

Time to Lower the Barriers

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Slide 1 - Introduction

- Good afternoon Ladies & gentlemen and thank you for the invite.
- many know more about these barriers,
- worth making the point to anyone in a position to change things.
- I am a hydro supporter, background is in small & micro hydro, I am a fan of hydro in principle, big and small.
- I have no reason to support, or, not support, any one hydro developer over another.

Slide 2 – Hydro is renewable, isn't it?

- Hydro derives from the hydrological cycle.
- The clue is in the word “cycle”
- Driven by the heat of the sun.
- Has a high level of predictability over other renewable sources.

Slide 3 - Hydro is renewable, isn't it?

- often excluded from being “renewable”.
- e.g. where small and micro hydro schemes are eligible for support, but “large” hydro is not.
- by the whim of a figure on “large” many schemes don't get this support.
- NFFO and SRO both involved `technology bands', E.g.
- NFFO-5 only for < 5 MW declared capacity.
- SRO-3 - no individual project > 15 MW.
- LCBP Phase 2 programme excludes hydro from its eligible technologies.
- At EU level support for small hydro in
 - research, development, and
 - demonstration projects,

Slide 4 - Hydro is renewable, isn't it?

- The funding has covered
 - research - (Joule),
 - demonstration projects (THERMIE)
 - < 10 MW scheme rating
 - and non-technical issues (ALTENER)
- Small hydro was not clearly mentioned in the 5th & 6th Framework programmes and, up to 2005, no calls were open to hydro.
- The 7th Framework does specifically include hydro, this is a positive move, to be acknowledged.
- only as recently as August 2007, the US Congress voted to reaffirm its recognition of hydropower as a renewable energy resource.
- Why was a vote necessary at all?

Slide 5 – Why so?

- The impression is that hydro is a mature and fully developed technology.
- thus *wrongly* assumed that market forces alone are sufficient to promote hydro, without the need for any support.
- Hydro thus often excluded from programmes designed to assist renewable energy development.
- Therefore hydro is deemed not to be renewable; that is the impression that is given at least.
- Consequently opportunities to assist reduce Carbon emissions are being missed.
- This can't be a good thing.

Slide 6 - Issues with hydro – real and perceived.

- There are genuine issues with development of hydroelectric schemes.
 - environmental impact,
 - greenhouse gas emissions from reservoirs,
 - population re-settlement and
 - dam failures.
- It would be wrong to trivialise the impacts that these will have had.
- Many former hydroelectric schemes fell into disuse,
- Often due to the spread of national grid systems.
- There is now a push to re-instate many of these schemes.
- we mustn't take the attitude that what was acceptable before is acceptable now.

Slide 7 - Issues with hydro – real and perceived.

- Hydro plants are considered to adversely affect;
 - fish migration, fishing, boating,
 - other leisure interests.
- In some cases this may be the case, but in many cases it is not.
- The recent FREDS report pointed out that new fish ladders can have a positive effect on fish movements.
- The public perception is that all hydro schemes involve large dams and reservoirs, *we* know this is not always the case.
- The FREDS report advises that only 12% of the 1019 possible new sites would require dams.

Slide 8 - Obstacles to development

- This then becomes a matter of the need for appropriate education and positive press/publicity for each new scheme that is being proposed. The BHA have a role to play here.
- Must also design and install a scheme that is acceptable to all, not just the developer.
- Glendoe a good example of this..
- Environmental objections are not restricted to hydropower.
- almost all new projects in the UK are being met with objection;
 - wind farms,
 - new or upgraded power lines, and
 - nuclear power stations

- Thankfully some projects are being approved.

Slide 9 – Conclusions

- The high overall conversion efficiency and relatively low emissions of hydroelectric generation must not be ignored;
 - this is especially true of run-of-river schemes.
- As climate change continues, generation by sustainable means is becoming more important,
 - Perhaps in time this may be the only option available!
 - Old mills were once viable!
- Governments, developers and planners need to seriously consider promoting hydroelectric generation of all types,
- Removing the artificial barriers to hydroelectric development would be welcome as a first step. Followed by addressing the issues surrounding; consenting, streamlining the environmental approval process, and grid connection
- Hydropower is renewable, and should not be considered otherwise.
- If renewable projects in general, and hydropower projects in particular are to be a part of a sustainable energy mix,
- something has to give in the interests of the wider global benefit.
- Thank you for your attention.