Potential Training Demand in Environmental Technologies in Building Services Engineering

Stage 3: Demand and Supply Side Gap Analysis

Summit SKILLS

The Sector Skills Council
for Building Services Engineering

This report looks at environmental training provision in the building services engineering sector at the beginning of 2010, a year when the effects of an unprecedented UK recession began to have an impact on the sector.

Two hundred and eight providers took part in the research, which is almost half of the sector's training providers, and their answers were used to form the basis of a potential demand and supply side gap analysis.

Overview

This report looks at the issues that surround the supply of environmental technologies training for the Building Services Engineering (BSE) sector. A number of issues and challenges have been identified which SummitSkills and its partners and stakeholders will need to address to ensure that the sector receives high quality education and training.

Although the report uses real numbers, these should be seen as indicative only, as there are potentially some variations which might be incorporated at any time by any provider. However, the implications are clear; there is simply currently not enough provision to meet potential demand.

Methodology

A survey of 208 training providers in the UK BSE sector was undertaken in early 2010 using structured telephone interviews from a questionnaire devised by the research team at SummitSkills. In each interview, respondents were asked a series of questions relating to the current and future provision planned for environmental technology training.

Training organisation	Number in survey
Private training provider	68
Further education (FE) college	129
Training broker	0
Employer	0
Training provider within a large employer organisation	8
Other	3
Total	**208**

Demand and supply are based on the number of learning opportunities offered, not on the number of individuals that need to be trained. SummitSkills' first report on environmental technologies published in August 2010 demonstrated that employers are likely to require their operatives to be trained in more than one technology, and in all probability three or four technologies.

Based on the data supplied, it was possible to speculate on the current potential of the supply side to deliver curriculum in environmental technologies according to current activity. When compared to the learning opportunity demand calculated in Stage 2 of this suite of reports (October 2010) it was possible to perform a gap analysis and determine the potential shortfall in provision for the nations and regions up to 2020.

Results

Table 1 and 2 show the demand/supply gap based on current supply and potential demand. Black indicates where supply outstrips demand and green where supply is insufficient to meet potential demand.

	East Midlands	East of England	London	North East	North West	South East	South West	West Midlands	Yorks & Humber
2010	2,700	777	1,856	5,935	318	3,504	4,183	588	3,277
2011	3,620	8,634	7,520	1,664	9,121	8,224	3,078	8,818	5,250
2012	9,757	17,913	16,076	2,397	18,180	19,510	9,833	16,831	13,292
2013	9,887	18,287	15,676	2,390	18,284	19,673	9,710	17,037	13,239
2014	7,211	14,336	11,370	792	14,273	13,188	6,298	13,567	9,653
2015	3,987	9,395	7,010	1,439	9,430	7,627	2,802	9,217	5,416
2016	1,574	5,607	3,578	3,067	5,889	3,504	254	6,029	2,230
2017	989	4,709	2,793	3,478	4,992	2,476	400	5,238	1,435
2018	565	4,134	2,326	3,780	4,344	1,765	870	4,695	881
2019	481	3,968	2,153	3,832	4,231	1,618	945	4,576	772
2020	310	3,698	1,938	3,975	3,920	1,278	1,175	4,315	505
Totals	**35,681**	**89,904**	**68,584**	**21,591**	**92,346**	**75,359**	**24,402**	**90,911**	**49,396**

Table 1: Gap analysis between potential demand and current supply of environmental technology qualifications for the BSE sector by English region.

Table 2 shows the same data for the devolved nations:

	Northern Ireland	Wales	Scotland
2010	356	284	4,683
2011	3,064	3,497	4,438
2012	5,711	7,264	13,283
2013	5,784	7,461	13,468
2014	4,633	5,899	9,604
2015	3,232	3,874	4,882
2016	2,165	2,344	1,386
2017	1,906	1,973	510
2018	1,714	1,731	99
2019	1,713	1,665	220
2020	1,635	1,550	513
Total	**31,913**	**36,974**	**42,056**

Table 2: Gap analysis between potential demand and current supply of environmental technology qualifications for the BSE sector by devolved nation.

What training is available?

- Training is more readily available for solar water and photovoltaic panel technologies, but not for technologies like micro-hydro, where the sector has not shown an interest.
- Many of the courses that providers define as environmental technology courses would not necessarily be seen as such by SummitSkills.
- FE colleges and private training providers are the main providers of environmental technologies training to the BSE sector.

Who is undertaking training courses?

- The courses offered to the BSE sector are predominantly for experienced and qualified craft operatives. A smaller number of providers (as high as 20% in some regions) appear to be offering courses to anyone who wants to do them.
- Only 70% of providers currently ask for pre-requisites. This could lead to unqualified and unskilled learners marketing themselves as 'specialists' in these technologies, yet be producing sub-standard work. The sector and the technologies concerned could suffer from a bad reputation with consumers as a result.
- Where providers do want pre-requisites, SummitSkills would question whether some of these are acceptable as a guarantee of competence. SummitSkills believes that all environmental technology courses should require pre-requisite qualifications that are commensurate with the primary BSE craft skills associated with the technology being studied.

How are they training?

- Courses in the environmental technologies specified in this report are offered over a 2-3 day block, either in the day or evening.
- Environmental technology courses currently offered to the BSE sector are accredited by a number of certification/accreditation bodies, although BPEC, LOGIC and City & Guilds dominate.
- Staff to student ratios vary considerably between six and 16 learners.
- The majority of providers report achievement rates of between 87% and 100% for environmental technology courses.

What about accreditation and standards?

- A significant proportion of providers surveyed in this report claimed not to have heard of the Microgeneration Certification Scheme (MCS). Not surprisingly therefore, a lot of the courses currently offered by providers are not designed to enable learners to specifically apply for MCS registration.
- A minority of providers (20%) are not currently aware of the SummitSkills occupational standards for environmental technologies.
- The majority of providers think that their staff are fully qualified to teach these technologies. SummitSkills would question whether some of the qualifications stated by providers should be considered enough alone to competently deliver environmental technologies to the BSE sector.

Conclusions

If the current supply of training provision is not increased, it will be inadequate to meet potential demand in all nations and regions of the UK based on SummitSkills' projections up to 2020. In addition, training must be undertaken by operatives who have pre-requisite qualifications that are commensurate with the primary BSE craft skills associated with the technology being studied.

Left unaddressed, the inadequate supply of training provision and lack of appropriate pre-requisites for course entry may encourage the proliferation of rogue training providers or BSE companies not undertaking training. Both of these scenarios will lead to poorly installed kit and could seriously damage the reputation of the sector and environmental technologies in the eyes of consumers.

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