

Annual Environmental Report for Bryn Pica AD Plant for 2015
Permit No: EPR/SP3537SQ

This report covers the period from 10th December 2014 (Permit issue date) to 31st December 2015 however, the plant has only been operational since 5th May 2015.

The site has one CHP engine: a 1,189KWe Jenbacher CHP. The first emissions test is scheduled for late April 2016 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 the reporting period was 60.6% 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 4,970 hours (87.7% availability) during the period. The site also has a standby boiler which is used as a back-up to the engine and to utilise any surplus biogas to supplement heating of the process. The boiler ran for a total of 5,620 hours across the period and the surplus gas burner was utilised for 324 hours (May – Dec 2015) which equates to 5.5% of the total available operational hours for the year. The flare was utilised extensively during May 2015 when the plant was in its commissioning phase, the flare is required during this phase until the gas quality is of sufficient quality to supply the CHP. The site generated a total of 5,184.99MWh; this is the total generation before the parasitic load has been removed. The plant exported 4,474.78MWh with a parasitic load of 360MWh used on site equating to 6.9% 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 2015 shows the value of recycling grey water at the plant. The total water usage at the facility for the period is 1,643m³, recycled from the rainwater harvesting tank 318m³ and 1,325m³ reused from the bund (mostly captured rainwater). The site has yet to be connected to the mains water supply.

Bryn Pica is not yet certified to PAS 110 but the audit is booked for the 23rd February. BIOGEN's Integrated Management System was re-certified to the ISO 14001, ISO 9001 and OHSAS 18001 standards during the year. Internal and external surveillance audits continue to be regularly carried out.