



DECC

SEVERN TIDAL POWER FEASIBILITY STUDY

Report to Inform a Stage 1 (Screening) Habitats Regulations Assessment

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ABBREVIATIONS

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The following abbreviations are used in this Topic Report:

AA	Appropriate Assessment
B3	Cardiff-Weston Barrage (short-listed option for STP)
B4	Shoots Barrage (short-listed option for STP)
B5	Beachley Barrage (short-listed option for STP)
CCW	Countryside Council for Wales
CHaMP	Coastal Habitat Management Plan
cSAC	Candidate Special Area of Conservation
DECC	Department of Energy and Climate Change
Defra	Department for Environment, Food and Rural Affairs
EIA	Environmental Impact Assessment
EC	European Commission
EU	European Union
HRA	Habitats Regulations Assessment
IOAR	Interim Options Analysis Report
IROPI	Imperative Reasons of Overriding Public Interest
JNCC	Joint Nature Conservation Committee
L2	Welsh Grounds Lagoon (short-listed option for STP)
L3d	Bridgwater Bay Lagoon (short-listed option for STP)
MW	Megawatt
ODR	Options Definition Report
ODPM	Office of the Deputy Prime Minister
NAW	National Assembly of Wales
NE	Natural England
PB	Parsons Brinckerhoff
PPS	Planning Policy Statement
pSAC	Possible Special Area of Conservation
pSPA	Potential Special Protection Area
SAC	Special Area of Conservation
SDC	Sustainable Development Commission
SEA	Strategic Environmental Assessment
SI	Statutory Instrument
SPA	Special Protection Area
SR	Statutory Rule (of Northern Ireland)
STP	Severn Tidal Power
SSI	Scottish Statutory Instrument
TAN	Technical Advice Note
TWh/year	Terawatt hours per year
UK	United Kingdom
WAG	Welsh Assembly Government

EXECUTIVE SUMMARY

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Introduction

The Government announced a two-year feasibility study on harnessing the renewable energy from the tidal range in the Severn Estuary in January 2008. The Feasibility Study is split into two phases. Phase One examined the scope of work and analysis required to make an evidence-based decision on whether to support a tidal power project in the Severn and what potentially feasible schemes exist for converting this energy. Phase One ended with the publication of the consultation document in January 2009.

Phase Two comprises work on environmental, regional, economic, commercial, technical and regulatory issues to inform the study conclusions including whether any of the potential schemes are feasible. This report is one output from Phase 2 of the Severn Tidal Power (STP) Feasibility Study.

Although not yet a plan or project, any tidal power option that is taken forward as an outcome of the Feasibility Study would be tested against the requirements of the European Community (EC) Habitats Directive (Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora) and Birds Directive (Council Directive 2009/147/EC on the conservation of wild birds). These directives establish, and provide protection for a network of sites designated to conserve natural habitats and species that are rare, endangered, vulnerable or endemic within the European Union. These sites are known as the 'Natura 2000' network.

The requirements of the EC Habitats and Birds Directives are transcribed into UK law by the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), normally referred to as the Habitats Regulations. This means that an appraisal of whether a STP scheme could comply with the Habitats Regulations needs to be undertaken and integrated into the selection of the preferred option or options to enable an informed decision and to ensure that the chosen option or options can comply with the law.

A strategic environmental assessment (SEA) is also being conducted as part of the STP Feasibility Study, in accordance with European Union (EU) Directive 2001/42/EC (the SEA Directive), implemented in England and Wales through the Environmental Assessment of Plans and Programmes Regulations (SI 2004/1633 and Welsh SI 2004/1656). The assessment of compliance with the Habitats Regulations is being undertaken in parallel with, but separate from, the SEA.

Purpose of the Report

This is a draft report to DECC to inform a consideration of the Screening of Likely Significant Effects under the Habitats Regulations as part of the study to consider the feasibility of tidal range power generation in the Severn Estuary. This report updates the Preliminary Screening Report that was prepared during Phase One of the STP Feasibility Study and considers each of the five short-listed options that were identified during Phase One of the Feasibility Study:

- Cardiff-Weston Barrage (B3), also known as the Brean Down to Lavernock Point Barrage
- Shoots Barrage (B3)
- Beachley Barrage (B5)
- Welsh Grounds Lagoon (L2)
- Bridgwater Bay Lagoon (L3d).

The purpose of Screening is to identify the potential hazards associated with each short-listed option, and to identify whether Natura 2000 sites would be exposed to these hazards and would be subject to likely significant effects as a consequence. Any site that is assessed as being subject to a Likely

Significant Effect (LSE) would need to be carried forward to Stage 2 ('Appropriate Assessment') of the HRA process, which would assess the potential impacts in more detail.

Consultation

This report to inform a Screening assessment has been prepared in consultation with the statutory nature conservation bodies and biodiversity specialists working on the STP Feasibility Study and SEA. The following consultation activities have been carried out since completion of the Preliminary Screening Report in December 2008:

- SEA scoping consultation in January 2009.
- STP Feasibility Study Phase 1: Public Consultation, from 26th January to 23rd April 2009.
- Meetings between the HRA study team and SEA biodiversity specialists in June and July 2009 to establish good working relationships and ensure that all data necessary to carry out the HRA study was being generated.
- Technical Workshops held by the HRA Experts Group in July, September, October and November 2009, and January 2010. This group includes representatives from the Countryside Council for Wales, Natural England, Environment Agency, Joint Nature Conservation Committee, Defra and Welsh Assembly Government.
- Review of the findings of the report to inform a Screening assessment by SEA topic specialists and statutory nature conservation bodies in November and December 2009.

Evaluation of Options

It is concluded that for each short-listed option there would be a likelihood of a significant effect upon one or more of the qualifying features for a number of Natura 2000 and Ramsar sites. The Cardiff-Weston Barrage (B3) option is identified as having the potential to result in an LSE on the greatest number of sites: 23 SACs, 7 SPAs and 6 Ramsar sites (excluding flyway sites). The Bridgwater Bay Lagoon (L3d) option is identified as having the potential to result in a LSE on 16 SACs; the Shoots Barrage (B4) and Welsh Grounds Lagoon (L2) options on 15 SACs; and the Beachley Barrage (B5) option on 14 SACs. All options, apart from the Cardiff-Weston Barrage (B3), are identified as having the potential to result in an LSE on 6 SPAs and 6 Ramsar sites (excluding flyway sites).

There are 11 SACs identified as being potentially subject to a LSE that support priority features. The Cardiff-Weston Barrage (B3) option is identified as having the potential to result in a LSE on five priority habitats across eight SACs; the Bridgwater Bay Lagoon (L3d) option on four priority habitats across three sites; the Shoots Barrage (B4) and Welsh Grounds Lagoon (L2) options on two priority habitats at two sites; and the Beachley Barrage (B5) option on one priority habitat at one SAC.

In addition to these sites and features, all short-listed options have the potential to affect a further 91 SPA and 80 Ramsar 'flyway' sites. These are UK sites that are used by populations of migratory birds that are known to be present in the Severn Estuary as they move between breeding and wintering grounds each year.

The list of sites that have been identified as potentially being subject to a LSE for each short-listed option is presented in Section 6 of this report. An HRA Stage 2 Appropriate Assessment of effects in relation to the potentially affected qualifying features and their conservation objectives for these sites would be required. Additional details are provided in Annexes A to E.

If a preferred option for tidal range power generation is identified following completion of the STP Feasibility Study, a project level Habitats Regulations Assessment would be required for each specific (EIA level) scheme. This tiered approach is in line with standard practice for major projects.

A number of limitations to the identification of Natura 2000 and Ramsar sites and features that could be affected by STP are noted in this report. These limitations are due to the strategic nature of the study and also due to limitations in the data provided by other STP Feasibility Study workstreams.