The Sector Skills Council
for Building Services Engineering

Summit SKILLS

Updated 21 April 2008

Update on development of Environmental Technologies

This summary provides an overview of developments and work in progress by SummitSkills.

Environmental Technologies Mapping

The mapping work carried out by the Skills for Business Network partners, is at http://www.skills4business.org.uk/Renewable-and-Alternative-Energy/75
The mapping and Sector Skills Agreement development process, has identified the following areas of responsibility fall within SummitSkills sector footprint.

- Solar Water and Heating
- Photovoltaics for Microgeneration
- Combined Heat and Power
- Micro Wind Energy
- Ground Source Heat Pumps
- Water Source Heat Pumps
- Air Source Heat Pumps
- Biomass
- BioFuels (Liquid)
- Micro Hydro Generation Systems
- Fuel Cell Technology
- Rainwater Harvesting
- Grey Water
- Mechanical Heat Recovery Ventilation
- Low Energy Lighting
- Smart Metering (downstream consumer display technology)
- Repair and Maintenance of High Efficiency Brown and White goods

Integration of Environmental Technologies

The environmental technologies are all **seen by the sector as extensions of current job activities**. For example: solar thermal hot water is an extension of plumbing or domestic heating engineers competence and solar photovoltaic an extension of an electrician skill set.

Manufacturers and Sustainability Group

SummitSkills operates a Manufacturers and Sustainability Group to identify and support the development of skill related processes within the scope of the SSC related to emerging environmental technologies.
The group has recently redefined its scope.
Information on the group is at http://www.summitskills.org.uk/cgi-bin/go.pl/interests/details.html?uid=60
The work and input of this group complements the role of the Industry Interest Groups http://www.summitskills.org.uk/cgi-bin/go.pl/interests/index.html into which the appropriate environmental technologies fall. (eg: Solar Hot Water = Plumbing and Heating Industry Interest Groups, Photovoltaics = Elecrotechnical Industry Interest Group etc.)

SummitSkills Report

At the end of 2006, SummitSkills appointed the National Energy Foundation to produce a baseline report on “Identification of Renewable Energy Training Provision, Qualification Accreditation”.
http://www.summitskills.org.uk/public/cms/File/Renewables/Renewable%20energy%20training%20provision%20report%20NEF.pdf

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The report completed in early 2007, together with the information collated through a range of other mediums, including the industry interest groups identified above and the Sector Skills Agreement research, provided SummitSkills with a baseline from which to develop a Strategy for the development of Competence Standards.

Sector Skills Agreement Development

The Sector Skills Agreement, facilitated by SummitSkills, has provided a further range of information to support the work and direction of development.
The Sector Skills Agreement was completed at the end of March 2008 and is now in the implementation stage with National Launches in each of the countries of the UK and also the England Regions.
Copies of the Sector Skills Agreement and summaries may be accessed at http://www.horizon-ssa.org.uk/In-your-area/258 .

Environmental Technologies Development Strategy

A Development Strategy has been completed and approved by SummitSkills Qualifications & Standards Advisory Group.

National Occupational Standards

The development of the National Occupational Standards for Environmental Technologies was completed at the end of March 2008.
SummitSkills has contacted Awarding and Certification Bodies who provide certification for the sector and shared the final draft of the National Occupational Standards for Environmental Technologies for both operative and technical and professional roles with them, so that they can:

- Cross map their existing certificates against the National Occupational Standards for Environmental Technologies and as appropriate update the training guidance to centres offering those certificates and also amend the assessment processes to match the competence requirements.
- Update in line with the Sector Qualifications Strategy, currently under development, appropriate main stream qualifications at all levels.

SummitSkills is also in discussions with appropriate other Sector Skills Council's about linkage as appropriate.
SummitSkills has also provided the Universities in the North West of England, who have successfully accessed Higher Level Pathfinder http://www.nwua.ac.uk/pathfinder/default.aspx funding, for the development of provision to include for Environmental Technologies, in line with the proposed solutions identified within the Sector Skills Agreement.

Energy Efficiency Partnership for Homes

SummitSkills, with other SSC's participates in the Energy Saving Trust facilitated Energy Efficiency Partnership for Homes. SummitSkills participates in appropriate working groups including the Heating Strategy Group (http://www.eeph.org.uk/sector/swg.cfm?group_id=6) and links to Education & Community Group Home http://www.eeph.org.uk/sector/swg.cfm?group_id=2 and the Energy Advice Providers Group Home http://www.eeph.org.uk/sector/swg.cfm?group_id=3
Energy Saving Trust has also completed a draft of Solar Thermal System Specifications (STheSS).(Contact Stephen.Passmore@est.org.uk)
The Heating Strategy Group has formed a Government Liaison sub group(with SummitSkills input) to assist in linking Government Departments and ensuring that all Government Departments are provided with information to ensure a joined up approach to development.

M&E Sustainability Group

SummitSkills participates in the Mechanical and Electrical Sustainability Group led by the ECA and HVCA. http://www.mech-elec.org.uk/

Development processes

SummitSkills is working with a range of partner organisations, including EST, Carbon Trust, Trade Associations, Professional Bodies, UK Central Government, Devolved Administrations and Regions to coordinate work across the sector relating to the findings in each area related to environmental technologies development as identified within the Sector Skills Agreement. http://www.horizon-ssa.org.uk/The-Agreement/386

Development of Higher Education provision

As reported above Higher Level Skills Pathfinder Funding within the North West is being directed to ensure that development of provision includes Higher Level Skills support for the sector, in the development of environmental technologies, as identified in the Sector Skills Agreement and Regional Economic Strategy priorities for the North West region.
Two Universities, Liverpool John Moores and University of Central Lancashire have been granted funding to support development of Higher Level Skills related to Environmental Technologies. http://www.nwua.ac.uk/pathfinder/funded_projects_construction.aspx

Microgeneration Certification Scheme

Facilitated by Department for BERR and coordinated by BRE, an industry led group is developing and identifying the Technical specifications for a range of Environmental Technologies related to MicroGeneration. http://www.greenbooklive.com/page.jsp?id=4
SummitSkills has participated specifically to ensure cognisance of the competency requirements are included within the scheme and to assist in progressing the development of appropriate National Occupational Standards.

Competency Cards

A range of competency cards identify skills of persons across the Building Services Engineering Sector. http://www.summitskills.org.uk/businesses/240 and http://www.summitskills.org.uk/businesses/282

Communities and Local Government Competent Persons Scheme

SummitSkills, working with IPHE (Institute of Plumbing and Heating Engineering) is facilitating the development of the Minimum Technical Competence requirements for the integration of the Environmental Technologies into the appropriate Competent Person Scheme http://www.summitskills.org.uk/businesses/238
A number of existing awarding and certification bodies already offer certification related to this process and SummitSkills will support the updating of those certificates to match the National Occupational Standards developed for the Environmental Technologies.
http://www.skills4business.org.uk/Energy-Efficiency-for-Domestic-Heating/Employers-&-Heating-Installers/27 and http://www.summitskills.org.uk/links/110

London Energy Partnership

1. The LDA and LSC in conjunction with the London Energy Partnership have established a group (Energy Skills for London) to identify and address the futures skills needs of London in relation to the implementation of energy efficiency, district heating and CHP and renewable energy.In addressing these needs consideration should be given to The mayors Climate Change Plan and related strategies under development including the Further Alterations to the London Plan (assuming this is published before the FALP),the Mayors Housing Strategy and the Climate Change Mitigation and Energy Strategy.
2. Skills for a Low Carbon London report by LEP.
3. Sector Skills Council research (Labour Market Intelligence) relating to the renewable energy responding to the needs of:

In order to take the recommendations from these reports forward into practical application, further research needs to be undertaken. This will provide actions to deliver a sustainable appropriately skilled workforce towards 2015.
The main technologies involved are:

- Combined Heat & power
- Solar
- Biomass
- Wind Turbine

The most effective way of achieving an appropriately skilled workforce is to build on and extend the skills of existing workers who already operate within the related areas (mainly building services engineering). There are three strands of research work required.

1. Defining the skills requirements

We need to establish initially, how these technologies are likely to be utilised within the London built environment, over what timescales. From this information we would be able to estimate:
How many workers are needed and when they are likely to be required;
Which renewable technology skill sets need to be given priority for development;
Whether the existing workforce in and around London has the capacity to undertake the work, or if alternatives need to be considered;
The likely demand and capacity required from the training delivery network

2. Gap analysis of current training provision

Research is needed to establish what training provision currently exists, where the gaps are and how they can best be addressed. This will involve colleges, private training providers and manufacturers.
We also need to explore the approaches adopted in other parts of the UK to see what can be learned from them. An example of this is the “Action Renewables” initiative in Northern Ireland.

3. Competence recognition

SummitSkills is currently producing National Occupational Standards for environmental technologies. These will provide a “benchmark” of competence against which current training programmes can be mapped, or from which new training programmes can be developed. Pending this work being completed, it would be beneficial to explore ways of mapping training programmes to the current National Occupational Standards and accelerating the process.

While this project will be led by SummitSkills, we will work collaboratively with related SSCs, such as E&U Skills and Asset Skills and with other key bodies.

Outcomes by March 2008

1. Relevant Training Provision and network for London established;
2. Labour market modelling option for London developed;
3. Interim” mapping” of recognised training programmes as part of the National Qualification Framework established;
4. All outputs will be linked to Sector Skills Agreements for London.
5. Review process and mechanism to refresh information and outcomes established.

The draft report is currently under review.

South West England

SummitSkills is currently being requested to develop a similar model for the South West region of England.

Scotland

SummitSkills is in discussion with partners within Scotland to ensure development of skills and provision to meet the strategies of the Scotland Government.
Highlands and Islands Enterprise
Scottish Enterprise
Scottish Further & Higher Education Forum on Renewable Energy.
Scottish Renewables.
Scottish Government Renewables Policy Unit
Scottish Government Construction Cross Party Group – Sustainability.
SNIPEF Renewables Group.

Wales

SummitSkills led the Welsh Assembly Government commissioned report on MicroGeneration in Wales. http://www.summitskills.org.uk/cgi-bin/go.pl/regions/article-details.html?uid=321

Northern Ireland

SummitSkills works with partners http://www.summitskills.org.uk/cgi-bin/go.pl/regions/article-details.html?uid=223 in Northern Ireland on the continued development of the provision for the environmental technologies through http://www.reinstalleracademy.org/ and other initiatives.

England Regions

SummitSkills is represented on a number of regional strategic energy and environmental groups.

- North East
- Yorkshire & Humberside
- North West — SSPA Energy, Envirolink NorthWest
- West Midlands — Climate Change Adaptation Partnership
- East Midlands — NTI (New Technologies Initiative).
- East of England — Renewables East
- South East
- London — London Energy Partnership

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