



Internal Assessment Report: Skills for Work – Energy

Sector panel: Engineering, Science and Mathematics

The purpose of this report is to provide feedback to centres on verification in National Qualifications in this subject.

National Units

Titles/levels of Units verified

C258 11	Energy
F3FN 11	Energy: Introduction (mandatory)
F3FS 11	Energy: Domestic Solar Hot Water Systems (mandatory)
F3FR 11	Domestic Energy Systems: Wind Turbine Systems (mandatory)
F3FP 11	Energy: Employability and Careers (mandatory)
F3FT 11	Energy and the Individual (optional)
F3FW 11	Energy: Oil/Gas Extraction (optional)
F3FV 11	Energy: Conventional Production Technologies and the Grid (optional)

Three centres were visited during 2008/2009 for the Skills for Work: Energy course. Two centres were delivering the complete Course during one session and the other was delivering it over two sessions.

All the optional Units available for the Course were being used by at least one centre. There were no holds on any of the Units being delivered at any of these centres.

Feedback to centres

The selection of an optional Unit used by centres depended on the industry surrounding that particular centre. 'Oil/gas' was the focus for the North East of Scotland, the 'grid system' for the West of Scotland, with the 'carbon footprint' being used in the Western Isles.

Centres were all using the SQA NABs. Candidates were able to follow and use these assessment materials, and this was reflected in the candidates' responses.

All records were completed correctly, including the individual and class checklists.

Most centres were using IT to complete written assessments. This made it much simpler for candidates as they could use the pro formas that are available and could include digital images which enhanced their work. All centres plan to use IT for assessments next session.

There was a mixture of candidate groups/ages taking the Course this session. These ranged from 5th/6th year candidates through to 3rd/4th year candidates.

Candidates' assessments were found to be of a very high standard. Digital photographs were available to view for the site visits and practical work.

One centre had a group consisting entirely of females participating on the course. This was sponsored by local industry and was proving to be very successful.

Candidate feedback for the taught Units was very good, with candidates also giving clear and appropriate evaluations in their answers for these Units.

General comments

This was the first year of this new course. Anecdotal evidence seems to suggest that more schools and colleges will be adopting it in 2009/2010.

The external verifier's feedback indicates that the candidates on this course enjoyed it, and the retention and pass rates were very good.

The compulsory site visit was a great success, giving the candidates an opportunity to see at first hand how industry generates energy and how they tackle environmental issues.

Feedback on employability/careers is the weakest area of the course. Staff delivering the course have acknowledged this and will be working to improve it next session.

Areas of good practice

The centre/Course being run for females only was sponsored by a local multinational company. This included a trip to Paris to visit their headquarters. This is a first-class example of how industry, schools and colleges can work together to provide an excellent learning experience for candidates.

The photographic evidence used by centres was especially valid for the practical work in the Wind Turbine and Solar Hot Water Units.

Site visits were usually a highlight of the Course. All centres organised industrial visits to local energy or power generation companies. These visits included oil/gas installations, diesel power generation and renewable energy resource centres.

There was evidence that candidates' confidence had grown during the Course. This was particularly true of the female-only group. As they were exposed to practical work and to the environmental side of the course, their enthusiasm grew.

Staff teaching on this Course were commended for their enthusiasm and knowledge in what is a fairly new area of technology.

Areas for further development

There should be more focus on the Employability Unit. More feedback needs to be given to candidates, and should be noted during the employability skills discussions between the candidate and member of staff. This feedback should include the identified strengths and weaknesses.

It was noted that candidates should list/acknowledge any websites they have used. This would be seen as good practice, and encourages them to acknowledge the work of others.

Site visits and digital photographs should be developed further. This will ensure that candidates see real systems, speak to those working in the industry, and are able to display their work in digital form.