



# The status of microgeneration-related industries in the UK

This chapter identifies the UK industries that would need to be involved in the development of a significant market for microgeneration and looks at their capability to contribute and gain benefit from such developments.

## The linkage between microgeneration and UK industries

Many microgeneration projects involve the installation of standard products. This is certainly the case for domestic installations, though larger scale projects may require a separate design phase. The microgeneration industry therefore has three distinct components - product manufacture, design and installation. Since the products generate electricity, heat or hot water and often form part of a building there are also strong links to the plumbing and electrical industries, the construction industry and building design. These are industries that can have a significant impact on the development of a market through the inclusion of microgeneration technologies in their product offerings.

## Presence of microgeneration companies in the UK

There is little large scale manufacturing based in the UK. Most microgeneration technologies are not mass-produced in this country, relying instead on labour intensive processes or assembly in the UK or importing products from abroad (e.g. ground source heat pumps from

Sweden). This situation reflects the fledgling state of the market - it is unrealistic to expect companies to invest significantly in manufacturing facilities if the market is not yet in existence.

The installer market is highly fragmented. There are over 275 installers operating in the microgeneration sector, with an estimated average turnover of £62,000 per company<sup>36</sup>. This does not include companies operating in the microCHP and fuel cell markets - these are very different to other sectors with a just a few active companies employing significant numbers, reflecting the scale of the investment being made into these new technologies. It is estimated that there are between 200-600 jobs in the microgeneration sector (excluding microCHP and fuel cells). The growth in the number of installers has to a large extent been fuelled by the introduction of Government grant programmes in 2002.

The sales and marketing function remains, for the large part, under-developed. There are no nationally established brands such as those seen in other parts of the construction and household product industries

<sup>36</sup> EST Study: Potential for Microgeneration

and little significant marketing activity is undertaken by reliable companies. Again this reflects the early stage of development of the market. To a certain extent this is starting to change as large companies are indicating an interest in microgeneration. Centrica have tied up with Windsave to install 100,000 roof-mounted wind turbines, Scottish and Southern have stakes in Renewable Devices (manufacturer of micro-wind turbines) and Solar Century, Worcester Bosch are entering the solar hot water and ground source heat pump markets. As products that will be installed by domestic consumers as well as larger organisations, consumer confidence supported by product certification and accreditation is crucial.

Success stories in the industry have tended to be linked to the development of innovative products (i.e. the 'Plug n Save' roof mounted wind-turbine from Windsave) or the offering of innovative microgeneration solutions (the business through which Solar Century became 25th fastest growing technology company in the UK).

There is good coverage across all the microgeneration technologies - with all technologies represented to varying degrees. This suggests that the development of a sustainable market in microgeneration technologies will bring direct benefits to UK companies.



## R&D

Research and Development is an important part of any industry. There are significant funds available for R&D in microgeneration through UK Government programmes (including the DTI Technology Programme), the Research Councils, European Union initiatives and the Regional

Development Agencies. But responses to the consultation indicated that there is a lack of knowledge about available funds, what funding is for and how to apply for it.

**Action: DTI will produce a map of available funding, building on the Research Atlas being developed by the UK Energy Research Centre, together with guidance on how to apply.**

This will then inform further assessment as to whether R&D funding is being appropriately targeted.

## Route map

In order to ensure that the strategy remains relevant and continues to promote microgeneration technologies successfully, a detailed framework to guide the day-to-day implementation of the strategy is required. A route-mapping of all technologies will also give a clear indication of where R&D should be focused to develop next generation technologies and systems in order to develop UK expertise. This will highlight the areas where investment should be encouraged, either by UK companies or through inward investment.

**Action: DTI will work with industry to develop a route map for each microgeneration technology.**





## Skills

The UK has most of the technical expertise required for the creation of a sustainable market in microgeneration technologies. But there is little sense in encouraging the development of a market without ensuring that there is an appropriate skills base to support that market. Whilst the growth of a market will, to a

certain extent, drive the development of a skills base as people and firms are attracted by work opportunities, there is still a role for Government in ensuring that there is sufficient support and encouragement to support the skills base.

The Energy and Utility Sector Skills Council<sup>37</sup> recently undertook a functional and occupational mapping exercise of the renewable energy sector. The research concluded that there are no major skills shortages in the renewable energy sectors. But it does find that some traditional occupations (e.g. plumbers and electricians) which are also key to the development of the renewables sector, may come under increasing pressure as demand increases, not just from within the sector but from other developments within the economy such as major construction projects.

**Action: DTI will explore with the Sector Skills Councils what more can be done to ensure that the skills base develops to support the levels of demand that will hopefully be created for microgeneration technologies.**

The other significant issue for industry development is the education of the related industries mentioned above. They need to become comfortable with microgeneration technologies so that ultimately building design routinely incorporates microgeneration and, for example, plumbers are able to offer solar hot

water heating as part of the solution when asked to replace boilers.

## Summary box

- The microgeneration industry has three distinct components - product manufacture, design and installation. There are also strong links to the plumbing and electrical industries, the construction industry and building design.
- There is very little large-scale manufacturing industry in the UK, the installer market is highly fragmented and the sales and marketing function remains largely under developed. Success stories have tended to be linked to the development of innovative products and innovative solutions.
- There are significant funds available for R&D but there appears to be a lack of knowledge about available funds and how to apply for them.
- It is important to ensure that there is an appropriate skills base to support the growing market. The growth of a market will, to a certain extent, drive the development of a skills base but there is still a role for Government in ensuring that there is sufficient support and encouragement to drive the development of a skills base.

<sup>37</sup> [www.euskills.co.uk](http://www.euskills.co.uk)

