

The Closure of Microgen

A Body-blow for Micro-CHP?

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The world market for residential scale Micro-CHP capacity is tiny, yet Delta has documented over 25 products at various stages of development. Microgen, one of the front-runners, closed down in early 2007. This Research Brief explores the implications of this on the emerging micro-CHP market and gives some pointers to how the market may develop over the next few years.

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Microgen, a subsidiary of oil and gas company BG Group, was one of the leading European developers of a micro-CHP system, aiming to have a wall mounted 1 kW Stirling engine product on the European market in 2008. So the closure of Microgen, in January 2007, came as a body-blow to many in the micro-CHP sector.

There appears to be two reasons behind the closure - first, a change in how their parent company, BG Group, viewed the business; and second, an inability to find a partner to manufacture the core Stirling engine at the right cost.

The technology had been developed since the mid 1990s. In 2006 Microgen had announced partnerships with major UK and Dutch-based boiler manufacturers Baxi and Remeha to take their product to market. Many micro-CHP enthusiasts were pinning their hopes on Microgen.

We do not expect the technology to lie dormant at BG Group. The Stirling engine technology was licensed from Sunpower, and we understand that organisations are seeking to acquire this license from Sunpower, and the intellectual property developed by Microgen, in the near future.

Whether or not any new owner of the technology can keep to Microgen's target of launching their product in 2008 remains to be seen. This is likely to be a challenging timescale. But if a boiler manufacturer (or a consortium of manufacturers) is the new owner of Microgen's IP and the Sunpower license, then perhaps the technology will be at a better home than at the BG Group - for whom micro-CHP product development was a radically different activity from the rest of

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its business. The bottom line for any new owner, once a manufacturing partner is found, is deciding how aggressively to invest in volume production in order to lower prices.

23% Market Growth in 2006

Microgen was far from being the only micro-CHP product developer close to market. Indeed two companies' products - designed for individual households - are already being sold to home owners. Markets for slightly larger products with up to 5 kW capacity are also established, primarily in Germany.

Delta's research shows that some 21,600 units (comprising about 38 MW of generating capacity, up 23% in 2006, and a market size of around €150 million) were sold last year. These figures show strong, but not dramatic growth on 2005 figures, which amounted to 16,000 units and 31 MW of capacity. The 1 kW ECOWILL product in Japan accounts for the vast majority of sales, with SenerTec's 5 kW product accounting for a significant proportion of the total generating capacity.

27 Products Under Development

This steady market activity disguises a dynamic 'buzz' of activity among companies developing new micro-CHP products. In Delta's recent *2007 Annual Micro-CHP Market Roundup and Outlook* report, the status of 27 product developers was detailed, together with a comparison of their progress in 2006 and current targets against the targets given 12 months ago. Delta expects to see a small number of products enter markets in 2007 and 2008.

Despite the challenges in bringing product to market, the fundamental drivers towards the emergence of micro-CHP mass markets continue, in our view, to be strong. But the road to establishing such markets will continue to be a bumpy one. Some product developers will fail, others will miss commercialisation targets, and unexpected lessons will continue to be learnt.

We see, however, sufficient desire from the heating industry, utilities and end customers to give confidence that micro-CHP markets will grow strongly if - or once - new products successfully bed down in the market.