

Form WRD: Application for a new abstraction licence or a technical variation to an abstraction licence

Application type

Reference number (The number you generated in form WRA). Example:
WRNATURALRESOURCESWALES1101

WROWENENVIRONMENTAL2002

For hydropower abstractions, specify the capacity (in kilowatts) of your scheme.

>100kW

Are there any applications currently being assessed by us that are linked to this application?

No

Is the proposed abstraction going to be aggregated with another existing abstraction?

No

Are any applications, at the same site; being assessed by the Environment Agency?

No

Tell us when you want your abstraction licence to end: [DD/MM/YY]

16 years from issue: approximately June 2042

If you require a shorter or longer duration licence, please provide details and your justification

The Meirionnydd CAMS document states licences will only be issued to 2030, only 4 years from now. So we request the licence be valid until 2042 (4 years plus the additional 12 years to the end of the next CAMS period), and with the presumption of automatic renewal under the same terms at that time.

Abstraction details

Abstraction location name/reference

Intake

Abstraction point type

Single point

National Grid Reference

267960, 316970

Do you have any further points of abstraction?

No

Means of abstraction

Provide full details of the equipment you propose to use to abstract water, such as maximum pump capacity and any relevant dimensions, e.g. pipe diameter. For groundwater abstractions, include details about the borehole (depth and diameter) and details of screening and lining.

Modify existing weir to include new coanda intake screens and improved fish bypass channel. Install new larger 900mm diameter pipeline between weir and turbine.

If necessary, continue on a separate sheet and upload below.

- File: AH03 Rev B Abergwynant Hydro Weir Refurbishment Plan 12th Feb 2026.pdf - [Download](#)
- File: AH04 Rev B Abergwynant Hydro Weir and Wingwall Elevations C&D 12th Feb 2026.pdf - [Download](#)
- File: AH05 Rev B Abergwynant Hydro Fish Bypass Channel Elevations E,F,G,H 12th Feb 2026.pdf - [Download](#)
- File: AH06 Rev B Abergwynant Hydro Weir Sections A-A & B-B 12th Feb 2026.pdf - [Download](#)
- File: AHC01 Abergwynant Hydro Residual Flow Calculations rev B 12th Feb 2026.pdf - [Download](#)
- File: AHC02 Abergwynant Hydro Bypass Channel Depth Calculations Rev B 12th Feb 2026.pdf - [Download](#)
- File: AHD01 Abergwynant Hydro Supporting Information Rev B 12th Feb 2026.pdf - [Download](#)
- File: AH07 Rev A Abergwynant Hydro Outfall Details 20th March 2023.pdf - [Download](#)

Abstraction quantities

Abstraction location name/reference

Intake

What purpose will the water be used for?

Hydropower

Period of abstraction

Will it be all year?

Yes

Maximum quantities (cubic metres)	
Annual	20,796,530
Daily	95,040
Hourly	3960

Peak abstraction rate (in litres per second)
1100

Number of hours of abstraction per day
24

Add quantities for another location?
No

Calculations and supporting information

<p>Use this section to show us how you have calculated the amount of water you require. This should include details of your operational regime (for example, number of hours and days you intend to abstract, number of units produced or area to be irrigated). We use this information to determine if the volumes you propose to abstract are appropriate for the purpose. Depending which industry you are in, you may need to provide additional information below.</p> <p>If your proposal involves the provision of a residual flow via a notch or orifice, provide information on how this is being calculated. This should include details of the equation being used.</p>
Please see Calculation Sheet AHC01

Industry-specific requirements

	% abstraction and zone applied for	Average gradient of depleted reach (%)	Catchment size above abstraction point (kilometres squared)	Net head between abstraction and discharge points (metres)
	Zone 2: Agreed variable abstraction above ~Q77 residual	4.8%	18.14	21.5

	Turbine efficiency (%)	System efficiency (%)	Maximum power output (kilowatts)	Annual capacity (kilowatt hours)
	82% (tbc)	70%	168	513,000

State the length of depleted reach (in metres)

510

Provide the flow data (in cubic metres per second) & ratios specified below:

Q95	0.111
Q10	2.925
Qmean	1.184
What is the ratio of Q95:Qmean?	0.094
What is the ratio of Q10:Qmean?	2.47

What low flow protection (Low flow protection is the flow rate above which abstraction can begin and is separate to the abstraction % take) do you propose to maintain in the depleted reach when the hydropower scheme is operating (in m³/s)?

245 l/s, approximately Q77

Means of measurement

State how you intend to measure the quantity of water you abstract. You do not need to do this for a temporary or transfer licence.

Power Generated

Water efficiency

Provide details of what measures you provide or intend to implement, to ensure efficient use of water. This could include water storage, re-use or recirculation, monitoring and checking for leaks, undertaking water audits or other industry specific good practice.

100% of all water abstracted is discharged back into the river. Equipment is sized and specified to be as efficient as possible.

Fish and eel considerations (surface water abstractions only)

Does your proposal include measures to safeguard fish and eels? Only provide details of outfall screening if abstracted water is to be discharged back into a watercourse. For further guidance on appropriate screening Intake screening for fish (opens in new tab)

	Intake	Outfall
Type of fish screen	Coanda	Bar screen
Screen aperture size (mm)	2	30mm

Confirm the fish species present at your site. If you're not proposing any measures to protect fish and eels, you must justify this. For example, we may have confirmed in our pre-application response that the intake is inaccessible to fish or you undertook a fish survey to confirm.

Salmon, sea trout, brown trout, eels

Discharge details

If you intend to return any of the abstracted water to the environment, provide details below. Details of discharge location(s) should correspond with any maps submitted. Do not include discharges to a public sewage system.

	Discharge location name / reference	National Grid Reference of discharge point (12 digit)	Total volume to be discharged (cubic metres)	Environmental Permit for Water Discharge Activity number (if applicable)
	Outfall	267645,317330	Same as abstracted (100%)	N/A
	-	-	-	-
	-	-	-	-
	-	-	-	-

Provide a description of the structure and equipment involved in discharge.

The existing pipe and outfall screen between the turbine powerhouse and the river will be replaced with new buried pipes, and new screen with 30mm aperture. See Outfall Drawing AH07.

Other abstractors / water users

Provide details of nearby abstractors or users of water who could be affected by your proposal. This should include deregulated users (exempt activities or abstractions < 20 cubic metres per day), anglers and canoeists. Your local authority's environmental health will hold details of exempt domestic abstractors.

According to the NRW preapp response in 2014, there is a deregulated abstraction (<20m³/day) to Ty Gwyn farm. Owen Renewables Ltd have spoken to the owners of Ty Gwyn and they have confirmed the abstraction is no longer in use.

Planning application

Have you sought advice on your planning application?

No

Declaration

By signing below, you are declaring that, to the best of your knowledge; the information given in this form, on any map and in any supporting or additional information; is true.

Signed John Howarth

Print name John Howarth

position Agent

If an agent is to sign on behalf of the Licence Holder, a letter of authorisation from the Licence Holder is required.

- File: Owen Renewables Authorisation Letter.jpg - [Download](#)

Date

* 20/02/2026

Submit your application

Enter your email address to get a copy of your application

jhydro@googlemail.com