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Information Paper

Operating BEMS

A practical guide to building energy management systems

Andy Lewry

Building energy management systems (BEMS) are often an integral part of a larger building management system (BMS), their purpose being to optimise the energy use of the building. These systems are commonplace in larger buildings and are rapidly becoming standard. This has also been recognised by the industry, culminating in the publication of BS EN 15232:2012 (*Energy performance of buildings – Impact of building automation, controls and building management*). This European Standard is aimed at the design of the system and not at how to maintain and operate it. The impact, in practical terms, is that the design of such systems is generally very good and commissioning is acceptable. However, the understanding and operation of such systems at the user level is generally poor. As a result, the need to maintain these systems to realise the ongoing saving potential is not generally recognised by the end-user and/or the engineering services provider, which often means the systems are not maintained to the level required. In addition, the settings are not reconsidered and revised when significant changes occur to either the building or how it is used. There is therefore a need to provide practical advice to building users on how to operate these systems effectively and thereby realise potential energy savings.

1 Introduction

Building energy management systems (BEMS) are designed to provide a comfortable climate for building occupants while ensuring this is delivered with the lowest possible energy consumption. BEMS are often part of a larger building management system (BMS) and both can be used to control a plant's energy management system (EMS). The terms 'BMS' and 'BEMS' are often used interchangeably and, for the purpose of avoiding confusion, this publication will generally use the term 'BEMS' unless the context requires further clarification.

Figure 1: Typical components of a BEMS

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