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Planning Statement

Ref: 231208PS-v1 (08/12/2023)

Project: Hydropower scheme for Ifan W. Jones at Tŷ Mawr, Mallwyd, SY20 9HS

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1 Introduction

The proposal is to build a 34 kilowatt micro-hydro scheme at Ty Mawr farm, Mallwyd. It will produce an estimated 124,000 kWh (units) of electricity per year sufficient for 43 average UK homes and a 26 tonne reduction of carbon dioxide emissions annually. *(Average UK home uses 2,900 kWh/yr according to Ofgem's 'Typical Domestic Consumption Values' for 2020. Government figures for 2021 for emissions from electricity production: 0.21233kg CO2e per kWh)*

This planning application seeks permission for:

- The construction of a new intake weir across the full width of the watercourse
- A building to house the turbine and generator (power house)
- A pipe (penstock) from the intake weir to the power house. This pipe is approximately 775 metres in length, High Performance Polyethylene (HPPE) black plastic in construction with an outside diameter of 355mm. The majority of the penstock will be buried with the exception of 165m which will be laid overground through woodland to minimise the impact on tree roots.
- A tailrace (pipe) buried from the power house to the watercourse and a head-wall arrangement (outfall) to return the water to the watercourse.
- A buried, armoured, low voltage power cable from the power house to the farm buildings. This cable is approximately 535 metres in length.
- Two girder bridges to take the power cable, mentioned above, across two watercourses.

2 National and local policies

2.1 Future Wales National Plan 2040

The development plan states that 'the Welsh Government will support regional and local energy planning to identify opportunities for all types of renewable projects'. It includes the following targets for the generation of renewable energy in Wales:

- For 70% of electricity consumption to be generated from renewable energy by 2030.
- For one gigawatt of renewable energy capacity to be locally owned by 2030.
- For new renewable energy projects to have at least an element of local ownership from 2020.

Future Wales Policy 17 – Renewable and Low Carbon Energy and Associated Infrastructure: The Welsh Government strongly supports the principle of developing renewable and low carbon energy from all technologies and at all scales to meet our future energy needs. In determining planning applications for renewable and low carbon energy development, decision-makers must give significant weight to the need to meet Wales' international commitments and our target to generate 70% of consumed electricity by renewable means by 2030 in order to combat the climate emergency.

2.2 Powys Local Development Plan 2011 – 2026

Relevant policies in the LDP include the following:

Strategic Policy SP7 - Safeguarding of Strategic Resources and Assets: Safeguards important strategic resources and assets (such as environmentally designated sites, historically designated sites, public rights of way, valued characteristics of the landscape)

Policy DM2 – The Natural Environment: Development proposals shall demonstrate how they protect, positively manage and enhance biodiversity and geodiversity interests including improving the resilience of biodiversity through the enhanced connectivity of habitats within, and beyond the site.

Policy DM4 - Proposals for new development must not have an unacceptable effect on the valued characteristics and qualities of the Powys landscape. They need to be appropriate and sensitive in terms of integration, siting, scale and design to the characteristics and qualities of the landscape.

Policy DM5 – Development and Flood Risk : Developments must take into account flood risk

Policy DM7 – Dark Skies and External Lighting : The intrusiveness of lighting in the countryside should be kept to a minimum.

Policy DM8 - Minerals Safeguarding: ensure that mineral resources are not needlessly sterilised by other development, so that they may remain accessible to future generations.

Policy DM10 – Contaminated and Unstable Land : Responsibility for determining the extent and effects of instability, contamination and other risks lies with the developer, who must ensure that land is suitable for the development proposed.

Policy DM13 – Design and Resources: Development proposals must be able to demonstrate a good quality design and shall have regard to the qualities and amenity of the surrounding area, local infrastructure and resources.

Policy DM15 – Waste within Developments - Development proposals shall demonstrate: How the production of waste will be minimised during all stages of the development and how the waste materials that do arise will be managed in a sustainable way

Policy E6 – Farm diversification - offers key benefits for the socio-economic growth of rural communities allowing the creation of commercial opportunities to provide rural employment that utilises existing resources.

Policy RE1 – Renewable Energy - renewable energy assessment (REA), updated in 2017, determined that there was the potential for Powys to install a further 10.3MW of hydropower by 2026. In addition, the LDP states that “The Renewables Directive (2009/28/EC) requires 20% of energy consumed in the European Union (EU) to be generated from renewable sources by 2020. This target is pooled across the EU, the UK’s legally binding target by 2020 is 15%. To meet the legally binding target, the UK Low Carbon Transition Plan 2009 sets out that by 2020:

- 30% of electricity will be generated by renewables (e.g. wind, solar PV, biomass, hydro, wave or tidal power);
- 10% of fuel will be derived from renewables (e.g. electrification).

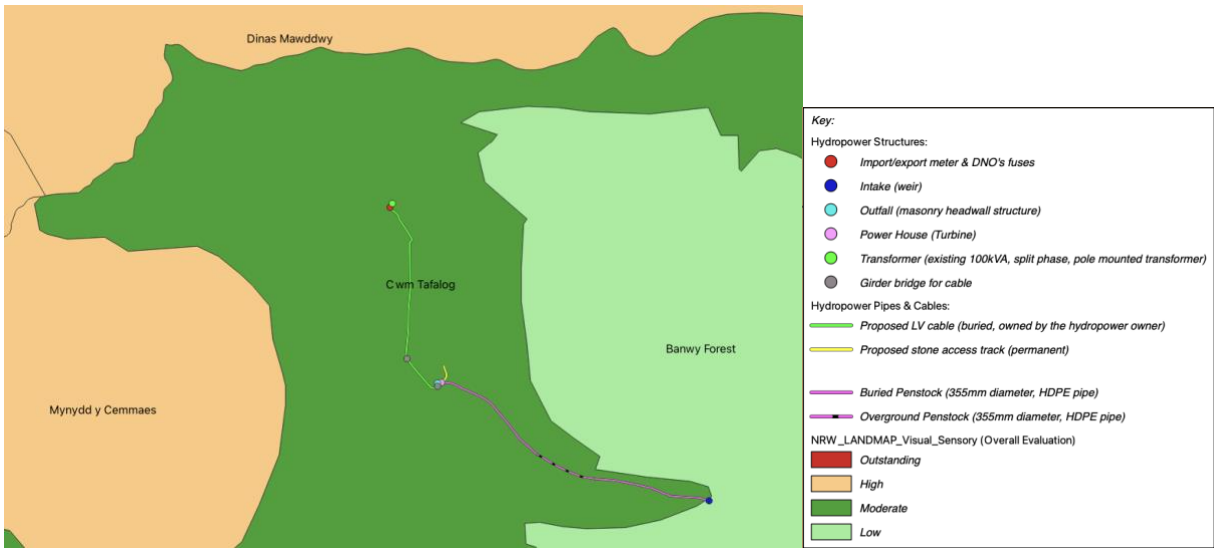
This is implemented through the UK Renewable Energy Strategy 2009 and these targets were reaffirmed in the Energy Act 2013. This strategy explains that climate change, economic opportunities and security of supply are the key drivers for meeting the targets”.

2.3 LANDMAP

2.3.1 Visual and Sensory

The majority of the project is located within the *Cwm Tafolog* Visual and Sensory aspect area which has an overall evaluation of ‘moderate’. The area is summarised as ‘A narrow valley formed by the steeply sided plateau ridges of the Mynydd Lluest Fach and Mynydd y Cemmaes. Traditional farming landscape with irregular field patterns and diverse vegetation cover with semi improved and marginal grazing with the valley slopes displaying rough grazing, bracken and gorse scrub. Enclosed, remote in part due to the steep landforms on either side that cut off the outer world’.

The intake weir is located just inside the *Banwy Forest* Visual and Sensory aspect area which has an overall evaluation of ‘low’. The area is summarised as ‘A large and extensive area of blanket forestry dominating the upland area between the Banwy and Tafalog/Rhiwsaeson valley systems. Visually dominant and in extreme contrast to the open upland grazing and rolling farmland that forms the wider landscape context’.

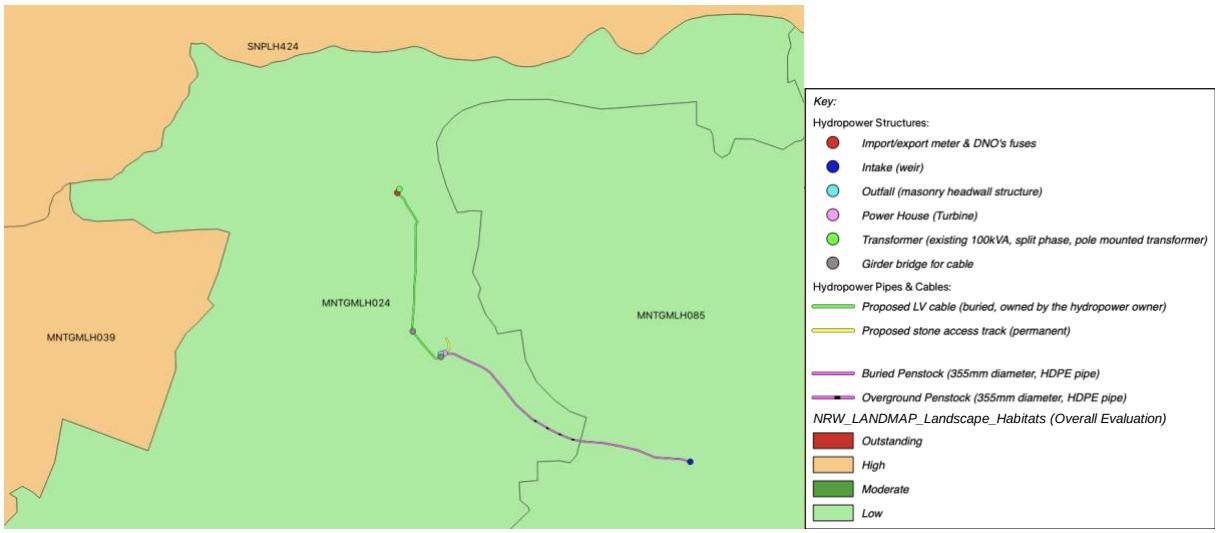


2.3.2 Landscape Habitats

The project is within two Landscape Habitat areas:

UID: MNTGMLH024 which has an overall evaluation of 'low' and is described as "An area of improved pasture fields along the fertile valley bottom adjoining the river Tafalog. Some of the field have traditional hedges which have a high proportion of hazel trees in them which may be a sign of their past woodland history. There are occasional patches of scrub and a few wetter flushes, but little native plant communities remaining".

UID: MNTGMLH085 which has an overall evaluation of 'low' and is described as "A very large block of coniferous forestry on what was once an important upland blanket bog. Even the SSSI areas remaining have been planted upon which is likely to be detrimental to the species remaining".

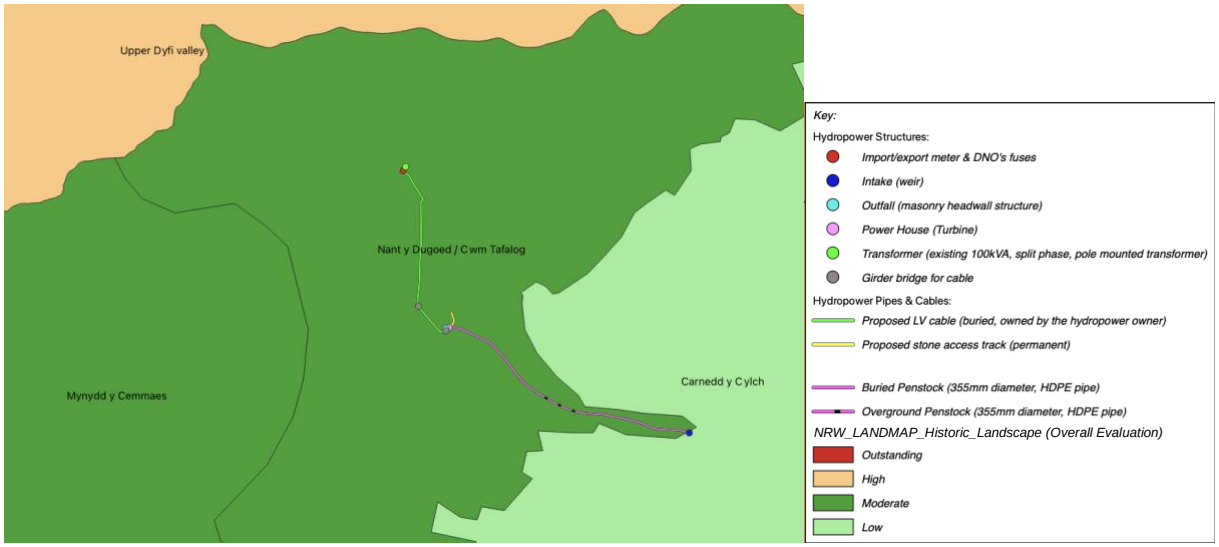


2.3.3 Historic Landscape

The majority of the project is located within the *Nant Y Dugoed*/*Cwm Tafolog* Historic Landscape aspect area which has an overall evaluation of 'moderate'. The area is summarised as 'Irregular fieldscapes of medieval and early post-medieval origin in narrow stream valleys which form tributaries of the river Dyfi. Scattered farmsteads and abandoned house sites of medieval and early post-medieval origin'. The justification for the overall evaluation was 'Narrow enclosed valley with only a scatter of post medieval features'.

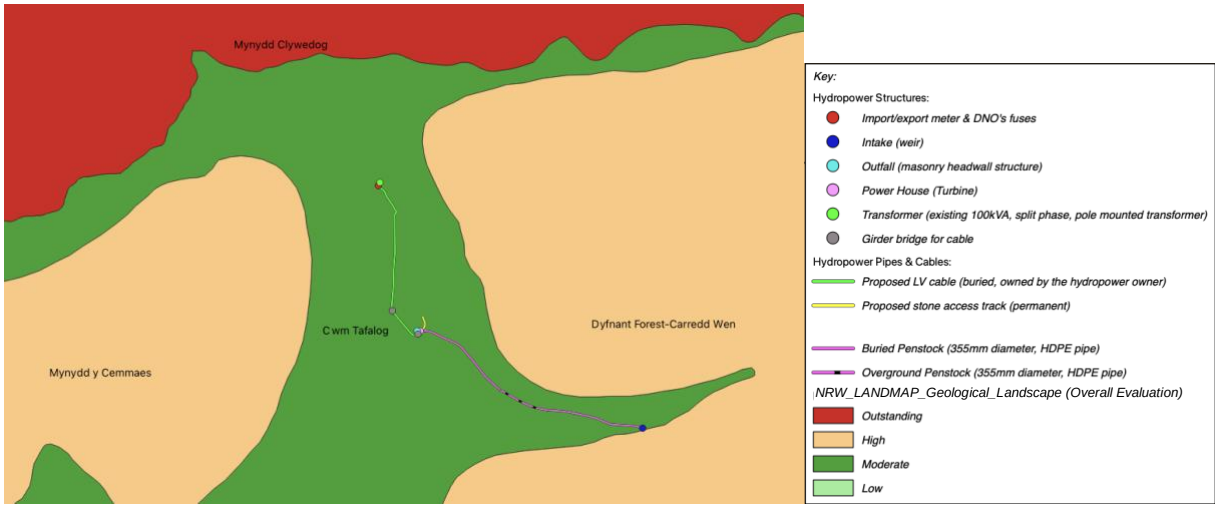
The intake weir is located just inside the *Carnedd y Cylch* Historic Landscape aspect area which has an overall evaluation of 'low'. The area is summarised as 'Extensive 20th-century hilltop and hillslope conifer woodland and felled woodland. Early settlement and land use is

indicated by scattered Neolithic to Bronze Age hilltop burial mounds and abandoned post-medieval house sites'. The justification for the overall evaluation was 'Area of afforested marginal land. Some early prehistoric burial sites recorded but apart from this minimal pre-forestry landscape little else is apparent'.



2.3.4 Geological Landscape

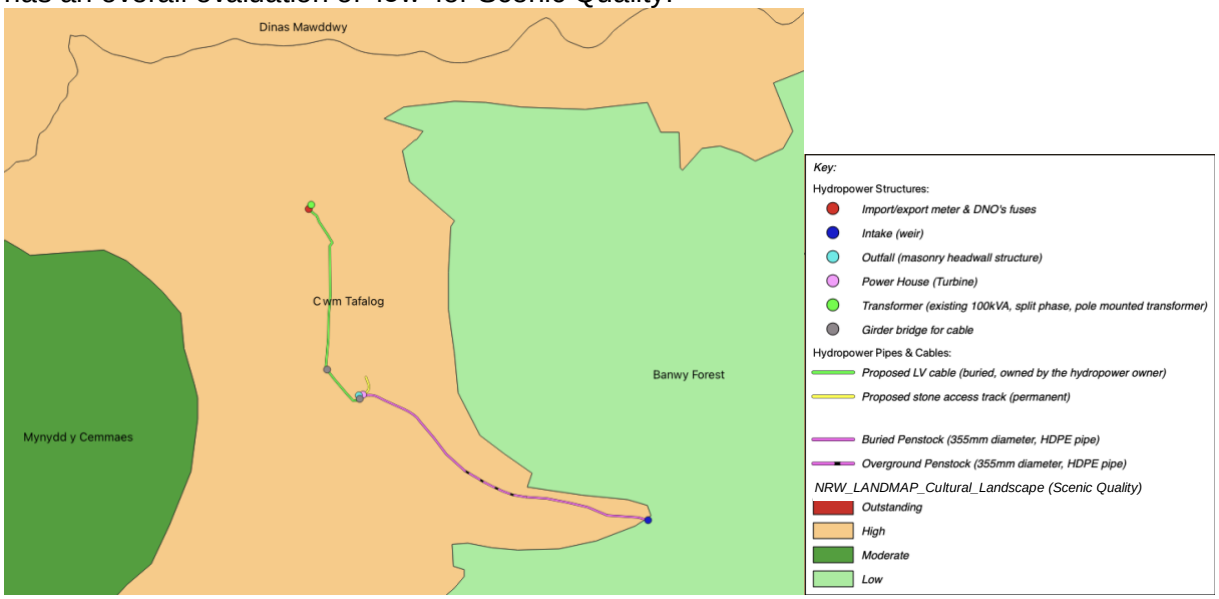
The entire project is located within the *Cwm Tafolog* Geological Landscape aspect area which has an overall evaluation of 'moderate'. The area is summarised as 'Deep north-south valley separating the Mynydd y Cemmaes and Dyfnant Forest massifs. Includes a small area on the south side of the Cleifion valley'. The justification for the overall evaluation was 'Typical landscape of geomorphological feature and deposits. No notable sites recorded'.



2.3.5 Cultural Landscape – Scenic Quality

The majority of the project is located within the *Cwm Tafolog* Cultural Landscape aspect area which has an overall evaluation of 'high' for Scenic Quality.

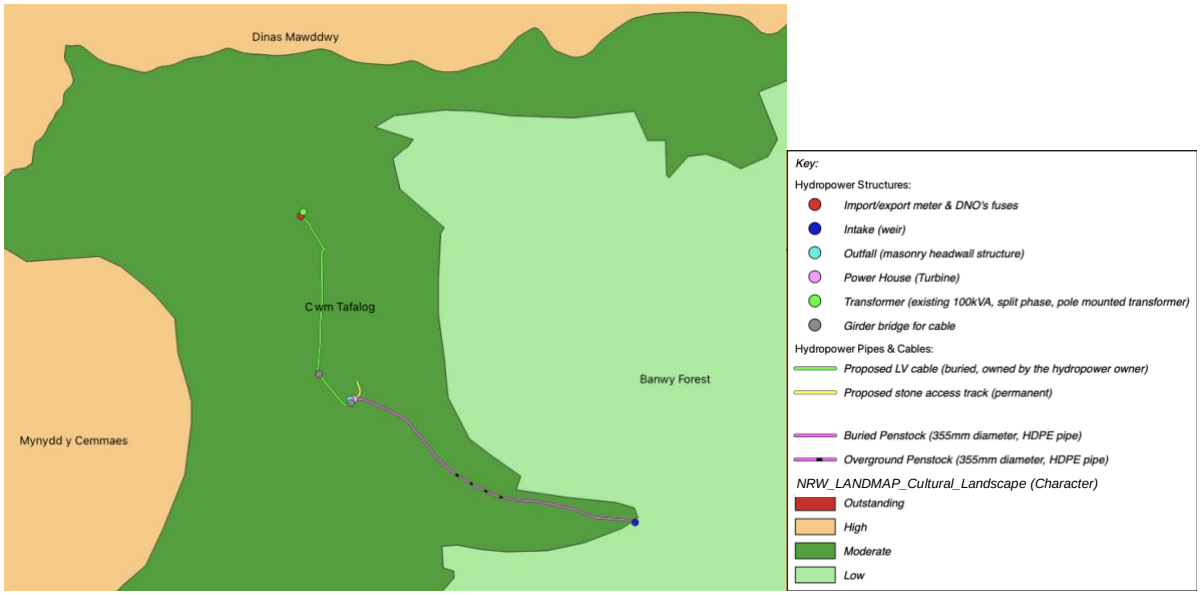
The intake weir is located just inside the *Banwy Forest* Cultural Landscape aspect area which has an overall evaluation of 'low' for Scenic Quality.



2.3.6 Cultural Landscape – Character

The majority of the project is located within the *Cwm Tafolog* Cultural Landscape aspect area which has an overall evaluation of 'moderate' for Character.

The intake weir is located just inside the *Banwy Forest* Cultural Landscape aspect area which has an overall evaluation of 'low' for Character.



2.4 Landscape Character Areas

2.4.1 Landscape Character Area 5 'Dyfnant Forest/Llanbrynmair moors'

The intake, penstock and power house are within Landscape Character Area 5 *'Dyfnant Forest/Llanbrynmair moors'* which has the following key landscape qualities and sensitivities:

- Sense of tranquility and remoteness at open plateau summits, away from forested areas.
- Valued semi-natural habitats including broadleaf woodland, upland heathland, blanket bog, purple moor grass and rush pasture, including part of the extensive Berwyn and South Clwyd Mountains SAC, Berwyn SPA and Berwyn SSSI.

- Valued geological features including Craig Ddu RIGS, a series of quartz veins.
- The Tanat Valley Registered Historic Landscape, with evidence of mineral workings and abandoned fields probably of late medieval or early post-medieval date.
- Recreational value and views from PRoWs and long distance walking routes including Glyndwr's Way National Trail.
- Intervisibility with Snowdonia National Park to the west.

The area has the following development management guidelines which are relevant to this project:

- Landscape Character Area 5 (a): Seek to increase biodiversity and visual diversity in the landscape through expansion of native woodland and other valued semi-natural habitats including upland heathland, blanket bog, purple moor grass and rush pasture.
- Landscape Character Area 5 (b): Ensure appropriate management of the area's rich archaeological landscape, in particular its medieval and industrial features within the Tanat Valley Registered Historic Landscape.
- Landscape Character Area 5 (c): Retain the open character of the landscape, and the perceptions of remoteness, tranquillity and dark night skies.
- Landscape Character Area 5 (d): Maintain the open upland skylines which form the backdrop to the area, and minimise intrusion of development in open views towards Snowdonia National Park.
- Landscape Character Area 5 (e): Protect the valued recreation use via the PRoW network and long distance walking routes, seeking opportunities to further enhance access and enjoyment of the rural landscape.

2.4.2 Landscape Character Area 13 'Mynydd y Cemmaes'

The cable, from the power house to the grid connection point at Ty Mawr farm, is within Landscape Character Area 13 'Mynydd y Cemmaes' which has the following key landscape qualities and sensitivities:

- Strong sense of remoteness and tranquillity.
- Valued semi-natural habitats including upland heathland, blanket bog, unimproved acid grassland, marshy grassland and broadleaved woodland.
- Valued historic features including Moel Eiddew platform cairn in the south and Mynydd Lluest barrow cemetery.
- Recreational value and views from PRoWs and Glyndwr's Way National Trail.
- Dramatic views west across the Dyfi Valley to Snowdonia National Park.

The area has the following development management guidelines which are relevant to this project:

- Landscape Character Area 13 (a): Increase biodiversity and visual diversity in the landscape through expansion of native woodland and other valued habitats.
- Landscape Character Area 13 (b): Minimise intrusion of development in open views towards Snowdonia National Park.
- Landscape Character Area 13 (c): Retain the open character of the landscape, and the perceptions of remoteness, tranquillity and dark night skies.
- Landscape Character Area 13 (d): Protect the valued recreation use via the PRoW network and long distance walking routes, seeking opportunities to further enhance access and enjoyment of the rural landscape.

3 Environmental Sustainability

3.1 Overview

It was decided in 2021 to design and build the micro hydro scheme as a way of expanding the Jones' farming business and secure an alternative means of income and electricity for future generations. Policy E6

A significant proportion of the generated electricity will be used on the farm and the excess will be exported to the National Grid as a source of renewable energy for the local population to access. Policy RE1, Future Wales Policy 17

The turbine and generator will run for 15 to 25 years before needing to be replaced. The proposed structures will be built sympathetically using local materials, where possible. Strategic Policy SP7

There will be no requirement for foul or fresh water drainage. There will be no waste generated from the use of the structures and any construction waste will be disposed of appropriately. Clean stone, removed during trench preparation, will be used to pre-fill the intake weir's impoundment (as has been agreed with NRW). This will remove the need to take any stone to landfill and will also reduce the impact on sediment transfer in the watercourse. Any packaging for components will be recycled, if the materials can be recycled. Policy DM8, Policy DM15

During the operation of the system, very little maintenance is required that would impact on the ecology. Cleaning of the weir can be carried out on foot, minimising the disturbance to the land, at most a quad bike might be required.

3.2 Ecological Impact

The entirety of the project lies outside of any designated sites. Strategic Policy SP7

Natural Resources Wales has assessed the section of the watercourse which would be depleted by the hydro power installation. They have issued the abstraction licence for the project and it stipulates both a 'Hands Off Flow' (HoF), as well as 50% of the watercourse's flow in excess of the HoF, be left in the watercourse at all times. This is to ensure sufficient water is available to maintain the existing ecology. Policy DM2

A screen will be used on the intake weir and the screen size (1.3mm apperture) will eliminate the risk of fish being drawn into the penstock. Policy DM2

Where the water is discharged back into the watercourse, a screen with a 40mm aperture will be incorporated to prevent fish from entering the tailrace, this is in line with Natural Resources Wales' abstraction licence. The discharge arrangement incorporates a flared head-wall arrangement to dissipate energy from the discharged water to minimise erosion of the stream bed at this point. Policy DM2

The intake weir will incorporate a fish pass, the design of which has been agreed with Natural Resources Wales. This will be a 'rocky ramp' design which consists of boulders mortared in place and arranged in a ramp with an inclination matching that of other ramps existing elsewhere in the depleted reach. It will contain a meandering stream path for fish migration with an average gradient of 10%, with small pools adjacent to allow fish to rest. This will mean that fish do not need to jump but can swim continuously up the ramp to the 'Hands Off Flow' notch at the crest of the weir. NRW believe it is unlikely that there any migratory trout or salmon present in the watercourse, the fish pass is for the population of local brown trout. Policy DM2

The position of the weir has also been chosen carefully to make use of natural steps in the watercourse to limit the effect on sediment transfer in line with European legislation, the Water Framework Directive. The steps limit the size of the weir pool (impoundment) and hence the amount of sediment which could become stored. In addition, it has been agreed with Natural Resources Wales to pre-fill the impoundment with clean stone (not sourced from the watercourse) to further minimise the impact on sediment transfer. Strategic Policy SP7, Policy DM2

An ecological study has been carried out and is attached to this application. The ecological study found that there would be no impact on protected species (otter, water vole, badger,

dormouse or bats). In line with the recommendations of the study, a construction method statement has been created and will be followed. Strategic Policy SP7, Policy DM2

A tree survey has been carried out for the project and 6 trees are due to be felled. These trees will be felled with appropriate professional advice in regard to bat roosts, nesting birds and felling method. The pipe and cable routes have been adjusted to avoid root protection areas, as detailed in the tree survey. For the section of penstock in the woodland (Peg 300 to 465), the pipe will be laid overground to protect tree roots. Strategic Policy SP7, Policy DM2

See the Construction Method Statement for more detail on tree protection, how ecological impact will be minimised during construction and the “Habitat enhancement features” section on compensatory planting of trees and hedgerows. In mitigation for the removal of the six trees, the woodland where the penstock will be laid overground (between Peg 300 and Peg 465) will be fenced with stock proof fencing. Inside this fencing 50 saplings of native species (Oak, Rowan, Birch, Hawthorn, Hazel, Holly and Honeysuckle) will be planted. Where hedgerows have been impacted, they will be reinstated with Hawthorn and Blackthorn saplings planted in double rows at staggered 300mm centres, with the new plantings protected by temporary stock proof fencing. Strategic Policy SP7, Policy DM2, Landscape Character Area 5 (a), Landscape Character Area 13 (a)

4 Informal landscape assessment

4.1 Scale

The sizing of the hydropower scheme has been dictated by the flow available for abstraction in the watercourse, the gross head available and the capacity of the national grid locally. Policy DM4

4.2 Layout

The engineering requirements of hydropower schemes dictate the layout to a large extent. The intake weir position affects the head (pressure) at the turbine and influences the power output. The weir position has been chosen as a compromise between maximising the head and minimising the pipe and trench lengths. Policy DM4

As hydro electric schemes depend solely on water, the power house needs to be sited near the watercourse. If the power house was moved further away from the watercourse, because the land rises quickly, this would result in a loss of head which would in turn mean a loss of energy generation. Also, if the power house was located further into the field it would make it more visible from surrounding areas. Strategic Policy SP7, Policy DM4, Landscape Character Area 5 (c)

The penstock and cable routes have been chosen to minimise the impact on important local habitat, such as trees and moor grass, in line with local policy. Strategic Policy SP7, Policy DM2

4.3 Appearance

The power house will be clad in slate-blue box section material matching the style of other agricultural structures in the local landscape.

The intake weir will have a ‘rocky ramp’ made of boulders arranged downstream. This will both aid fish passage and improve the weir’s visual appearance. The penstock and cable will be buried for the majority of their lengths. The overground section of penstock will be screened by the surrounding woodland and the two cable bridges will be screened by the trees on both sides of the watercourses they cross.

This use of sensitive building materials and burial of the scheme components minimises the visual impact and conserves the character and quality of the local landscape. No external lighting is proposed at the power house, to minimise the impact on the dark skies characteristics of the local area.
Strategic Policy SP7, Policy DM4, Policy DM7, Policy DM13, Landscape Character Area 5 (c), Landscape Character Area 13 (c)

4.4 Amount

The intake weir's size reflects the width of the stream, the flat nature of one stream bank, and the diameter of the penstock. Overall dimensions being 12,524mm wide, 1,480mm deep and 1,968mm high. The fish pass will extend about 8 metres down stream made up of boulders. This length is required to create the 10% gradient needed for successful fish migration.

The power house will have a 4,500mm by 4,500mm footprint with a dual pitch roof being 3,251mm at its apex. The power house's dimensions reflect the requirements for the Hydrover turgo two jet turbine coupled to a 34 kilowatt eight pole induction generator.

Please refer to:
Power house drawings 23011601 to 23011608
Intake weir drawings 22123001 to 22123006
Site location plan 230215LB02
Site Layout 230209LB01
Strategic Policy SP7, Policy DM4, Policy DM13, Landscape Character Area 5 (d), Landscape Character Area 13 (b)

4.5 Context & Landscaping

Refer to drawing '231208LB01-v1 Aerial imagery for planning statement' which shows the project's components, the highway and the public rights of way with an aerial imagery background.

The power house is positioned approximately 18 metres east of the single track highway (C2017). The Nant Llyn Coch-hwyad watercourse lies between it and the highway. The watercourse is tree-lined and there is a hedgerow alongside the highway. These will act to partially screen the power house from the highway. Strategic Policy SP7, Policy DM4

4.5.1 View of the power house's site from the single track highway (C2017):

View looking east. Photo taken in December (winter foliage)

Power house would be located in the field behind these trees.

4.5.2 View from the power house's site looking towards the single track highway (C2017):

View looking west.
Photo taken in December
(winter foliage)

Approximate footprint
of the power house.

The landscaping around the power house will be largely unchanged from existing with the exception of a new, 47 metre long, stone access track. There is a public footpath (209/3/1) about 160m east of the power house. The structure will be visible from this footpath. The small size of the building and the distance will limit the visual impact. Strategic Policy SP7, Policy DM4

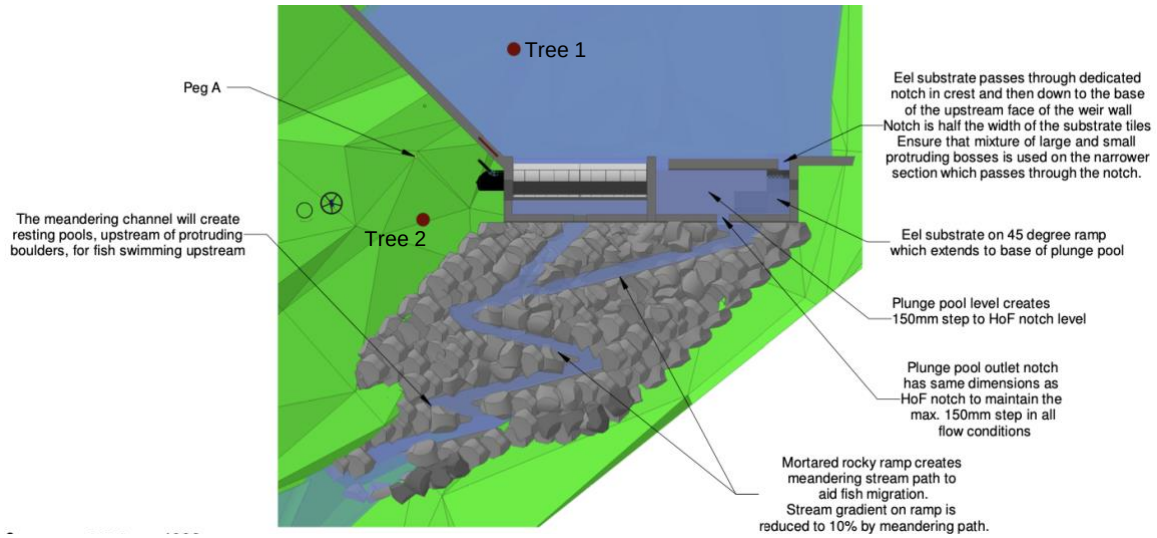
4.5.3 View of the power house's site from the Public Footpath (209/3/1):

View looking west.
Photo taken in December
(winter foliage)

Approximate footprint of the
power house is shown in blue

The intake weir is in a remote location approximately 700 metres east of the single track highway (C2017) and 450 metres east of the nearest public footpath (209/3/1). It would not be visible from either of these. Strategic Policy SP7, Policy DM4, Landscape Character Area 5 (e), Landscape Character Area 13 (d)

4.5.4 Plan view of the proposed intake weir:



4.5.5 Aerial view of the proposed intake weir's location:

4.5.6 View of the proposed intake weir's location:

View looking north. Photo taken in December (winter foliage). The red line shows the approximate line of the weir's crest.

5 Community Safety

The proposed scheme will not be accessed by the general public, it is on private agricultural land.

The door of the power house will be locked at all times and access will be for maintenance and periodic checks by the owner or qualified engineers. There are no windows proposed in the power house, further improving security.

The intake weir will not be accessed by the general public, it is on private agricultural land.

A Section 50 streetworks licence application will be made to the Highways Authority regarding the proposal to cross the single track highway (C2017) with the cable which runs from the power house to the meter at Ty Mawr farm.

The weir has been designed so it can cope with varying flow rates in the river, including flood conditions. The penstock will conform to pressure ratings that are expected from 49 metres gross head of water and a design flow rate of 97 litres per second. It has also been designed to withstand surge pressures if the valves on the turbine are closed too quickly by accident.

6 Accessibility

On going access requirements for the weir are minimal, usually this will be checked daily in the autumn, and less frequently (weekly) for the rest of the year, for any debris blocking the intake screen. These visits will be carried out on a quad bike or 4x4 vehicle, which are used to access this part of the farm presently.

Access requirements to the power house again will be minimal. The new stone access track means that it can be accessed by most standard vehicles. The total generation meter will be housed in the power house and this will need reading weekly to monitor water use for Natural Resources Wales. An annual service of the turbine and generator will be required but at most a 4x4 pickup, or similar, would be required for this. In the longer term, when larger components, such as the generator, need replacing these can be brought to the power house using a tractor or similar.

As stated previously, the development is not open to the public, but if an employee or an engineer with mobility difficulty wishes to access the power house or weir then the owner will endeavour to accommodate them. He will provide transport in the form of a 4x4 all terrain vehicle to carry them to and from the structures.

7 Economic

Economic impact will be short term employment of local building contractors for the construction and local building material suppliers. In the long term the scheme will provide the farm with renewable electricity, reducing bills, and provide a significant income from any exported electricity. This diversification will support the farm business which in turn is part of the local economy. Policy RE1 (economic opportunities being one of the 'key drivers' for meeting renewable energy targets)

8 Flood Risk

An Ordinary Watercourse Consent (Flood Defence Consent) application will be made to Powys County Council for the project. The intake weir has been designed so that it makes use of existing steps in the watercourse. This means that the weir pool will not extend upstream past the applicant's boundary at mean flow in the watercourse. As the weir site is in an open grazing area, approximately 470 metres from any property, increased flood risk is negligible. In addition, the weir pool's volume will only be about 52 cubic metres and will be pre-filled with stone prior to commissioning i.e. there will be very little water stored upstream of the weir. Policy DM5

The power house site has been chosen to eliminate the risk of it flooding. The proposed floor slab will be approximately 1.2 metres above a 100 year flood water level. In addition, the location of the power house has never been known to flood. Policy DM5

9 Archaeological Interests

Clwyd-Powys Archaeological Trust was consulted on the proposals in June 2022. As none of the works would be in close proximity to any archaeological records, they responded that "we have no archaeological issues with the proposed works". Drawing "230215LB01-v1 Site layout with archaeology, mineral safeguarding & ancient woodland" shows the nearest records and the project's components. Strategic Policy SP7, Landscape Character Area 5 (b)

10 Mineral Safeguarding

Part of the site is located within a Category 2 Minerals Safeguarding Area for sand and gravel (see Drawing "230215LB01-v1 Site layout with archaeology, mineral safeguarding & ancient woodland"). To meet the requirements of the Local Development Plan's Policy DM8, excavation for the development will be minimal and excavated material will be re-used as far as possible. For example, in the construction of the following parts of the project:

- The permanent access track to the power house
- The intake weir
- The power house
- The penstock's trench (for fines to protect the pipe).

In this way importing of materials will be minimised. It is also very unlikely that large scale extraction of minerals would be acceptable in this location due to the impact on the countryside which has ancient woodland and archaeological sites registered within the mineral safeguarding area (also shown on the plan mentioned above). The road access is also poor for large scale extraction, meaning it would have a significant effect on the rural community.
Policy DM8, Landscape Character Area 5 (b)

11 Contaminated land

At the request of the planning authority's Senior Contaminated Land Officer, a consultant has been employed to carry out a "Phase 1 desk study with preliminary risk assessment for contaminated land". The consultant's report has been included with the planning application. The report's findings were that "No further investigation is recommended. If unforeseen contamination or Made Ground is encountered it is recommended that soil samples are taken and tested to better assess the presence, nature and contamination potential of this site". Policy DM10

12 Decommissioning schedule

Hydropower schemes can remain operational for 50 years or more. If the owner chooses to decommission the scheme, the penstock (pipe) which is overground will be removed and either re-used for culverts/drainage pipe on the farm or disposed of under the regulations at the time. The buried sections of pipe will be left buried.

The sections of the armoured cable on the two girder bridges will be removed (as will the bridges). These will have recyclable sale value and will be taken to the appropriate dealer. The buried section of the cable will be left buried.

The power house will be dismantled leaving the concrete floor slab to be covered with top soil and seeded. The tailrace (pipe) will be left buried but the outfall (headwall structure) will be removed and the bank of the watercourse re-instated.

The intake weir will be removed under Natural Resources Wales' guidance at the time. A bypass method, similar to that used for the construction of the intake, will be used to ensure the work is carried out in a dry section of watercourse. It is important that sediment, stored upstream of the weir, is not released in a large volume. NRW will advise on the method of slow release and a method statement will be agreed upon at the time.

Any materials from the power house or intake which can be re-used on the farm will be, otherwise it will be recycled or disposed of under the regulations at the time.