

Case Study



Calvert Landfill Site



Clarke Energy turnkey supply and expansion to the Calvert 14MWe Power Station

Client	Capacity	Location	Operational
WRG	14MWe	Calvert LFS, Buckinghamshire	January 2003

Manufacturer	Packager	Type	Primary fuel
GE Jenbacher	Clarke Energy Ltd, UK	5 x 2.4MWe JGS 620 GS-L.L 2 x 1MWe JGC 320 GS-L.L	Landfill Methane

Clarke Energy undertook this project in association with Shanks, and McLellan and Partners as consultant engineers, during the middle of 2002. The site, previously wasteland, was raised from the ground encompassing the design, project management and installation.

At the heart of the power plant are five GE Jenbacher lean burn, pre-combustion chamber spark ignited engines in individually soundproofed compartments. These provide high reliability and efficiency coupled with latest technology emissions control and each has a power output of 2.4MW.

The power station itself was designed to incorporate the latest control and performance standards. In particular, very low internal and external noise levels have been achieved, providing better working conditions for operators and less impact on the environment.

One of the practical features among many modern design highlights is a saving on servicing time by bringing oil tanks inside the warmer building and thereby speeding up pumping operations.

Change of site ownership to WRG led to further expansion in 2005 with the installation of two containerised 1MW units. Full design, installation and commissioning were seamlessly undertaken underlining the benefits of Clarke Energy's involvement during the original design and construction.

Under the operation and maintenance contract Clarke Energy is responsible for all areas of the engines availability and through life maintenance.



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