

## Unit FM5.20 Energy and utilities management and the impact on facilities management

*The assessment criteria form part of the unit and specify the standard that a learner is expected to meet to demonstrate that the learning outcomes within the unit have been achieved. The additional guidance, which is shown in brackets and italics alongside the assessment criteria, does not technically form part of the unit, in that it is not included in the reference version of the unit shown by the Register of Regulated Qualifications. The additional guidance is provided to illustrate how the assessment criteria might be interpreted. The BIFM will generally expect assessors to interpret the assessment criteria as described, or to an equivalent level of demand.*

*(At level 5, the evidence provided by learners to confirm that they meet the assessment criteria should relate to organisations where they have worked or where they are working.)*

### Aim of the unit:

This unit enables a learner to apply the principles of energy and utilities management, analyse and improve energy and utility efficiency and develop and implement policy.

<b>Title:</b>	Energy and utilities management and the impact on facilities management	
<b>Level:</b>	5	
<b>Credit value:</b>	3	
<b>Learning outcomes</b>	<b>Assessment criteria</b>	
<i>A learner when awarded credit for this unit will:</i>	<i>Assessment of this learning outcome will require a learner to demonstrate that they can:</i>	
1. Be able to understand the principles of energy and utilities management	1.1 Review the principles of energy and utility management <i>(including drivers for management policies (such as compliance, environmental impact, cost efficiency) and the methods used to evaluate effectiveness (such as monitoring, measurement, analysis of usage)</i>  1.2 Analyse the appropriateness of sustainable building design and its impact on energy efficiency of building performance <i>(by reference to considerations such as the use of renewable energy sources, BREEAM ratings, architectural design, use of natural light and ventilation, reductions in solar gain,</i>	

	<p><i>use of energy efficient plant and fixtures)</i></p> <p>1.3 Outline the relevant legislation affecting energy &amp; utilities efficiency in buildings (<i>no additional guidance</i>)</p>
2. Be able to develop and implement an energy and utility management policy	<p>2.1 Develop an energy and utilities management policy in line with current legislation (<i>see below</i>)</p> <p><i>(The assessment criterion for this learning outcome and all of the assessment criteria for the remaining learning outcomes in this unit can be addressed by an exercise based on practice at an organisation where the learner currently works or has worked in the past. The policy development should include an analysis of present usage together with improvement targets and how these can be achieved.)</i></p>
3. Be able to manage energy and utilities efficiency	<p>3.1 Review the use of utilities and their impact on energy efficiency (<i>see below</i>)</p> <p>3.2 Recommend improved energy efficiencies in the operation of a building and highlight the impact on facilities management (<i>see below</i>)</p> <p>3.3 Identify the options for the generation of power from renewable resources within an organisation (<i>see below</i>)</p> <p>3.4 Identify the options for better utilisation of water supplies within an organisation (<i>see below</i>)</p> <p><i>(All of the assessment criteria for this learning outcome can be addressed by the same exercise used for the previous and subsequent learning outcome. The recommendations should take into account risks, benefits and costs. The options for use renewable resources should include different possible resources. The options for better utilisation of water supplies should relate to industry best practice.)</i></p>
4. Be able to measure energy and utility efficiency	<p>4.1 Analyse energy and utility consumption against targets (<i>see below</i>)</p> <p>4.2 Analyse the results of targets and consumption, setting new targets and making recommendations for continual</p>

	<p>improvement(<i>see below</i>)</p> <p>4.3 Evaluate developments in energy and utility measurement technologies(<i>see below</i>)</p> <p><i>(All of the assessment criteria for this learning outcome can be addressed by the same exercise used for the previous learning outcome. The evaluation of developments should include reference to external sources of best practice, such as the Carbon Trust.)</i></p>
Unit expiry date	31st December 2020
Unit reference number	R/601/1842
Details of the relationship between the unit and other standards or curricula (if appropriate)	BIFM Competence 16: Energy and Utility Management

### Resources:

Energy Management Principles and Practice. A Companion to BS EN 16001 by Vilnis Vesma

Energy Management Handbook, Seventh Edition by Wayne C. Turner and Steve Doty

Energy Management Handbook, Eighth Edition by Wayne C. Turner and Steve Doty

Guide to Energy Management by Barney L. Capehart, Wayne C. Turner, and William J. Kennedy

[www.bifm.org.uk](http://www.bifm.org.uk)

FM World - [www.fm-world.co.uk](http://www.fm-world.co.uk)

Facilities Management Journal - [www.mpp.co.uk](http://www.mpp.co.uk)

Facilities Management Excellence - [www.fmxmagazine.co.uk](http://www.fmxmagazine.co.uk)