**Snowdonia National Park Authority**  
- Planning & Access Committee

**Date Application Registered:** 23/04/15  
**Application Number:** NP4/26/323

**Community:** Bro Garmon  
**Grid Reference:** 280878 353852

**Application Type:** Full  
**Location:** Afon Conwy, Betws y Coed.

**Applicant:**  
Mr. Billy Langley  
RWE Innogy UK  
Unit 8, Parc Derwen Fawr  
Llanidloes, Powys  SY18 6FE

**Description:**  
Proposed hydro scheme up to 5MW comprising construction of intake weir, tunnel, buried pipeline, buried powerhouse building with outfall, switchgear room and transformer, and including biodiversity and recreational enhancement proposals, and alterations to existing vehicular access off the A470(T) near Fairy Glen Hotel, Betws y Coed.

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<td>Betws y Coed Community Council</td>
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<td>No objections, conditions suggested</td>
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<td>Conwy - Planning</td>
<td>No observations</td>
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<tr>
<td>Natural Resources Wales</td>
<td>No objections, conditions suggested</td>
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**Site:** Afon Conwy, Betws y Coed.

**Proposal:** Proposed 5MW hydro electric scheme comprising intake weir, tunnel, buried pipeline, buried powerhouse, switchgear and transformer building, construction compounds, alterations to vehicular access off A470(T), and other associated developments.

**Designations:**  
Within SSSI  
Public Right of Way  
Area TPO  
Individual TPO's  
C2 Flood risk zone  
Listed Buildings in close proximity
Publicity Undertaken:
Site Notice: Yes  Press Notice: Yes  Neighbour Letters: Yes

Reason(s) Application Reported to Committee:
Scheme of Delegation
Development requiring EIA

Planning History:  None relevant.

Relevant Planning Policies:

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<th>Eryri Local Development Plan 2011</th>
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Background

This application refers to the proposed installation of a hydro electric scheme drawing water from the Afon Conwy above Betws y Coed.

This run-of-river hydro electric power (HEP) scheme would have a maximum generation capacity of up to 5 Megawatts the power of which will be export directly via underground cabling to the local electricity distribution network based in Betws-y-Coed.

The development will involve some permanent and some non-permanent features, in essence the permanent features will comprise of the following elements:

- An intake weir approximately 1.2m high by 25m wide across Afon Conwy;
- A 900m tunnel of approximately 3m diameter;
- A portal between the tunnel and the buried pipe;
- A 1Km buried pipeline of approximately 1.6m diameter;
- A buried powerhouse housing two turbines;
- An above-ground building housing a transformer and switchgear facility;
- An outfall to return the abstracted water to the river;
- An underground export cable along the local highway to Betws y Coed;
- Footpath link between the public right of way and the Conwy Falls cafe car park.

In addition to the permanent features there will inevitably be non-permanent features which will be a necessary during any construction phase of the development. These will include construction compounds, spoil storage areas and temporary access tracks.

**Description of the proposed development**

The proposed intake weir, located above Rhaeadr y Graig Lwyd (Conwy Falls), would draw water from the Afon Conwy and direct it into a constructed tunnel of approximately 900 metres long running under the A5(T) and land to the north then back under the A5(T), before exiting into a 1km long pipeline transporting the water to the powerhouse.

Two turbines would be located within an underground powerhouse which will utilise the water for the generation of electricity. Following utilisation, the water would then re-enter the Afon Conwy via an outfall at a location just adjacent to the powerhouse.

In addition to the HEP scheme the applicants have proposed as part of this application an extension to the public right of way to link in with the car park at the Conwy Falls Cafe.

This application also includes temporary developments required during the construction phase to facilitate the HEP scheme. These include construction compounds, lay down areas and temporary access tracks.

**Site characteristics**

Essentially, other than the tunnel, the development site lies between the A5(T) and Afon Conwy which is low lying land below the road. The site is a largely unspoilt area characterised by broadleaved woodland individual veteran mature trees, native hedgerows and grazing land. There is a single vehicle width track and public right of way which runs along much of the length of the site.

**Site designations**

The site lies partially within the Ffos Noddun (Fairy Glen) SSSI, noted for its lower plant species (e.g. bryophytes, mosses, lichens and ferns).
Much of the development site is either within or in very close proximity to area TPO’s and there are a number of individual trees that are protected by TPO. Parts of the woodland areas regarded as ancient woodlands.

The intake and outflow fall within the C2 Flood Risk Zone.

Designated public rights of way run through and across the site.

**Consultations:**

Environmental Impact Assessment

Due to the fact that developments of this nature are listed within Schedule 2 of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) an Environmental Impact Assessment (EIA) was required. As an initial requirement the applicant undertook a scoping exercise with the Authority and statutory consultees to establish the form of the environmental statement of the EIA. That process was undertaken between October 2012 and March 2013. In addition to the National Park Authority the applicant engaged with Natural Resources Wales, Conwy Highways, Welsh Government Highways, Archaeological Trust, Canoe Wales, Betws y Coed Anglers and Wirral Game Fishing.

Design and Access Assessment:

During the design and access stage the applicant consulted a number of organisations including:

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<td>Cadw</td>
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<td>Conwy Cafe</td>
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<td>Gwynedd Archaeological Trust</td>
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Planning Application stage:

In addition to the necessary statutory consultation with organisations and bodies a notice was posted in the local press, site notices were posted at various points around the site and letters were sent out to residential homes and business premises around the site inviting comments.
Consultation Responses

Statutory Consultees

Consultation responses have now been received from all statutory consultees with the following comments received:

Natural Resources Wales: No objections;

Following initial concerns over certain matters NRW have raised no objection to this application. The areas that Natural Resources Wales have commented on are:

- Flood risk – it is considered that the main flood risk issues associated with this proposal is that of the impact of the proposed intake weir on flood levels upstream. Following the submission of further information by the applicant NRW are satisfied that that the potential for flooding can be managed satisfactorily.
- Environmental permitting – NRW have confirmed that there were no objections in principle to the pre-application discussions for the necessary abstraction and impoundment licences.
- Protected landscapes – NRW comment that the proposed scheme is located in a landscape of native woodland, small pasture fields and valley landform in which the opportunities for public access, views and interest in the landscape of the national park are limited. However, it is acknowledged that there are two very important locations where the visual and sensory effects on the perceptions of landscape must be considered. Firstly is the access point to Ffos Noddun from the Conwy Falls Cafe and potential disturbance and effectiveness of the landscape integration/reinstatement measures. And, secondly the effect of the reduced flow on the aesthetics of Rhaeadr y Graig Lwyd.
- Conwy Cafe Temporary Compound area – this area is likely to have localised disturbance for visitors to the cafe and travelling along the A5. However, this can be mitigated against by the rebuilding of the boundary stone wall to a suitable height and stringent remediation post construction regime.
- Ffos Noddun temporary compound area – this compound is in close proximity to visitor’s access to Ffos Noddun. A stringent reinstatement regime will be required to mitigate against long term visual harm.
- Protected sites – whilst this proposal partially falls within Ffos Noddun SSSI NRW consider that the trees to be felled within the SSSI are of limited value with regard to the SSSI features as they are not mature and do not host the important bryophyte or lichen colonies. Other trees identified for felling have been adequately surveyed and no protected species would be adversely affected. Suitable compensation planting will be required to mitigate against the loss of trees.
- In river works – NRW consider it unlikely that any significant adverse effects on SSSI features will result from this proposal.
- Protected Species – NRW are satisfied that no bats or otters will be adversely affected by this development.
- Environmental pollution – no concerns raised in respect to environmental pollution provided that safeguards are conditioned.
- Fisheries – the overall design is considered to be generally acceptable from a fish passage point of view.
- In river works – in river works will be restricted through condition.
- Noise – tunnelling should be time restricted to avoid disturbance to fish.
- Geomorphology – geomorphologic impacts of the scheme will be determined under the abstraction/impoundment license applications.

Welsh Government Highways – No objections

The Welsh Government as highways authority for trunk roads has given authority to approve this application subject to appropriate conditions that have been detailed in their consultation response.

Conwy Highways Authority – No objections subject to appropriate conditions

Community Councils:

Bro Machno – support

Bro Garmon – no objections;

Betws y Coed – concerns over impact of the development on environmental issues within a largely unspoilt area of tranquillity and beauty.

Dolwyddelan – no objections; but concerns over possible ecological damage. Concerns over harm to wild animals and plants. Storage area near fairy glen should be forbidden as this is a tourist attraction. Concerns over vehicular access to the A470. Question what will happen to excavated spoil? How is the scheme being connected to the network?

Non-statutory/interest groups

Snowdonia Society – Object: costs outweigh the benefits, disruption to local communities and businesses, harm to landscape value, harmful impact on kayakers, canoeists and anglers, harm to SSSI lower plant importance,

Woodland Trust/Coed Cadw – strongly object to this scheme; the intake structure, construction and powerhouse building and associated works and the installation of the pipeline are likely to have adverse effect on highly valuable and important ancient woodland. In addition there will be damage as a result of the implementation of both permanent and temporary access tracks.

CPRW – Generally supportive of schemes such as this. However, whilst acknowledging that long term harm to visual damage will be limited concerns are raised over the potential damage during the construction phase. On balance the long term benefits outweigh short term impacts.
Public comments:

Over 650 individual letters expressing concern over the scheme have been received. Generally, the objectors fall into certain interest groups: anglers, kayakers and local businesses.

Anglers have expressed concern over potential damaging effects on fisheries due to vibrations/blasting, obstruction to migrating fish due to the weir, flow regimes and reduced flows on fish migration. Consider that insufficient information has been submitted to fully assess harmful effects.

The canoeing/kayaking and other outdoor pursuit interest groups consider this area of Afon Conwy as one of the most important venues for paddling in the UK and this development will significantly reduce its value. Its loss will reduce the opportunities for outdoor activities in this area to the detriment of public health.

The potential damage to the natural environment will have a detrimental effect on local businesses and tourism generally it has been considered. This will be a short term effect as a result of the disruption during construction and long term visual effects due to loss of water in the river.

Concerns have also been raised over damage to biodiversity, natural beauty, damage/no benefit to local communities and pollution/waste resulting from the development.

32 letter of support for the scheme have been received who have generally highlighted the benefits of hydro eclectic schemes of this nature, being clean, renewable energy source with long term benefits.

Assessment

The benefits of an HEP scheme of this nature (5MW) are quoted as an average generation of electricity up to 15,000 Megawatt Hours, annual average carbon dioxide offsetting of up to 6,450 tonnes and up to an equivalent of 3177 domestic homes supplied by the electricity generated.

However, whilst the above figures would in isolation appear impressive the CO2 emissions savings are relatively minor in the context of overall emissions from a conventional power plant. If approved, this scheme will only provide a limited contribution to renewable energy targets and greenhouse gas emissions savings but in combination with other schemes of varying scales will have real benefits.

Whilst the benefits of such a scheme are to be merited they must be balanced against any potential adverse effects. There will undoubtedly be disruption during the construction phase both to the environment, visual impact, tourism and local businesses.

It is considered that the environmental and visual effects can be adequately managed and mitigated against through rigorous conditions during the construction phase and post construction. A position that is backed up by the responses from
statutory consultees who have not raised objections to the proposed scheme. It is considered that sufficient powers are in position between the various agencies including the National Park Authority to ensure no long term harm to matters of importance.

However, there are still some areas of concern that require consideration, these include:

Visual impact of the weir: your officers have expressed concern over the visual impact of the weir construction in the long term. The structure stretches for 25 metres across and is 1.2 metres high. The weir will impound a considerable amount of water and will alter the level of the water for some distance behind the weir. The design of the weir as submitted showed considerable areas of exposed concrete, which was considered to be unacceptable. Following negotiation the applicant has agreed to face all exposed concrete in appropriate stone, this will help to disguise the weir structure.

Visual impact on Rhaeadr y Graig Iwyd (Conwy falls) the extraction regime will ensure that the falls will remain a visually impressive feature. The exact nature of the extraction regime is yet to be considered, this will be done as a part of the extraction licence application with NRW. If not considered appropriate the licence will be denied.

Again following negotiations with your officers the use of the vehicular access road/track that runs the length of the site has been removed from the proposals as a construction access track. This ancient road was the main road through this area prior to the ‘Telford’ A5 construction to the north and is of historical importance. It was considered that its use would require improvements to geometry and surfacing that would harm its historical value and would adversely affect veteran trees of considerable amenity value.

During the consideration of this application the trees within the vicinity of this proposed development have been inspected for their amenity value with a number being added to the list of protected trees through TPO. Only a very small part of the development site falls within an area that has been included in the inventory of ancient woodlands, this being to the south of Afon Conwy around the intake weir. This area will be affected by the proposed access track off the B4406, Penmachno road. However the number of trees affected is very small and are of a size that are not considered significant, Natural Resources Wales have raised no concerns over the proposed development within the ancient woodland area. However, the application does show extensive compensatory native broadleaf planting extending to approximately 2.5 acres.

A detailed assessment of the effects of vehicular movements in association with this proposal has been undertaken. As both the A5 and A470 are designated as trunk roads the Welsh Government highways division have been consulted and have commented on the application. Vehicular access to the development site is taken off the A470 at Ffos Noddun. A secondary access is proposed off the B4406, Penmachno road to provide access to the intake weir during construction. Based on survey work and vehicle counts it is predicted that this proposed development will
result in an increase in overall traffic movements in the order of 2.6% for the A470, 0.59% for the A5 and 2.59% for the B4406. There will inevitably be peaks and troughs in vehicular movements depending on on-site development phase activities.

Advice has been taken from the Welsh Government transport division and Conwy Highways Authority to ensure the safe use of the access onto the A470 and all other highways matters resulting in no objections to the proposal on highways grounds.

The concerns of the angling fraternity and the use of the river by kayakers in terms of the water level in the depleted reach of Afon Conwy will be a matter that is raised at an appropriate time when the extraction regime is considered by NRW.

Policy considerations:

It is considered that this proposal does not conflict with Eryri Local Development Plan policies and is in line with the aims and objectives of PPW.

Conclusions

On balance it is considered that the potential benefits in approving such an HEP scheme of this nature are not outweighed by the disbenefits of the scheme. The disbenefits are considered not to be long term and can adequately be mitigated against through conditions. In addition any short term disbenefits during the construction phase can also be managed to minimise disruption and harm to matters of environmental concern.

Revised plans are awaited to cover the amendments to the stone facing of the intake weir, the proposed footpath extension, amended vehicular access tracks within the site area and amended area of turbine house compound area. As these matters do not generally affect the overall principle of this development a recommendation of approval can be given for this scheme. The issuing of any approval will be determined on appropriate amended plans to cover these matters and will be subject to appropriate conditions and those recommended by consultees.

Background Papers in Document Bundle No.1: Yes

RECOMMENDATION: To APPROVE this application subject to suitable revised plans to cover outstanding issues and subject to appropriate conditions.