based upon a flow temperature of 45 and 55 respectively for SmartRads and radiators. Efficiencies for LPG and Oil boilers assumed to be 85% for heating and hot water. Fuel costs of 13p/kWh for electricity, 83p/kWh for LPG and 62p/kWh for oil with £125 and £55 additional costs for maintenance assumed for an LPG and oil boiler respectively.

Air source heat pumps

A-Class

Dimplex AIR source heat pumps use the freely available heat in the ambient air to provide efficient heating and hot water at air temperatures as low as -20°C. Because the source of the heat – the air – is abundantly available all around us, air source heat pumps have the advantage of low installation costs and minimal space requirements. While relatively mild winter temperatures in the UK mean excellent levels of efficiency and performance can be achieved all year round.

Features/benefits:

- Can be used for space heating and domestic hot water production
- Installation is relatively straightforward
- The heat source is easy to tap
- Ideal for new build or retro fit applications, especially where space is limited
- No space required inside the property

Is an air source heat pump right for me?

Air source heat pumps are increasing in popularity all the time, but to tell if they are suitable for your home, there are a few key things to consider.

Do you have somewhere to put it?

You need a space outside your home where the heat pump can be installed on the ground. The unit needs sufficient room around it to get a good flow of air. A sunny spot is ideal.

Do you have space inside the house?

You will need to fit/replace a hot water cylinder if you want to use the heat pump to provide domestic hot water as well as space heating. Cylinders for heat pumps tend to be a bit larger than for normal heating systems as you will store the water at slightly lower temperatures, therefore you need to store more of it. Air source systems also need a buffer tank but the Dimplex system cleverly fits this into the hot water cylinder, so no extra floor space is required!

Is your home well insulated?

Since air source heat pumps work best when producing heat at a lower temperature than traditional boilers, it is essential that your home is well insulated and draught-proofed for the heating system to work efficiently. To qualify for the Renewable Heat Incentive, you require 250mm of loft insulation and (where appropriate) cavity wall insulation.

What fuel will you be replacing?

The system will pay for itself much more quickly if it's replacing solid fuel, oil, LPG or electric heating. Air source heat pumps may not be the best option for homes that use mains gas, as although they can reduce running costs, the savings that can be made at current gas prices mean it will take some time to recover the installation costs.

What type of heating system will you use?

Air source heat pumps can perform better with low temperature heating systems, such as underfloor heating or low temperature and fan assisted radiators – such as Dimplex SmartRads. Heating with normal radiators is possible, but the overall efficiency of the system will be affected because the heat pump will have to heat the water to a higher temperature.

Is the system suitable for a new development?

Air source heat pumps can be used in existing homes, refurbishments or new homes. New properties have the benefit of good insulation and so are ideal for heat pumps. Combining heat pump installation with renovation work can reduce the overall cost of installing the system in an existing property.

Will I need planning permission?

This varies depending on your location in the country, in Wales and Northern Ireland air source heat pump installations require planning permission. However in England and Scotland they may be considered Permitted Development, in which case you will not need planning permission, but the criteria are complex so it is always a good idea to check with your local planning office.

Dimplex A-Class is our innovative new range of class leading air source heat pumps. Designed from the 'ground up' specifically for the UK market, Dimplex A-Class is not just a new heat pump. Offering class beating efficiency with seasonal performance figures comparable with ground source units even in the midst of UK winter temperatures, A-Class sets a whole new benchmark for air source technology.

A-Class range at a glance:

- Three model options: 8*, 12 and 16kW output options to suit your individual requirements
- High efficiency levels
- High heat output at low air temperatures
- 65°C maximum water flow temperature
- Easy to use complete heating system controller, with graphical user interface
- Pre-configured EC-Eau Smart cylinders with integrated buffer tank and onboard controller – available in 150, 210 and 250 litre options
- Low noise variable speed fan
- MCS certified – eligible for RHI payments

A B Outstanding performance and efficiency

Dimplex A-Class is designed specifically to maximise year-round heating system efficiency, no matter the weather conditions. It outperforms the UK's leading heat pumps and the efficiency assumptions in the industry best-practice Heat Emitter Guide. And better efficiency means lower running costs and a faster payback for you.

High output, high temperature

Dimplex A-Class delivers full heat output, even at air temperatures as low as -7°C and at high water flow temperatures. So it can meet all your domestic hot water requirements without reliance on costly electrical backup. And it can still do this even when the outside temperature is unusually low, so you never have to worry about unexpectedly high running costs or running out of hot water. Respectable efficiency and no loss of heating capacity at higher water temperatures also mean that in many instances, A-Class can be paired with existing radiators without the need for resizing and still provide an attractive annual saving when compared with oil or LPG.

Sophisticated heating made simple

The A-Class Controller runs the complete home heating system: the A-Class heat pump, room and water temperatures, as well as timings, in up to four heating zones. There's no need for a separate heating thermostat, which keeps costs to a minimum. It automatically uses the lowest possible amount of energy to deliver target temperatures, further lowering running costs.

A B Innovative technology

Dimplex A-Class uses market-leading Copeland Scroll™ compressor technology, optimised for heating performance and efficiency in a European climate. Its variable speed inverter drive optimises system efficiency, reducing running costs and environmental impact. Enhanced Vapour Injection (EVI) technology extends the operating envelope of the refrigeration cycle, for a higher performance while using less energy. The result: improved seasonal efficiency, reduced running costs, higher output and higher temperatures.

Designed for the UK, made in the UK

Dimplex A-Class is our first heat pump specifically engineered to deliver optimal performance at typical UK winter temperatures (-2°C to 10°C). It's fully operational at temperatures as low as -15°C, plus it's manufactured in the UK too. So, as well as maximising savings and minimising environmental impact,
it's supporting UK industry and employment.

Complete system packages

Dimplex A-Class comes in a range of pre-configured, system package options. Carefully specified for both new build and existing homes, these include all ancillary parts needed for a quick and hassle-free installation.

*Available Autumn 2014. For more information and a full technical specification visit dimplexrenewables.co.uk/aclass
To see more Dimplex air source heat pumps visit dimplexrenewables.co.uk/airsource

Ground source heat pumps

SIH ME

Drawing as much as 75% of the energy needed by the heating system from freely available, inexhaustible solar energy stored in the ground, Dimplex ground source heat pumps are available in a wide range of model types and capacities suitable for providing all of a home's heating requirements.

Due to highly stable temperatures below the earth's surface, ground source heat pumps provide high levels of efficiency for space and water heating all year round.

Features/benefits:

- Can be used for space heating and domestic hot water production
- Consistent temperatures below the ground throughout the year provide good levels of efficiency all year round
- Normally installed inside the property

Is a ground source heat pump right for me?

Ground source heat pumps are becoming increasingly popular, but to tell if they are suitable for your home, there are a few key things to consider.

Is your garden suitable for a ground collector?

You will need a reasonable amount of space for the ground collector, although this will vary depending on the output of the heat pump and the type of ground it is being installed into, as different soil types have different thermal properties. You will also have to be prepared to dig it up to install the trenches and it will need to be accessible to digging machinery.

Do you have space inside the house?

You will need to fit/replace a hot water cylinder if you want to use the heat pump to provide domestic hot water as well as heating. Cylinders tend to be a bit larger than for normal heating systems as you will store the water at slightly lower temperatures, therefore you need to store more of it.

Is your home well insulated?

Since ground source heat pumps work best when producing heat at a lower temperature than traditional boilers, it is essential that your home is well insulated and draught-proofed for the heating system to be effective. To qualify for the Renewable Heat Incentive, you require 250mm of loft insulation and (where appropriate) cavity wall insulation.

What fuel will you be replacing?

The system will pay for itself much more quickly if it's replacing solid fuel, oil, LPG or electric heating. Heat pumps may not be the best option for homes that use mains gas, as although it can reduce running costs, the savings that can be made at current gas prices mean it will take some time to recover the installation costs.

What type of heating system will you use?

Ground source heat pumps can perform better with low temperature heating systems, such as underfloor heating or low temperature, fan assisted radiators – such as Dimplex SmartRads. Heating with normal radiators is possible, but the overall efficiency of the system will be affected because the heat pump will have to heat the water to a higher temperature.

Is the system suitable for a new development?

Ground source heat pumps can be used in existing homes, refurbishments or new homes. New properties have the benefit of good insulation and so are ideal for heat pumps. Combining heat pump installation with renovation work can reduce the overall cost of installing the system in an existing property.

Will I need planning permission?

In England, Scotland and Wales, domestic ground source heat pumps are generally allowed as they are considered as permitted developments, but check with your local authority to find out whether you need planning permission or not. In Northern Ireland you must consult with your local authority regarding planning permission for ground source heat pumps.

Dimplex domestic ground source heat pumps are available in a range of sizes and configurations to provide a sustainable, cost effective heating and hot water solution for your home. Ideal for use with either underfloor heating, SmartRad or conventional radiator systems Dimplex ground source heat pumps are also able to provide domestic hot water. The SIH ME range of high temperature models can produce water flow temperatures up to 70°C, providing the ability to fulfil all of the hot water demands of your home without the need for supplementary electric heating.

Installed inside the home, the range is available in outputs from 4 –11kW either standalone or with a matching hot water cylinder providing maximum flexibility to meet the installation requirements of virtually any household.

SIH ME

The SIH ME range provides variable water flow temperatures up to 70°C. This makes the SIH ME an ideal choice for a complete heating and hot water solution – either where higher heating temperatures are required or for the efficient production of stored hot water.

The advanced WPM heat pump manager monitors, regulates and controls the entire system, providing maximum system flexibility and efficiency. When working in bivalent mode in combination with an existing boiler, the heat pump manager regulates the boiler operation in line with heating need, so that no excessive temperatures enter the heating system.

Where space saving is an issue, the SIH ME can be combined with a matching 200l domestic hot water cylinder which fits neatly below the heat pump unit.

SIH ME range at a glance

- Four model options – 4, 6, 9 and 11kW options to suit your individual requirements
- Variable heating water flow temperatures from 35°C to 70°C to optimise space heating comfort, with weather-compensated flow temperature control which improve efficiency
- Designed to work efficiently with underfloor heating, Dimplex SmartRad or conventional radiators
- Advanced WPM heat pump manager provides full system flexibility including control over multiple heating circuits and other heat sources such as gas or oil boilers and solar thermal
- Able to provide domestic hot water to 60°C without the need for supplementary heating
- MCS certified – eligible for RHI payments

For more information and a full technical specification visit dimplexrenewables.co.uk/sihme
To see more Dimplex ground source heat pumps visit dimplexrenewables.co.uk/groundsource

SmartRad wall-mounted fan convectors – Space Heating

Dimplex SmartRad provides a controllable, responsive and energy-efficient alternative to conventional radiators. The range is designed specifically to work at the low flow temperatures produced by heat pumps and they are ideal for use either instead of, or alongside, underfloor heating.

SmartRad is optimised for use with heat pumps by achieving excellent performance at water heating temperatures as low as 40°C. Containing only 5% of the water volume of a conventional steel radiator, SmartRad's low thermal mass allows it to heat up more quickly and react more responsively to changes in room temperature, meaning improved control, comfort and energy saving.

With a compact footprint and flexible installation options, SmartRad is ideal for retrofit installations in place of conventional radiators or in new buildings instead of, or in conjunction with underfloor heating. SmartRad is the perfect complement to any heat pump installation.

SmartRad at a glance

- Stylish design available with a choice of 2 finishes – white metal or white gloss
- 4 output sizes – 0.8, 1.2, 1.4 and 1.8 kW options
- Energy-efficient alternative to conventional radiators
- Cost-effective and practical alternative to underfloor heating
- Designed for low water temperature operation which reduces heat pump running costs
- More energy efficient than conventional radiators
- Fast response/room heat up due to low water content
- Even distribution of air throughout the room – no cold spots!
- Easy to install

Hot water storage Dimplex EC-Eau cylinders

The EC-Eau range of unvented stainless steel cylinders from Dimplex can supply all the hot water required for the modern home. Providing rapid fill baths and invigorating showers, to en-suite bathrooms and other domestic appliances simultaneously. To accommodate renewable heating systems, Dimplex have developed the range with models specifically designed to operate with either heat pumps or solar thermal systems, or both. Offering low running costs, reliable hot water and fantastic flow rates, EC-Eau cylinders are available in a range of capacities, so there is a size to suit even the most demanding household.

Environmental sensitivity and efficient performance are key attributes of EC-Eau. The range boasts 60mm of low Global Warming Potential (GWP) insulation foam, plus innovative features throughout to reduce heat loss. Inner components are made from 100% recyclable stainless steel, while the sleek black, hard-wearing outer shell is manufactured from completely recycled materials. EC-Eau cylinders are supplied with an expansion vessel and all necessary safety devices. Plus, the stainless steel inner cylinder comes with a full 25-year warranty.

EC-Eau cylinders can be sited in any suitable location and on any floor of your home offering flexibility in installation as well as plentiful, powerful hot water to multiple points around the home simultaneously.

EC-Eau cylinders at a glance

- Unvented stainless steel cylinders for heat pumps and solar thermal panels or both
- Optimally-sized, high surface area heat exchangers for heat pump/solar operation
- Mains pressure hot water for fast filling baths and powerful showers
- Simultaneous supply of water to all bathrooms
- Long life, low maintenance hot water supply
- Tough, easy-to-clean outer casing made from recycled materials
- Immersion for sterilisation and backup heating
- 60mm of low GWP insulation foam to minimise heat loss and energy consumption
- Supplied with an expansion vessel and all the necessary safety devices required by governing legislation
- Stainless steel inner cylinder with a 25 year warranty

Heat pumps are cutting bills and generating income for homeowners

Client: Mr & Mrs Powel | **Partner: GrEnergy** | **Products: A-class heat pump**

"I knew five years ago that I wanted to install an air source heat pump but I've been waiting that long for a product of suitable output, efficiency and quality. The renewable heating market has developed in that time and the introduction of the RHI scheme after many years of frustration has given home owners like me the confidence to invest knowing I will be rewarded for the renewable heat I generate."

Roy Powel, West Sussex.

- Four bedroom detached country home built in 1984
- Used LPG boiler for central heating, LPG fuelled Aga for hot water heating
- Home owners installed a high efficiency Dimplex A-Class air source heat pump
- Expected to save £1,800 per year on heating bills
- Additional tax free income of around £6,000 expected through the Government's RHI incentive scheme

"The Dimplex A-Class has given us improved comfort, significantly reduced running costs and additional income over the next seven years through the RHI which will almost cover the cost of our annual heating bills for that period. We could not be happier."

Roy and Sarah Powel live with their children in the home that Roy built back in 1984 having moved from the local village centre. The four-bedroom detached property, now approaching 30 years old, resides in a country farm setting close to the South Downs and offers panoramic views over the West Sussex countryside.

The rural setting meant Roy and Sarah's house was situated off the gas grid. Relying on LPG (Liquid Petroleum Gas) to heat their radiators and hot water, the family quickly grew accustomed to using an LPG boiler for space heating and LPG-fuelled Aga for hot water heating.

But with an outdated boiler and the cost of LPG rising, their heating bills more than doubled between 2007 and 2011. The boiler, installed when the property was first built, was estimated to be running at 65 per cent efficiency. The Aga even less so – effectively making use of less than 40 per cent of the LPG it uses.

Roy, who works in the renewable energy industry himself, set about finding an alternative heating system and after five years looking for a suitable solution, has now installed a state-of-the-art high efficiency A-Class air source heat pump from Dimplex.

The savings have been instantaneous. In its first three months the heat pump, which extracts warmth from the air and uses it to heat radiators and hot water, has cut energy consumption by more than two thirds. It is expected to slash more than £1,800 each year from the household energy bills compared to the LPG system. And with the Government's RHI (Renewable Heat Incentive) scheme starting in spring 2014, Roy and Sarah are also expecting additional financial payments of more than £850 per year for seven years just for going green – meaning an additional tax free income of around £6,000.

The RHI, which has been over two years in the making, will reward home owners with regular tariff payments over a seven year period for switching to renewable heating systems such as a heat pumps, solar thermal technology or biomass boilers. It is part of the Government's strategy to encourage take-up of renewable energy and help meet stringent targets to reduce the nation's carbon footprint.

Roy says: "I knew five years ago that I wanted to install an air source heat pump but I've been waiting that long for a product of suitable output, efficiency and quality. The renewable heating market has developed in that time and the introduction of the RHI scheme after many years of frustration has given home owners like me the confidence to invest knowing I will be rewarded for the renewable heat I generate."

Renewable energy solutions experts GrEnergy installed the brand new Dimplex A-Class 16kW air source heat pump, which now heats radiators and hot water throughout the house even during winter when the property loses nearly 14kW of heat.

With the previous system, Roy, Sarah and their two children used more than 6,000 litres of LPG each year, costing more than £2,700 per year at current prices. The air source heat pump is expected to cost just £975 per year to run. It will deliver a cost saving of 88% on domestic hot water and 55% on central heating, even allowing for extra radiators to improve comfort in the house.

Roy adds: "With my previous heating system the home suffered from uneven temperatures because it only felt warm when the radiators were hot but soon felt cold again after the rooms had reached temperature and the boiler switched off. Some rooms had no radiators and while some of them benefited from heat gain from other rooms, they were either boosted by or totally relied on using direct electric heaters. We now save that electricity as well.

"Heat pumps operate more efficiently at lower temperatures so we installed two Dimplex low temperature, fan assisted radiators for extra comfort in those rooms and the Aga DWH (Domestic Hot Water) has been decommissioned so that it is now used as a classic Aga cooker only. The Dimplex model also has the added benefit of being able to pasteurise the water from legionella bacteria without the need for a top up electric immersion heater.