



COMMISSIONING

In partnership with the Commissioning Specialists Association, we present the second of this year's special features on commissioning.

With the emphasis on energy-efficient buildings that is implicit in the current Part L of the Building Regulations and expected to increase in the 2010 revision, Energy Performance Certificates and Display Energy Certificates, the commissioning of building-services equipment and systems assumes ever-growing importance. For buildings to perform effectively and efficiently, the importance of commissioning must be acknowledged and embedded in the entire construction process.

Commissioning at the heart of energy efficiency

With energy efficiency at the heart of the host of schemes in the UK and internationally aimed at improving the performance of buildings, **Neil White** sees opportunities for building-services commissioning companies.

A plethora of opportunity awaits building-services commissioning companies that are willing to embrace the latest changes to the Building Regulations and associated schemes, but where do they start?

Amendments to Part L of the Building Regulations are set to come into effect on 1 October this year, but the revised documentation has yet to be issued (at the time of writing).

There are also amendments to Part F of the Building Regulations. Of particular interest to the commissioning industry are the new requirements and guidance for the installation and commissioning of ventilation systems. Factor in the Carbon Reduction Commitment (CRC) Energy Efficiency Scheme, BRE Environmental Assessment Method (BREAM), Leadership in Energy & Environmental Design certification (LEED) and BSRIA Soft Landings, and it is no wonder that my head is spinning!

In addition to all of this, for those commissioning companies that are located in the sunnier climes of the Middle East, the government-owned company, Dubai World, is set to launch its own rating system: World Energy & Environmental System for Development, Optimization & Measurement — or WESDOM to give it its abbreviated title. Alongside all of the above are several other assessment methods being adopted by countries throughout the world — but do we not need a global standard?

It goes without saying that although a correctly commissioned

building will always provide a far superior environment for the building occupants to work in, we are not talking only about the correct balancing of the air and water systems.

The installed building energy management system (BEMS) is absolutely crucial to the performance of the building-services installation. Serious energy and, thus, financial savings can be made by utilising variable-speed drives to pump and fan motors.

Lighting control systems are another area where operating costs can be significantly reduced.

But it is not all about saving money and carbon credits, we have quite simply got to reduce our energy consumption on a worldwide scale.

On a personal level, my company was recently involved on a project that achieved a 'very good' BREEAM rating, and the successful commissioning played a major part in that achievement. Credits were achieved for the commissioning management, the post construction acoustic testing and seasonal

commissioning — which should present the majority of the business opportunities mentioned in the first paragraph. For those that are not aware, seasonal commissioning consists of the following elements, as laid down in the BREEAM documentation concerning buildings utilised for further education.

- Testing of all building services under full load conditions, i.e. heating equipment in mid Winter, cooling/ventilation equipment in mid Summer and under part load conditions Spring/Autumn.
- Where applicable, testing should also be carried out during periods of extreme (high or low) occupancy.
- Interviews with building occupants (where they are affected by the complex services) to identify problems or concerns regarding the effectiveness of systems.
- Re-commissioning of systems (following any work needed to serve revised loads) and incorporating any revisions in operating procedures into the O & M manuals.

With such global emphasis on sustainability and energy reduction, testing and commissioning of installed building services is finally getting the recognition it deserves, and the Commissioning Specialists Association (CSA) is at the forefront of these endeavours. Please take a few minutes to read the latest edition of the 'CSA Newsletter' which accompanies this copy of *Modern Building Services* to get an insight into what the CSA is all about.

Neil F. White is currently serving as the vice-chairman of the Commissioning Specialists Association and is the managing director of Crosscount Ltd.
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The key to energy-efficient buildings is correct commissioning.

