



Permit Number: AB3092ZE

Operator: Bryn Power Limited

Facility: Gelliargwellt Farm Anaerobic Digester Facility

Form Number: WaterUsage1 / 10/06/21

Reporting of Water Usage for the year 20.01.24 to 20.01.25

Water Source	Usage (m ³ /year)	Specific Usage (m ³ /unit output)
Mains water	1347.23	0.23
TOTAL WATER USAGE		

Operator's comments:

See end.

Signed

(authorised to sign as representative of Operator)

Date.....31.01.2025.....



Permit Number: AB3092ZE

Operator: Bryn Power Limited

Facility: Gelliargwellt Farm Anaerobic Digester Facility

Form Number: Energy1 / 10/06/21

Reporting of Energy Usage for the year 20.01.2024 to 20.01.25

Energy Source	Energy Usage		Specific Usage (MWh/unit output)
	Quantity	Primary Energy (MWh)	
Electricity *	MWh	235 (own produced)	0.04
Natural Gas	MWh	n/a	
Gas Oil	tonnes	n/a	
Recovered Fuel Oil	tonnes	n/a	
TOTAL	-		

* Conversion factor for delivered electricity to primary energy = 2.4

Operator's comments:

See end.

Signed ... 
(Authorised to sign as representative of Operator)

Date.....31.01.2025.....



Permit Number: AB3092ZE

Operator: Bryn Power Limited

Facility: Gelliargwellt Farm Anaerobic Digester Facility

Form Number: Air 1 / 17/08/22

Reporting of emissions to air for the period from 20/01/2024 to 20/01/2025

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
A1 CHP Exhaust (Jenbacher Engine) ^[5]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	500mg/m ³	Hourly mean	256	BS EN 14792	26.11.24 12:45 – 13:45	14.5
	Carbon monoxide	1400mg/m ³	Hourly mean	946	BS EN 15058	26.11.24 12:45 – 13:45	53.8
	Sulphur dioxide	350mg/m ³	Hourly mean	73.7	BS EN 14791	02:12:24 10:52 - 11:52	4.2
	VOC's	2000mg/m ³	Hourly mean	1388	BS EN 12619	26.11.24 12:45 – 13:45	73.3
A2 Flare Stack ^{[5],[6]}	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	No limit set	Hourly mean	n/a	BS EN 14792		
	Carbon monoxide		Hourly mean	n/a	BS EN 15058		
	Sulphur dioxide		Hourly mean	n/a	BS EN 14791		

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
	VOC's		Hourly mean	n/a	BS EN 12619		
A5 CHP Exhaust (Edina Engine) ^[5]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	500mg/m ³	Hourly mean	466	BS EN 14792	26.11.24 10:53-11:53	26.1
	Carbon monoxide	1400mg/m ³	Hourly mean	818	BS EN 15058	26.11.24 10:53-11:53	46.3
	Sulphur dioxide	350mg/m ³	Hourly mean	69.6	BS EN 14791	02.12.24 09:22 – 10:22	4.1
	VOC's	2000mg/m ³	Hourly mean	820	BS EN 12619	26.11.24 10:53-11:53	43.1
A6 Carbon filter on the processing liquid tank	Ammonia (NH ₃)	20 mg/Nm ³		<0.067 0.10	EN ISO 21877	12.03.24 11:00-12:00 17.07.24 11:18-12:18	0.012 0.02
	Hydrogen sulphide (H ₂ S)	No limits set		<1.3 472	US EPA Method 11 (Impinger method) or CEN TS 13649 (Charcoal tube), US EPA Method 15	12.03.24 11:00-12:00 17.07.24 11:18-12:18	0.12
A7 Biofilter serving the waste reception building	Ammonia (NH ₃)	20 mg/Nm ³		<0.067 0.91	EN ISO 21877	12.03.24 09:30-10:30 17.07.24 09:39 –10:39	0.012 0.16
	Hydrogen sulphide (H ₂ S)	No limits set		<1.3 16.9	US EPA Method 11 (Impinger method) or CEN TS 13649 (Charcoal tube), US EPA Method 15	12.03.24 09:30-10:30 17.07.24 09:39 –10:39	0.12 1.5
A9 Covered	Ammonia (NH ₃)	20 mg/Nm ³		-Not tested,	EN ISO 21877		

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
digestate lagoon vents				unavailable to access			
	Hydrogen sulphide (H ₂ S)	No limits set	-	-Not tested, unavailable to access	US EPA Method 11 (Impinger method) or CEN TS 13649 (Charcoal tube), US EPA Method 15		

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.


[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with Natural Resources Wales is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

[5] The measurement uncertainty specified in LFTGN08 v2 2010 shall apply

[6] Monitoring of flare emissions is only necessary when the flare operated in excess of 10% of the time

Signed 
 (Authorised to sign as representative of Operator)

Date.....24.01.2025.....



Permit Number: AB3092ZE

Operator: Bryn Power Limited

Facility: Gelliargwellt Farm Anaerobic Digester Facility

Form Number: Performance 1 / 17/08/22

Reporting of other performance indicators for the period 20.01.24 to 20.01.2025 effective from 17 August 2022

Parameter	Units	
Total raw material used	n/a	tonnes
Total amounts of waste treated	29,535.29	tonnes
Biogas produced by AD Facility	2517492.8	m ³
Power output - electricity	5974	MWh
Energy efficiency	0.002373	MWh/m ³ biogas
Electrical energy exported to the grid	4077.2	MWh
Electrical energy drawn from the grid	58.5	MWh
Operational time of emergency flare	0.00	%
Amount of gas sent to emergency flare	0	m ³
Generation of residue waste	372.14	tonnes
Generation of wastewater	n/a	m ³



Operator's comments:

The AD industry is gearing up for changes head with the English countries finally starting to move towards food waste collection.

We have seen increases in waste tonnages from CCBC following a lot of promotional work and from the workplace segregation regs starting.



Signed
(Authorised to sign as representative of Operator)

Date.....31.01.2025.....



Permit Number: EPR/AB3092ZE

Operator: Bryn Power Limited

Facility: AD Facility at Gelliargwellt Farm

Form Number: Water 1 / 11/02/20

Reporting of emissions to water (other than to sewer) and land for the year 20.01.24 to 20.01.25

Parameter	Units	Result
Batches of water tested for discharge criteria (ammonia, and/or visual check)	number	29
Batches of water passed all tests and discharged to W1 soakaway	number	29
Batches of water failed one or more test not released to W1 soakaway	number	0

Signed
(Authorised to sign as representative of Operator)

Date.....31.01.2025.....