EnergyEfficiencyNoW

Issue 14 2010

Northwest Technologies & Services

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The subject for the next issue is
Smart Metering

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Solid State Lighting in England's North West

In this issue of Energy Efficiency NoW we focus on Solid State Lighting.

Lighting accounts for one sixth of all electricity usage in the UK. Solid state lighting is a fast moving technology which uses a fraction of the energy consumed by conventional lighting systems, reducing energy spend and carbon emissions. Longer life spans are also offered by solid state lighting; further reducing long term costs. Solid state lighting can be used in a variety of applications ranging from street lighting to commercial building design and the North West has a particularly strong infrastructure in these technologies. Our lead feature elaborates on the benefits of LED lighting and outlines the results of a recent Life Cycle Assessment of LED lamps. Feature editorials from MHA Lighting and Leading Edge Developments highlight the technical SSL expertise available here in the North West. The editorial on page 5 describes the solid state lighting technologies due to be installed in Whitehall by North West supplier Novah Ltd, as part of the government's austerity measures.

In this issue we also include a second feature on green IT, with an excellent overview offered by Rock Energy Solutions on the potential savings that can be achieved by "greening" your ICT systems.

The next issue of Energy Efficiency NoW will include a special feature on smart metering. At the end of July, the Government and Ofgem jointly published a Prospectus containing proposals for the delivery of electricity and gas smart metering in Great Britain. This covers both domestic households and small and medium non-domestic sites. The North West hosts a fine range of companies operating in the smart metering supply chain.

Energy Efficiency NoW provides a focus for regional suppliers of low carbon technologies and we continually aim to develop this publication. Whether you are a supplier or end-user we will welcome your feedback and suggestions. We are also actively seeking case studies from Northwest suppliers, which demonstrate the business benefits and bottom line savings of energy efficiency technologies. If you would like to be considered for inclusion in the next edition of Energy Efficiency NoW please do not hesitate to get in touch.

I Kristiansen

Inger Kristiansen
Business Development Manager: Energy Efficiency
Envirolink Northwest

Money is power

With the longest day fast becoming a distant memory and evenings beginning to slowly draw in, businesses need to plan ahead for the shorter, darker winter days which demand higher energy usage and inevitably result in higher monthly overheads.

Recent years have seen the switch to energy saving compact fluorescent lights (CFLs) which have provided a step in the right direction, delivering an efficient alternative to traditional incandescent bulbs. CFLs have become more readily available at a lower cost, but they still have a number of irritating drawbacks. The bulky, somewhat ugly shape of the lamps leads them to frequently protrude from regular light fittings, detracting from the aesthetics of a modern working environment. Added to this their inability to provide immediate full, high quality light output from the onset can contribute to the gloom of a dark winter's day, doing little to brighten the environment for employees and customers alike. But possibly more importantly from an environmental point of view, CFLs contain mercury and phosphor, making them difficult to dispose of in a safe manner and they still emit a proportion of their energy as heat rather than light.

An increasingly popular alternative for business owners is the switch to LED lamps. Energy efficient, fully recyclable and long life, the progress that has been made in LED technology now brings a far superior lamp to the market. Indeed installation of replacement LED lighting not only improves energy efficiency thereby lowering business overheads, but the benefits are extended due to the increasingly long life of the new lamps available. Today's LED lamps can last for up to 30,000 hours in comparison to the average 2,000 hours usage from a regular lamp, resulting in a significant saving on replacement costs.

Hard evidence to finally conquer the myth that LEDs were not sufficiently energy efficient was provided last year with the long awaited results of the Osram study on the Life-Cycle Assessments (LCA) of LED lamps which was verified by independent experts. The study investigated the entire life cycle of lamps including how much energy and raw materials the lamp consumes in terms of production, use and disposal and the environmental impact involved in the process (including transport from production sites in China to installation in Europe). The results verified that today's technologically superior LED lamps achieve the LCA values of CFLs and are far superior to conventional incandescent lamps.

Whilst still requiring a higher initial outlay, businesses replacing traditional lighting with LED lamps are quickly able to feel the benefits in lower fuel bills and reap the rewards of a brighter working environment. LED lamps are now available with wide light angles of up to 60 degrees and the option of warm white light to give lighting schemes that closely match that given by regular lamps. Cool white lamps are also available to give a daylight feel to lighting schemes.

To combat those ugly aesthetics issues, LED lamps are the same size as regular halogen lamps, fitting flush with standard light fittings to give a finished, professional look. The lamps run off regular 240V mains electricity meaning there is no requirement to convert power sources before installation, with a wide range of products available that simply slot straight into regular fittings such as GU10 and MR16. Furthermore LEDs contain no dangerous chemicals and are therefore easy and safe to dispose of, being fully recyclable. Improvements can also be seen in the extended range of LEDs available, with spotlights, globe lights, candle lights, flood lights, cabinet lights and even high bay lighting now available.

LED supplier, Diamond LED Lighting based in Smallwood in Cheshire has recently supplied over 200 replacement lamps to the Grade II listed Alvaston Hall Hotel in Nantwich, following advice given to them by Groundwork Cheshire on ways in which the hotel can not only save costs, but significantly reduce its carbon footprint. With plans to install a further 200 bulbs before the darker nights draw in, Maintenance and Health and Safety Manager, Paul Heath commented "like most businesses at the moment we are ensuring we are using our resources smartly. The environment is also an increasingly important issue for businesses and we realise the importance of being environmentally friendly."

Replacement of light bulbs is without doubt one of the simplest ways in which businesses can radically improve their energy efficiency whilst lowering costs and many suppliers such as Diamond LED Lighting now offer quick and easy tools enabling businesses to calculate their potential saving. A savings calculator can be found at www.diamondledlighting.co.uk which is easy to use and quickly illustrates the significant cost savings that can be achieved over time.

LED replacement lighting clearly offers an attractive solution to save businesses both money and energy, providing a straightforward method of brightening up the imminent dark, winter days for employees, customers and bottom line.

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Is this the end of the halogen lamp?

In the last 10 years, halogen lamps have become an essential part of any new development or renovation. They are small but powerful and have become the favourite of architects, interior designers and consumers alike. But there has been a growing concern in the industry, as other light bulbs have moved to low energy versions – often because of legislation. Where is the low energy halogen lamp?

Novah Lights have been able to offer a credible answer to this problem. By using state-of-the-art LED technology, they have developed a range of lamps – AVA lights - that offer comparable quality of light, sit in existing fittings, and run on 10% of the energy.

Managing Director, Craig Lewis says "our driving force has been to offer a product which can be retro-fitted into existing housings whilst using existing transformers – the product range even includes lamps which can be used with dimmers."

By creating a range of products which can directly replace traditional lamps, large cost savings can be introduced, because there is no need to upgrade fittings, or replace transformers – simply plug and play.

The cost savings do not stop there. Once installed the lamps begin to work hard, producing the same amount of light, using a fraction of the energy.

As the government begin to enforce Energy Performance Certificates over the coming year, businesses are increasingly looking for the 'low hanging fruits' to be able to comply with their CO_2 reduction commitments.

When considering the amount of additional technology in our office environment today, with PCs, air conditioning, chargers etc., lighting still plays a big part in the overall power consumption.

Changing over lamps and introducing movement sensors (PIRs) should be the first plan of action, where the issue of slow start ups with fluorescent technology is totally removed by using LED – a perfect match.

The long life of an LED lamp far outstrips a traditional lamp by approximately 20 times. In a commercial building a halogen lamp will be replaced every four months, however an LED equivalent will need replacing every six years – a big difference.

There are other savings to consider, such as less frequent maintenance, less use of petrol to transport the lamps and the electrician, less use of tools, all these smaller elements add up to a considerable additional saving of CO_2 emissions, and even if they are difficult to directly calculate, the reductions will be attributed to energy savings in other areas.

LEDs cool running also means fittings last longer, with no discolouration and there is less demand on the surrounding air conditioning because significantly less heat is generated by the lamps.

When calculating the cost benefits it has been demonstrated that the labour cost of changing a halogen lamp on average is around £2.00 in a government building. When multiplied by 100s of lamps, every few months, this becomes a considerable cost.

This in addition to the energy savings, when comparing a 50W halogen to a 6W LED replacement, based upon 12p per kw, produce average cost savings of £30 per annum - once again the financial incentive is large across many hundreds of lamps. The change over pays for itself in less than a year.

With all these exciting developments, the lighting industry is now gearing up for replacement LED, with new fittings specifically designed to support retro-fitted LED lamps, new dimmers being launched and upgraded emergency lighting systems being sold.

The AVA range includes standard halogen shapes as well as candle lamps in 3W and 4W and have proven so cost effective that they are being incorporated into current government "austerity measures" in Whitehall – saving costs both in energy bills and bulb replacements. This program will be complete by 2011.

Craig Lewis
Managing Director, Novah Limited
Craig heads up an expert team in the design, development and supply of LED technologies.
www.avalights.co.uk - to find out more details on the specific products mentioned in this article, including fittings and dimmers.

The future of lighting is here

MHA Lighting Ltd provides ultra energy efficient, solid state lighting solutions, utilising the latest advancements in LED lighting technology.

Recent developments in LED technology have led to the dramatic growth of LED lighting, as it offers substantial energy reductions, cost savings and eco-friendly lighting solutions. LEDs have already begun to displace incandescent bulbs and fluorescent fittings, as their unique benefits are becoming more widely recognised.

Up until now, LED lighting products have been restricted to spot light type applications; as the light emitted from an LED is highly directional. Light emitted directly from an LED is 'laser like', as it is distributed in a focused straight line. This presents a challenge when attempting to evenly illuminate an area with a uniform light distribution. In addition to this, the intense brightness of the light emitted directly from high power LEDs raises eye safety concerns.

MHA Lighting changes this; their unique technology involves shining light sideways into an encapsulation, therefore not pointing directly outwards. This avoids direct contact with the eye and provides a safe and more efficient light output. As a result, MHA Lighting are able to use high power LEDs, draw even less current and have no need to diffuse the output. This solution also means that the light is uniformly distributed, producing a consistent light output, just like more traditional lighting, but with all the efficiency benefits of LEDs.

The MHA Lighting product range offers the highest quality, uniformly distributed light combined with substantial energy savings of 70% to 80% compared to more traditional lighting. This lighting also ensures maintenance-free applications and delivers a useful lifetime of over 60,000 hours. The award-winning, patented technology allows MHA Lighting to combine all the efficiency benefits of LED lighting with all the light quality benefits of traditional lamps, whilst eliminating the drawbacks of both.

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1930's art deco theatre brought to life with energy saving LED lighting technology

The Stockport Plaza Theatre, Stockport, has recently undergone a restoration project to return it to its former glory as a 1930's Art Deco Cinema and Theatre. The project created many challenges for the design team, especially how to illuminate the Auditorium and Front of House areas.

Under the direction of the Stockport Plaza Trust, a refurbishment plan was put in place to return the Theatre to the way it would have looked when it first opened. However, modern standards and expectations of comfort and technology, and Health and Safety, have improved since the 1930's – so modern technologies had to be implemented in a complementary manner. Therefore, the Lighting Scheme had to be unobtrusive and flexible to match both the Art Deco décor and the requirements of today's theatre productions.

Areas to be illuminated included the Proscenium and Frieze (framing the central stage), Ceiling Domes, the Auditorium Walls, and the Orchestra Pit Rail. These areas were to be decoratively lit with colour to blend with the stage lighting, but needed to be switched to white light for times when higher light levels, "house lighting", were needed.

Power levels and maintenance were major problems for the design team to tackle. The original system, using standard light bulbs, potentially consumed 80 Kilowatts of power costing the theatre dearly in electricity bills. Also, the drain on maintenance resources was huge, as they were continually changing bulbs.

The Plaza had existing coving and lighting troughs which were perfect for containing the light sources, but the troughs were of varying sizes, so the chosen lighting had to be suitable for customising to many different lengths.

The solution to these lighting challenges was provided by njo Technology Ltd, who designed and manufactured a bespoke LED lighting solution. njo Technology has had wide experience creating LED systems for an array of architectural lighting projects over their 16 year history, and in particular gained much recognition in the theatre world for their work on the auditorium of the Apollo Victoria Theatre in London. This installation, in 2002, won a Lighting Design Award in the "Heritage" section.

njo Technology's solution to the Stockport Plaza's lighting requirements was to provide an LED system which used several types (depending on the level of brightness required) of highly reliable Red, Green and Blue LEDs including: surface mount "integrated RGB" low power LEDs; Ø5mm LEDs; and high powered 1W LEDs. These were then mounted into suitably sized aluminium extrusions. The LED fittings were manufactured to the lengths required for each lighting trough, and were wired back to a series of Control Boxes which were mounted, for ease of access and maintenance, around and above the Auditorium. The control equipment was configured to interface with the Theatre's DMX512 lighting desks, so that the lights could very easily be programmed to match the colour and brightness requirements of the Theatre's Productions.

The many advantages of this LED system include: high brightness across a range of colours – including the ability to create White light; low power and heat levels making it inexpensive to operate and environmentally friendly; and long-life technology suitable for maintenance-free installation.

The LED system has created a stunning effect in the Auditorium and has also been installed in other areas of the Theatre including the Front of House, Café, and Entrance Canopy. In total, the maximum power of the LED lighting is 5kW (when on White mode). This is a lot in LED terms, but just 7% of the original system's power consumption. For more details on the above project, or LED lighting in general, please contact njo Technology Ltd, phone **01539 730093**.

Leading Edge Developments: An illuminating way to cut carbon emissions

LED lighting has become a popular mode of illumination, especially in consideration of the environmental impact of carbon emissions. Their low energy consumption and high durability has led to an increasing number of standard design options, but would a more tailored approach be more suitable for your installation?

When Cineworld plc were looking to improve their lighting at their Ipswich multiplex their traditional solution would have been to install 80 W metal halide flood lights. However, wishing to reduce their carbon footprint LED lighting was considered. Standard off-the-shelf LED lighting did not meet the light output and distribution requirements for their particular installation. Leading Edge Developments were able to design a bespoke compact unit combining high output LEDs with a passive cooling and optical system. This produced the required light levels whilst only consuming 40W of power including the driver circuit. 70 units were installed throughout the complex saving an estimated 3 tonnes of CO_2 per year.

Bespoke designs can also help architects and designers turn their ideas into reality as illustrated by the innovative LED lighting systems designed by Leading Edge Developments for the recent award winning retail scheme at Terminal 1 Manchester airport (pictured).

Leading Edge Developments can support you in creating imaginative bespoke lighting design solutions which are both cost effective and environmentally friendly.

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ADxlite

ADxlite is a new, very low energy LED light for use in all types and sizes of illuminated signs.

ADxlites work differently from other lighting solutions. The four very bright LEDs (100 Lm/w) shine sideways through 360° and reflects off the sides and back of the sign case, producing a crisp even illumination on the front face. No hotspots or shadows.

ADxlites are very energy efficient, saving 65% (or more) of the energy used by fluorescent tubes. In some cases, savings are sufficient to qualify for a Carbon Trust interest free loan for installing low carbon technology. ADxlites have a lifespan of over 100,000 hours in normal working conditions. Used 12 hours a day, 365 days a year ADxlites are expected to work for over 22 years.

There are no tubes to change or dispose of and no regular maintenance required for the first 50,000 hours. This is a considerable cost reduction especially for sky signs.

ADxlites are manufactured by Sign Lights Ltd from Hoylake. They offer a lighting design service to plan ADxlites into all shapes and sizes of sign. Also energy saving calculations are offered to compare the savings against existing fluorescent lights.

sales@sign-lights.co.uk
0151 632 6293

ACDC's range of LED downlights offer massive savings on energy and costs

With two new additions to the award-winning LED downlight range, ACDC now offers one of the most comprehensive selections of halogen replacement luminaires available.

The downlight portfolio includes a range of low glare architectural LED downlights capable of delivering performance equivalent to 35 and 50 Watt halogen utilising only 10 or 20 Watts respectively. Designed around the LED source itself, these products deliver an outstanding lighting package from a recessed luminaire.

Not only are the luminaires beautifully designed and crafted, they are expertly engineered to ensure outstanding lifetime performance. The luminaires are designed around complex heat-sink structures to dissipate the heat away from the LED to maintain lifetime and performance. The whole range delivers 50,000 hour lifetime to 70% lumen maintenance and this, along with the energy saving benefits of the product, enables a 2 year payback on total cost of ownership when compared to halogen equivalents.

The range includes Storm, a fixed downlight with 35 Watt halogen output and the Hurricane family, with either 35 or 50 Watt halogen equivalent. All feature a clever pivot mechanism, which delivers all the light from the luminaire even when fully adjusted and, along with the ultra efficient optics, these products deliver significantly better performance than any other downlights available.

If you require further information on the ACDC LED downlight range, please contact the ACDC sales team on **0845 862 6400** or by email to **sales@acdclighting.co.uk**. The website can be found at **www.acdclighting.co.uk**

Taking the heat out of LED Lighting: CSA Photonics Ltd

Lancashire Inventor's product range delivers verifiable performance.

Founder and Managing Director, Martin Watson, has devised an innovative way of utilising arrays of LEDs with custom designed drivers to produce LED solutions which yield high output with low power. These are subject to several Patent Pending Applications and Design Registrations.

The primary advantage is that the LED junctions are not 'cooked' or subject to thermal shock, which in turn means that lamp life will barely depreciate over the intended life of the installation. Existing LED products may degrade by as much as 20% output over 5 years while this device is anticipated to have a useable life span in excess of 30 years.

The light output contains no UV component and this yields long term benefits in the stability of polycarbonate diffusers/windows etc as typically used in luminaires.

First applications of this invention are retrofits to existing traffic sign lights and bollards. Gear trays made to fit the majority of existing manufacturers have been produced and UMSUG power consumption ratings make these the most efficient devices on the market.

By taking averaged costs such as maintenance visits, energy savings, lamp disposal and replacement with traffic management of currently deployed fluorescent lights, CSA Photonics claim that their retrofits will recover their capital cost easily within 2 years.

Several local councils have evaluation units on trial and leading distributors such as Maclean Electrical and Marwood Electrical have, after detailed evaluation, decided to supply the CSA Photonics range.

CSA Photonics have recently announced their next product series; floodlights. Motorway signs are illuminated mainly by MBFU lamps which will need complete replacement by 2015 due to new legislation.

Remarkable savings can be made sooner. For example, a 6 LED Array CSA Photonics Floodlight can replace 2 times 125W MBFU lamps that actually burn 340 Watts while only using 114 Watts. Better still only one luminaire is required instead of two; the energy saving is a staggering 566 Watts! Full compliance with EN standards including illumination and uniformity is guaranteed.

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Success for Cumbrian supplier of LED lighting in Technology Strategy Board competition

The fact that LED lighting is seeing huge interest as an energy efficient technology has come as no surprise to Ulverston-based Marl, a pioneer in the field. Marl has designed, manufactured and supplied LED indicator and lighting components for over 40 years.

Marl continues to lead the field, and was one of six companies nationwide chosen and funded by DEFRA and the TSB to develop more energy efficient lighting for homes. During phase 1 of the competition which runs from June to September 2010, Marl's R&D team will conduct a technical feasibility study into a concept for an innovative general lighting solution which will potentially benefit lighting specifiers, builders, installers and end users of domestic buildings.

Marl recently won the Railway Interiors magazine Passenger Comfort Innovation of the Year for its 'Sci-Light' LED lighting system. Sci-Light adjusts railway carriage interior lights depending on the ambient light level, reducing their average power consumption by 40% to 60%. The system is being trialled by Porterbrook, one of the UK's leading rail vehicle leasing companies.

According to Managing Director Adrian Rawlinson, "customers keep on returning to Marl, because they have confidence that their products are designed, manufactured and tested from one location at the company's site in Ulverston, Cumbria".

Green IT fast becoming an essential element of business strategy

Three years ago most of us had never even heard of 'Green IT'; what does it mean, why is it important and, most importantly, how can we make the best use of it?

Around 2% of global carbon emissions come from the manufacture and use of Information and Communications Technology (ICT) - this is approximately the same amount as is generated by the aviation industry globally. Furthermore, ICT accounts for approximately 10% of the UK's electricity consumption and electricity demand for data centres worldwide is presently doubling every 5 years.

Equally, the opportunities for savings are huge; ICT could facilitate up to 15% reduction in carbon emissions in other business sectors by 2020, this saving being more than five times the size of the ICT sector's own footprint. If all UK businesses shut down their computers when not in use, it would contribute 40% of the energy reduction targets set by the Carbon Trust.

Greening IT means being efficient - not wasting money, resources or time. In effect, this translates into a collection of both strategic and tactical initiatives which:

- directly reduces the energy costs and carbon footprint of the organisation's computing department,
- utilises the services of ICT to help reduce the organisation's overall energy costs and carbon footprint,
- encourages and supports greener behaviour by employees, customers & suppliers,
- ensures the sustainability of the resources used by ICT across its lifecycle.

This last point about ICT lifecycle is critical to fully realising the potential savings - it is estimated that up to 25% of total ICT energy consumption is generated by embodied processes (i.e. the resourcing of raw materials and the production, manufacturing, transport and disposal of components and devices) with the rest being generated by its actual usage (i.e. the consumption of the device over its operating life). Both elements, therefore, must be considered when formulating a Green IT policy.

Businesses are increasingly finding that external factors (i.e. political, environmental, social & legal) are shaping the content of their Green IT policy. The good news, however, is that the business benefits of adopting such a policy are spread across many functions, including operations (both IT & production), finance (through cost reduction), reputational (improving brand & image) and cultural (where Green IT becomes a 'best practice').

Going forward, all businesses will need to take into account the environmental impact of their entire operation when planning their business strategy. Green IT is an essential element in making this happen.

Jon Wimpeney is a Director of Rock Energy Solutions, an independent Green IT and energy advisory company providing cost effective advice on how to make IT systems more energy efficient, as well as guidance on how to improve the energy performance of buildings, focusing in particular on renewable technologies.

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Froya introduces new energy-saving green PCs

New BroadLeaf range of desktop computers outperform sustainability compliance standards, come with a 5-year warranty, and consume a third of the energy of conventional desktop PCs.

Froya Ltd is an IT support and services company based in Manchester. They have over nine years experience designing, installing and maintaining the IT and network infrastructure of small to medium size organisations across a diverse range of business sectors. As IT infrastructure has become more and more powerful, complex and pervasive, and the economic downturn of recent times has brought pressures on organisations to economise and work more smartly, Froya have turned their attention to techniques and technologies aimed at simplifying the job of computing and reducing its impact on the environment.

From simple procedures like switching off desktops and laptops automatically when not in use, to more sophisticated technologies like **'server virtualisation'** (designed to reduce the number of physical servers needed to host an organisation's many applications), and **'Cloud Computing'** (effectively running your applications on someone else's hardware and software infrastructure), Froya aims to position itself as a market leader when it comes to the provision of **'Green IT'**. As IT now accounts for almost 40% of the energy consumed by the average business in this country, efforts through Green IT techniques to reduce this burden can have a significant impact, both on the environment and the organisation's bottom line.

One clear and easily understood example of this initiative at work is the recent introduction by Froya of a new range of **Green Desktop PC's**. The BroadLeaf family of workstations is manufactured by Sheffield-based **VeryPC**, who claim to build the world's most energy efficient desktop computers and servers, and who boast numerous awards, including Environmental Innovator 2008 from UK CEED SustainIT in the National eWell-Being Awards.

These new PC's are high performing, super energy-efficient machines, with up to an 81% reduction in embedded carbon which is ethically offset for 5 years. Every effort is made to remove the carbon footprint associated with the whole end-to-end process of manufacture, usage and ultimate disposal of the PCs. They outperform the **Energy Star 5** specification by up to 55%, are endorsed by the **Energy Saving Trust**, and have been categorised as 'Class Leader' by **DEFRA Quick Wins**. The products are also free of all toxics, i.e. they are **PVC free, BFR free and halogen free**.

In summary, in addition to the inherent environmental disposition of the VeryPC, these computers consume about **a third of the energy** of conventional desktop PC's to dramatically reduce energy bills, and come with a **5-year warranty as standard**, making them a compelling investment compared with other leading brands. Early adopters of this technology include the RSPB, iied (International Institute for Environment and Development), Lloyds of London, LG, Greenpeace, Manchester University, Mencap and the YMCA!

The other interesting thing about these machines is that they qualify for the **0% business loan** for SME's – **up to £100,000** - from the **Carbon Trust**, and the financial benefit is evident in that the monthly repayments for the loan can be largely offset by the energy savings made. As it says on the Carbon Trust website: "new equipment should pay for itself and you should continue to make savings year on year"!

For more information on Green IT and the VeryPC Broadleaf range of desktop computers, please contact **Froya** *on* **0161 947 8860** *or send an email to* **mike@froya.co.uk**.

TeamLogic announce award of Green Label to PretonSaver™, the first software product in the world to achieve this prestigious status

Eco-product Certification Scheme

The Global Ecolabelling Network (GEN) is a non-profit association of third-party, environmental performance recognition, certification and labelling organizations founded in 1994 to improve, promote, and develop the "ecolabelling" of products and services. The network establishes the requirements for software for a green label. The requirements include environmental criteria as well as product characteristics. Testing and other means are used to verify conformance with the criteria and product characteristics. They are also strictly pre defined and need to be met in full.

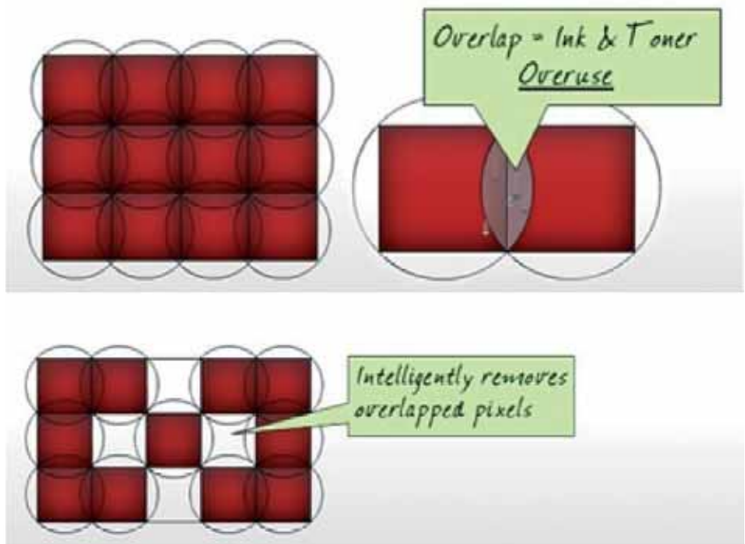
PretonSaver™

The patented software algorithms in PretonSaver™ eliminates the current 30% wastage in print without the use of PretonSaver™, the price everyone pays when printing in a Windows environment. On a PC each pixel is square, and yet the standard for printers is a circular pixel. When printing the square pixel is surrounded within the circle creating areas of overlap. This non essential consumption has no impact on the quality of the documents and represents wastage.

PretonSaver™ products examine each document to identify wasteful pixels before deleting them. Any space left is filled by excess toner or ink from adjacent pixels creating a higher level of saving. To maintain document quality and ensure a document is fit for purpose the different elements on the page (text, pictures and graphics) can be attributed differing savings level as to maintain quality. This sophisticated combination of techniques enables the print of high quality mixed element documents with maximum savings applied per element and not per page as a whole. Management of printing rules allows for even more ways to monitor and prevent unnecessary printing using quotas, and enforce rules over printing colour as mono, and enforcing duplex print to help raise savings.

The environment

Office printing represents a greater risk to the environment than heavy chemicals. Consumables can include non sustainable chemicals some of which are cacogenic, oil, and creates landfill (450 years to degrade), whilst the greenhouse gas creating a single print cartridge averages 4.8 Kg of CO_2
Preton allows organisations to help reduce their Carbon Footprint and to save money.



Ease of Installation

The PretonSaver™ software can be quickly and easily installed by any competent Windows proficient member of staff. Even the largest Enterprise can be installed and making default (30%) savings within half a day. The software is transparent to the end users who require no training, whilst an additional bonus for IT is normally a reduction in the number of support calls.

Team Logic

PretonSaver™ is distributed in the United Kingdom and Ireland by Heswall based Team Logic, specialist in environmental software. Their user base already comprises numerous North Western organisations including Businesslink North West, Envirolink, University of Liverpool, the NHS Walton Centre, NHS Wirral PCT and a wide range of SME organisations. PretonSaver™ is well established internationally and is used by hundreds of thousands of users every day, reducing costs of printing, saving money and the environment. John McDonald (Sales Director Team Logic) says that like PC Remote Shutdown their other product PretonSaver™ requires no new money as it can be funded by the savings made from the existing budget.

You are invited to download and try PretonSaver™ free of charge from **www.teamlogic.co.uk** *or email* **sales@teamlogic.co.uk**

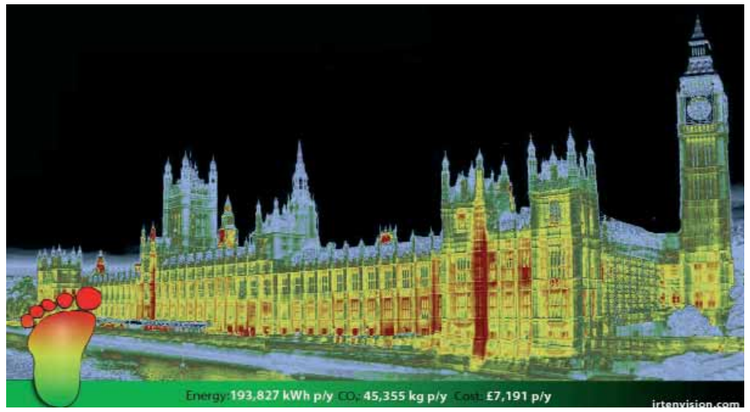
See more... learn more... save more!

Pictures are worth a 1000 words, our pictures are worth £1000's.

The CRC scheme (CRC) makes it mandatory for large organisations in the UK to cut its carbon emissions (CO_2) and start saving energy. At IRT, their surveys can help with your CRC commitments by literally showing you energy loss.

IRT are the only company in the world to photograph & quantify energy from an infrared image using cutting edge technology to pinpoint heat loss.

Their clients include:
- Building Surveyors
- Facility Managers
- Energy Managers
- Housing Associations
- Local Authorities



Energy Comparison of Flat Roofing

Project Outline
Energy calculations have been carried out on varying scenarios on this school roof. Each roof type has been assigned a U-value consistent with its construction and condition. Energy savings and differences are shown below.

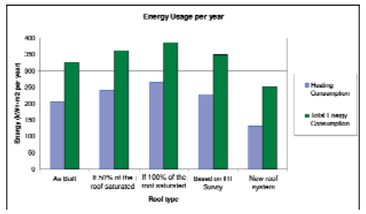
Test building
1976 Primary School
Total Roof Area: 1800m²
15 rooflights : Pyramid, Single Skin
Brick Block Walls - no insulation
Woodwool deck
Concrete floors
Single Glazed, Steel Frame windows
Mix of electric storage heaters

Thermographic Results
IRT survey reveals the exact extent of damage and true condition of the roof.
1080 m² in good condition – 60%
420 m² partially saturated – 23%
300m² saturated insulation – 17%

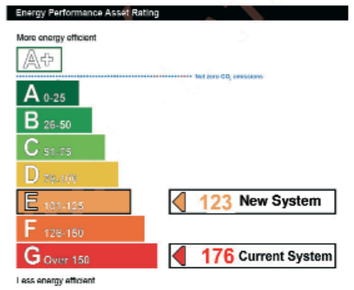
Roof types assessed
Various scenarios can be seen in the graph below. True and accurate costs and savings can only be seen using IRT techniques. Speculating on extent of moisture and damage can be very misleading. This roof was replaced using a new energy efficient system.

Summary
The total energy use for this building based on the original construction would consume 325 kWh/m² per year. The IRT Survey identified 717m² of damaged insulation meaning the building would actually consume 349 kWh/m² per year. The new roof system would reduce the yearly consumption to 252 kWh/m² per year. A reduction of 28%. This is a decrease of 97kWh/m² per year. This is a saving of £244,440 over 10 years. The EPC improved from grade G to E. (Calculations are based on an all electric system costing approx. £0.14 per kWh)

Energy Costs



Energy Performance Certificate



Call IRT Surveys for a free quote or free CPD Presentation.

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Making the most out of Voltage Optimisation

Voltage optimisation has become increasingly popular as an energy management strategy, but there are several key considerations for making the most out of the investment, as Jim McIlfatrick of Claude Lyons, supplier to the Ministry of Defence and Hilton Hotels, explains.

Most electrical equipment is designed to accept a wide range of input voltages, but if the actual supply voltage is higher than the minimum requirement, equipment often consumes excess power.

Voltage optimisation technology regulates the voltage equipment receives, achieving savings of up to 25% while reducing electricity bills. But amidst a burgeoning marketplace of products touting energy-saving potential, the wrong approach can limit effectiveness and even put a site at risk.

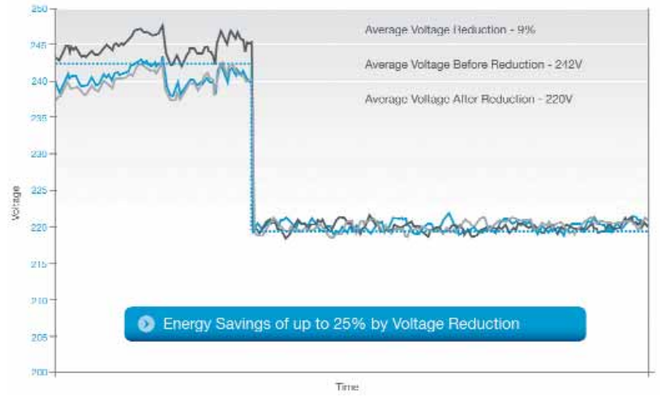
Voltage optimisation is not one-size-fits all – get a full site survey

The installation process should begin with a comprehensive analysis of a site's power conditions. As each site is different, with unique infrastructure and specific load requirements, the approach must be tailored to maximise savings.

A product can promise "up to X%" of savings, but the site's particular conditions may only make a fraction of that possible. A site survey – with an equipment assessment, power supply analysis and electrical logging – will determine actual energy saving potential.

Three phase logging is crucial for safe use and maximum ROI

The site survey's electrical logging component should involve three phase rather than single phase logging.



Three phase electricity logging measures voltage, current and wattage, with voltage readings taken at the furthest point or longest cable runs from the main incoming supply. Phase to neutral voltages and time are recorded to provide a reference point and to identify worst case drop. Each metric should be analysed over a minimum seven day period, recording each phase at five minute intervals. This identifies significant mains voltage dips, sags or harmonic disturbances.

Using a single phase logger is a risky shortcut. Measuring just one phase at just one point does not accurately reflect a site's full situation – it neglects key issues such as voltage imbalance and volt drops. It also makes for a very large margin of error in assessing equipment requirements, which can lead to catastrophic problems after installation and create issues in the event of future site expansion.

Ensure the equipment provides true, dynamic voltage optimisation

There is more than one type of equipment that bills itself as 'voltage optimisation' technology, but in most cases this is a misnomer. Most products are essentially voltage reduction devices that reduce supply voltage by a fixed percentage. They can achieve useful levels of savings if the site's voltage is stable and the phases are always balanced, but for the vast majority of sites this is not the case. Equipment can end up receiving too much or too little voltage, resulting in inefficient operation and reduced lifespan.

Most sites require true, dynamic voltage optimisation to maximise energy savings. This breed of equipment has a so-called 'regulator' or 'stabiliser' function that continuously and automatically adjusts the amount by which the voltage is reduced – just as you use a thermostat to maintain room temperature at a desired level rather than having a heater on at all times. This ensures that electrical equipment never receives more or less than the required minimum voltage for correct operation. It also constantly balances the three output voltages, providing more efficient operation of three phase loads. Compared with a fixed-ration transformer, savings are greater, equipment lifetimes are maximised, equipment operates as efficiently as possible, and running costs and carbon emissions are minimised.

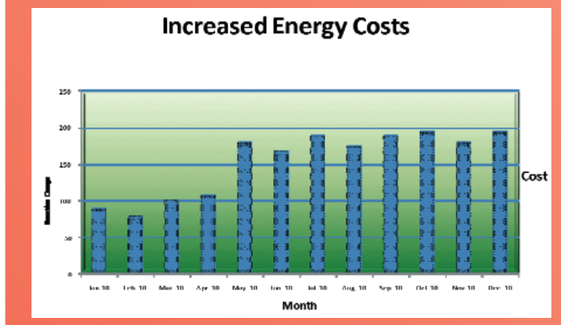
'Fit-and-forget' can be dangerous – get an annual check-up

Voltage optimisation technology operates in the background, with no effect on day-to-day operations. However, as with cars or boilers, the equipment should have an annual inspection to ensure that it remains appropriate given any changes to the site's conditions. Most insurance will have some sort of requirement in this regard. A 'fit-and-forget' approach to voltage optimisation can mean that potential housekeeping hazards go unnoticed and potential savings aren't achieved. New or ageing electrical equipment on the premises, or undetected variations to the power supply, can affect energy usage, so an MOT ensures that the technology continues to operate at maximum efficiency.

For more information visit
www.powersavetechnology.co.uk.

Important changes to your electricity billing

Effective from April 2010, all UK Electricity suppliers have joined forces to implement a common charging policy to incorporate a Reactive Power Charge.



This will affect all half hourly meter users across the UK if not currently penalised for Reactive Power. Consumers should check their electricity bills carefully and examine them for a reactive charge which for some inefficient users could be well in excess of £500 per month.

A check of your electricity bills should be carried out every month as some suppliers of electricity may take a few months to catch up to the demand which will result in a delay of the penalty charges which may also be back dated.

Reactive Power Charges in most cases can be easily removed by the introduction of power factor correction capacitors which improve the electrical efficiency and counteract the unproductive wasted energy called reactive units which in turn removes the penalty charge form the electricity bill.

PES offer a free service to examine a clients electricity bills and identify hidden penalties due to inefficiencies of the electrical supply, simply email a copy of your last three electricity bills (all pages) to **post@pesgroupltd.co.uk**, fax us on **01695 559826**, contact us on **01695 559785** or fill in your details on our Energy Saving Calculator by visiting **www.pesgroupltd.co.uk**

PES only advise on the hidden penalties due to inefficiencies of the electrical supply, we are not an energy broker and do not advise on tariffs.

For more information visit **www.pesgroupltd.co.uk/information/reactive-power-charge.html** or our web site **www.pesgroupltd.co.uk**. Please quote promo ref BEW 1.

GREEN TECH COMPANY SAVES UK BUSINESS £50M

In these austere times, businesses and government organisations are examining every possible method of reducing costs.

From redundancies to the renegotiation of the stationary contract, spending is being curbed and efficiency is no longer a buzzword, it's a way of life.

One green technology company, powerPerfector, is helping lead the way, by saving public and private sector organisations that have adopted its unique Voltage Power Optimisation (VPO)® technology £50 million.

Typically, due to the design of the distribution network, buildings are supplied with higher voltage than is actually needed. powerPerfector's green technology, developed in Japan, works by optimising electrical power quality and by supplying voltage at a more efficient level.

Thousands of sites in the UK have installed VPO and, when fitted in a typical commercial building, it cuts an average 13% off the electricity bill instantly. The associated carbon savings are equal to 320,000 tonnes, that's the equivalent weight of nearly 2,000 jumbo jets.

Angus Robertson, CEO of powerPerfector, said: "The £50 million mark is not just a proud milestone for powerPerfector but conclusive proof for business leaders that there are some easy-wins on the tough road to cost saving and carbon reduction.

"But this is only the beginning. The Department of Energy and Climate Change (DECC) says that powerPerfector is a 'critical part of our energy reduction strategy', our aim is to be a critical part of the UK's overall carbon reduction strategy."

Grandee launch their smallest oil combi boiler

Grandee Energy Group proudly claims to manufacture the widest range of domestic oil boilers - wall and floor mounted - internal and external.

Their latest innovation is the micro-sized 10/15kw "Hybrid" oil-fired and/or electric condensing combi. This remarkable, easy to install, SEDBUK 'A'-rated boiler is ideally suited to small bungalows, mobile homes, terraced homes, social housing and modern well-insulated dwellings.

In recent years, domestic dwellings have become better insulated and far more energy efficient with the latest construction standards. As a result a boiler which, say 20 years ago, was perhaps 20kW now only needs to be, perhaps, 10-12kW. Indeed, many boilers are grossly oversized and cycle excessively in anything other than the most inclement weather.

For many years the perennial question relating to combi's has been, "What's the flow rate?". People are keen to know how much hot water a boiler can produce. But who in a recession, wants to regularly pour gallons of hot water down the drain? The story gets better. The Grandee "Hybrid" 10/15 output can be doubled at the flick of a switch. Two 5kW elements can be activated to boost the input by up to 10kW and, thereby, increase the amount of hot water considerably when there truly is a need for higher flow rates.

Linking a renewable energy system with the Grandee "Hybrid" boilers may result in a further reduction in running costs - a fantastic opportunity for those living in areas with no gas supply. The Grandee "Hybrid" range of boilers, including their latest 10/15kW combi are absolutely ideal for **cost saving and the recession years – the age of austerity**.

Want to know more? Please contact the team on **0121 454 2244**/ **Anders.Timms@GrandeeEnergyGroup.com** or visit our website at **www.grandeeenergygroup.com**. Grandee Energy Group look forward to hearing from you.

Salford University working towards creating a sustainable future for energy

As part of the UK's drive to address the critical need of lowering carbon emissions and securing a sustainable energy supply for the future the University of Salford has recently created an Energy Hub. This original and highly innovative initiative is designed to build on the University's already well established international reputation for Teaching and Learning, Research and Innovation and Enterprise and Engagement in areas with a strong focus on the "real world".

University of Salford
A Greater Manchester University

At the heart of the Hub will be the Salford Energy House. This is a full-size traditional, terraced house which is being constructed to accurately reproduce the features and build of an early 1900's home. It will utilise original bricks and roofing tiles which are being supplied by Salford Council from one of their housing regeneration projects. The house will also be completely furnished and fitted out as a typical working home with fully functioning water, gas and electricity supplies. Its style and construction represents around 20% of the UK's current housing stock.

A key and unique feature of the construction is that it is being built within a totally enclosed and environmentally fully-controllable laboratory. This is acknowledged as the first of its kind within Europe and, possibly, the world. As a result it will be the subject of some of the most advanced energy research programmes ever conducted on a residential property. The facility will allow levels of heat, solar light, humidity and even wind to be individually adjusted and maintained and will enable the comprehensive testing and development of new low-carbon materials, technologies and products.

An additional and significant attraction of the project will be the opportunity to assess human behaviour and perception towards energy use and consumption. By studying the different ways in which energy is utilised within the house, the University will be able to devise techniques to improve its energy efficiency. A recent Local Government survey showed that 91% of all UK homes would benefit substantially from improvements in energy efficiency. Improved insulation and boiler upgrades alone could see heating emissions reduced by 22%.

In order for the Hub to maximise its contribution and effectiveness it will be interdisciplinary and will also partner closely with both business and the local community. By drawing on the expertise and knowledge amongst the University's academics, researchers and students plus the wider private and public sectors beyond the Salford campus it is envisaged that psychologists, health experts and sociologists will work alongside designers, engineers and scientists to study and develop sustainable solutions to meet the global energy crisis.

The house is due for completion by early December and a grand public unveiling is being scheduled for January 2011. This will coincide with a one day external conference being organised by the University which will be centred on the theme of sustainable housing retrofit.

In addition to the creation of the Salford Energy House the Hub will also tackle, as part of its planned activities, other aspects of the energy agenda such as energy generation, energy conversion for transport, and resource management including grey water recycling.

If you would like any more information on the Salford Energy House or how the Energy Hub may be able to work with your organisation please contact Steve Waterworth, Energy Hub Manager at **s.d.waterworth@salford.ac.uk**, *call* **0161 295 6347** *or visit the website at* **www.energy.salford.ac.uk**

New manufacturing and assembly facility opens in Atherton

Envirolink Northwest's energy sector development team has helped MHA Int-Elect to create a new subsidiary business, as well as breathing life back into an old factory and creating jobs.

Business development specialists have worked closely with the Atherton-based company to help them set up MHA Lighting, to run their LED lighting operations.

Using their knowledge of the Technical Support Competition - which is designed to help businesses overcome specific barriers to their development – Envirolink Northwest was able to subsidise a new range of solid state lighting to go through rigorous testing process.

This led to the products gaining crucial CE approval which was the green light for the company to set up on the site next to MHA Int-Elect's existing base, creating seven new jobs and safeguarding a further 12.

The new business manufactures a range of solid state lighting products under license from Luminanz. These include external lighting that is increasingly being specified for garage forecourts, internal and commercial lighting and also lights designed to be used for outdoor advertising hoardings.

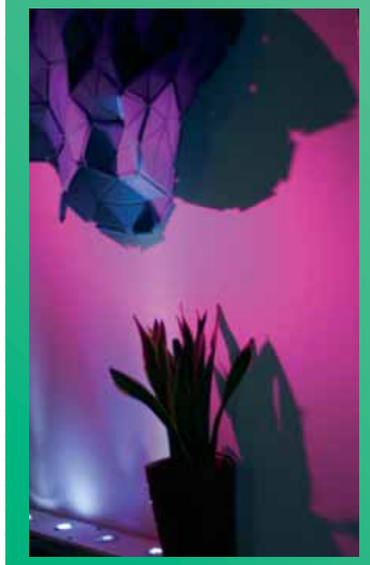
Envirolink Northwest's Energy Efficiency Business Development Manager Inger Kristiansen explains: "This is a great outcome for everyone. Jobs have been created and safeguarded, an old production facility has been brought back to good use, and MHA Lighting are now able to offer an excellent range of products to an ever growing market.

Envirolink Northwest has also supported MHA Lighting at a number of high profile events, including the Energy Solutions Expo at London Olympia and the World Future Energy Summit in Abu Dhabi.

Graham Norris, Business Development Director at MHA Lighting adds: "The support we have received from Envirolink has been of great value in establishing MHA Lighting as a new business, finding the right market for our products and commencing manufacture here in the North West".

North West Solid State Lighting capabilities showcased at Manchester Gallery

Envirolink Northwest recently hosted the North West Solid State Lighting Demonstration Showcase at the CUBE Gallery in Manchester.



Seven North West based businesses were invited by Envirolink Northwest to showcase their innovative products giving visitors the opportunity to explore a diverse range of commercial and domestic settings where LED luminaries can replace conventional lighting products.

Solid State Lighting has been described as the most significant advancement in illumination since the invention of the light bulb. The worldwide market for lighting fixtures is projected to exceed $94 billion in 2010 according to a report by the Global Industry Analysts Inc (2008). Europe is the largest element of this at $23 billion.

Inger Kristiansen, Business Development Manager, Energy Efficiency at Envirolink Northwest said: "Lighting accounts for one sixth of all electricity usage in the UK and 19% of global total electricity consumption is used for grid-based electric lighting resulting in 1,900M tonnes of CO_2 emissions. LEDs can offer us a bright future and we should encourage their use, especially to those responsible for procurement in the construction industry."

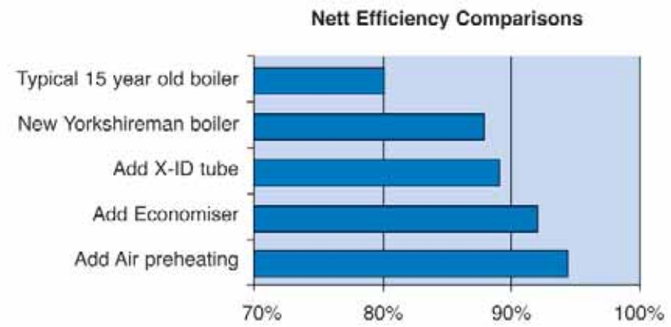
The event was free to attend and open to the public at CUBE Gallery, 113 – 115 Portland Street, Manchester, M1 6DW.

Raising the bar for boiler efficiency

Peter Baldwin, Managing Director of Byworth Boilers explains the latest developments in boiler technology

Amidst a flurry of interest in renewable energy and alternative fuels it is easy to lose track of the basic concept of steam boiler efficiency. On any fuel, the design of the boiler has a direct influence on efficiency. On average the purchase price of a new boiler represents only 1% of its lifetime running costs, so investment in fuel-saving design features gives very quick payback periods. The Byworth Yorkshireman range is designed with generous shell and furnace dimensions, giving a plentiful steam space which is important for good quality dry steam and to reduce the risk of priming and "carry over". The furnace length to diameter ratio is critical to reduce NOx formation, and the heating surface should be sized for optimum efficiency.

X-ID fire tubes in the Yorkshireman2 boiler range give a significant increase in efficiency. The internal helical ribbing of these special tubes not only increases surface area, but creates a complex boundary layer attachment/reattachment phenomenon. This increases heat transfer from the tubes up to 85% greater than for a plain tube, and overall boiler efficiency is increased by around 2%. Maintenance is the same as for plain tubes, and X-ID can be used with great results on any fuel, even heavy oil.



Flue gas economisers are a proven concept and can improve boiler efficiency by up to 5%. The heat in flue gases, which would otherwise be lost up the stack, is utilised in an air to water heat exchanger to preheat the feed water to the boiler. The Byworth economiser is a drawer type for ease of maintenance and located above the rear smoke box.

The latest development by Byworth which is raising the bar for boiler efficiency today, is pre-heating the combustion air. Previously only used on large water tube boiler installations, after considerable R&D, Byworth can now offer this concept on their Yorkshireman range. An air-to-air heat exchanger draws clean air past banks of tubes in which the flue gases pass en route to the stack, heat is transferred to the combustion air which is then ducted to the burner. Air pre-heaters can be used with or without an economiser, providing very cost-effective fuel saving on all fuels. For example a Yorkshireman2 3500 kg/hr boiler with X-ID tube, flue gas economiser and air preheat can achieve almost 95% efficiency.

Byworth Boilers (Dennis Baldwin & Sons Ltd)
Tel: 01535 665225
Fax: 01535 680997
Email: sales@byworth.co.uk
Web: www.byworth.co.uk

A kitchen ventilation system that saves money, conserves energy and reduces CO_2 emissions

School records energy savings of 58%

March 2010 saw the official launch of IKV, the Intelligent Kitchen Ventilation system designed and patented by Manchester-based ventilation specialists, M L Shaw Fabrications. By only extracting air on demand, it is now possible for commercial kitchens to achieve substantial savings in both energy and carbon emissions.

To meet the requirements of BS 6173, which stipulates that gas cannot be switched on until the ventilation system is fully operational, conventional systems generally have to run at 100% capacity throughout the working day. However, the innovative IKV system provides a highly efficient, eco friendly solution for kitchen operators everywhere, by only extracting air over the appliances that are in use. Importantly, the new system can be fitted retrospectively.

How does it work?

The system works by automatically adjusting the speed of both the extract and supply fans to meet the ventilation requirements of the equipment being used. This prevents air and fan energy from being wasted during low cooking periods.

The IKV filters open in response to heat from the cooking appliances below while the extract and supply fans increase their speed simultaneously. As appliances are switched off, the filters close and fan speeds fall.

The action of opening and closing the baffle filters in relation to fan speed helps maintain a constant velocity through the open filter, maximising grease extraction and system performance. This patented feature is what separates IKV from alternative systems which do not have the capability to maintain a constant velocity through the filter at reduced extract volumes. As such they could potentially be prone to hazardous grease build up within the duct which could present a possible fire hazard whilst also not complying with section 3.2 of the DW172 specification.

Does it work?

Manchester City Council piloted the first scheme at Crab Lane Primary School in Higher Blackley. Following the installation, the Council used independent test engineers to validate the effectiveness of the system. The pilot proved to be highly successful, achieving:

- A financial saving of £2,708.65 per year.
- Carbon Dioxide reduction of 14.73 tonnes per year.
- Payback achieved within 2.5 years
- A reduction in noise levels within the kitchen.
- An improved ambient temperature in the workplace.
- A consensus among employees that they are safer as a result of IKV's safety features including a carbon dioxide detector, and improved lighting.
- A reduction in maintenance costs

With such substantial benefits it is unsurprising that the kitchen staff at Crab Lane Primary School are delighted with the IKV system.

The future of IKV

Following it's highly successful launch, IKV has received further orders from Manchester City Council, and the additional request to carry out kitchen Ventilation Safety and Hygiene Assessments at 184 locations across Manchester. There has also been considerable interest from other authorities. Both Bolton and Rochdale Councils have placed orders for IKV systems to be installed as a trial at schools over the summer.
IKV is both a highly innovative and creative solution for modern commercial kitchens.

Please watch our demonstrational DVD at:
Web: **www.ikv.uk.com**

Alternatively please contact us on:
Tel: **0161 653 1081**
Email: **info@mlshawfabrications.com**

Domestic voltage optimisation from VPhase: the green agenda

Domestic voltage optimisation from VPhase is low-cost and maintenance free, proven to cut energy bills by around 10% and reduce carbon emissions by c.4 tonnes over its 25+ year life.

Voltage optimisation and the green agenda

Voltage optimisation has been used for many years in industry and by large retailers to reduce their energy usage, but hasn't been available for domestic properties until recently. VPhase has developed a low cost domestic voltage optimisation unit that can be retrofitted to the home by a qualified electrician. Once fitted, VPhase will immediately start to save the home owner money off their energy bills, typically 9% to 10% with no behavioural change required by the household.

Independent testing has consistently confirmed these savings along with an expected lifetime CO_2 saving of c.4 tonnes. The ideal time to fit a VPhase is when a new consumer unit is being fitted as the incremental install costs are negligible. With its maintenance free design life of 25+ years a VPhase unit could save over £3,000 during its life, at today's electricity prices. Voltage optimisation economics are very favourable when compared to solar PV, wind turbines, heat pumps and other high cost energy saving devices.

The challenge for VPhase is raising the awareness of voltage optimisation and its benefits and firmly placing voltage optimisation on the green agenda.

What is voltage optimisation?

Voltage optimisation is not a new technology; it has been used in industry for many years with organisations like Tesco reporting savings of £8 million pounds a year through its application. Within the UK voltage can be supplied to the home between the limits of 207 volts and 253 volts and typically averages 245 volts. Appliances, other than electric heating devices, get no benefit for supply above the minimum and have to waste the excess as heat. The VPhase unit lowers and regulates the incoming voltage to a consistent set point, usually 220 volts, although the device can be set at time of installation to regulate to between 210 and 230 volts to match the needs of a particular household.

European patent granted

VPhase recently announced the award of a European voltage control patent. Once translated it will have been granted in 34 countries in total including the USA, New Zealand, South Africa and Russia.

North West based social housing trials

Earlier this year, VPhase carried out a trial of its units with Great Places Housing Group, a registered social landlord based in Manchester. These trials were independently analysed by EA Technology and showed savings of between 8.5% and 9.0% with estimated yearly CO_2 savings of 180kgs per property and a whole house CO_2 reduction of 3.6%. Tenants involved in the trial were able to benefit from the immediate and significant savings the product delivered, without having to change their lifestyle or electricity supplier. This helps Great Places towards tackling the fuel poverty agenda and reduce the carbon footprint of their housing stock.

Matthew Harrison, Deputy Chief Executive and Director of Development at Great Places Housing Group commented: "The results are very encouraging and we will now look at the viability of installing VPhase units in more of our houses."

Who is VPhase?

VPhase plc, an Energetix Group company, is a London Stock Exchange AIM quoted business that is based near Chester and has developed the technology in-house with support from Liverpool University. The VPhase units are manufactured in the UK and the company is working with major utility companies including Scottish and Southern Energy and British Gas, along with others, to promote the adoption of voltage optimisation in domestic properties.

Contact details
T: 0845-003-8235
E: info@vphase.co.uk
W: www.vphase.co.uk

VETS at the University of Salford are pleased to announce that they have been commissioned by City West Housing Trust to visualise the major Barton Village Project, a hugely important project for both City West Housing Trust and the City of Salford in general.

This is the first commercial project using the new Virtual Housing Suite that has been developed by VETS and will effectively launch it as a product.

VETS commercial manager Paul Welshman explains the tool further -

"The Virtual Housing Suite allows professionals from the public and private sector to access a range of tools and services that facilitates a number of controlled and bespoke interactions with tenants, suppliers and other stakeholders.

This includes:-

Visualisation of new schemes
Range of options/phasing
Costing elements and what if scenarios
Thermal data overlays
Education and Training

This flexible and cost effective approach enables the client to gather excellent quantative data, deliver consistent messages and save on project staff time and resources."

The project itself is of huge importance to City West Housing Trust and the Virtual Housing Suite will offer an innovative way of engaging the stakeholders as Jon Cross Sustainability Manager at City West Housing Trust explains.

"The Barton Village 3D modelling tool brings the expertise of Salford University out into our local community, visually informing customers of the design option decisions for their homes".

"This is the first visualisation tool that brings real information choice to staff and customers"

VETS is a commercial unit within the Science, Engineering & Environment faculty and forms an important part of the overall engagement strategy as Nigel Mellors Associate Dean for Enterprise points out.

"Within the faculty we pride ourselves on being proactive when it comes to engaging industry and the wider community. The development of the Virtual Housing Suite is a great example of a commercial unit within the University creating a product that is commercially viable and then working with industry on a pilot project that can be used as a platform for further and continued engagement."

The process that has lead to the development of this product is an example of how the University is working across the themes and across key partners as Paul Cihlar Business Development Manager for Science, Engineering & Environment highlights.

"Here is an example of a commercial unit within the University working within the Energy theme, through one of our key partners in Salford City Council, in order to bring a product to market. Salford City Council help us to identify an industrial partner in City West Housing Trust who will now be using the tool to interact and engage with the wider community. This is a perfect example of the University crossing public and private sector, using research and innovation and getting our technology out in front of the general public."

Microgeneration Certification Scheme (MCS) made easy with Envirolink Northwest

With help from Envirolink Northwest two renewable energy companies have now made regional firsts and have become MCS accredited this summer. Jacob Eco Energy Limited has become the first (MCS) accredited installer of Photo Voltaics (PV) in Manchester and Sustaburn are the first renewable energy installer to achieve MCS for biomass in the North West.

Envirolink Northwest in partnership with the Energy Saving Trust has been working with both companies in supporting the accreditation. The companies attended a free seminar organised by Envirolink in order to understand the process of attaining certification. Envirolink also helped the companies to source suitable training and certification providers, helped with sector intelligence and links to market opportunities, promotion and also provided funding support.

Saray Cruz, Envirolink's Microgeneration Business Development Manager, commented, "Attaining MCS certification has become a key issue for the industry and Envirolink is committed to helping companies overcome this barrier. MCS accreditation has been regarded by the industry as a cumbersome and expensive stumbling block to overcome but with Envirolink's support Sustaburn and Jacob have achieved certification. We know how vital this accreditation is for companies and it is our job to help them along the way, making it easier for them to get certified."

Judy Wong, Director of Jacob Eco Energy Limited said, "Envirolink Northwest has been a wonderful source of information, advice and funding, and without which Jacob Eco Energy Ltd would not have achieved the first Photo Voltaic MCS approved installer in Manchester. "The formation of Jacob Eco Energy has already led to the creation of new employment, with a vacancy for a Renewable Energy Trainee. We are working with the local Job Centre to fill this current vacancy."

Martin Robinson, Director of Sustaburn said, "We could see the importance of becoming MCS Accredited to promote the use of Wood Pellets as a sustainable low carbon fuel of the future within the North West. The support that we have received from Envirolink Northwest has been absolutely critical and has enabled us to move a step closer to reaching our goal to help shape a greener future for us all".

"Only around 6% of the electricity of a 'traditional light bulb' is converted to light. The rest is lost as unwanted heat."

The Carbon Trust

diamond™
led lighting
lighting the future

up to
90%
energy-saving

ultra
long
life

100%
recyclable

Reduce your energy bill by using our environmentally friendly LED lighting products.

Learn more about cost comparisons plus the styles and colour options available by visiting:
www.diamondledlighting.co.uk
or call
0845 273 9800

Diamond LED Lighting
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