

Arbor ElectroGen is a proven, biomass-fuelled combined heat and power system that delivers cost-effective, low-carbon heat and power for a variety of applications.

Project Reference List

Up until 1963, gasification technology in the German industrial environment was quite common place. Quite simply there was a shortage of natural gas. To satisfy this demand, approximately 15,000 gasifiers for a variety of applications were manufactured built by KHD/Deutz.

Naturally, a huge amount of experience was gained during this period and KHD used this knowledge to best effect with various modifications to the design improving efficiencies of the process.

During the 1960s - with the availability of relatively cheap crude oil and latterly the availability of gas from Siberia - the technology simply became uneconomic and at this stage the manufacture ceased.

After the oil crisis in 1980 KHD / Deutz re-introduced the technology and improved the system and processes involved with levels of automation and integration of control technology. Unfortunately pure economics, with falling oil prices, impacted the commercial attractiveness of the technology and KHD/Deutz took the decision to sell the technology. Johannes Ferges (Technical Director of gasification at KHD) and Jack McDevitt (entrepreneur) bought the technology from KHD and A.H.T. was founded. With over 20 years continuous development, and several world-wide patents later, the truly automated and commercialised units were launched.

2006 saw a tremendous upturn in the demand for the technology as once again, political instability and fossil-fuel based energy costs escalated. Since then continuous improvement of the technology, adapting to the application in the market place has followed, including the formation of strategic relationships with Lindenberg Anlagen who package the complete modular systems, and LowC Communities Ltd who are actively developing the applications for markets where Renewably-fuelled energy efficient production and carbon reduction are key focus elements of the investment process. In 2010 LowC acquired exclusive marketing rights for the technology in UK & Ireland.

The highly abridged version of the reference list detailed below serves only to revalidate how successful the recent applications have been, whilst the development timeline is in our opinion, unquestionably, the most thorough in the world.

Year of Delivery	Country	Gasifier Output (MW Thermal)	Engine Output (kW Electrical)	Fuel Type	Commercial / Research	Containerised
2009	Germany	0.4	100	Natural Wood	C	
2009	Germany	0.4	80	Natural Wood	C	Y
2009	Germany	0.5	150	Natural Wood	C	
2008	Germany	0.5	150	Natural Wood	C	
2008	Japan	0.3	65	Fungi Residues	R	
2008	Germany	1.5	1000	Natural Wood	C	
2007	Germany	0.5	150	Natural Wood	C	
2007	Germany	0.8	250	Natural Wood	C	
2007	Germany	0.5	150	Natural Wood	C	
2007	Germany	0.8	250	Waste Wood	C	
2005	Japan	0.3	25	Natural Wood	R	
2005	Belgium	1.5	500	Natural Wood	R	
2004	Germany	0.1	20	Wood Chips	R	
2000-03	Germany	0.8	180	Ind & other waste	R	
2001	Austria	0.5	100	Wood Chips	C	
1996	Switzerland	0.6	80	Contaminated Wood	R	
1995	Germany	0.1	25	Garden Residue	R	
1989-92	Netherlands	0.8	240	Sewage Sludge	R	
1985	Germany	1.6	430	Saw Mill Residue	C	
1984	Brasilia	0.5	80	Rice Husks	C	
1984	Brasilia	1.0	200	Tropical Wood	C	
1984	Costa Rica	1.0	200	Tropical Wood	C	

LowC Communities Ltd,

Lodge Farm, Aunby, Stamford, Lincolnshire, PE9 4EE, United Kingdom.

T. +44 (0)1743 590 074 | info@lowc.co.uk | www.lowc.co.uk