

# Position Paper: Energy

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## **Executive summary**

Around 40% to 50% of final energy use is attributable to buildings<sup>1</sup>. Increased energy efficiency measures would make a significant contribution to achieving the UK's targets for carbon dioxide emissions. Facilities managers are at the forefront in ensuring that buildings are used and operated more efficiently and can help government realise its ambitions in this area.

The British Institute of Facilities Management (BIFM) represents over 10,000 professionals working in this field. The Institute believes that significant carbon savings can be made through:

- Energy-use ratings for existing buildings, potentially as part of a mandatory carbon saving scheme
- Greater involvement of facilities managers in building projects to ensure energy efficient design takes into account the whole life cycle of the building and how it will be used, should be considered best practice in sustainable design. This should be included in the forthcoming Planning Policy Statement on Climate Change
- A greater profile for the role of facilities management in energy efficiency in both the public and private sector, through government endorsement and dissemination of best practice
- The inclusion of environmental reporting requirements in Business Reviews and government guidance stressing the role of facilities managers in advising on and implementing energy efficiency measures
- The government should lead by example, with Partnerships UK recognising the role of facilities management expertise, and key projects demonstrating best practice, such as the Thames Gateway and the Olympics, to be designed with input from facilities managers

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<sup>1</sup> Defra comments on the EU Directive on the Energy Performance of Buildings <http://www.defra.gov.uk/environment/energy/internat/ecbuildings.htm> and DTI Review Of Sustainable Construction October 2006 <http://www.dti.gov.uk/sectors/construction/sustainability/strategy/page13543.html>

- A greater focus on information and training to encourage the take-up of energy efficiency measures as well as decentralised and renewable energy supply among facilities managers; this could be done in conjunction with Asset Skills

The government needs to do more to work closely with facilities managers on energy efficiency and development policy.

### **Introduction**

The BIFM is the UK's lead institute representing facilities managers<sup>2</sup> – those who look after all aspects of running a building. Professional facilities managers, whether employed 'in-house' or working for outsourced providers, have extensive responsibilities for providing, maintaining and developing myriad services. These range from space management, power networks and communications infrastructure to building maintenance, budgeting and contract management for utilities including electricity supply.

BIFM provides continuing professional development for its members and informs them of regulatory changes that impact upon their work. As such, it is a key channel for government information, enabling better implementation of regulations and standards.

Facilities managers are the invisible hand that ensures offices, hospitals, universities, retail centres, council halls and even police stations are maintained, serviced, improved upon and run efficiently for the benefit of their occupants and those to whom services are provided. However, there is a lack of awareness and understanding of the role of facilities managers, which BIFM works hard to improve.

Facilities managers know how buildings work in practice and the facilities management approach emphasises sustainability, long-term thinking and lifecycle costing. This approach is in total alignment with the government's approach to protecting our environment and BIFM sets out in this paper its position on energy policy and how facilities management can help to deliver targets on energy efficiency and reductions in carbon dioxide emissions.

### **Energy supply**

The government's energy policy considers various aspects of energy supply and seeks to ensure competitive energy markets whilst ensuring sustainable and secure supplies. BIFM supports these aims and is keen that security and diversity of supply are ensured in order that users are relatively protected from price spikes or interruptions in supply which affect businesses and public sector users. Facilities managers are usually the key stakeholders and contact points

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<sup>2</sup> With over 10,000 members, the BIFM is one of the fastest growing professional bodies in the UK. Formed in 1993, BIFM is also the largest national FM organisation in the world. For further information go to [www.bifm.org.uk](http://www.bifm.org.uk)

when companies are affected by disruptions to supplies, and are also in control of budgets for utility supplies.

Government should take account of facilities management issues and perspectives when considering policy issues relating to supply. Facilities managers are significant budget holders and make key business decisions regarding energy supply. They are well-placed to encourage decentralisation of supply through local generation. As renewable energy becomes more viable in the face of electricity and gas price rises, it is facilities managers who can choose to increase the supply of energy to their building from renewable energy sources. BIFM looks forward to engaging with policy makers on these issues and encourages greater dialogue between government and facilities managers.

### **Energy demand**

Energy demand is the other side of the energy equation in terms of reducing the UK's impact on the environment and tackling climate change, and is an area that immediately concerns facilities managers. Through their control over budgets and their responsibilities for running buildings, facilities managers have a key role to play in reducing the UK's carbon emissions through reducing energy use.

*Energy consumption increased by 9.5% between 1990 and 2004.  
Electricity demand has increased by 24% since 1990.<sup>3</sup>*

Considerable carbon dioxide savings could be made by reducing demand and increasing the energy efficiency of buildings, as part of the package of policy measures. This represents an easy, quick win and can help both to reduce overall energy demand and to counter rises in other sectors, such as transport.

The International Energy Agency's (IEA) World Energy Outlook (WEO) 2006 showed that on current trends demand for power is set to grow by 53% by 2030, but could be restrained by 10% with government action.

*Buildings are major consumers of energy. Around 40% of final energy consumption in the European Community is in the buildings sector. EC research has indicated that by improving energy efficiency, carbon emissions from buildings could be reduced by 22%.<sup>4</sup>*

*The construction, occupation and maintenance of buildings account for around 50 per cent of UK emissions of carbon dioxide, thus contributing to climate change, the depletion of non-renewable resources and adding to pollution. This needs to be addressed if the Government's target of a 60% reduction in the 1990 level of emissions by 2050 is to be achieved.<sup>5</sup>*

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<sup>3</sup> Energy - Its Impact on Environment and Society – Chapter 3  
<http://www.dti.gov.uk/files/file20300.pdf>

<sup>4</sup> Defra comments on the EU Directive on the Energy Performance of Buildings  
<http://www.defra.gov.uk/environment/energy/internat/ecbuildings.htm>

<sup>5</sup> DTI Review Of Sustainable Construction October 2006  
<http://www.dti.gov.uk/sectors/construction/sustainability/strategy/page13543.html>

Both BIFM and CIBSE (Chartered Institution of Building Services Engineers) advocate managing energy demand through:

- The efficient use of energy however it is generated;
- The use of renewable energy where possible and;
- The design, installation and operation of systems which support these

We set out in this paper a few effective and low-cost policy options that would contribute to the government's climate change objectives.

### **Managing energy use**

#### *Development projects and PFIs*

The lack of awareness of the role of facilities managers means that their understanding of how buildings are used during their operational lifetime is not always brought to the table when new buildings are being designed or PFI projects are being scoped and negotiated. This means that project teams are losing out on a valuable perspective and insight into the long-term uses of a building. Facilities managers can advise project teams both in the private sector and the public sector, testing assumptions about how buildings are used and tabling issues that are often overlooked.

BIFM advocates the greater involvement of facilities managers in new build projects, in order to design-in how a building will actually be used throughout its lifetime. Facilities managers are the only professionals able to combine whole life cycle thinking with a practical understanding of how buildings are used. Facilities managers could bring this to the table in development proposals, yet their views are very rarely sought. In order to encourage private sector developers to move in this direction, government guidance or other explicit support would be a valuable step. In particular, consulting with facilities managers should be considered best practice in sustainable design, ensuring that how a building will be used in practice during its whole life cycle is factored in at an early design stage.

Facilities managers can advise on how a building will actually be used by its occupiers, rather than how it is designed to be used. Consulting facilities managers would be an easy way to 'user test' a building design and ensure that energy efficiency measures are fully effective and not undone by other aspects of the design. Their perspective would not only help to improve the energy efficiency of new projects but would also achieve greater value for money for the public purse over the lifetime of the building.

A provision within the forthcoming Planning Policy Statement on Climate Change that called for sustainable design to include consideration of actual in-use energy consumption, and pointed to facilities managers as a source of expertise, would be a very positive step. We also look to government to set an example in this field, as it has in others, by expecting its own projects and those of the public

sector to bring facilities management expertise to the early stages of development projects. This should include, but not be limited to, the use of facilities managers to assist in the project design for PFI contracts under the stewardship of Partnerships UK. Government projects such as the Thames Gateway and the Olympics already aim to demonstrate best practice, and this is an opportunity to include a recognition of the role of facilities management expertise.

### *The current building stock*

Only a small percentage of building stock is replaced in any year – between 2001 and 2003, completed commercial build represented only 2% of total stock<sup>6</sup>. Therefore existing buildings are of enormous importance in addressing energy demand and contributing to reducing carbon emissions. Each and every building that we see around us can be used either in an energy efficient manner or in a wasteful one. Cumulatively, the effect in either direction is substantial.

BIFM believes all buildings should be assessed not just on their design performance but on their performance in use. We strongly support the introduction of ‘operational ratings’ under the EU’s Energy Performance of Buildings Directive (alongside ‘asset ratings’ which measure design expectations) as a means of measuring the actual in-use energy performance of a building.

We strongly support wider and fuller implementation of operational ratings as a key driver to improving energy efficiency and reducing carbon emissions, and urge the government to look at making such a rating mandatory (whilst avoiding too heavy a regulatory burden). Operational ratings would also enable a voluntary benchmarking scheme to be put in place by the private and public sectors to encourage increased energy efficiency and carbon savings.

### **The front line**

Facilities managers control heating and cooling systems, lighting systems, and increasingly all electronic appliances and information technology in their buildings. They are the UK’s front line in implementing and enforcing energy efficiency in buildings.

This gives BIFM an important dual role with regards to government policy: i) we have a collective knowledge base and experience that can help policy makers to anticipate practical issues and reach solutions, and ii) as the leading UK professional institute for facilities managers, BIFM can communicate government policy to the front line, ensuring better and more widespread implementation and the sharing of best practice.

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<sup>6</sup> Age of commercial and industrial stock: Local Authority level 2004  
[http://www.communities.gov.uk/pub/167/AgeofCommercialandIndustrialStockLocalAuthorityLevel2004PDF721Kb\\_id1146167.pdf](http://www.communities.gov.uk/pub/167/AgeofCommercialandIndustrialStockLocalAuthorityLevel2004PDF721Kb_id1146167.pdf)

Given their crucial role on the ground, government support would give greater weight to facilities management at the Board level of companies and public sector organisations. This would boost their capacity to raise the issue of energy efficiency and carbon emissions at the highest level within companies, helping to encourage the private and public sectors to follow the government's lead on energy efficiency and environmental footprints. The inclusion of environmental reporting requirements in Business Reviews and government guidance stressing the role of facilities managers would greatly assist in achieving this.

For example, it is facilities managers who would consider whether to install micro-generation or combined heat and power systems. They consequently bring a unique perspective to the issues surrounding retro-fitting of buildings which can help policy makers, and they can also help to deliver government priorities on climate change by encouraging their board to consider such measures.

BIFM provides its members with advice on training and continuing professional development. We call for a greater focus on information and training to encourage the take-up of energy efficiency measures and renewable energy supplies. We are working closely with Asset Skills and believe this requires greater co-ordination and investment to deliver improved quality and educational outcomes.

### **How BIFM can help achieve climate change objectives:**

- Communicate regulations, standards and initiatives to its members (representing a large percentage of the FM managerial workforce and the top 75% of FM employers) to implement government policies
- Contribute whole life cycle thinking to PFI projects and other new developments
- Enhance the role of facilities management within companies and public sector organisations, helping to prioritise energy efficiency and implement specific measures
- Engage with policy makers, bringing the whole life cycle perspective and facilities managers' experience of actual use of buildings into policy making
- Share best practice among its members

### **How Government can help**

- Support and encourage the role of facilities managers at corporate level in both the public and private sector
- Encourage 'user testing' at design stage of new developments via the involvement of facilities managers on project teams
- Encourage PFI project teams in the public sector to consult facilities managers about whole life-cycle issues for buildings
- Provide greater emphasis on training and skills for facilities managers
- Work with BIFM to improve implementation of regulations via communication with BIFM members, the sharing of best practice and supporting BIFM guidelines on implementation
- Consult with BIFM and its members in the course of policy-making

### **Conclusion**

BIFM calls for government to implement energy efficiency measures for existing building stock, working with facilities managers, and to bring the facilities management approach of whole-life thinking with regards to buildings into its policies.

We look forward to working in closer collaboration with policy makers to provide information about facilities managers' experiences on the ground, and to contribute our collective expertise and perspective to help government achieve its objective of lower carbon emissions.

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