

Sustainability Committee

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Inquiry into Carbon Reduction in Wales: Evidence on Energy Production from the Environment Agency Wales.

The Agency submitted a general paper covering aspects of carbon reduction in Wales on 4 October 2007. This covered the background to Climate Change, key Agency roles, indicators, emissions of greenhouse gases in Wales and some comments on policy issues. On 28 January 2008 we also presented a sector-specific paper to the Committee on the Environment Agency's role in reducing greenhouse gas emissions with respect to industry and our own carbon footprint. We have also submitted written evidence on emission reductions associated with land use and agriculture.

Please find below the Agency position on the current feasibility study on the Severn Tidal Power which includes more general comments on large scale marine renewables. The position statement is presented in Welsh and English.

Severn Estuary Tidal Power Feasibility Study

Introduction

The Severn Estuary has one of the highest tidal ranges in the world. The idea of generating electricity from this huge, dependable source of energy was first looked at in detail in the 1970s and '80s. There is renewed government interest in this potential resource today in order to provide a clean and secure source of electricity that will help government reduce greenhouse gas emissions and meet our obligations to increase our renewable energy production.

About the Severn Estuary

The Severn Estuary is Britain's second largest estuary. It covers 55,700ha including 20,000ha of inter-tidal habitat and a 14.5 tidal range. Its combination of immense tidal range and classic funnel shape make it unique in the UK and rare worldwide. The Severn and its 10 sub-estuaries represent about seven percent of the UK total estuary resource.

Its Environment

The Severn Estuary provides a vital link in bird migration routes between Africa and Siberia and supports both an over-wintering bird population itself and provides a stop over for passing migratory species. It regularly supports over 60,000 over wintering wildfowl, including over 50% of the British population of European white-fronted geese, 10% of dunlin and 5% of several other species.

Twenty five percent of the England and Wales salmon spawning area is found in the rivers running into the Severn Estuary. The Wye being the most important river in England and Wales on this basis. Of the four rivers in the UK that support spawning populations of twaite shad, three (the Severn, Wye and Usk) drain into the estuary. The estuary and its tributary rivers also support internationally important populations of eel, river and sea lamprey.

Feasibility Study

The Welsh Assembly Government and The Government's department for Business Enterprise and Regulatory Reform (BERR) announced terms of reference for the feasibility study on tidal power in the Severn Estuary on Tuesday 22nd January 2008. The Environment Agency will support and contribute to the study. We are contributing to the study by engaging with all relevant working groups and sitting on the Steering Group for the Strategic Environmental Assessment (SEA).

The feasibility study will:

assess in broad terms the costs, benefits and impact of a project to generate power from the tidal range of the Severn Estuary, including environmental, social, regional, economic, and energy market impacts;

identify a single preferred tidal range project (which may be a single technology/location or a combination of these) from the number of options that have been proposed;

consider what measures the Government could put in place to bring forward a project that fulfils regulatory requirements, and the steps that are necessary to achieve this;

decide, in the context of the Government's energy and climate change goals and the alternative options for achieving these, and after public consultation, whether the Government could support a tidal power project in the Severn Estuary and on what terms.

The study, which will include a Strategic Environmental Assessment, is expected to last roughly 2 years concluding with a public consultation in early 2010. There will be a decision point in December 2008 whether to continue to the second stage of the project.

Environment Agency Response

We welcome the Severn Estuary Tidal Energy feasibility study and the Government's commitment to a full economic and environmental appraisal, including a Strategic Environmental Assessment.

We consider that tidal energy systems, appropriately and sensitively designed, sited and operated, will have a role to play in delivering renewable energy.

We will contribute to the feasibility study to identify a project that can generate the maximum sustainable energy from the Severn Estuary which must not cause unacceptable environmental damage

In our role as a statutory body, the Environment Agency are committed to engaging constructively in the feasibility study to ensure a thorough job is done, particularly on the assessment of cost, impacts on wildlife and compliance with the Habitats Directive and other environmental legislation.

We expect any promoter to adequately address the issues of cost, impacts on wildlife and compliance with the Habitats Directive and other environmental legislation.

The Environment Agency is very supportive of renewable energy and the Government's commitment to reduce UK CO₂ emissions by at least 80% by 2050. We would like to see further investment in low carbon technologies such as energy efficiency, other renewables, carbon capture and storage, and combined heat & power technology.