

**Consultation report for Ynni'r Ocar  
- potential hydro scheme on Afon Galedffrwd**

April 2017

**Background**

Coed y Parc dam was built in 1847 as part of a system to power the workshops at Felin Fawr and so hydro power has played a pivotal role in the history of Coed y Parc since the heyday of Penrhyn Quarry. The dam and surrounding woodland are owned and cared on behalf of the community by Coetir Mynydd, which is a charitable private company limited by guarantee. Coetir Mynydd is principally concerned with the stewardship of Yr Ocar woodland and the biodiversity there. Repairing and maintaining the dam has proved to be extremely costly and beyond the current means of Coetir Mynydd and so raising funds for essential works is a priority for the company. Coetir Mynydd decided to explore the feasibility of installing a modern hydro scheme on Afon Galedffrwd as a potential source of funds in addition to gaining several other potential benefits. During the last ten years they have taken several pre-feasibility steps which have culminated in a pre-application enquiry for an abstraction licence with Natural Resources Wales (NRW) and an initial planning enquiry with Cyngor Gwynedd. No major objections were raised by either authority and so Coetir Mynydd commissioned specific surveys together with obtaining a grid connection from SPEN. They are now poised to move to the next stage of making formal applications for consents and licences but need to know:

- a. whether there's widespread support within the village of Mynydd Llandegai for the principle of developing a hydro scheme on Afon Galedffrwd,
- b. whether a separate entity with different volunteers can be formed to drive the project forwards.

As a result they obtained funding from the Community Investment Fund run by Mantell Gwynedd to undertake as comprehensive a consultation process as possible and Siân Shakespeare was commissioned as an independent facilitator to undertake much of this on their behalf.

**Consultation: Purpose**

- Share information regarding the findings of Coetir Mynydd's research so far
- Explore the benefits and concerns of building a hydro scheme on Afon Galedffrwd
- Gauge whether the Afon Galedffrwd scheme should proceed to the next stage
- Enlist support from volunteers if Ynni'r Ocar scheme moves ahead

## Consultation: Process and Outcomes

All inhabitants of Mynydd Llandegai, Coed y Parc and St. Anne's received leaflets - 277 houses in total - and notices were placed on the Coetir Mynydd & Mynydd Llandegai facebook pages and around the village inviting people to attend a drop-in session through the afternoon of 26 February or evening of 8 March and/or an evening meeting on 26 February. At the drop-in session all were welcomed and invited to view the explanatory displays and various research reports. Participants also had the opportunity to go on a guided tour of the site in order to learn more about the potential hydro scheme. At the end of their time in the session they were handed a questionnaire which was also available to be completed on-line.

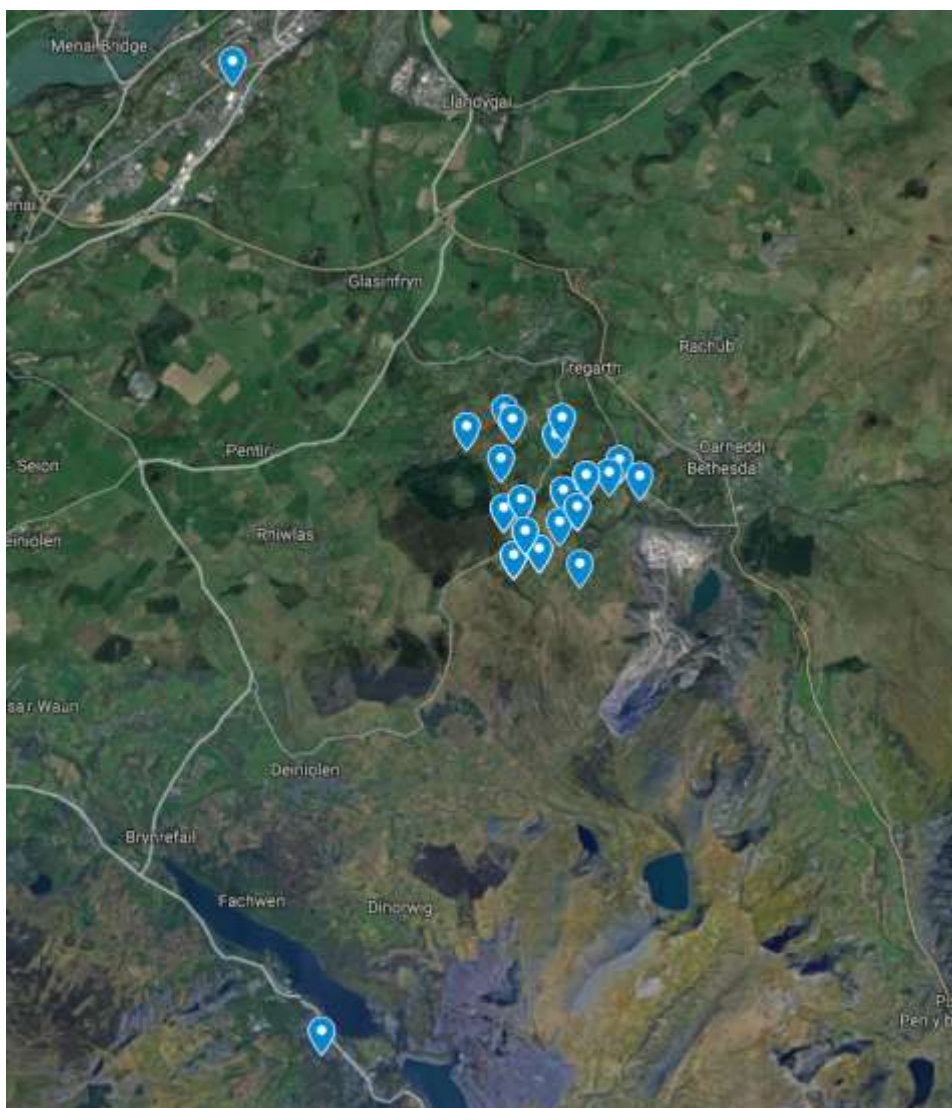
Numbers attending the drop-in sessions: 82 in total

Numbers of returned, completed questionnaires: 95 including 13 completed by members of the youth club and 1 from the leader.

Numbers of participants in the evening workshop: approx 40

The results obtained are illustrative and indicative; the process was designed to elicit opinion but not to be representative of the entire population of Mynydd Llandegai.

The map below plots the location of the postcodes of consultees who completed a questionnaire.



## **This report**

This report is based mainly on the output from the evening meeting/workshop which was facilitated by Siân Shakespear but also incorporates comments made in the completed questionnaires and on the Ynni'r Ocar facebook page. Consultees who participated in the workshop discussions and those who completed the questionnaires are not exclusive of each other and so some had the benefit of briefing material and hearing views from other participants whilst some views have been expressed in isolation.

## **The findings**

### **Session 1      Benefits of a potential hydro scheme**

The workshop and questionnaire began with asking consultees to identify the benefits of installing a hydro scheme on Afon Galedffrwd.

#### **Community pride and ownership**

Many consultees believe that installing a community-owned hydro scheme would contribute to generating a sense of community pride by bringing the community together thereby creating greater cohesion. It would mean that there would be greater local ownership and control of local resources and that awareness of these natural resources would be raised. The village would also become more self-sufficient and it is suggested that young people may stay around if the village gets good publicity and that even some jobs may be generated, as a result. It would also be possible to put a positive spin on the rain that, some say, incessantly falls in the area! There may also be a reason for the village to feel that it "occupies the moral high ground" compared with others.

#### **A progressive green energy scheme**

Overwhelmingly consultees believe that the hydro would be a means of generating energy in a renewable and sustainable fashion. By developing the scheme the village would be contributing towards the national and global effort to reduce CO<sup>2</sup> emissions and pollution thereby helping to reduce the village's carbon footprint. It was mentioned that less energy would be wasted through travelling long distances from source to user via the national grid network. Some also feel that the scheme would be progressive and could pioneer a network of green electricity-generation schemes which could become significant contributors to the national grid. Its pioneering role could extend to enthusing future generations and other communities to undertake similar schemes.

#### **Direct benefits for local people**

A sizeable majority of respondents support the idea of local people directly benefitting from the electricity generated by the scheme in terms of it being cheaper and that the target number of local homes receive electricity generated by the hydro. Some also believe that the electricity could be supplied directly to a local industrial units and workshops at Felin Fawr and Coed y Parc. Another local benefit that some identified is that local contractors would need to travel shorter distances to the site and that local businesses may receive short terms contracts.

## Generate funds

Last but not by far least a large proportion of consultees identified that the potential funds generated by such a scheme could be a major benefit. Some recognised that these funds would be a useful income stream for Coetir Mynydd in all its endeavours including reinstating the historical infrastructure and the good management of the woodland area. Indeed these funds could variously maintain the current dam infrastructure in addition to enhancing the village, community life and protecting the habitat of Yr Ocar woods. The notion that the money could seed fund a whole variety - “smorgasboard” - of larger projects was seen as an attractive proposition. Other suggestions for any profits generated by the scheme included developing an educational resource to help people learn about the energy generating system and how to reduce usage and carbon dependency in addition to investing in reducing any potential negative impacts the scheme may have on the environment by e.g. covering up pipes.

The following quote is representative of many statements made by people weighing up the pros and cons of developing a hydro scheme on Afon Galedffrwd.

*“I would love to see a hydro scheme on the Galedffrwd, I think it is crying out for it. It would also continue its historical usage. It would be ideal if it is a community scheme and if it feeds into local Energy / Cyd Ynni I would be delighted.”*

## Session 2 Overcoming obstacles

During this session participants identified concerns or obstacles which could stand in the way of successfully developing a hydro scheme on Afon Galedffrwd. Having done this they then went on to do some common problem solving by jointly suggesting solutions to overcome these.

### Potential obstacles

- Disappointing the community if project doesn't go ahead
- Stress of dealing with bureaucracy (permits etc)
- Depleted water in river

### Potential solutions

- Make the most of any success opportunities
- Under promise and over deliver
- Increase community communication
- Manage change and expectations
- Spread the load and enlist broad support for Coetir Mynydd
- Employ the right people
- Talk with others who have done it and learn from them.
- Pay someone who knows!
- Adhere to conditions of Abstraction Licence issued by NRW

- Too much noise from turbines
- Choose turbine which is as silent as possible
- Acoustic insulation of turbine house
- The cost - slow costly construction of the turbine house and weir resulting in inefficient costs over time.
- Extensive preparation
- Raise capital locally via community shares
- External risk but could be an incentive for local investment
- That the capital required can't be borrowed
- Possible financial liability if it doesn't work
- GB financial position
- Will profit be used for community benefit?
- Profits only benefits a small number of people
- Disputes over how profit is spent
- Benefits don't come to village.
- Define community area
- Ensure all governing documents and rules are equitable.
- Operate in as transparent a manner as possible
- Learn lessons from other community hydro schemes
- Gain consensus on what constitutes community benefit
- Active involvement in spending by community
- Negative impact on biodiversity
- Endanger some wild animals e.g. bats and otters
- Negative impact on mature trees
- Long term damage to woodland.
- The disruption will be temporary and extensive surveys already carried out deem that the impact will be minimal.
- Could bring about potential enhancement of the habitat
- The timing of the construction phase will be critical.
- Construction traffic - site and village
- Blocking of local roads during construction.
- The site is not suitable for large machinery
- Not expected to need large machinery to undertake the work
- Delivery of pipework is the only part of construction which may require large vehicles.
- Consider cost implications of several smaller deliveries
- Bring in smaller concrete loads.

- Environmental damage in construction
  - Damage caused while moving piping around in the woods
  - Disturbance to foliage, specifically near the river sides.
- Method of construction uphill or downhill?
- Best way to access site
- Visual impact esp. crossing path
- Can local volunteers manage?
- Who would they be accountable to?
- Negative impact on existing structures e.g. dam
- Contractors 'tidy up' woodland unnecessarily
- Usurpers
  - Large commercial
  - Non-local
  - be taken over by an organisation for profit
- Others jumping on the bandwagon
- Tender criteria
- Environmental monitoring
- Supervision
- Choosing right contractor
- May need to involve additional landowners off site to create safe access if possible road closure
- Cover pipes with a hessian type material - may need to be replaced occasionally.
- Bury sections of pipe under path
- Only use specific volunteer skills but try and run mostly professionally
- Establish company which complies to rules and regulations with a Board of Directors?
  - Shouldn't be an issue
  - Specify in contract and inspect regularly
- Specify requirements in contract and regularly inspect
- Time is a healer
- Eligibility criteria set carefully and closely
- Establish community interest company rules to keep control
- Learn lessons from other small-scale schemes

- Lack of co-operation of landowners
- All are in agreement with the principle of the scheme in 2017. Need a binding Legal Agreement with all owners.
- Compliance with H & S regulations
- Under auspices of selected main contractor - choose right contractor conversant with type of work - and write into job preambles, tender documents and final contract
- Stock protection during construction?
- All temporary works and fencing to be the responsibility of main contractor
- Appoint efficient 'clerk of works'

The following quotes are exemplary of statements made by people expressing some measured concerns. However the overall view was that the hydro scheme on Afon Galedffrwd should proceed to the next stage as expressed by a straw poll taken during the drop-in sessions (beans in jars): 229 - Yes 15 - No

*"I understand there will be a lot of upheaval whilst the work is in progress (Lon Las Ogwen has been a mess) but hopefully that will be temporary. Protection of the wildlife, and natural beauty is important to me, also access to the footpaths."*

*"All new initiatives are inherently risky to some extent or other. My main concern would be that the financial or environmental model doesn't work for some reason and results in a scheme which becomes redundant, before it has generated sufficient energy."*

#### Additional comments

- Consider using the top lake, Llyn Newydd as part of scheme

*"It would cause considerable damage - ecological and aesthetic - to a special place, in direct contravention of the stated purpose of Coetir Mynydd."*

## Conclusions

In terms of the discussions recorded at the workshop and statements made in questionnaires the majority of consultees are broadly in support of the principle of moving ahead with the next stage of obtaining the relevant permissions, particularly planning permission, for developing a hydro scheme on Afon Galedffrwd. However there are concerns to be heeded and regular communication is paramount in order to take people along the journey and allay any possible fears. Consultees made several constructive and useful suggestions regarding ways of mitigating some of the potential ill effects and pitfalls. The workshop discussions and overall process revealed several individuals who are either keen to help in any way or have expertise and experience and have particular contributions to make.

6% of consultees who attended the drop-in sessions and the session with the youth club believe that Ynni'r Ocar should not move ahead with the next steps. In addition three strong and impassioned objections were also received.

## Recommendations

1. Coetir Mynydd moves ahead with forming and constituting Ynni'r Ocar by inviting all those who expressed an interest in volunteering to a set-up meeting and allowing free discussions so that Ynni'r Ocar is as independent an entity as possible.
2. As the next steps are taken priority is given to regular communication and villagers are given an opportunity to express their preference as to the most appropriate means of doing this.
3. Regular and open problem solving discussions are held as the scheme progresses so that a truly collective ethos is developed.
4. Members of Ynni'r Ocar visit the nearby Ynni Ogwen hydro scheme and learn from their experience and consider having a seat on their board for Ynni Ogwen or establish another appropriate formal link. Visits should also be made to other community owned hydro schemes - Padarn/Peris and Anafon etc.
5. Two members of Coetir Mynydd/Ynni'r Ocar invite the two objectors to a site meeting and discussions to explain the background and findings of the various research reports.
6. This report is made available via the website and people are signposted to it.
7. Expectations should be managed as far as possible in particular in relation to many people's sincere hope that cheap electricity will be made available to local homes and industrial units.