

Submission from the **Wye and Usk Foundation** and **River Wye Preservation Trust** to the Commons Select Committee considering the possibility of a Cardiff to Weston Barrage.

1. The Wye and Usk Foundation ([WUF](#)) and River Wye Preservation Trust ([RWPT](#)) are registered charities with specific concerns for the Wye and, in the case of WUF, the Usk.. These organisations had representation on the 2010 Strategic Environmental Steering Group of the Severn Tidal Power investigation. This investigation looked in depth at the effects and benefits that five (from a short list of ten) Severn estuary projects might have in respect of economics. It also looked at negative side effects as well as the likely outcomes for the protected habitats and species.
2. The Severn Estuary has some of the largest concentration of listed sites: Severn Estuary; River Wye and River Usk Special Areas of Conservation (SACs). The intertidal zone is a Ramsar listed site for migratory birds.
3. However, the initial selection process for the shortlisted five rested solely on their cost benefit: the cost of construction in relation to power output. No attempt was made to identify “showstoppers” at this stage such as (to name three examples):
  - Adverse flooding effects
  - The problems of impoundment (sediment /water quality)
  - Damage to the listed species and habitats
4. During the assessment of the shortlisted five projects, determination was made of these other effects. On the discovery that all five would cause of extinction of **all** the migratory, EU listed fish species (Atlantic salmon, Allis and Twaité shad, River and sea lamprey plus the European eel and several UK Biodiversity action plan species), investigation into the possibility of finding other habitats to compensate the loss of these Natura linked sites revealed that the IROPI (overriding public interest) clause of the Habitats Directive could not be met.
5. It was not possible to “fudge” this by using compensatory habitats of a different type and robust legal opinion has been sought to rebutt any such attempt.

6. None of the five shortlisted projects, which included the Cardiff to Weston Barrage (CWB), produced enough power to justify their constructional cost were the government to undertake the project i.e. there were cheaper alternatives available to meet generation and decarbonisation targets. It was noted that although predictable, the intermittent nature of Severn tidal power generation presented problems as the non generation period of time (which varied on a daily basis) would need to be met with generation from other sources.
7. The substantial power output of the CWB for that short period would challenge the grid system leading to additional costs that were not included in the assessment.

#### Conclusions of WUF and WRPT

1. During the previous investigations, sight of plans for the CWB afforded the opportunity to make a proper assessment. This is not the case now.
2. La Rance is a very poor example of Harnessing of tidal flows and both French and Canadian (Bay of Fundy – the world's highest tidal range) experts agree that barrages are a high risk environmentally.
3. There is a view that the CWB could bring economic prosperity to South Wales and elsewhere. It should be remembered that it is investment that brings prosperity and not necessarily the project.
4. The political incentive for economic regeneration could cloud the decision in respect of the UK's power needs and Climate Change measures. It should be clearly understood that all NGOs support decarbonisation and green energy production. The need for both is urgent and neither will be met by the CWB.
5. Very little investment has been made into methods for converting tidal range into power generation. We hope the conclusion will be that other forms of green energy (Tidal flow, Photo Voltaic, Micro Hydro, wind etc) will be pursued alongside low carbon schemes (Nuclear, possibly gas) to solve the immediate short term problems concurrently with development of environment friendly tidal range schemes for deployment in the longer term.

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