

Specification

Edexcel Work-related
qualifications

Edexcel Level 2 Award in Energy Efficiency in the Workplace (QCF)

For first registration February 2011

Edexcel, a Pearson company, is the UK's largest awarding organisation offering vocational and academic qualifications and testing, to employers, training providers, colleges, schools, and other places of learning in the UK, and in over 85 countries worldwide.

Our specialist suite of qualifications include NVQs, Apprenticeships, WorkSkills, Functional Skills, Foundation Learning, as well as our exclusive range of BTECs, from entry level right through to Higher National Diplomas.

References to third party material made in this specification are made in good faith. Edexcel does not endorse, approve or accept responsibility for the content of materials, which may be subject to change, or any opinions expressed therein. (Material may include textbooks, journals, magazines and other publications and websites.)

Authorised by Roger Beard

Prepared by Pam Phillippo

Publications Code N026005

All the material in this publication is copyright

© Edexcel Limited 2011

Contents

Qualification title covered by this specification	1
Key features of the Edexcel Level 2 Award in Energy Efficiency in the Workplace (QCF)	2
What is the purpose of this qualification?	3
Who is this qualification for?	3
What are the benefits of these qualifications to the learner and employer?	3
What are the potential job roles for those working towards this qualification?	3
What progression opportunities are available to learners who achieve this qualification?	4
What is the qualification structure for the Edexcel Level 2 Award in Energy Efficiency in the Workplace (QCF)?	5
How is the qualification graded and assessed?	6
Assessment requirements	6
Types of evidence	7
Mode of delivery	8
Centre recognition and approval	9
Centre recognition	9
Approvals agreement	9
Quality assurance	9
What resources are required?	9
Unit format	10
Unit	11
Unit 1: Energy Efficiency in the Workplace	13
Further information	16
Useful publications	16
How to obtain National Occupational Standards	17
Professional development and training	18
Annexe A: Progression pathways	19
The Edexcel qualification framework for the environmental sustainability and resource efficiency sectors	19

Annexe B: Quality assurance	25
Key principles of quality assurance	25
Quality assurance processes	25
Annexe C: Centre certification and registration	27
What are the access arrangements and special considerations for the qualifications in this specification?	27

Qualification title covered by this specification

This specification gives you the information you need to offer the Edexcel Level 2 Award in Energy Efficiency in the Workplace (QCF):

Qualification title	Qualification Number (QN)	Regulation start date
Edexcel Level 2 Award in Energy Efficiency in the Workplace (QCF)	600/0550/6	01/02/11

This qualification has been approved within the Qualifications and Credit Framework (QCF) and is eligible for public funding as determined by the Department for Education (DfE) under Section 96 of the Learning and Skills Act 2000.

The qualification title listed above features in the funding lists published annually by the DfE and the regularly updated website. It will also appear on the Learning Aims Database (LAD), where relevant.

You should use the QCF Qualification Number (QN), when you wish to seek public funding for your learners. Each unit within a qualification will also have a unique QCF unit reference number, which is listed in this specification.

The QCF qualification title and unit reference number will appear on the learners' final certification document. Learners need to be made aware of this when they are recruited by the centre and registered with Edexcel.

Key features of the Edexcel Level 2 Award in Energy Efficiency in the Workplace (QCF)

This qualification:

- is nationally recognised
- is based on the Sustainable Business Practice National Occupational Standards (NOS). The NOS and qualification structure are owned by Cogent Sector Skills Council.

The Edexcel Level 2 to Level 5 Awards in Resource Efficiency/Sustainability have been developed in collaboration with Cogent, the Sector Skills Council for the chemicals, pharmaceuticals, nuclear, oil, gas, petroleum and polymer businesses. This new suite of Edexcel Level 2 to Level 5 Awards has been developed for the Qualifications and Credit Framework (QCF) and includes:

- Edexcel Level 5 Award in Developing a Strategy that Aims to Achieve Sustainability (QCF)
- Edexcel Level 4 Award in Managing Resource Efficiency (Energy) (QCF)
- Edexcel Level 4 Award in Managing Resource Efficiency (Waste) (QCF)
- Edexcel Level 4 Award in Managing Resource Efficiency (Water) (QCF)
- Edexcel Level 4 Award in Managing Resource Efficiency (Transport) (QCF)
- Edexcel Level 3 Award in Controlling Resource Efficiency (Energy) (QCF)
- Edexcel Level 3 Award in Controlling Resource Efficiency (Waste) (QCF)
- Edexcel Level 3 Award in Controlling Resource Efficiency (Water) (QCF)
- Edexcel Level 3 Award in Controlling Resource Efficiency (Transport) (QCF)
- Edexcel Level 2 Award in Contributing to Business Resource Efficiency (QCF)
- **Edexcel Level 2 Award in Energy Efficiency in the Workplace (QCF)**
- Edexcel Level 2 Award in Waste Management in the Workplace (QCF)
- Edexcel Level 2 Award in Water Efficiency in the Workplace (QCF).

Working closely with Cogent, together with specialist support from employers and industry experts, this exciting new suite of qualifications provides bite-sized, discrete components of learning, reflective of the ways in which companies structure their workforce.

The qualifications are suitable for those working in industry or for learners in a centre of learning, providing an important new progression route to higher qualifications and further training within the sector.

What is the purpose of this qualification?

This qualification is aimed at individuals who want to learn more about resource efficiency and the broader sustainability agenda. This includes people in employment who may be responsible for contributing to, controlling or promoting resource efficiency within their organisation. It also includes people not yet in work, who wish to prepare themselves for employment within the resource efficiency/sustainability and/or related sectors.

Who is this qualification for?

This qualification is for all learners aged 16 and above who are capable of reaching the required standards.

Edexcel's policy is that the qualification should:

- be free from any barriers that restrict access and progression
- ensure equality of opportunity for all wishing to access the qualification(s).

What are the benefits of these qualifications to the learner and employer?

These qualifications will give learners underpinning knowledge of the principles behind each area of resource efficiency and how to contribute to, control and manage resource efficiency within an organisational context. The Level 4 and Level 5 suite of qualifications also gives learners the opportunity to improve resource efficiency within a selected organisation – delivering a real business benefit for the employer.

What are the potential job roles for those working towards this qualification?

This qualification may be relevant to individuals working in a wide range of potential job roles, including:

- administrative and secretarial
- skilled trades
- personal service
- sales and customer service
- process, plant and machine operatives
- elementary occupations (eg farm work, forestry, fish management).

What progression opportunities are available to learners who achieve this qualification?

Learners can progress to other qualifications within the environmental sustainability and resource efficiency sectors and/or other related sectors such as business, management and leadership.

Further information is available in *Annexe A*.

What is the qualification structure for the Edexcel Level 2 Award in Energy Efficiency in the Workplace (QCF)?

The Edexcel Level 2 Award in Energy Efficiency in the Workplace (QCF) is a 2-credit and 12-guided-learning-hour (GLH) qualification that consists of one 2-credit mandatory unit.

Unit	Unit title	Credit	Level
1	Energy Efficiency in the Workplace	2	2

How is the qualification graded and assessed?

The overall grade for the qualification is a 'pass'. The learner must achieve all the required units within the specified qualification structure.

To pass a unit the learner must:

- achieve **all** the specified learning outcomes
- satisfy **all** the assessment criteria by providing sufficient and valid evidence for each criterion
- show that the evidence is their own.

The qualifications are designed to be assessed:

- in the workplace or
- in conditions resembling the workplace, as specified in the assessment requirements/strategy for the sector, or
- as part of a training programme.

Assessment requirements

The qualification requires the learner to demonstrate his/her understanding of the subject area and his/her ability to apply their knowledge to a resource efficiency scenario, usually in form of a project. Where the learner is able, it is preferable that he/she undertake the project within the context of their own organisation, using their knowledge to optimise resource efficiency. The definition of 'organisation' is intended to be flexible enough to include business, voluntary, learning and community organisations.

Where this is not possible/practical a simulated scenario can be used as the basis for a project. A simulated project scenario should be discussed and agreed with the assessor and be as relevant to the learner (in terms of organisation type, size and sector/industry) and as 'realistic' as possible (through the use of real case studies from similar organisations).

Evidence of competence may come from:

- **current practice** where evidence is generated from a current job role
- a **programme of development** where evidence comes from assessment opportunities built into a learning/training programme whether at or away from the workplace
- the **Recognition of Prior Learning (RPL)** where a learner can demonstrate that they can meet the assessment criteria within a unit through knowledge, understanding or skills they already possess without undertaking a course of learning. They must submit sufficient, reliable and valid evidence for internal and standards verification purposes. RPL is acceptable for accrediting a unit, several units or a whole qualification
- a **combination** of these.

It is important that the evidence is:

Valid	relevant to the standards for which competence is claimed
Authentic	produced by the learner
Current	sufficiently recent to create confidence that the same skill, understanding or knowledge persist at the time of the claim
Reliable	indicates that the learner can consistently perform at this level
Sufficient	fully meets the requirements of the standards.

Types of evidence

To successfully achieve a unit the learner must gather evidence which shows that they have met the required standard in the assessment criteria. Evidence can take a variety of different forms including the examples below.

- direct observation of the learner's performance by their assessor (O)
- outcomes from oral or written questioning (Q&A)
- products of the learner's work (P)
- personal statements and/or reflective accounts (RA)
- outcomes from simulation, where permitted by the assessment strategy (S)
- professional discussion (PD)
- assignment, project/case studies (A)
- authentic statements/witness testimony (WT)
- expert witness testimony (EPW)
- evidence of Recognition of Prior Learning (RPL).

The abbreviations may be used for cross-referencing purposes.

Learners can use one piece of evidence to prove their knowledge, skills and understanding across different assessment criteria and/or across different units. It is, therefore, not necessary for learners to have each assessment criterion assessed separately. Learners should be encouraged to reference the assessment criteria to which the evidence relates.

Evidence must be made available to the assessor, internal verifier and Edexcel standards verifier. A range of recording documents is available on the Edexcel website www.edexcel.com. Alternatively, centres may develop their own.

Mode of delivery

Edexcel has not defined the mode of study for this qualification. Centres are free to offer the qualification using any mode of delivery that meets the needs of their learners. This may be through traditional classroom teaching, open learning, distance learning or a combination of these. Whatever mode of delivery is used, centres must ensure that learners have appropriate access to the resources identified in the specifications and to the subject specialists delivering the units. This is particularly important for learners studying for the qualification through open or distance learning.

Full guidance on Edexcel's policies on 'distance assessment' and 'electronic assessment' are provided on our website.

Centre recognition and approval

Centre recognition

Centres that have not previously offered Edexcel qualifications need to apply for and be granted centre recognition as part of the process for approval to offer individual qualifications. New centres must complete both a centre recognition approval application and a qualification approval application.

Existing centres will be given 'automatic approval' for a new qualification if they are already approved for a qualification that is being replaced by the new qualification and the conditions for automatic approval are met. Centres already holding Edexcel approval are able to gain qualification approval for a different level or different sector via Edexcel online.

Approvals agreement

All centres are required to enter into an approvals agreement which is a formal commitment by the head or principal of a centre to meet all the requirements of the specification and any linked codes or regulations. Edexcel will act to protect the integrity of the awarding of qualifications, if centres do not comply with the agreement. This could result in the suspension of certification or withdrawal of approval.

Quality assurance

Detailed information on Edexcel's quality assurance processes is given in *Annexe B*.

What resources are required?

Each qualification is designed to support learners working in the environmental sustainability/resource efficiency or related sector. Physical resources need to support the delivery of the qualifications and the assessment of the learning outcomes and must be of industry standard.

Unit format

Each unit in this specification contains the following sections.

Unit title:				
The unit title is approved on the QCF and this form of words will appear on the learner's Notification of Performance (NOP).				
Unit code:				
This is the unit owner's reference number for the specified unit.				
Unit reference number:				
This code is a unique reference number for the unit.				
QCF level:				
All units and qualifications within the QCF have a level assigned to them, which represents the level of achievement. There are nine levels of achievement, from Entry level to level 8. The level of the unit has been informed by the QCF level descriptors and, where appropriate, the NOS and/or other sector/professional.				
Credit value:				
All units have a credit value. The minimum credit value is one, and credits can only be awarded in whole numbers. Learners will be awarded credits when they achieve the unit.				
Guided learning hours:				
A notional measure of the substance of a qualification. It includes an estimate of the time that might be allocated to direct teaching or instruction, together with other structured learning time, such as directed assignments, assessments on the job or supported individual study and practice. It excludes learner-initiated private study.				
Unit summary:				
This provides a summary of the purpose of the unit.				
Assessment requirements/evidence requirements:				
The assessment/evidence requirements are determined by the SSC. Learners must provide evidence for each of the requirements stated in this section.				
Assessment methodology:				
This provides a summary of the assessment methodology to be used for the unit.				
Learning outcomes:	Assessment criteria:	Evidence type:	Portfolio reference:	Date:
			The learner should use this box to indicate where the evidence can be obtained eg portfolio page number.	The learner should give the date when the evidence has been provided.
Learning outcomes state exactly what a learner should know, understand or be able to do as a result of completing a unit.				
The assessment criteria of a unit specify the standard a learner is expected to meet to demonstrate that a learning outcome, or a set of learning outcomes, has been achieved.				
Learners must reference the type of evidence they have and where it is available for quality assurance purposes. The learner can enter the relevant key and a reference. Alternatively, the learner and/or centre can devise their own referencing system.				

Unit

Unit 1: Energy Efficiency in the Workplace

Unit code: Y/502/8390

QCF level: 2

Credit value: 2

Guided learning hours: 12

Unit summary

The aim of this unit is to enable learners to gain knowledge of the importance of the efficient use of energy in the workplace, identifying opportunities for making improvements to support sustainability, the environment and the associated social benefits. Learners will also gain skills in improving energy efficiency measures in an organisation through working practices which support energy efficiency, and in planning and assisting with implementation measures to improve and promote efficient use of energy.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1. Know the importance of efficient energy usage to sustainability	<p>1.1 Describe how the efficient use of energy supports sustainability</p> <p>1.2 Describe why the efficient use of energy is important to the environment</p> <p>1.3 Describe the social benefits associated with efficient energy usage</p>			
2. Know how to identify opportunities for improved energy efficiency	<p>2.1 Outline the opportunities, within a selected organisation, for improving the efficient use of energy</p> <p>2.2 Describe commonly used energy efficiency measures, including the use of renewable energy</p>			
3. Be able to work to improve energy efficiency for an organisation	<p>3.1 Describe how organisational working practices support energy efficiency</p> <p>3.2 Produce a plan to improve energy efficiency for a selected organisation</p> <p>3.3 Assist with the implementation of measures to promote the efficient use of energy for a selected organisation</p>			

Learner name: _____
Learner signature: _____
Assessor signature: _____
Internal verifier signature: _____
(if sampled)

Date: _____
Date: _____
Date: _____
Date: _____

Further information

Our customer service numbers are:

BTEC and NVQ	0844 576 0026
GCSE	0844 576 0027
GCE	0844 576 0025
The Diploma	0844 576 0028
DiDA and other qualifications	0844 576 0031

Calls may be recorded for training purposes.

Cogent and the National Skills Academy for the Process Industries (NSAPI) are currently developing learning content and materials to support the delivery of the Resource Efficiency suite of qualifications. The content/materials will be relevant to a range of different sectors.

For more information please contact NSAPI:

The National Skills Academy for the Process Industries (NSAPI)
5 Pioneer Court
Morton Palms Business Park
Darlington
DL1 4WD

Telephone: 01325 740900

Fax: 01325 740901

Email: enquiries@process.nsapia.co.uk

Useful publications

Related information and publications include:

- *Centre Handbook for Edexcel QCF NVQs and Competence-based Qualifications* published annually
- functional skills publications – specifications, tutor support materials and question papers
- *Regulatory Arrangements for the Qualification and Credit Framework* (published by Ofqual, August 2008)
- the current Edexcel publications catalogue and update catalogue.

Edexcel publications concerning the Quality Assurance System and the internal and standards verification of vocationally related programmes can be found on the Edexcel website.

NB: Some of our publications are priced. There is also a charge for postage and packing. Please check the cost when you order.

How to obtain National Occupational Standards

To obtain the National Occupational Standards for Sustainable Business Practice please contact:

Cogent Sector Skills Council
Unit 5
Mandarin Court
Centre Court
Centre Park
Warrington
WA1 1GG

Telephone: 01925 515200
Fax: 01925 515240
Website: www.cogent-ssc.com

Professional development and training

Edexcel supports UK and international customers with training related to NVQ and BTEC qualifications. This support is available through a choice of training options offered in our published training directory or through customised training at your centre.

The support we offer focuses on a range of issues including:

- planning for the delivery of a new programme
- planning for assessment and grading
- developing effective assignments
- building your team and teamwork skills
- developing student-centred learning and teaching approaches
- building functional skills into your programme
- building effective and efficient quality assurance systems.

The national programme of training we offer can be viewed on our website (www.edexcel.com/training). You can request customised training through the website or by contacting one of our advisers in the Training from Edexcel team via Customer Services to discuss your training needs.

The training we provide:

- is active
- is designed to be supportive and thought provoking
- builds on best practice
- may be suitable for those seeking evidence for their continuing professional development.

Annexe A: Progression pathways

The Edexcel qualification framework for the environmental sustainability and resource efficiency sectors

Level	General qualifications	Diplomas	BTEC vocationally-related qualifications	BTEC specialist qualification/professional	NVQ/competence
8					
7					
6					
5					Edexcel Level 5 Award in Developing a Strategy that Aims to Achieve Sustainability (QCF)

Level	General qualifications	Diplomas	BTEC vocationally-related qualifications	BTEC specialist qualification/ professional	NVQ/ competence
4					Edexcel Level 4 Award in Managing Resource Efficiency (Energy) (QCF) Edexcel Level 4 Award in Managing Resource Efficiency (Transport) (QCF) Edexcel Level 4 Award in Managing Resource Efficiency (Waste) (QCF) Edexcel Level 4 Award in Managing Resource Efficiency (Water) (QCF)

Level	General qualifications	Diplomas	BTEC vocationally-related qualifications	BTEC specialist qualification/ professional	NVQ/ competence
3		Edexcel Level 3 Diploma in Environmental and Land-based Studies	Edexcel BTEC Level 3 Certificate, Subsidiary Diploma, Diploma and Extended Diploma in Environmental Sustainability (QCF)		Edexcel Level 3 Award in Controlling Resource Efficiency (Energy) (QCF) Edexcel Level 3 Award in Controlling Resource Efficiency (Transport) (QCF) Edexcel Level 3 Award in Controlling Resource Efficiency (Waste) (QCF) Edexcel Level 3 Award in Controlling Resource Efficiency (Water) (QCF) Edexcel Level 3 Diploma in Work-based Environmental Conservation

Level	General qualifications	Diplomas	BTEC vocationally-related qualifications	BTEC specialist qualification/ professional	NVQ/ competence
2		Edexcel Level 2 Diploma in Environmental and Land-based Studies		Edexcel BTEC Level 2 Award/Certificate in Sustainability Skills (QCF)	<p>Edexcel Level 2 Award in Energy Efficiency in the Workplace (QCF)</p> <p>Edexcel Level 2 Award in Waste Management in the Workplace (QCF)</p> <p>Edexcel Level 2 Award in Water Efficiency in the Workplace (QCF)</p> <p>Edexcel Level 2 Award in Contributing to Business Resource Efficiency (QCF)</p> <p>Edexcel Level 2 Diploma in Work-based Environmental Conservation</p>

Level	General qualifications	Diplomas	BTEC vocationally-related qualifications	BTEC specialist qualification/professional	NVQ/competence
1		Edexcel Level 1 Diploma in Environmental and Land-based Studies		Edexcel BTEC Level 1 Award/Certificate in Sustainability Skills (QCF)	
Entry				Edexcel BTEC Entry Level Award/Certificate in Sustainability Skills (Entry 3) (QCF)	

Annexe B: Quality assurance

Key principles of quality assurance

- A centre delivering Edexcel qualifications must be an Edexcel recognised centre and must have approval for qualifications that it is offering.
- The centre agrees, as part of gaining recognition, to abide by specific terms and conditions relating to the effective delivery and quality assurance of assessment. The centre must abide by these conditions throughout the period of delivery.
- Edexcel makes available to approved centres a range of materials and opportunities to exemplify the processes required for effective assessment and provide examples of effective standards. Approved centres must use the guidance on assessment to ensure that staff who are delivering Edexcel qualifications are applying consistent standards.
- An approved centre must follow agreed protocols for: standardisation of assessors; planning, monitoring and recording of assessment processes; internal verification and recording of internal verification processes and dealing with special circumstances, appeals and malpractice.

Quality assurance processes

The approach to quality assured assessment is made through a partnership between a recognised centre and Edexcel. Edexcel is committed to ensuring that it follows best practice and employs appropriate technology to support quality assurance processes where practicable. The specific arrangements for working with centres will vary. Edexcel seeks to ensure that the quality-assurance processes it uses do not inflict undue bureaucratic processes on centres, and works to support them in providing robust quality-assurance processes.

The learning outcomes and assessment criteria in each unit within this specification set out the standard to be achieved by each learner in order to gain each qualification. Edexcel operates a quality-assurance process, designed to ensure that these standards are maintained by all assessors and verifiers.

For the purposes of quality assurance, all individual qualifications and units are considered as a whole. Centres offering these qualifications must be committed to ensuring the quality of the units and qualifications they offer, through effective standardisation of assessors and internal verification of assessor decisions. Centre quality assurance and assessment processes are monitored by Edexcel.

The Edexcel quality-assurance processes will involve:

- gaining centre recognition and qualification approval if a centre is not currently approved to offer Edexcel qualifications
- annual visits to centres by Edexcel for quality review and development of overarching processes and quality standards. Quality review and development visits will be conducted by an Edexcel quality development reviewer
- annual visits by occupationally competent and qualified Edexcel Standards Verifiers for sampling of internal verification and assessor decisions for the occupational sector
- the provision of support, advice and guidance towards the achievement of National Occupational Standards.

Centres are required to declare their commitment to ensuring quality and appropriate opportunities for learners that lead to valid and accurate assessment outcomes. In addition, centres will commit to undertaking defined training and online standardisation activities.

Annexe C: Centre certification and registration

Edexcel Standards Verifiers will provide support, advice and guidance to centres to achieve Direct Claims Status (DCS). Edexcel will maintain the integrity of Edexcel QCF NVQs through ensuring that the awarding of these qualifications is secure. Where there are quality issues identified in the delivery of programmes, Edexcel will exercise the right to:

- direct centres to take action
- limit or suspend certification
- suspend registration.

The approach of Edexcel in such circumstances is to work with the centre to overcome the problems identified. If additional training is required, Edexcel will aim to secure the appropriate expertise to provide this.

What are the access arrangements and special considerations for the qualifications in this specification?

Centres are required to recruit learners to Edexcel qualifications with integrity.

Appropriate steps should be taken to assess each applicant's potential and a professional judgement should be made about their ability to successfully complete the programme of study and achieve the qualification. This assessment will need to take account of the support available to the learner within the centre during their programme of study and any specific support that might be necessary to allow the learner to access the assessment for the qualification. Centres should consult Edexcel's policy on learners with particular requirements.

Edexcel's policy on access arrangements and special considerations for Edexcel qualifications aims to enhance access to the qualifications for learners with disabilities and other difficulties (as defined by the 1995 Disability Discrimination Act and the amendments to the Act) without compromising the assessment of skills, knowledge, understanding or competence. Please refer to *Access Arrangements and Special Considerations for BTEC and Edexcel NVQ Qualifications* for further details. www.edexcel.com.

Ofqual
.....



Llywodraeth Cynulliad Cymru
Welsh Assembly Government

Publications Code N026005 April 2011

For more information on Edexcel and BTEC qualifications please
visit our website: www.edexcel.com

Edexcel Limited. Registered in England and Wales No. 4496750
Registered Office: One90 High Holborn, London WC1V 7BH. VAT Reg No 780 0898 07

