

Global Annual Micro-CHP Sales Fall Despite Growth in Germany

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Delta's annual review of the micro-CHP market shows that in 2009, annual sales fell to 20,930 units but in terms of power generation capacity the market size actually grew to 37.8 MWe of capacity. The 2009 market was worth some €269 million.

Japan remained the only market where products suitable for single-family homes are widely available, with product launched in the north-eastern US. In Europe commercial activity was focussed on 5 kWe products better suited to small businesses and multi-family homes.

Key highlights of market activity include:

- Sales of the Honda internal combustion engine based ECOWILL product contracted in Japan in response to the economic crisis and growth in all-electric homes. The Honda ECOWILL system is the most sold micro-CHP appliance in the world. The Honda engine is at the heart of the FreeWatt product now available in the US, and a system being trialled by Vaillant in Europe for launch in 2011.
- The commercial launch of Proton Exchange Membrane (PEM) fuel cell micro-CHP systems in Japan – over 5,200 systems were sold, also eating into Honda ECOWILL sales.
- Despite a fall in Honda ECOWILL sales in Japan, global micro-CHP capacity and market value grew due to an excellent year for larger 5 kWe internal combustion engine systems from SenerTec (owned by Baxi) and PowerPlus Technologies (owned by Vaillant) in Germany, on the back of new and attractive subsidies.

After many years of unfulfilled promise, residential micro-CHP in Europe has finally become a commercial reality in 2010, led by Stirling engines from BDR Thermea (the new company formed by the merger of Remeha and Baxi) and the Efficient Home Energy (the joint venture between Whisper Tech and Mondragon). These companies have units coming off serial manufacturing and assembly facilities in place, and are ready to ramp up production volumes.

Japan will continue to lead on fuel cell micro-CHP sales and development – building on PEM fuel cell market introduction and demonstration of Kyocera's solid oxide fuel cell (SOFC)

technology. In Europe Hexis and Baxi are currently at the forefront of European efforts, each trialling tens of systems – nearly all in the German market.

Delta's *Micro-CHP Annual Roundup 2009 and Outlook Report* is available for subscribers of the Micro-CHP Service.

Please contact David Morgado (david.morgado@delta-ee.com, +44 131 625 3213) if you have any questions regarding the report or Delta's Micro-CHP Service.

For more on the Delta's micro-CHP service, also visit www.delta-ee.com/studies_and_services_micro_chp.asp.

Notes

1. Delta defines micro-combined heat and power (micro-CHP) as generating 5 kW of electricity or less.
2. Delta Energy & Environment provides commercial insight and market expertise in decentralised energy and low carbon strategies. Delta has been analysing global micro-CHP markets since 2004, and advises utilities, manufacturers, investors and policy makers. For more information visit www.delta-ee.com.