

Special Purpose Specification NFQ Level 6

Implementation of Small Scale Wind Systems 6S0325

1. Certificate Details

Title Implementation of Small Scale Wind Systems

Teideal as Gaeilge Feidhmiú Mionchórais Gaoithe

Award Class Special Purpose

Code 6S0325

Level 6

Credit Value 10

Purpose The purpose of this award is to enable the learner to implement small wind turbine projects, according to the manufacturer's specifications and in accordance with relevant guidelines, standards and legislation whilst working autonomously.

Statements of Knowledge, Skill and Competence Learners will be able to:

Knowledge

Breadth

Demonstrate a broad range of conceptual and factual knowledge of small wind systems (as defined in the International Electrotechnical Commission and EN standard 61400-2), their characteristics, major components, relevant regulations, permitting requirements and procedures and installation standards.

Know How & Skill

Range

Demonstrate a broad range of technical and practical installation skills pertinent to the specification, installation, inspection, conformity assessment and testing of small wind turbine installations.

Selectivity

Demonstrate judgment in selecting appropriate equipment and work practices for varied and unfamiliar tasks and problems in implementing small wind turbine projects.

Competence

<i>Context</i>	Demonstrate specific knowledge and skills within domestic or small commercial small wind turbine sites.
<i>Role</i>	Carry out all aspects of the implementation of small wind systems autonomously.
	The learning outcomes associated with this award are outlined in the associated Component Specifications.
Access	To access programmes leading to this award the learner should have reached the standards of knowledge, skill and competence associated with the preceding level of this award where one exists. This may have been achieved through a formal qualification or through relevant life and work experience.
Transfer	Achievement of this award will enable the learner to transfer to other appropriate programmes leading to awards at the same or lower levels of the National Framework of Qualifications
Progression	Achievement of this award will enable the learner to progress to other appropriate programmes leading to awards at the next or higher levels of the National Framework of Qualifications.
Progression Awards	Learners who successfully complete this award may progress to a range of different awards.
Grading	Pass Merit Distinction The grade achieved will be determined by the grades achieved on the components

2. Certificate Requirements

The total credit value required for this certificate is 10. This will be achieved by completing:

Award Code	Title	Level	Credit Value
All of the following component(s)			
6N0310	Small Scale Wind Systems Implementation	6	10

3. Supporting Documentation

1. EN 61400-2 - Wind Turbines - Part 2: Design requirements for small wind turbines
2. EN 61400-12 Wind turbines - Part 12-1: Power performance measurements of electricity producing wind turbines

3. Guide to connecting renewable and CHP (combined heat and power) generators to the network, available from Sustainable Energy Ireland
4. Applicable planning and development regulations : SI No. 83 of 2007, SI No. 235 of 2008

4. Specific Validation Requirements

The provider must have all of the following in place to offer this award:

A current wind atlas and on-line tools for wind resource assessment

1. Access to an operational small wind turbine installation capable of being lowered for inspection and maintenance
2. A variable speed and output generator connected to an inverter with a simulated network connection
3. Access to a model of foundation for a small wind turbine which is fit for purpose

6. FET Award Standards

QQI award standards are determined within the National Framework of Qualifications (NFQ), <http://www.nfq-qqi.com>. QQI determines standards for the education and training awards that it makes itself and that are made by providers to whom it has delegated authority to make an award. Providers offering programmes leading to QQI awards **must** have their programme(s) validated in accordance with current validation policy (see www.qqi.ie).

Award standards are designed to be consistent with the NFQ's award classes i.e. major, special purpose, supplemental and minor awards. They are expressed in terms of **learning outcomes** i.e. concise statements of what the learner is expected to know or be able to do in order to achieve a particular award. Learning outcomes for QQI awards are contained within the associated specifications:

AWARD CLASS	STANDARDS	AWARDS
Major Award	Certificate Specification	Certificate (Levels 1 to 5) Advanced Certificate (Level 6)
Supplemental Award	Supplemental Specification	Supplemental Certificate (Level 3 to 6)
Special Purpose	Specific Purpose Specification	Specific Purpose Certificate (Levels 3 to 6)
Minor Award	Component Specification	Component Certificate (Levels 1 to 6)

Award standards are thresholds, they describe standards of knowledge, skill or competence to be acquired, and where appropriate, demonstrated, by a learner before an award may be made.

Award standards will be reviewed from time to time as necessary. Minor changes may be made by the QQI executive outside the review cycle where necessary. Changes to standards are published on QQI's website. Providers with validated programmes and providers with delegated authority to make awards are responsible for monitoring relevant standards and making necessary responses to changes.

7. FET Credit

Every FET certificate and component specification includes an FET credit value (Table 1). FET credit is quantified in multiples of 5 FET credits (up to 50 hours of learner effort). Learner effort is based on the time taken by typical learners at the level of the award to achieve the learning outcomes for the award. It includes all learning time involved including: guided learning hours, self-directed learning and assessment.

Table 1: FET Credit Values

NFQ Level	Major Awards Credit Values	Default Credit Values Minor Awards	Other Permitted Minor Award Credit Values	Special Purpose and Supplemental Award Credit Value Ranges
1	20	5	10	
2	30	5	10	
3	60	10	5,20	>5 and<60
4	90	10	5,15,20	>5 and<90
5	120	15	5,10,30	>5 and <120
6	120	15	5,10,30	>5 and <120

Guide to Level

Learning outcomes at this level include a comprehensive range of skills which may be vocationally-specific and/or of a general supervisory nature, and require detailed theoretical understanding. The outcomes also provide for a particular focus on learning skills. The outcomes relate to working in a generally autonomous way to assume design and/or management and/or administrative responsibilities. Occupations at this level would include higher craft, junior technician and supervisor.

Strand	Sub-strand	Nature of learning
Knowledge	Breadth	Specialised knowledge of a broad area
	Kind	Some theoretical concepts and abstract thinking, with significant underpinning theory
Know How & Skill	Range	Demonstrate a comprehensive range of specialised skills and tools
	Selectivity	Formulate responses to well defined abstract problems
Competence	Context	Act in a range of varied and specific contexts involving creative and non-routine activities; transfer and apply theoretical concepts and/or technical or creative skills to a range of contexts
	Role	Exercise substantial personal autonomy and often take responsibility for the work of others and/or for the allocation of resources; form and function within, multiple and complex heterogeneous groups.
	Learning to Learn	Learn to evaluate own learning and identify needs within a structured learning environment; assist others in identifying learning needs
	Insight	Express an internalised, personal world view, reflecting engagement with others.

Extract from 'Determinations for the Outline National Framework of Qualifications': NQAI