

Annual Environmental Report for Waen AD Plant for 2014

Permit No: EPR/DP3735NP

This report covers the period from 16th January 2014 (Permit issue date) to 31st December 2014 however, the plant has only been operational since June. The site has one CHP engine: a 1,067KWe Jenbacher CHP. Emission testing was only conducted in January 2015 and results will be reported separately.

Gas quality is measured as part of the daily monitoring checks carried out at the plant. The average methane content of the biogas during 2014 was 60.3% indicating that the process is working well and producing a good quality biogas for combustion through the CHP.

The engine ran for a total of 3,936 hours (85.9% availability). The site also has a standby boiler which is used as a back-up to the engine. The boiler ran for a total of 142 hours across the period and the surplus gas burner was utilised for 176 hours (June – Dec 2014) which equates to 2.0% of the total available operational hours for the year.

The site generated a total of 2,964MWh; this is the total generation before the parasitic load has been removed. The plant exported 2,728MWh with a parasitic volume of 236MWh used on site equating to 5.9% of the total generation.

Monthly analysis of water usage is presented in reports which are distributed to the Operations Team, including the Operations Director and the Site Manager. These reports provide a weekly breakdown of the usage for the month detailing any extraordinary events that may have affected the water usage. The purpose of the reports is to raise awareness of the water consumption on the site to allow the Site Manager to reduce water consumption wherever necessary.

The water usage data for 2014 shows the value of recycling grey water at the plant. The total water usage at the facility for the period is 634.7m³, recycled from the rainwater harvesting tank 95.3m³, 402.3m³ reused from the bund (mostly captured rainwater). The remaining volume (137.1m³) was mains water.

Since opening the plant has undergone improvement work to better the quality of the digestate. Waen is undergoing the digestate sampling required for PAS 110 and the final audit is scheduled for February 2015. Internal and external surveillance audits will be regularly carried out.

BIOGEN's Integrated Management System is certified to ISO 14001, ISO 9001 and OHSAS 18001 standards and was audited by an external auditor. Internal and external surveillance audits will be regularly carried out.