

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

WRDCGE1105

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

25kW or less

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

Yes

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

No

Linked applications

Please confirm how this application is linked to the other application(s)

Example: this application could be one of multiple abstractions and/or impoundment licence applications at the same site. The proposal could involve water rights trading, or this application could be linked to another application for a previously exempt activity.

We have completed a form WRA with general details related to ourselves (Dyffryn Crawnon Green Energy CIC) and will soon be completing a form WRE for an impoundment licence.
All applications have used/will use the same reference WRDCGE1105.

Linked application numbers

WRDCGE1105

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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]

31/03/2042

Abstraction details

Abstraction location name/reference

Nant-y-Wenynen Hydro

Abstraction point type

Single point

National Grid Reference

SO 11840 18747

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.

This to be read with comments and uploaded files included in WRA application with the same WRDCGE1105 reference.
We will not reload the files here other than the cover letter that explains the micro hydroelectric project.

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

- File: A 09001 NRW App Covering Letter.pdf - [Download](#)

Abstraction quantities

Abstraction location name/reference

Intake

What purpose will the water be used for?

Micro hydroelectric

Period of abstraction

Will it be all year?

Yes

Maximum quantities (cubic metres)

Annual 329216

Daily 1786

Hourly 75

Peak abstraction rate (in litres per second)

20.67

Number of hours of abstraction per day

24

Add quantities for another location?

No

Calculations and supporting information

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.

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.

See attached file Document C: Supplementary information for NRW forms.
Also this to be read with comments and uploaded files included in WRA application with the same WRDCGE1105 reference.

Additional document. (Spreadsheet file formats need to be: .xls, .xlsx, or .ods)

- File: C 09001 Supplementary Information for NRW Forms.pdf - [Download](#)

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)
	70% and Zone 3	22%	0.618	130.52

	Turbine efficiency (%)	System efficiency (%)	Maximum power output (kilowatts)	Annual capacity (kilowatt hours)
	88.31	88.31	20.64	69421

State the length of depleted reach (in metres)

610

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

Q95 0.0047
Q10 0.0454
Qmean 0.02067
What is the ratio of Q95:Qmean? 0.227
What is the ratio of Q10:Qmean? 2.196

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)?

0.0047

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.

It is the intention that all abstracted water will pass through the turbine to produce electricity.

On a regular basis (probably weekly):

- 1) The intake will be inspected to ensure there are no blockages on the weir or through the abstraction screen, and that the hands of flow is working properly.
- 2) the penstock will be inspected for leaks and movement.
- 3) the performance of the turbine will be assessed.

On a regular basis (probably annually):

- 4) the turbine and its control system will be given an annual level service.

Ultimately all water will be returned to the watercourse so there is no permanent loss of water from the larger catchment, just over the length of the depleted reach.

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	None	possible brown trout
Screen aperture size (mm)	maximum 3mm circular holes	Maximum 12mm mesh

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.

See 'Document F: 2011 EA letter with relevant comments for 2026 applications' that was uploaded as part of form WRA. In this letter EA noted no fish are expected to reach the intake and only brown trout may be present in the vicinity of the outfall.

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	SO 12265 18446	peak of 0.02067 m ³ /sec	n/a
-	-	-	-
-	-	-	-
-	-	-	-

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

300mm diameter pipe leading from the turbine house sump the short distance (about 5m) back to the watercourse.

All potential energy will have been taken out of the water by the turbine so the speed of water flow back into the water course will be minimal.

End of pipe will be screened with stainless steel mesh (minimum 10mm wire spacing both ways).

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.

There are no other nearby abstractors or users of water who could be affected by this proposal.

Planning application

Have you sought advice on your planning application?

Yes

Submit a copy of the Planning Authority's response.

- File: 09001 Planning Permission 2013.pdf - [Download](#)

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 Bertie Thewes
Print name Bertie Thewes
position Director Dyffryn Cwannon Green Energy CIC

Date

* 08/05/2026

Submit your application

Enter your email address to get a copy of your application

bertiethewes@yahoo.co.uk