

# FORM WRA: Applicant details and proposal outline

## Application type and fee

Please generate a reference number. It should start with "WR" followed by your organisation or company name and today's date in four-digit format (DDMM) without spaces or punctuation.

Example: WRNATURALRESOURCESWALES1101

Please use this use this number throughout this application. This reference number can also be used for your BACS reference if paying electronically.

WRGREENBLADESENGINEERING1903

For the application types listed, complete this form and/or the relevant additional forms named below. Tick the type of application you are applying for. Please refer to our Find out if you need a licence web-page for an explanation for the different licence types. If your proposal involves multiple licence types, tick all that apply.

See our Charges for abstraction and impoundment applications web page for details of application fees and how to pay.

New full abstraction licence. Also complete form WRD.

New impoundment licence. Also complete form WRE.

Please indicate how you wish to pay your application fee. If paying by BACS, please quote the reference number created in question 1 when setting up the bank transfer.

If paying by cheque, please ensure you add the six digit cheque number below.

BACS

Please add your BACS reference below

WRGREENBLADESENGINEERING1903

## Applicant details

Applicant type

Limited company

Applicant details

**Full Name** Mark Sealy

**Company, Charity or Trading Name** Green Blades Engineering Limited

**Company or Charity Registration Number** 10238063

#### Applicant Registered Address

**Line 1** Maple Corner 2 Jacksons Meadow  
**Line 2** Bidford On Avon  
**Line 3** Alcester  
**Line 4** Warwickshire  
**Postcode** B50 4HQ

#### Applicant Contact details

**Office Telephone Number** 07305 239709  
**Mobile Telephone Number** 07305 239709  
**Email Address** greenbladeseng@gmail.com

Please indicate who we should contact regarding operation of your site, this should be the person responsible for the day to day running of the operation.

	Applicant	Agent
Site operations contact	X	

For applications for abstraction licences, please also specify who we should contact for invoices and abstraction records (returns).  
Not necessary for temporary or transfer licence applications.

	Applicant	Agent
Invoice address	X	
Abstraction records contact	X	

### Details of agent or individual authorised to act as application contact

#### Use applicant contact details

No

#### Application details

**Full Name** Liam Brown  
**Company, Charity or Trading Name** Greenearth Hydro Limited  
**Position in Company** Managing Director

#### Applicant Registered Address

**Line 1** Siop Newydd  
**Line 2** Rhiw  
**Line 3** Pwllheli  
**Line 4** -  
**Postcode** LL53 8AE

#### Applicant Contact details

**Office Telephone Number** 01691648378  
**Mobile Telephone Number** 07980670046  
**Email Address** liam@greenearthhydro.co.uk

### Entitlement to apply (not required for impoundment licence applications)

Does the applicant have a legal right of access to the point of abstraction?

Has an expected right of access

Date these access rights are expected

\* 01/05/2023

Site map showing abstraction points

- File: 220730LB01-v4 Site layout (A1).pdf - [Download](#)
- File: 220923 Brithdir Forest Hydro Lease Option Agreement Signed.pdf - [Download](#)

For abstraction licence applications where you are the landowner, provide a map with the land boundary and all abstraction and discharge point(s) marked.

Please tick here to show that you have done this.

For expected rights of access, please also provide the additional evidence as outlined above.

Please tick here to show that you have done this.

### Pre-application number

Have you undertaken a pre-application enquiry or had any previous discussions with us?

Yes

Provide reference number or staff member's name

PAN-019442 & PAN-019443 (Deri McDonagh)

## Remediation work

Is this proposal as a result of a Restoring Sustainable Abstraction programme or other work requested by us?

No

## Source of supply

State where you intend to abstract from

Surface Water. e.g. Stream, leat, spring

Provide a 12 digit National Grid Reference for the proposed or existing abstraction or impoundment point (e.g. ST 19057 76826)

SH 79433 18557

Source of supply (name of watercourse or aquifer)

Nant Helygog

Site name / reference  
(e.g. Tŷ Mawr Farm)

Brithdir Forest Hydro

## Proposal summary

Please provide an outline of your proposal, including any sketches.

As a guide, you should include: a description of the activities which (will) take place at your site, the means of abstraction/impoundment proposed, if the proposal is related to another licence or permit (i.e. an Environmental Permit to Discharge Water) and details of any survey work undertaken. For changes to existing licences, summarise the changes proposed. Sketches or photographs that will aid our understanding of your proposal can be uploaded below.

A 34kW hydropower scheme is proposed which will produce approximately 175,000kWh per year, the annual requirement of 60 average UK homes. This will be a grid connected scheme. One intake weir is proposed on the Nant Helygog (at SH 79433 18557). The intake weir will have a coanda screen with 1.3mm apertures. A 280mm diameter black HDPE welded pipe (penstock) will run from the intake weir to the power house (at SH 79200 19608) and will be approximately 1,107 metres long. The turbine type proposed is a turgo. The power house will be a standard shipping container with its floor level approximately 8.1m above the bedrock in the watercourse adjacent to the outfall. The turbine will be turned on and off automatically depending on the water level in the intake chamber. The flow rate, and hence the turbine's power, will be modulated using a spear valve on the turbine.

A 'hands off flow' (HOF) rectangular notch will be incorporated in the intake weir and, until the HOF has been satisfied, no water will be abstracted. In addition to this, the proportional take, in excess of the HOF, is proposed to be 70% and this will be ensured by the screen's width being 70% of the full weir crest's width.

The abstracted water will be discharged back into the same watercourse via a head wall & stilling well structure (outfall) at SH 79111 19619.

## 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** Mark Sealy

**Print name** MARK SEALY

**Position** Owner

Date

\* 20/03/2023

Would you like a copy of your submission?

Yes

Your email address

greenbladeseng@gmail.com