Building Services News

Volume 46
Issue 5 BS News

5-1-2007

BS News

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opinion

Ignore The Popular Press

The popular press has something of a Jeckel & Hyde approach to the construction industry — if business is good they make out that it is "booming" and, when it trails off, it is a "slump". At the moment it is doing its best to convince the public at large that a "crash" is inevitable and that intending house/apartment buyers should refrain from doing so.

Thankfully, the industry itself knows better. There is no denying that the election — and especially vague promises of stamp duty concessions — have had a dampening influence on the homes market but that will shortly be behind us.

Moreover, these screaming and inaccurate headlines have also created an impression that the commercial and industrial sector is also in the doldrums. That is patently not so. If anything, things look very buoyant at present with many engineering consultancies finding it difficult to get staff.

The reality for the moment, and the foreseeable future, is for a sustained, stable marketplace. There will be the usual peaks and valleys with different pockets of the marketplace performing better than others at different times.

There will even be problems and casualties along the way. However, this is to be expected given the scale of the building services sector.

So, the message this month is to take the screaming headlines of the popular press with a grain of salt. Don’t be side-tracked by unsubstantiated hype but concentrate on the facts and maximise the potential of work in hand.
a rated ber development in Longford

Ard Michael Woods in Longford is a “House of Tomorrow” housing development incorporating the latest in sustainable energy home technology. Each home comes with a Grade A rating Building Energy Rating Certificate (BER), a feature which will be central to the future value of property as BERs will be compulsory on all homes sold or rented from January 2009.

Ard Michael Woods homes cost up to 60% less to heat than a typical dwelling as they are designed to be air-tight, properly ventilated, well insulated, and heated by a heat pump system using renewable energy.

Developer P Elliott & Co has teamed up with Jay Stuart and his team at Delap & Waller EcoCo to ensure the highest environmental and sustainable design standards for this development.

Contact: www.ardmichael.com

chronotherm moves to accommodate growth

Continued growth over the last few years — coupled with projected expansion for the foreseeable future — has forced Chronotherm Controls to move to new, much larger, premises.

Specifically fitted out to serve the needs of its fast-expanding customer base, the building is strategically located at Unit 2, Baldonnell Business Park, Naas Road, Dublin 22. This is immediately adjacent to the new ring road network and makes for easy access from all over Dublin, and the country.

Chronotherm Controls commenced trading in 1989 and has since established itself as one of the leading controls and building management specialists in the industry. It represents leading brand names such as Flash, Sunvic and Pegler and also provides comprehensive technical support across all market segments.

“In making the move”, says Tom Noone, Chronotherm Managing Director, “we also took the opportunity to upgrade our IT, sales, technical support and dispatch systems and I’ve no doubt that customers will experience an even better service than before”.

Contact: Tom Noone, Chronotherm Controls. Tel: 01 - 410 5756/7/8; Fax: 01 - 410 5655; Mobile: 087 - 255 3703; email: sales@chronotherm.ie

mk electric restates green credentials

MK Electric's policy of sourcing 100% recycled uPVC for extruded lengths means that across the entire range, including extrusions and mouldings, the recycled content is in excess of 90%.

The use of recycled uPVC, which is made from waste, off-cuts and bar lengths collected from fabricators in the window industry, diverts over 5,000 tonnes of material destined for landfill and prevents the equivalent tonnage of new virgin product being produced.

With the emphasis on sustainability growing as a corporate issue and with the construction industry in particular seeking to improve the sustainable performance of projects, MK Electric believes it is well placed to offer environmentally friendly solutions in the cable management sector.

Contact: Novar Ireland. Tel: 01 - 429 6500; email: ireland.sales@novar.com
The Commercial Split System that everyone's talking about.

No wonder everyone's talking about SANYO's Commercial Split Range, with its propriety DC inverter technology and non-ozone depleting R410A refrigerant vastly reducing life cycle running costs. Renowned for reliability, our flexible indoor range offers solutions from 5.5 kW to 28 kW.

Up to four indoor units of different types can be operated with just one outdoor unit, greatly reducing installation costs. With consistent control across the range and full BMS integration, it's time to speak to SANYO.

www.sanyoaircon.com

SANYO Air Conditioners. The natural choice.

Think GAIA
For Life and the Earth

Published by ARROW @TU Dublin, 2007
mark shopheater

The new Mark Shopheater gas-fired unit air heater range is intended for direct blowing and is ideal for a wide range of applications. Typical installations include retail outlets, small warehouses, garages, under mezzanine floors and other similar types of locations.

The self-contained 14.2kW model is perfect for projects of this size, the balanced flue options providing extreme flexibility. All models are equipped with a helical fan and fitted as standard with a double deflection grille.

The Shopheater units also incorporate their own burners, own thermostats (which can be fitted with optional timeclock) and deliver efficiencies of up to 92%. This makes them the ideal choice when considering energy performance, sustainability and environment protection.

Features and benefits include:
- Very compact size;
- Lightweight and easy to handle;
- Easily mounted and installed;
- Low noise levels;
- Standard horizontal with vertical louvres.

Contact: Mike O’ Donoghue or Mairead Twomey, Mark Eire. Tel: 026 45334; email: sales@markeire.com

mtd appointment

Emma McWilliams has just joined the MTD-Solutions team. Having previously worked with DHL, Emma will now be responsible for the general administration of the main MTD office in Blessington, Co Wicklow.

Contact: Tel: 045 - 900 590; email: emma@mtd-solutions.com
Web: www.mtd-solutions.com

polytherm calpex de-coiling operation

Polytherm, which is synonymous with underfloor heating solutions, is also the Brugg distributor in Ireland. Brugg is a Swiss company which produces, among other products, the Calpex range of pre-insulated pipes which are designed for mechanical services, construction, district heating and petro-chemical industries.

The Calpex family consists of the Uno, Duo & Quadrina range which, as the names suggest, are single, double and quadruple inner pipes encased in a high-performance PIR insulation with a seamless extruded hard outer sleeve.

Couplings and tee pieces are supplied with an outer sleeve and insulation foaming kit to insure continuous high insulation standards.

Polytherm previously imported Calpex in individual coils from 10m to 30m. However, to make it more flexible and cost-effective for the customer, Polytherm has installed the largest de-coiler in Ireland at its Naas Road Depot. Now the required lengths can be cut to measure and recoiled ready for dispatch.

Contact: George Chubb, Polytherm. Tel: 01 - 01 419 1990; email: georgechubb@polytherm.ie
Selection of portables ranging from 2.9kW to 6.1kW.

- Self-Evaporating (No drain) 2.9-4.5kW Units
- Quiet Operation.
- Attractive Design.
- Ideal for Small Offices and Computer Rooms.
- Large Stocks Available.

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Ph: 01 286 4377   Fax: 01 286 4310
mandie@gtphelan.ie
valor offers pioneering heating solutions

Valor Fires is part of one of Europe's leading manufacturers of heating and hot water solutions with a history in manufacturing fires and stoves dating back to 1890. It prides itself on being at the cutting edge of design and technology and leads the way in research and development in this specialised field.

Valor has been market leader in the various sectors it serves many years. It invests heavily in order to meet the new challenges and changing face of the industry. Recent developments include new product sectors such as fuel-effect electric and new wall-mounted plasma type models. These complement the company's existing electric portfolio of contemporary and traditional suites and surrounds, offering the widest choice to customers in this market sector.

Valor is distributed in Ireland by sister company Potterton Myson Ireland, and together they will be bringing these new models to the Irish market over the coming months.

"In addition", says Vincent Broderick of Potterton Myson Ireland, "Valor is working on existing ranges of gas products to increase efficiency in order to fully meet the challenge of today's environmentally-aware customer.

"It is at the forefront of these developments with the new Powerflame HE product which dramatically increases efficiency compared to other products in the marketplace. In these days of higher consumer fuel bills, this product may be a cost-effective solution for the replacement market, in addition to new build opportunities.

Further exciting news on Valor and Wonderfire brands will be announced shortly in advance of the traditional fire season.

Contact: Sales Office, Potterton Myson Ireland. Tel: 01 - 459 0870; email post@potterton-myson.ie; website-valor.co.uk

3D air sales change of address

3D Air Sales (Ireland) Ltd has moved premises. It is now located at Head Office Business Centre, Greenhills Road, Tallaght, Dublin 24.

Contact: Michael Clancy or Darren Lowndes, 3D Air Sales (Ireland). Tel: 01 - 463 8604; email: 3dair@eircom.net

updated calculation software from armacell

Armacell has completely revised its calculation program and now provides ArmWin in a new layout. Unlike the preceding versions, ArmWin AS does not need to be installed, but can be used directly online. It can be used to carry out all common technical calculations in refrigeration, air-conditioning, heating and plumbing applications.

With this calculation programme it is possible to determine not only the correct insulation thickness needed to prevent condensation on refrigeration and air-conditioning systems, but also the heat transition coefficient, heat flow, temperature changes for a flowing and stationary medium, and the freezing period for water pipes.

For heating and plumbing applications, ArmWin AS can also be used specifically to determine the savings in heating costs per insulated metre of pipe.

Contact: Alan Beattie. Tel: 045 434 717; email: alanbeattie@eircom.net
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<td>Refrigerant 407c Dualfluid Freecooler Chilled Water Upblow/Downblow Dx — Water Cooled Close Control Air Conditioning</td>
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<td>Chillers Heat Pumps Packaged Rooftop Units Minisplits Fan Coil Units Controls</td>
<td>Flexible and reliable VRF system</td>
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Capacity 4kW to 100kW
firebird only a 'mouse-click' away

Firebird has just updated its website (www.firebird.ie) to include a full information catalogue on all Firebird products along with product brochures, service manuals, parts lists and training presentations.

Brendan Twomey, Firebird’s Marketing Manager, told bs news: “In designing the new website we have placed strong emphasis on the feedback received from our customers and installers. All technical information is available in real time via the website and complete service manuals and parts lists can be downloaded in a matter of minutes”.

Contact: Brendan Twomey, Firebird. Tel: 026 45253; email: brendan.twomey@firebird.ie

atp pushes new product catalogue

Advanced Technical Products (ATP) distributes an extensive range of heating, heat exchange, hot water generation, valve and pipeline products intended for use in both commercial and industrial markets.

Products include trench heating, door curtains, gas fired unit heaters, heat exchangers, calorifiers, automatic balancing valves and expansion bellows. Located on the outskirts of Dublin in a modern business unit, ATP serves the needs of end users, contractors, consultants and architects.

Apart from the product portfolio, experienced staff are also available to offer design assistance and site support.

Contact: David Daly, ATP. Tel: 01 - 885 3792; email: info@atpireland.com

energy show 2007

Pictured at Energy Show 2007 in the RDS Industries Hall, Dublin are Noel Dempsey, TD, Minister for Communications Marine and Natural Resources and David Taylor, Chief Executive, Sustainable Energy Ireland (SEI). Approximately 130 Irish and international manufacturers and suppliers of sustainable energy technologies exhibited at the event which was attended by approximately 2,000 professionals. The Energy Show 2008 will be held at the RDS Main Hall, Dublin on the 16/17 April 2008 and will once again include a two-day trade exhibition coupled with a seminar programme covering all aspects of energy efficiency and renewable energy.

btu programme for 2007

The BTU programme for 2007 has already commenced, the first outing having taken place at Portmarmock Golf Club. Dates and venues for the remainder of the season are as follows:—

Friday 8 June — Forest Little Golf Club;
Wednesday 11 July — Roganstown Golf Club;
August weekend away — Glasson Golf Club;
Friday 7 September — Newlands Golf Club;
Friday 19 October — Oranze Golf Club;
Christmas Outing: Friday 30 November — Hermitage Golf Club: 10.30am Shotgun Start

Contact: Dave Harris, Honourary Secretary, BTU. Tel: 01 - 866 9106; email: dharris@harrisheating.ie
At Marren Engineering we focus on the importance of providing an overall engineering solution in the mechanical and electrical elements of the building industry. With in-house engineering and CAD facilities, our highly skilled trades teams can produce the most flexible, innovative and turnkey solutions.

Today, our business is no longer just a pure engineering solutions provider. However, engineering excellence remains at the core of our business, strengthening our services and providing greater insight into the wide array of building service solutions now offered by Marren Engineering.

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Wavin appoints managing director designate

Wavin has appointed Brendan Murphy (see left with Larry Carr) as Managing Director Designate to succeed Larry Carr who retires towards the end of this year.

Brendan joined Wavin in September 2001 and was appointed Sales Director in early 2002. Prior to that he held the position of General Manager/Director at Dunlop Slazenger Ireland and before that was Sales Manager at Bristol Myers Consumer Company.

According to Larry Carr, the appointment of a Managing Director Designate is part of the Wavin structured approach to succession planning and will ensure a seamless transfer of responsibilities.

Artist helps commission Toshiba AC unit

One of Dublin's best known newsagents, Bus Stop on Grafton Street, approached GT Phelan to provide a cooling solution for the card gallery in the basement. The only difficulty was the lack of outdoor space for the condenser - the roof above was not suitable and the only available alternative was to install the outdoor unit at high level on the front of the shop.

However, the landlord was concerned about the visual impact of the unit on the face of the building and stipulated that the outdoor unit had to be camouflaged to blend with the brick-work. "City centre applications can often be tricky, especially when there is a lack of space for the external unit," says Rodney Phelan. "We were installing a 7kW heat pump cassette system to provide the full cooling and heating needs for the shop and so the challenge was quite significant.

"The solution we devised in this instance was to commission an artist who skillfully painted brick-work lines onto the outdoor unit, therefore blending it with the surrounding wall".

Contact: Rodney Phelan, GT Phelan. Tel: 01 - 286 4377; email: rodney@gtphelan.ie

Systemair acquires IMOS and Matthews & Yates

Systemair has acquired the Slovak company IMOS, a leading producer of air terminal devices and fire dampers. The acquisition gives Systemair a wider product range and increased market shares, mainly in Eastern Europe, with the potential to expand into mainland Europe.

IMOS will continue its production as before and become the Systemair production unit for air terminal devices and dampers.

Systemair has also acquired the assets of Matthews & Yates Colchester, including the right to use the trading name Matthews & Yates.

Matthew & Yates was founded in 1882 in Manchester, England, and is well known throughout the world. It has a very good reputation on the axial fan and metro-road-train tunnel fan market, in the UK and Middle and Far East markets.

Production will be moved to Windischbuch, Germany and Maribor, Slovakia, with Systemair continuing the axial fan/tunnel fan range of Matthews & Yates, alongside the existing Systemair axial fan range.

Contact: Niall Horgan or Mark Russell, Systemair. Tel: 01 - 582 4544; email:sales@systemair.ie
smartt says get smart about customer care

To: Pat Lehane, Editor, *bs news*

Dear Pat,

I read with interest your comment on the desirability of having a category dealing with customer service included in the new Code of Practice for Plumbing & Heating, in the Plumb Lines page of the April edition of *bs news*.

I agree wholeheartedly with you in relation to the importance of customer care and customer relations skills for any industry which has a very large interface with members of the general public, such as the plumbing and heating industry.

I would, however, suggest that given their importance to our profession, these "soft skills" could be more beneficially dealt with by inclusion in the Standard Based Apprenticeship Programme as is the case in many of our European neighbours, than in the new Code of Practice for Plumbing and Heating. I am thinking more of a carrot than a stick approach!

From my involvement over a 10-year period with the Professional Standards Committee of the Institute of Plumbing and Heating Engineering, I am only too well aware of the high percentage of the complaints which had their origins in poor or inappropriate customer relations practices. Many fledging plumbing and heating contracting companies which fail, do so not out of any lack of technical ability, but because the vitally-important concepts of good customer relations and customer care are either not understood or are ignored.

The benefits which would accrue to our profession if the subjects of customer care and relations were to be included in the Standards Based Apprenticeship programme would be a new era of "customer service" and, would it be too much to hope, for an enhanced reputation for our profession among the members of the general public?

Yours sincerely,

John Smartt
Chairman, NSAI Plumbing & Heating Committee
unigas 3000+ xl flue gas analyser

The UniGas 3000+ XL combustion flue gas analyser is one of the most powerful and advanced palmtop analysers on the market. It can store up to 250 complete analyses with boiler details, customer names and address, using the optional BDGas 2004 Windows-based software package. It can also organise and manage inspection and maintenance schedules.

UniGas 3000+ XL is a unique, multi-function device incorporating 10 instruments within the one unit. These are:

- Combustion flue gas analyser;
- NO/NOx emissions;
- SO2 emissions;
- Draft and differential pressure meter;
- 2-channel differential thermometer;
- Ambient CO monitor (room test);
- Gas network leak tightness tester;
- Gas leak detector;
- Ionisation flame tester;
- Temperature and humidity meter.

The unit also features built-in impact printer (not thermal), 10-hour operation with Li-Ion battery pack and graphic display with menu and zoom feature.

Contact: Tom Mears or Chris Mears, Eurolec Instrumentation. Tel: 042 - 933 3423; email: eurolec@esatclear.ie

irish 2007 worldskills team announced

The Irish WorldSkills team to represent Ireland at the 39th WorldSkills Competition in Japan in November has now been chosen and members are already engaged in an intensive training programme. The team is sponsored by Gypsum Industries is made up of 26 apprentices, students and technicians from 25 disciplines.

Ireland has fared extremely well at previous events, winning three Gold Medals, one Silver and Bronze and nine Medallions for Excellence at WorldSkills 2005 in Helsinki.

Among those representing the building services sector are: Plumbing — Declan McGee, Falcarragh, Co Donegal; Welding — Gerard Healy, Castlecomer, Co Kilkenny; Industrial Electronics — Vincent Heffernan, Templemore, Co Tipperary; Refrigeration — John Fanning, Thurles, Co Tipperary; Electrical Installations — Daniel Ryall, Freshford, Co Kilkenny; Industrial Control — Barry Bolger, Carnew, Co Wicklow; Mechanical Device Control — Colman Horgan, Killarney, Co Kerry; Sheetmetal Work — Kenneth Clooney, Kilmore Quay, Co Wexford.

new faces for flogas munster team

Flogas Ireland has appointed Michael Murphy (right) Area Sales Representative for Co Kerry. Michael will be responsible for sales development and consolidating existing business within the bulk LP gas and bottled gas market sectors. Meanwhile Technical Sales Engineer Brian Murphy (left) is now based at the Flogas terminal in Tivoli, Cork. Brian joined Flogas in 2005 and was previously based in Drogheda. Brian will now be responsible for technical sales support.

may 2007
HOMEFLAME’S BACK AND MORE EFFICIENT THAN EVER.

The welcome return of Valor’s classic Homeflame fires with an 89% energy rating!

DREAM ON
Take a closer look at the traditional and contemporary styling of our new Dream and Harmony models.

PICTURE PERFECT
Even at low output settings Homeflame always delivers a superb flame picture.

FUELLING DEMAND
With increasing gas prices demand for high efficiency products is greater than ever.
Specialist Support Systems
Quality Service

Quality of service is something many companies aspire to but few, if any, genuinely deliver on a continuous basis to that high ideal. It is so easy to pay lip-service to the notion but extremely hard to realise it. However, MSS Building Services — the support systems specialists serving the mechanical, electrical and sprinkler industries — does.

MSS has its origins in Irish Building Services, the pioneering company established by Liam Stenson over 40 years ago. As market leader for many years it inevitably came to the attention of the multi-nationals, one of whom eventually bought the company. In 2001 Sean Stenson, Liam’s son, left to form another business in the field and finally, in 2006, led a management buy-out from that to establish MSS Building Services.

MSS is a 100% Irish-owned company, Sean’s fellow-directors being Darren Kiely and Billy McDonald. All are vastly-experienced, extremely well-known and highly-respected within the business. Indeed, between them they have something like 50 years of service to the industry. Complementing that vast resource is the regular input of “the original of the species”, Liam Stenson, who continues to act as a consultant.

In respect of core company values MSS is a mirror-image of IBS. Quality of service, coupled with world-renowned, market-leading brands forms the basis of the business. The objective is not so much to sell products but to satisfy customers’ needs, to offer solutions to their problems, and to do so in a productive, efficient, speedy and helpful manner. That said, realising this objective makes for mutually-beneficial business for all concerned.

Effectively, MSS operates to the scale of a big company mentality but delivers the service it provides by way of small company values.

MSS Building Services Ltd
Units 6&7 Ballymount Cross Business park
Ballymount
Dublin 24
Tel: 01 - 429 9875 / 01 - 426 5961
email: mss darren@circom.net / mssl sean@circom.net / mss billy@circom.net
Partnership Relationships
MSS operates on the basis of partnership trading relationships, something which applies to both its suppliers and customers alike. Its management structures and support mechanisms are ultra-professional but the manner in which the service is delivered is warm, flexible and friendly. It is all about personal contact, genuinely understanding customers' needs, and fulfilling that requirement.

Industry Sectors Served
- Mechanical, Electrical & Sprinkler Support Systems
- Cable Management Systems
- Pipe Support Systems
- Concrete Fixing Solutions
- Gas Nailing Systems
- Plumbing Supplies
- Channel-Cutting Service

Design Advice & Technical Support
Given the growing sophistication of modern-day building services MSS offers comprehensive design advice and related technical support. Where necessary, the massive resource of key principals can also be accessed, along with specially-compiled CDs containing system design, product selection and technical support software. These, in addition to an extensive choice of printed literature, are available free-of-charge.

World-Renowned Suppliers
Given that quality lies at the heart of the MSS service, a prime requirement is that the products and related accessories provided are of an equally-high standard. Hence the portfolio of world-renowned, market-leading brands. These have been carefully selected to satisfy the specific needs of the Irish market and comprise complementary ranges which cater for all market segments. They include Metstrut; Erico; ITW; IHL; and Mupro.

Early Start & Ex-Stock
Unlike other companies in the sector MSS’s opening hours and stocking policies are designed to serve customers' needs, not theirs. Hence the ex-stock availability of a vast range of over 5,000 individual product items and the incredibly active trade counter which opens at 6.30am, five days a week, and does not close for lunch. Tea, coffee and light refreshments are also on offer.
MSS has its own delivery vehicles and orders are dispatched every morning by 7am. For short-term orders – and especially urgent deliveries – Sean, Billy and Darren also deliver to site, including, when called for, evenings and Saturdays.
high performance car park ventilation

Ducted systems are the traditional approach to enclosed car park ventilation with fresh air levels based on a given number of air changes per hour. This constant running in extended low, or even no traffic or ventilation requirement, can be very expensive.

However, the Fläkt Woods Jet Thrust System eliminates this problem. Ventilation can be designed using CO and LPG sensors so that selected fans only run when necessary. Additional savings are gained because the main extract fans do not need to be oversized to cope with the system-resistance found in ducted systems.

The Fläkt Woods Jet Thrust System is one of the most efficient and cost-effective car park ventilation systems on the market. Both day-to-day pollution — and emergency smoke — are safely and effectively ventilated thanks to the computational fluid dynamic (CFD) modelling methods which accurately assess the installation requirements. This ensures that each system is tailored specifically to meet the needs of each particular application and to comply with all relevant regulatory criteria.

In this highly-specialised market segment Fläkt Woods offers a complete turnkey solution if required. Expert project management includes the design, supply, installation, test and commissioning of the required solution. Whether the requirement calls for a simple pollution control system, smoke clearance or a full smoke control system, Fläkt Wood's Jet Thrust System is the answer.

Contact: Fläkt Woods Ireland. Tel: 01 - 463 4600, email: sales@flaktwoods.com

sondex cements euro fluid relationship

David Reed, Sondex (UK) Sales Manager, recently paid a flying visit to Dublin to link up with its distributor for Ireland, Eurofluid Handling Systems. Sondex is the well-known leading manufacturer of gasketed, semi-welded, free-flow and brazed plate heat exchangers, along with a range of all-welded plate and shell heat exchangers.

Eurofluid has been distributing Sondex throughout Ireland for many years and has gained a considerable foothold in this fast-expanding market sector. Sondex is currently revising its sales and support strategies and the point of David’s visit was to identify what mechanisms are required to better serve the Irish marketplace.

Coincidently, a whole new range of highly-advanced products devised specifically to meet the dual objectives of energy efficiency and sustainable building services design are also about to come on stream. Full details will be released over the coming months.

Contact: Stephen Costelloe, Eurofluid Handling Systems. Tel: 01 - 460 0352; email: stephen@euro-fluid.com

rescue & first-aid book

A new 88-page rescue and first-aid book written specifically for the construction sector is now available free of charge from the publishers Leading Edge Supplies. It covers all aspects of rescue and rescue planning, in addition to detailing the legal requirements for employers in the area.

Contact: Drew Beardmore, Leading Edge Supplies. Tel: 0044 1329 823 398; email: sales@leadingedgesupplies.com
Mark Eire BV has been supplying the building services industry with heating, cooling and ventilation solutions — along with bespoke control panels — for 20 years. Its state-of-the-art manufacturing plant is ISO 9000/2000 and CE-approved, time-related warranties of 10 years being common for the equipment.

**Key Products**

- Gas-fired suspended unit air heaters;
- Gas-fired make up air units;
- Warm water units, LPHW;
- Ventilation and recirculation units (Eco-fan);
- Industrial burner equipment;
- Air handling units;
- Tube benders;
- Cabinet Heaters (oil/gas — horizontal & vertical);
- Radiant heating (tube/plaque/quartz/aqua panel and complete ceiling).
carrier completes 3000 unit fan coil test project

Carrier's new specialist fan coil test laboratory in France has just completed tests on 3000 fan coil units which will be installed later this year in the 42-storey Granite office tower development at La Défense in Paris.

The specification for the project is so demanding that the performance data relating to every single unit had to be comprehensively validated. It is anticipated that the building will achieve certification of compliance to the HQE ("Haute Qualité Environnementale", equivalent to the Energy Performance of Building Directive at the European level) delivered by the CSTB (Centre Scientifique et Technique du Batiment).

Several room conditions in the tower were reproduced precisely in the laboratory. As a result of the tests, Carrier even influenced the design of the ceiling diffusers. Twenty-eight different office room configurations were validated, in both heating and cooling mode.

Contact: Austin McDermott, Core Air Conditioning. Tel: 01 - 409 8912; email: info@coreac.ie

speedfit underfloor heating

The Speedfit Underfloor Heating System has been designed to be quick and easy to install with components manufactured to ISO and DIN Standards.

The System has water pumped from a boiler to a pump pack where it is mixed with water returning from the underfloor heating system and then distributed via a manifold to heating circuits made up of Speedfit Barrier Pipe laid in cement screed or placed in aluminium spreader plates laid below the surface of a timber floor.

A unique feature of the Speedfit System is the manifold that has push fit connectors, offering much-reduced installation time.

Speedfit has also introduced two "Room Packs" — one pack for up to 20sq m, the other for up to 30sq m. The packs contain a Speedfit single room control unit, a programmable room thermostat, and a coil of polybutylene pipe with pipe fittings and floor clips.

Speedfit also provides a CAD design service with free estimate and detailed drawings.

Contact: Ian Kelly, JG Speedfit Ltd. Tel: 045 - 880 937. Email: iankelly14@eircom.net

calpeda pumps appoints rigney

Patrick Rigney has joined Calpeda Pumps Ireland as assistant to Stephen McDowall.

Calpeda's recent move to new premises has resulted in increased market penetration and Patrick's appointment is designed to enhance the quality of service provided to both existing and new customers.

His main responsibility is in the area of stores management but he will also deal with in-house sales enquiries, under the direction of Stephen.

Contact: Patrick Rigney, Calpeda Pumps Ireland. Tel: 01 - 861 0055; email: sales@calpedaireland.com
IRISH METAL INDUSTRIES: TUBE WITH BUILT IN QUALITY

WHEN QUALITY AND RELIABILITY COUNT, SPECIFY TUBE FROM IRISH METAL INDUSTRIES

Thousands of properties in Ireland have a built-in quality product – copper plumbing tube from Irish Metal Industries. With its 25 year guarantee and carrying either the Irish Standard Mark or BSi Kitemark, our tube offers you proven and trouble-free service, year after year.

You can rely on Irish Metal Industries tube – so ask for it by name.
globe control valves from manotherm

The new Series GV2 and GV3 globe valves from Manotherm can be conveniently paired with the Series EVA2 and EVA3 electric actuators to provide a low-cost and compact valve package.

The globe design allows for exceptional throttling control in a wide range of applications, including central heating, air conditioning, water handling and industrial manufacturing systems.

Valves are manufactured in a variety of sizes and are available in either 2-way or 3-way body styles. The forged brass body and equal-percentage flow characteristics are ideal for many flow control systems.

Series GV3 models incorporate a high-intensity body casing for high-temperature applications, including steam service.

Contact: Bob Gilbert, Robert Gilbert or Noel Walsh, Manotherm. Tel: 01 - 452 2355; email: info@manotherm.ie

new storage system for wind energy

Sustainable Energy Ireland (SEI) has published the results of a feasibility study for the implementation of a wind energy storage facility at Sorne Hill Wind Farm, Buncrana, Co Donegal.

The purpose of the report was to determine the optimum size for such a system in order to deliver an optimum return on investment, and to review the main benefits that this system would offer. The report concluded that the optimum battery is a 2MW capacity battery delivering six hours of electricity storage.

Commenting on the feasibility study, David Taylor, Chief Executive, SEI, said: "Ireland possesses a wind resource that is one of the best in Western Europe. In order to exploit this, SEI is supporting the development of strategically-important technologies which will enable Ireland to use large amounts of wind power reliably."

Contact: www.sei.ie

code of practice for tendering revised

The "Code of Practice for Tendering & Contractual Matters 2006" issued by the Liaison Committee for the Construction Industry have been revised and republished. The Code is published with the agreement and support of all the constituent bodies and covers:

- Retention Fund;
- Tender Deposits;
- Tendering Procedures;
- Post Tender Negotiations;
- Payments Attendances;
- Contract Performance Bonds;
- Professional Indemnity Insurance on Nominated Sub-Contractors Undertaking Design; — Standardised Appendices covering Invitation to Tender;
- Form of Tender, Nominated Sub Contractors and Form of Retention Bond.

The Practice Notes are available from any of the constituent bodies – CIF, RIAI, SCS, ACEI, EI.

Contact: www.liaisoncommittee.ie
With the capital costs and running costs of building services critical in the drive for sustainability, specifying the most appropriate products and systems for each project is essential.

The **challenge facing consultants and contractors** is the myriad of choice in the marketplace. The **solution** is [www.bsnewsbuyerguide.com](http://www.bsnewsbuyerguide.com)

This online version of the *bs news Building Services Product Specification Guide* mirrors the category and brand-led formula of the current 252-page printed edition. It contains over 8000 cross-referenced mechanical and electrical product details with contacts.

Log on to: [www.bsnewsbuyerguide.com](http://www.bsnewsbuyerguide.com) and become a member for an annual subscription of €150. You will also receive a copy of the printed Guide in the post.

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ventilation on demand

Vent-Axia's innovative Sentinel is a state-of-the-art energy efficient on-demand ventilation system for use in rooms used by a varying number of people at various times of the day.

The on-demand Sentinel ventilation system utilises the latest software control and new low energy EC/DC motor technology to respond to the exact ventilation requirements of a room at any one time – supplying and/or extracting to the level that is required and therefore only using the energy that is necessary.

This innovative method overcomes many of the issues encountered with a traditional fixed volume ventilation system that is either on or off, irrespective of the number of people in the room, risking overheating of the room and therefore wasting valuable money.

Triggered by people entering/leaving a room or by the atmospheric conditions in the area, automatic sensors and controllers manage the Sentinel according to maximum demand requirements of the building zone. The system then controls airflow and pressure to maintain the indoor air quality within preset limits, including balancing carbon dioxide levels, temperature, humidity and air quality itself.

The EC/DC motor technology utilised by Sentinel provides energy saving benefits even over DC motors as switching is undertaken electronically with no physical contacts reducing wear, heat losses and improving reliability. The result is higher efficiency, reduced noise, accurate controllability, better speed control drawing less power and, as a result, giving a better overall system performance.

The Sentinel system is the ideal ventilation solution; its innovative technology not only saves energy, but the system also creates and maintains a healthy working environment.

Contact: Ronan Flanagan, Vent-Axia. Tel: 087 - 124 5170; email: ronan.flanagan@vent-axia.com

we need more females!

Ray Moore, Group Managing Director for White Young Green Ireland (WYG), has called for more female graduates to enter the building services sector. Ray is pictured here on the site of the new women's hospital at Royal Victoria Hospital with Tracy Dennison, Quantity Surveyor; Beth Robinson, Environmental Scientist; and Andrea Hanna, Mechanical Engineer. All three are graduates currently employed with WYG. Anyone (male or female) interested in applying for a graduate position at WYG Ireland may do so directly online at www.wyg.ie/careers.

surface power technologies expand

Surface Power Technologies, the Mayo-based manufacturer of solar and wind energy solutions, has announced an investment package which will create 31 jobs at the company’s headquarters in Tourmakeady.

The funding package, which will concentrate on research, development and export growth, was provided by private investors, John Quinn, Padraig O’Ceidigh and Martin Neary. Údarás na Gaeltachta also approved €400,000 in funding to further support the company’s research and development efforts.

Surface Power concentrates on both the domestic and commercial markets, specialising in renewable energy solutions which are specific to the Irish and UK climates and the unique challenges they present.

Contact: Caroline McAndrew, Surface Power. Tel: 094 - 9544776; email: caroline@surfacepower.com
"We make pumps ... our business"

**PRODUCT UP-DATES**

**MAY 2007**

**MXV-B** Vertical multi-stage New GM submersible pump close coupled stainless steel models with channel, vortex pumps. The range now features new models.

**BOOSTER SETS**: Many of the new pump ranges featured in this product up-date have been incorporated into our fixed and variable speed booster set production. Standard ranges include 2 and 3 pump sets with many specials available.

**MXA** stainless steel self-priming centrifugal pump ranges extended.

**NGX** stainless steel self-priming jet pumps now features NGX5 and NGX 6 models.

**VARiomat** New automatic single pump sets with variable speed control.

**MXV-L** all 316 stainless steel vertical multi-stage pumps and New models for the MXSU and MXSU-CG vertical stainless steel pumps with encapsulated motor < 45 dbA noise output.

**FOR FURTHER INFORMATION**

Calpeda Pumps (Ireland) Ltd
Unit 5 Old Quarry Industrial Park,
Blanchardstown, Dublin 15
Tel: 01 - 861 2200    Fax: 01 - 861 2203
email: sales@calpedaireland.com
web: www.calpedaireland.com
Welcome to Designing Building Services, a new series of technical articles which will deal with the challenges facing the designers of modern-day building services.

Over the coming months we will focus on the systems and methods which can be employed by designers to meet personnel comfort conditions, and product quality, in an energy-efficient manner. We will highlight critical areas of importance with a view to helping them maximise their design strengths and experience while, at the same time, identifying potential pitfalls and minimising their impact.

Series Editor is Derek Mowlds, Project Manager at PM (Project Management Group). In addition to writing some of the articles himself, Derek will also commission colleagues within PM to cover specific topics which fall within their particular realm of expertise.

A Business & Finance Top 1000 company, PM Group is Ireland’s largest full-service A&E firm. It provides professional services in project and construction management, architectural and engineering design, and technical consultancy. Founded in Ireland over 30 years ago, PM Group has grown steadily over the years and is now one of the leading companies in the sector, not just in Ireland but throughout the world. Its expertise and experience in the healthcare, education, research and infrastructure sectors was recently underpinned by the acquisition of Devereux Architects, a top UK firm.

Critical to its success is the quality of the services provided and the strength of the long-term relationships it has established and maintained with its Irish and multi-national clients.

PM’s industry clients are in the bio-pharma, medical, advanced technologies and nutritional sectors. They include Amgen, Abbott, Pfizer, Centocor, Janssen, Glaxo SmithKline, Novartis, Elan, Boston Scientific, Genzyme, Intel, Xerox and IBM.

In the public sector, PM has carried out work for Dublin Airport, Dublin Bus, Bus Eireann, NUIG, UCC, Cork City Council, Iarnrod Eireann, OPW, Bord Gais and the Department of Education.

With a team of 1,600 people, PM was recently listed among Ireland’s top employers in the “Best Companies to Work For” awards. In addition to bases in Dublin and Cork, PM has significant multi-discipline offices in the UK and Poland.

Indeed, in Poland, Slovakia and Romania the company is currently supervising the construction of 15 infrastructural projects with a total capital value in excess of €450 million. The projects involve contracts in areas ranging from water and wastewater treatment, pipelines and pumping stations, roads and bridges, tunnelling works, district heating systems, to the development of a university life science facility and an advance industrial park.

Elsewhere in Europe PM is working on projects with a capital value in excess of €200 million. These include the €75 million biotechnology expansion for Genzyme in Geel, Belgium, the Danube Regeneration and Protection project and the provision of advice and support for the establishment of public-private partnerships (PPPs) in Montenegro’s tourism sector.

Ongoing projects on the home front include the €530 million Centocor Biomedicines Manufacturing Campus at Ringaskiddy in Cork; the new arrivals and departures Pier D at Dublin Airport; Lansdowne Road Stadium redevelopment; and two separate projects involving the re-opening of disused railways and the construction of rail stations in Cork and Leinster for Iarnrod Eireann.

It is against this background and the extensive experience and knowledge base it represents that the new series will be set.
Ventilation of Car Parks Using Jet Fan Technology

Whatever your requirements, Fläkt Woods (Ireland) can provide Local Expertise with Strong Global Back-up.

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t: +353 (0) 86 823 3378 e john.kelly@flaktwoods.com w www.flaktwoods.com
Cylon Controls — Protecting Your Investment

Building Energy Management System (BEMS) developers are continually innovating to deliver even more reliable and efficient solutions. In such a technologically-advanced industry, changes happen quickly so what are the key considerations for clients before investing in a BEMS? The actual system's capabilities, the reputation of the supplier, the system's ease of use or the system's ability to integrate the buildings functions are among the crucial points to be considered but, is this enough?

Over time these factors may change so it is imperative that one considers the systems ability to adapt to future trends. Cylon Controls philosophy is to provide an open system that is truly future-proof. Cylon is able to create systems that can be readily adapted and extended long after installation has been completed by offering a wide range of integration options. The adaptability of the Cylon system with various integration options means that premature system replacement can be eliminated. The UntronUC32 solution provides a wide range of integration options including BACnet, Modbus, EIB / KNX and OPC, thereby ensuring that all systems are future proof.

BACnet — BACnet is an international standard that provides peer-to-peer integration over TCP/IP. It is applicable to all types of building systems — HVAC, security, fire, maintenance and lighting, to name a few. Developed specifically for building services, BACnet defines how all the elements of the BEMS inter operate. By using BACnet-based controllers Cylon can ensure forward compatibility with future generations of systems.

Modbus — Modbus also allows for communication between many devices connected to the same network. Modbus is a well-recognised standard used within the controls industry and is the most commonly-available means of connecting industrial electronic devices. Using Modbus BEMS manufacturers like Cylon can offer high-performance field bus integration.

OPC — OPC is a standard dedicated to interoperability in automation ensuring that many different devices and types of devices can be easily integrated. Interoperability is assured through the creation and maintenance of open standards specifications. The OPC standard has facilitated the ability of control manufacturers to provide open systems. The UnitronUC32 OPC Server extends the Cylon BEMS integration well beyond building services.

KNX — KNX technology is an open standard for all applications in building control created through the merger of EIB, EHS and Batibus standards — bringing together the best of the three standards. KNX brings integration to the next level allowing for control of blinds, windows and appliances from the BEMS. Cylon has leveraged KNX to bridge the gap between natural ventilation and HVAC. The new KNX gateway means that current Cylon systems are prepared to handle future generations of building control products.

Consideration of all integration options is imperative when designing and choosing a BEMS. A truly open system ensures that costs are kept to a minimum and the efficiency of the system is improved. In considering BEMS options, Cylon asks clients to take a step back and consider what is required from a BEMS now and what may be required in the future. Cylon's product range means that there is a solution to suit client's current requirements and the ability to match client's future needs.

Contact: Stiofan O'Flannabhra, Cylon Controls.
Tel: 01 - 245 0500; email: stiofan.oflannabhra@cylon.com
Honeywell is seeking Partner companies in Ireland to specify and install its CentraLine by Honeywell HVAC automation systems. The CentraLine brand has proved hugely successful across Europe. It combines innovative new thinking in a range of fresh new products, from field devices to controllers and management systems.

"We are looking for system integrators and controls contractors who will have access to a whole portfolio of dedicated CentraLine by Honeywell products, including controllers, valves, actuators and converters," says Harry Swinbourne, Honeywell Buildings Business Manager.

For details of CentraLine by Honeywell, see the animated web site "CentraLine City" at www.centraline.com

To enquire into becoming a partner contact:
Harry Swinbourne, Honeywell House, Arlington
Business Park, Bracknell, Berkshire RG12 1EB or
on + 44 797 445 2052 or
e-mail: harry.swinbourne@honeywell.com
Every public and commercial building has a heating or HVAC system of some kind, but many may have only rudimentary controls. However, all buildings need control systems that not only take a comprehensive view of possible ways to save energy, but are also easy to use.

CentralLine by Honeywell offers the perfect solution. CentralLine is equally suited to existing premises and new buildings — existing boilers, radiators and pipework can be retained unless they need changing anyway.

In simple terms, the automation system should provide the right temperature in the right places at the right times. Rooms should not be heated to the “comfort” temperature if they are not being used. Maintaining temperatures within close limits maximises comfort and saves energy. The heat provided by the boiler and other heat sources meets the demand from the heating system (radiators, blowers or underfloor), but heat is not produced when there is no demand.

A CentralLine by Honeywell system even considers the outside temperatures, the heat loss characteristics of the building, and additional energy sources such as the sun, PCs, machinery and body heat.

If the building is upgraded — with better-insulated windows or new radiators, for example — the CentralLine by Honeywell controllers will optimise heat generation without any reprogramming.

All these energy-saving measures also produce less wear on the boiler and moving parts such as valves, so they last longer and need less maintenance. It also ensures excessive system temperatures do not damage the system installation.

The controllers and other devices on the CentralLine by Honeywell system are connected on a LONWORKS industry-standard network, so it is reliable and future-proof.

All levels of staff will find it easy to operate a CentralLine by Honeywell automation system. Its user interface, ARENA, uses a standard web browser on any PC, either from within the building or remotely via the web.

Building managers can use ARENA to monitor each building’s energy consumption and review trends in temperature and fuel usage. This can reveal places where energy is being wasted, leading to further savings. Information from many buildings can be collected at a central point using the internet. CentralLine by Honeywell is easy to set up because the sophistication is embedded. There are many built-in, selectable applications and parameter settings to cover heating, air conditioning and district heating.

A sophisticated automation system is no longer an option if a building is to reduce energy consumption and emissions. By choosing a user-friendly system such as CentralLine by Honeywell, installing and choosing the system is painless for building managers, system installers and users alike.

Contact: Pauline Smart, CentralLine by Honeywell.
email: info-uk@centraline.com
Absolute Hotel Gets Sanyo Solution from Kelly Refrigeration

The newly-opened Absolute Hotel in Limerick saw Sanyo Airconditioners, in conjunction with Kelly Refrigeration, offering a complete control system for the hotel’s newly-installed ECOi 3-way heat recovery VRF systems.

The hotel brief advised to Sanyo and Kelly Refrigeration, required the air conditioning to be automatically turned on from the front desk when guests checked in. In addition, the hotel management required full localised control from the front desk over common areas, boardrooms and bedrooms.

With this brief given — and working closely with the nominated control company — a control system was devised comprising Sanyo’s new web-based intelligent controller linked to a Sanyo AMY adaptor. These were then incorporated with a XNC device through a Trend device into the Micros Fidelio check-in system. This overall control package allowed for the high level of control required by hotel management.

Features of the new Sanyo Intelligent Controller include:
- Up to 256 indoor units can be connected;
- 6.5 inch touch-screen LCD colour panel display;
- Full operation functions such as mode selection, start stop and fan speed settings;
- Operating monitoring, e.g. display of alarm logs and operation status;
- Up to 50 types of weekly timers can be programmed;
- Recording and display of accumulated operating times;
- Calculation of energy usage for each indoor unit and/or tenant;
- Access via the web or through BMS using an ID login which can be password-protected.

The overall system comprises seven simultaneous heating and cooling VRF systems and three heat pump systems, providing a combined total of 368kw of cooling and 410kw of heating. These serve over 100 bedrooms, five meeting rooms and all common areas.

The ducted units used in this particular hotel also have the added advantage of coil temperature sensing as a standard option. This feature ensures no cold-air dumping from the ducted indoor units by controlling the supply-air temperature to a pre-determined minimum setpoint.

Contact: David Colbert, Sanyo Airconditioners. Tel: 01 403 9900; email: davidcolbert@sanyoaircon.com

A bank of Sanyo ECOi 3-Way heat recovery VRF systems that are installed at the Absolute Hotel, Limerick

Sanyo’s new web-based intelligent controller package allows the high level of control of the AC system as requested by hotel management.
What's the connection between motorcycle engines and sustainable building design? ... you may well ask! Believe it or not, there is a connection and Gary Bennett — immediate past Chairman of CIBSE NI and Managing Director of Bennett Robertson Design — is the living proof. But more of that later.

While Bennett Robertson may be the “new kid on the block” in respect of building services companies in Northern Ireland, the reality is that it punches way above its weight in the marketplace. Over the last couple of years in particular it has won some major and prestigious projects in the face of stiff competition from the established industry market leaders.

Much of this is down to the sheer force of personality and enthusiasm of Gary Bennett. He can be exhausting company in that he has a passion for everything he engages in. This applies in particular to building services ... it is not merely a business to him but a way of life. He has a genuine concern for the environment and understands more than most the pivotal role building services engineers can play in contributing to sustainable design.

Gary has a very positive, can do, attitude. When the new Building Regulations were introduced in the UK and NI recently many industry observers, including building services engineers, were dismayed. All they saw was the extra burden of responsibility it put on them.

Gary, on the other hand, saw the new Regulations as just another challenge to rise to, and indeed as an opportunity for building services designers to take the lead in promoting and delivering sustainable building design. He recognised that developers and architects would now have to engage with the services designer right from the outset and that projects would not even get planning approval without their support.

Consequently, he immersed himself in the nitty gritty of the Regulations. Typical of his approach to such matters, he was doing this way before they became mandatory. When the Regulations were enacted, Gary was way ahead of the posse and in fact was the first registered CIBSE low-carbon consultant in Ireland. Today he is one of the foremost authorities on the new Regulations, not just in Northern Ireland but throughout the UK as a whole.

The important thing to note about Gary Bennett is his business professionalism. There is no denying his genuine passion for sustainable building design but he is no academic purist. He is not interested in debating the case ad infinitum ... he believes in doing something about it. He is first and foremost a businessman, and a very successful one at that. That too is important to him.
Gary has a genuine concern for the environment and understands more than most the pivotal role building services engineers can play in contributing to sustainable design.

On graduating from Queens University as a mechanical engineer in the early 1980s Gary quickly learned that to develop and succeed he had to carve out a niche for himself. After an initial and very productive two years with Rotary he joined the then Department of Health in NI where he remained until 1989. This was but a qualified success. However, he did learn about dealing with bureaucracy and it is perhaps here that the first seeds were sown to go out on his own.

He next joined BDP as a senior mechanical engineer and the fact that he remained there for almost a decade speaks volumes about the experience. Throughout this time he continued with his studies and ongoing professional development. He also became actively involved in CIBSE NI affairs, achieving his Chartership and serving in many capacities at committee and officer level. This culminated in his reign as Chairman over the last two years.

But back to 1999. As the new millennium approached Gary was more than ready to go it alone. He had almost 10 very productive and successful years with BDP and now had some ideas of his own about the industry and wanted the opportunity, and freedom, to implement them. On the day he left in 1999 he got his first job... a 56-bed extension to the Europa Hotel. Talk about jumping in at the deep end and biting off more than you can chew! As luck would have it, a chance meeting with Stewart Robertson of BDP — with whom he had worked on a number of projects — led to both of them discussing a future together. Stewart is an electrical engineer and was the perfect partner for the Europa project. Within a matter of days they had formed a partnership and the rest, as they say, is history.

But what about the motorcycle and sustainable building design I hear you ask? When Gary graduated from Queens he had no idea what he was going to do and so jumped at the opportunity when offered a post-graduate research placement at the university. The work involved motorcycle engines and, more precisely, the fuel-efficiency of internal combustion engines. The results and conclusions of that research formed the basis of his thesis. Could it be that this first introduction to energy efficiency was what shaped his future direction?

From little acorns...
Integration & Optimisation of Renewables

Research collaborations with leading industrial partners are important activities often carried out by higher educational institutions such as Dublin Institute of Technology and the University of Manchester. It allows industry experts and academics to gather and analyse researched data, exchange their experiences and pass on lessons learned for the benefit of the wider industry and consumers.

One of the research projects to reduce carbon emission currently being undertaken by the University of Manchester is on the integration and optimisation of renewables for domestic dwellings. Dr Tony Sung of the University — who also happens to be Chairman of CIBSE Electrical Services Group — is heading up the research and he has provided this special progress report for bs news.

The gathering of research data for the project is being carried out at the Buckshaw EcoSmart Show Village development by Barratt Homes in Lancashire, UK. This village is made up of seven different houses which are equipped with various permutations of renewable energy inputs and “green” measures, as follows:

- Solar thermal collector panels;
- Geo-thermal ground source heat pumps;
- Micro-combined heat and power unit (high-efficiency, low-emission domestic generator);
- High efficiency condensing boiler;
- Rainwater harvesting and recycling;
- Water-efficient sanitary-ware
- Improved roof/wall thermal and sound insulation;
- Double-glazed timber windows from managed resources;
- Energy-efficient under-floor heating;
- A-rated white goods (highest commercial efficiency standard);
- Computer-controlled heating and lighting (accessible remotely via internet);
- Broadband connectivity (to encourage home-working);
- Outside, gardens and landscaped areas include:
  - Dedicated recyclable waste storage;
  - Secure cycle storage (to reduce car dependency);
  - Biodiversity encouragement, with wildlife nesting boxes and habitats;
  - Eco-Smart Village weather station.

The aim is to evaluate the energy efficiency and performance of a range of renewable energy and water conservation features, including wind power, solar thermal energy.
Integration & Optimisation of Renewables

photovoltaic and geothermal energy.

In the UK it is acknowledged that domestic dwellings account for around 28% of total energy usage, which is second to transportation which accounts for 35%. The project was designed to measure the availability of renewable resources and apply the whole range of renewable energy technologies, integrating them into the seven homes with the most consumption coming from heating the space and water.

The seven homes are being kept at nearly constant indoor temperature of 20°C and 45% RH, 24 hours a day for the whole 18-month test period. Figure 1 and Figure 2 are snapshots of test house number three’s indoor temperature and RH respectively.

Preliminary results have shown that solar thermal collectors meet the expectation of high conversion efficiency in summer months. Photovoltaic systems have proved to be a reliable renewable technology all year round.

In cradle to grave terms, Micro-wind turbines are pointing to producing the least carbon dioxide, but generally it is difficult to forecast where and when it will be windy, which could lead to a rather unpredictable supply.

Micro-CHP technology is being tested in two of the seven houses and they have exported considerable amounts of electricity, as well as producing enough heat to satisfy the heat demand of the property.

Geothermal ground source heat pumps — when compared to other heating technologies where an economy electricity tariff is available — show signs that they can be an economical technology to run and also give the lowest CO₂ emission.

It was also noted that the low-energy lamps and appliances have generated significant harmonics (see Figure 3). This will be further investigated by Kevin O’Connell at DIT.

Monitoring Barratt’s EcoSmart Village at Buckshaw will continue throughout the year with the final results expected to be published in 2008.

* Dr Tony Sung (BSc(Hons), MSc, PhD, CEng, FCIIBSE, SMIEEE, MIEE, MEI, MHKIE) can be contacted at tony.sung@manchester.ac.uk and Kevin O’Connell at kevin.oconnell@dit.ie
CIBSE News

CIBSE’s First First Lady!

Throughout her long years of sterling service to the building services industry as a whole — and CIBSE in particular — Margaret Dolan has served with distinction in many roles. However, just recently she took on perhaps her greatest challenge, that of the first lady Chairperson of CIBSE Republic of Ireland. The first lady chair is a landmark occasion for any organisation but, in the case of CIBSE, it is appropriate that Margaret Dolan is the lady in question.

As present she is putting the final touches to her programme for the coming year and we will report on this in greater detail over the coming months. In the meantime, the following is an extract from her brief address at the recent AGM in Dublin.

"Members, ladies and gentleman, I am very honoured and proud to become the first female Chairman of the Republic of Ireland Branch of the Institution of Building Services Engineers.

"Firstly, I would like to congratulate last year’s Chairman Brian Geraghty and the Committee, for their dedication and success in carrying out last year’s busy schedule. The forthcoming year’s programme is in an advanced state of preparation and will be issued shortly. I would also like to thank the Professional Interview Co-ordinator and the Branch Almoner for their efforts behind the scenes.

"We are now at an interesting time with regard to the development of building services engineering in Ireland. We have seen enormous growth, variety of work and diversification over the last few years and I believe we should encourage our members to supplement their knowledge and expertise. We have got to expand our techniques and aim to achieve the very best for our clients by innovation and applications.

"One of the best ways of supplementing our knowledge and expertise is by CPD (continuing professional development). I hope to encourage the younger members to participate more in technical sessions and to this end I hope to arrange a technical evening followed by a site visit, something which proved very successful in the past.

"My main focus this year will be:

(1) To generate funds for research and development projects for various colleges that will actively pursue innovative design and technology, and increase the level of excellence that the industry as a whole should strive for;

(2) To pursue and strive to achieve a positive outcome for the CIBSE Mission Statement on the Building Control Bill issued by the committee to TD’s last year;

(3) To encourage new membership within the industry by asking Bobby Wright to come over from the UK and organise a number of information meetings within the company structure, if necessary. I would also like CIBSE to consider using one membership application form as is the procedure when making application to ASHRAE.

"Obviously, the goals and activities of the branch can only be achieved by the enormous efforts of all committee members and I look forward to working closely with my fellow committee members over the coming 12 months. The custom of electing new committee members annually ensures that new ideas are being cultivated on a continuous basis and, on that note, I would like to welcome the new members to the committee:— Derek Mowlds; Niall Bourke; Gerard O’Callaghan; John Furlong; John Doherty and Justin Keane.

Brian Geraghty, outgoing Chairman, handing over the reins to Margaret Dolan, incoming Chairman, CIBSE Republic of Ireland Branch
"I am delighted to announce Gerard Keating as Vice-Chairman and I am looking forward to his close support in the coming year. Also deserving of a mention is Michael McNerney, our regional representative co-ordinator, and of course our regional representatives, whose support and cooperation I hope to utilise fully during my term.

"Finally, I would like to reiterate my pride and pleasure in being elected to the role of Chairman and assure you of my dedication to promoting and developing the branch in the coming year."

How to Achieve Sustainable Buildings

According to Chief Executive Stephen Matthews, the Institution’s new guide to sustainability (Guide L) is one of the most important and far-reaching Guides ever to be released by the Institution. Due for publication in June, Guide L will explain how to reduce carbon emissions while also covering related issues such as water shortages, energy costs, climate change, flood risk, loss of habitat, unsustainable resource use, and waste disposal, especially from construction activity.

A special introduction to Guide L has also been produced and members will get this free when they purchase the Guide in June.

CIBSE Annual Golf Outing

The CIBSE Annual Golf Outing will be held in the Hermitage Golf Club on Friday, 7 September, 2007. The date is similar to last year when a great day was enjoyed by all who participated. A full timesheet is anticipated on the day so early booking is required.

Full details of the day, format, etc — along with booking forms — will be issued in July. In the meantime put the date in your diary.

Cost for golf and dinner for a 4-person team is €750; Cost for golf only for the team will be €550.

Contact: Colin Murphy, Varming Consulting Engineers, e-mail: cmurphy@varming.ie

Competent Calculations with LCC Simulation

A new simulation side of CIBSE’s Low Carbon Consultants Register has been launched. Following the success of the operation and design aspects of the register, the simulation category is for those who carry out energy performance calculations. It will ensure accurate and complete carbon emissions calculations for compliance with Criteria 1 of Part L 2006 for buildings other than dwellings, offering a competent, independent approach to low carbon design.

New GUIDE C: Reference Data Published

A new edition of CIBSE Guide C “Reference Data” has been published which updates the previous 2001 edition.

The new Guide contains much re-written material taking into account recent European research and an accompanying CD.
LED: The Answer To Lighting’s Energy & Environment Dilemma

With the increasing emphasis on sustainable building services design, the focus on lighting has never been greater. The heat-generation factors associated with lighting, especially in the context of interior comfort levels, has put it very much to the fore when it comes to designing system solutions. It is imperative now, more than ever, that the lighting requirement is considered from the outset as it can have serious energy-usage implications.

Indoor lighting is used extensively for all manner of purposes. It can be as simple and straightforward as general office or retail lighting, right through to specialist displays for in-store product promotions or art galleries.

The same applies to the use of exterior lighting. More and more commercial buildings use exterior lighting to showcase their buildings while it is also critical for health and safety, and security, applications. Outdoor advertising displays are also high energy users, “Ironically”, says Gay Byrne, Managing Director of Enlighten, “today’s business and lifestyle options have created an unprecedented demand for lighting at a time when the world at large is hard pressed to provide it. Energy usage is now the holy grail with lighting a key element in that equation.

“Thankfully, there is a solution to this dilemma in the form of LED lighting. Put simply, LEDs are solid-state, semi-conductor devices that can convert electrical energy directly into light. The inherent features and strengths of LED make it the best alternative to conventional light sources. They also allow for a vast range of flexible solutions to cater for virtually every conceivable application.

“As Ireland’s foremost LED solutions provider we design tailor-made solutions for each particular installation or project. We have direct links with LED manufacturers worldwide and can tap in to the vast resource this represents for additional advice and technical support. Essentially, whatever the requirement, we at Enlighten can devise an LED-based solution”.

Inherent benefits of LED lighting include—

- Low power consumption;
- Long life;
- Environment-friendly;
- Excellent illumination output;
- Full spectrum of colour options;
- Reduced installation costs;
- Reduced maintenance costs;
- Infinitely flexible;
- Unbreakable.

Enlighten has its own in-house design engineers who get involved in each project from the early stage in the design process. They work closely with the project architect, project manager, consultant or contractor — and sometimes all of the aforementioned — to ensure that the correct solution is devised, and then properly installed. Clients and projects to date include Government Departments; town, city and county councils; blue-chip companies; shopping centres; and other such bodies.

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envy at ‘green’ pittsburgh centre

The David L. Lawrence Convention Centre in Pittsburgh, USA, is claimed to be the world’s largest “green” building. It uses natural daylight and natural ventilation to light and heat the building, and incorporates a water reclamation system which reduces potable water use. Built with the environment and ecology in mind, the building’s architect, Rafael Vinoly, also envisioned a structure that would mirror the grace of the suspension bridges that cross Pittsburgh’s rivers, while standing out in architectural interest and ingenuity.

As the world’s first green convention centre, the David L. Lawrence Convention Centre boasts elements that make a huge difference to both meeting planners and visitors. No other convention centre in the US incorporates so many green technologies. The use of natural ventilation, daylight sensors and carbon monoxide sensors, a water reclamation system that reduces potable water use by nearly 60%, along with substantial use of recycled and non-toxic materials, makes this Convention Centre unique.

The shape of the building captures natural airflow from the nearby Allegheny River to help ventilate and cool the building. This, combined with other features to minimise energy usage such as occupancy and daylight sensors, creates an annual energy savings of about 35%. The Convention Centre also maximises use of nontoxic materials such as paint and carpets that do not emit harmful fumes, thereby establishing a more wholesome indoor environment for building users.

The Centre was awarded a US Gold LEED certification for its excellence in building environmental performance. A citation read: “Achieving this high LEED certification shows every community that it is possible to have a world-class design with a huge expanse of space and still do justice to the people and the environment.”

Due to the significant size of the Centre, it opened in three phases, accommodating several large trade shows while still under construction. Phase I included the three exhibit halls and eight meeting rooms; Phase II comprised another hall and 10 meeting rooms; Phase III concluded with all five exhibit halls, two lecture halls, 51 meeting rooms, and the grand ballroom.

Now that it is fully operational, the same green philosophy which governs the building services is also applied to day-to-day usage. Right from when each exhibition is being set up, organisers have to coordinate with Centre staff to use large blue clearly-labelled bins to recycle all cardboard, paper and metal discards.

When the show opens and visitors start to attend, they too are obliged to use both the clearly labelled blue bins and brushed aluminum receptacles to dispose of rubbish and recycle paper, cans and bottles.

At the end of every show the same bins are used for all rubbish and recyclable materials which are then processed by Centre staff.

The David L. Lawrence Convention Centre is a truly remarkable building complex — it is visually stunning, incorporates totally green building services, and is project managed on a daily basis to ensure that all visitors observe environmentally-friendly and green user-practices.
Uponor Housing Solutions
Training Academy

Installer training has always been important when it comes to building services but, the recent proliferation of innovative new products, sophisticated design concepts and advanced controls, has now made it a critical issue. Concerned that installers fully understand the complexity and features of their products, more and more manufacturers are providing training programmes of their own.

It is against this background that Uponor Housing Solutions has developed its own in-house Training Academy at its new headquarters in Swords, Co Dublin. The training programme has already commenced with dedicated course on plumbing and underfloor heating, comprising both theory and practical content, now running on a monthly basis through to the end of 2007.

Donal Stafford, Regional Sales Manager, Ireland, told BS news as we went to press: “Our intention is to make quality training available to all installers who wish to improve their skills and learn more about underfloor heating. As the Irish plumbing market is largely unregulated, there is an excellent opportunity for the installer to set himself apart from the rest by undertaking a purpose-designed underfloor heating course.

“As new plumbing solutions are introduced to the Irish market, our objective is to train installers in the new technologies and advantages of using Uponor MLCP & PEX systems. This in turn will reduce installation time and eliminate the potential problems older and less advanced materials can cause”.

The content of the 2-day course comprises the following:

Day One: Theory — PEX and multi-layer pipe applications and installation; manifolds and controls; floor constructions;

Day Two: Practical — floor laying and manifolds; filling and commissioning; control systems; budget pricing, labour times and costings.

The cost per participant is €100 for the course only, and €180 where overnight accommodation and an evening meal is required.

Underpinning the Training Academy programme and further reinforcing the support services provided, Uponor Housing Solutions has dedicated teams of experienced personnel who specialise in specification and sales and marketing.

Austin Kennedy, Business Development Manager, Ireland, leads the Specification Team. He and his team focus on providing specification support and CPD training. They also ensure ongoing education of the building industry in general to help the sector meet and exceed the standards expected by both the consumer and local authorities.

Indeed, the future of the marketplace and the success of renewable and innovative technologies depends on the market knowing how to install and commission individual components correctly. Specifications are the key to the continued development of this market and the link back to Uponor’s distributors via the business development team is essential for the smooth transition from specification through to the correct supply to the installer.

Regional Sales Manager Donal Stafford leads the sales team which focuses on merchant and installer support, providing quotations and on-site assistance. Team members provide education for self-builders and end-users through promotions, exhibitions, sales and technical literature and dedicated marketing campaigns which are tailored for specific market segments. The objective is to educate the installer and end-user via a programme which can be conducted on site or within the Training Academy in Swords.

Full details on the set training programme — and the customised options which can be provided — are available directly from the company.

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**warren runs away with carlow outing**

There was a very large turnout for the first RACGS outing of the current season at Carlow Golf Club recently. The fantastic weather and perfect condition of the course made for some excellent scores, Joe Warren from bs news emerging the overall winner with a total of 41pts.

Sponsor on the day was MSS Building Services and Sean Stenson of MSS was there to present a wonderful array of prizes after the meal.

The full list of winners was as follows:

**Overall Winner**
Winner — Joe Warren (41 pts).

**Class 1**
Winner — Matt Noonan (36 pts);
Second — Billy Queally (35 pts).

**Class 2**
Winner — Barry McArville (40 pts);
Second — Pat Lowery (35 pts).

**Front 9**
Winner — Michael Morrissey (18 pts).

**Back 9**
Winner — Tom McDonald (18 pts).

**Visitor**
Winner — Jack Elsteed (44 pts);
Second — Pat Cowen (38 pts).

**diary dates**

Looking ahead, RACGS members are advised to mark off their diaries for forthcoming outings which include:

— European GC Britis Bay, Wicklow on Friday 15 June;
— Mount Juliet Kilkenny (Captain’s Prize) on Thursday 9 August;
— Carton House (O’Meara course) Maynooth, Co Kildare (President’s Prize) on Friday 21 September.

Log on to racgs.com for further details.
Electricity From Hot Rocks

The new plan is to go to a depth of three miles into the earth’s core to harness the energy created by temperatures which are said to be as high as 600°C. Sounds great in theory but, does anyone really know the implications of probing the earth’s core to such a depth and so close to the magma chamber?

Not that it matters much in the short-term. Apparently, the biggest stumbling block to the project at present is the laying of the 1200-mile ocean floor cable, and the associated €35 billion cost. Let’s hope this practicality delays the project enough for a full environmental assessment of the concept to be carried out.

aplomb at a number of high-profile social gatherings, one of them a pub opening. No doubt he was also seen on many of the country’s best golf courses. However, the main reason for his visit was the confirmation of Jenny Gillen, his eldest granddaughter.

STENNER PAYS FLYING VISIT
Liam Stenson, one of the industry stallwarts and founding fathers, paid a flying visit to Dublin recently. Breezing in from the States where he now spends much of his time, “Stenner” was seen swanning about with his usual air of authority, rather like the dawn of a new era.

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BLOWING THE LIGHTS ON ... NOT OUT!
The famous Blackpool illuminations will soon be powered by wind energy. Blackpool Council has erected three wind turbines at a cost of nearly £150,000 each which are expected to save £13,000 each on the annual energy bill.

Standing at nearly 20 meters high, they are expected to become an attraction in their own right. However, they are unlikely to supplant the popularity of one pier’s main attraction, the 158-metre Blackpool Tower.

The five finalists pictured with Ciaran Timmons and Frank Loughran

As an aside to the National Skills Competition in Plumbing held at DIT recently, students were given the challenge of changing a manual shower valve to a powered unit in the shortest possible time. Obviously, the workmanship had to be of the highest quality.

Five individuals — Michael Curtin, Gabriel Hoyle, Michael Kelly, Martin Shaughnessy and Declan McGee — made it to the final with Gabriel emerging as the overall winner.

The task was carried out using Aqualisa showering equipment donated by MT Agencies whose Managing Director, Ciaran Timmons and Sales Manager, Frank Loughran, made the presentation.
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