

Annual Environmental Report for Bryn Pica AD Plant for 2022
Permit No: EPR/SP3537VQ - PC 4.2.2

This report covers the period from 1st January 2022 to 31st December 2022.

The site has one CHP engine: a 1,189KWe Jenbacher CHP. The engines emissions test was carried out in November 2022. All parameters were compliant and passed within the required limits.

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 (2022) was 60.7% and this indicates the process is working well and producing a good quality biogas for combustion through the CHP, and is stable compared to last year's composition.

The engine ran for a total of 7,618 hours (86.9% availability) during the period; this reduction is due to a major service of the CHP that was completed during the year. 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 surplus gas burner was utilised for 475 hours which equates to 5.42% of the total available operational hours for the year.

The site generated a total of 8801.1 MWh compared to 9837.7MWh (2021); an decrease on total generation year on year. This was due to the planned maintenance completed on the CHP during the year which took the equipment offline for a period of time, but is completed to improve the performance and longevity of the engine.

The plant exported 8083 MWh compared to 9076.2 MWh (2021) with a parasitic load of 213.62 MWh used on site, equating to 2.43% of the total generation.

The total water usage at the facility was 2027m³; of this, 349m³ was from the main water supply. The remainder was harvested rainwater which was reused in the process.

Bryn Pica continues to maintain its PAS 110, ISO 14001, ISO 9001 and ISO 45001 standards. The site is certified to the Competence management scheme (CMS) V4 standard certification. Internal and external surveillance audits continue to be regularly carried out.