Editorial

Small is beautiful?

microgeneration is exciting politicians, utilities and investors alike

If small is beautiful, then the smallest must surely be close to perfection. Microgeneration is thus at the prettier end of the decentralized energy (DE) 'space', and is fascinating not only because it includes a range of emerging technologies racing for commercialization, but also because it offers a prospect of transforming the way in which energy is supplied to homes and other small buildings. It therefore represents a unique opportunity for power generation to become, for the first time, a mass market.

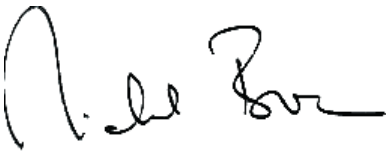
As with DE itself, microgeneration means different things to different people – so its definition is sometimes unclear. But the mass market opportunity implies the residential sector so we are talking here about 1–10 kWe systems, including micro-CHP and micro renewable systems such as photovoltaics and micro-wind.

Micro-CHP systems can be based on fuel cells, reciprocating engines, Stirling engines and (very small) microturbines and, as a package, can be about the same size as a domestic boiler or furnace. Indeed, it is this residential boiler market that represents the mouth-watering target for the product developers. While a small handful of products are already commercially available, the rest of the pack of 25 or so product developers are striving to bring to the market reliable products that can be manufactured in large numbers at a competitive unit cost and – crucially – that can cut customer energy bills.

Microgeneration is beginning to show itself to have a particular appeal to policymakers. Conventional cogeneration, which has been around for years, has traditionally scored close to nil on the energy attractiveness meter. In contrast, the emerging microgeneration sector is more photogenic, is new and has the potential for genuine popular appeal. In the European countries where the market prospects are particularly good (including Germany, the Netherlands and the UK), politicians seem to be on the point of identifying a DE technology that they are keen to be associated with. Significant policy incentives may well be close behind. In the meantime, proven, cost-effective (but conventional) commercial and industrial cogeneration systems miss all the fun. Policymakers continue to steer clear.

Microgeneration may have a similar impact on power companies. Utilities in most countries, with only a few notable exceptions, have traditionally seen on-site DE systems as an aggravation that should be discouraged, and they have been good at doing so. Microgeneration, however, presents a solution to the new and unfamiliar challenge of the liberalized market, at least in Europe – how to hang on to residential customers by improving the services they provide. A small number of power companies are making a genuine and positive commitment to microgeneration, which can only be a good thing for market prospects.

All this excitement is a breath of fresh air for the DE sector, one that is usually a lot less fashionable to politicians, utilities and the investment community than renewable energy. If it can also lead to a broader recognition of the commercial benefits of clean and efficient on-site generation of all sizes – for steel plants, refineries, paper mills, hospitals, hotels and shopping centres – that will be a spin-off benefit of great significance.



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