



Overview - Transboundary screening undertaken by the Secretary of State	
Project name:	Tidal Lagoon Cardiff
Address/Location:	Severn Estuary, near Cardiff and Newport
Planning Inspectorate Ref:	EN010073
Date(s) screening undertaken:	First screening – 6 January 2016
EEA States identified for notification:	First screening: EEA States notified are listed below: <ul style="list-style-type: none"> • Republic of Ireland

FIRST TRANSBOUNDARY SCREENING UNDERTAKEN BY THE SECRETARY OF STATE	
Document(s) used for transboundary Screening:	Environmental Impact Assessment Scoping Report ('the Applicant's Scoping Report') dated March 2015; and Transboundary Impacts Screening Report June 2015 ('the Applicant's Screening Report').
Date	6 January 2015
Screening Criteria:	Secretary of State's Comments:
Characteristics of the Development	<p>The proposed Tidal Lagoon Cardiff consists of a renewable energy generating station with an expected generating capacity of 1800 to 2800MW.</p> <p>Chapter 6 of the Applicant's Scoping Report identifies the following elements of the proposed development:</p> <ul style="list-style-type: none"> • Breakwater approximately 25km long; • 2-3 concrete turbine and/or sluice gate housings; • 60-90 turbines and 20-30 sluice gates located within the housings; • Operations and maintenance access upon the structures; • Cable works within the breakwater and grid connection to an appropriate substation; • Structures located upon the turbine/sluice gate housing; and • Potential compensatory habitat. <p>The electricity generated would be fed into the National Electricity Transmission System (NETS) via a National Grid substation. The capacity of the export cable for connection to the NETS would be 400kV.</p> <p>The applicant anticipates that the proposed breakwater would be constructed as a conventional rock armoured gravity structure with fill of sand and wide grade quarry run or dredged gravel. The sediment/quarry run core would be held in position, with layers of rock and rock armour placed on the outside of the structure for protection; the thickness and quantity of the rock armour layers will vary depending on breakwater location/exposure. An option of using concrete caissons for deeper sections, protected by rock armour, is also proposed for further consideration.</p> <p>During construction and operation, the Applicant considers that</p>

	<p>the project has potential to increase vessel collision both with the developing/operational structure and with other vessels.</p> <p>The construction period is proposed to last 4-5 years with proposed initial power generation predicted to be in 2022. The proposed operational lifespan is 120 years, with turbine design life being 50 years.</p>
<p>Geographical area</p>	<p>The Applicant's Scoping and Screening Reports both identify the potential for environmental impacts on other EEA States. The reports typically identify effects in general terms, for example highlighting the potential for impacts on marine mammals, migratory fish and commercial fishing, coastal birds and navigation/marine transport but do not report which other EEA States would be affected.</p> <p>The exception to this is the Applicant's reference in the Scoping Report (para 14.1.2.1) to harbour porpoise, which falls within the Celtic and Irish Seas (CIS) Management Unit and covers the seas from the Isle of Man, all around Republic of Ireland, Cornwall and the Channel Islands.</p> <p>The ornithological review (Appendix 2.2 of the Applicant's Scoping Report) provides an analysis of the potential geographic origin of bird species that can be present within the designated sites in the Severn Estuary. The review suggests that these birds originate from a range of EEA states (from the Baltic states to the Iberian peninsula) but does not identify specific designated sites within those states or whether they would experience a likely significant effect. Consequently, it is not possible to identify specific EEA states at this time in relation to effects on coastal birds.</p>
<p>Location of Development (including existing use)</p>	<p>The site is located wholly in Wales and in Welsh Waters.</p> <p>The project is proposed to be located on the northern shore of the Severn Estuary, between Cardiff Bay and the River Usk. The western landfall of the lagoon breakwater would be positioned to the south of the Queen Alexandra Dock, within Cardiff Docks, and the eastern landfall would be located approximately 2km from the mouth of the River Usk in the Wentlooge Levels. The project would span the southern edges of the Wentlooge Levels and would encompass an area of approximately 70km² of the seabed and foreshore. The approximately 25km long breakwater would extend in a curve southwards into the Severn Estuary and at its furthest point the breakwater would extend 8km offshore.</p> <p>The area of the proposed western landfall is characterised by port and other industrial development close to the urban centre of Cardiff City, uses which are adjacent to the Cardiff Bay development. The area of the proposed eastern landfall is characterised by low lying farmland behind a seawall defence. The impounded foreshore beyond the eastern extent of the industrial area of Cardiff can be characterised as low-lying farmland behind a seawall defence, with sporadic small</p>

	<p>settlements at irregular intervals and some areas of active and historic landfilling.</p> <p>The closest EEA State to the proposed development site, taking account of the location of the project within the Severn Estuary and the pathway for any potential effects, is the Republic of Ireland (although France is strictly the closest state by distance).</p>
Cumulative impacts	<p>Section 3.2.5 and Table 3.1 of the Applicant’s Scoping Report identify 13 other major developments within the Severn Estuary including major nuclear power station and conventional power station developments, other tidal barrage and tidal technology projects, a motorway, power line, buildings project, flood scheme and a deep sea container terminal. These projects are located in coastal positions around the estuary.</p> <p>At this stage no cumulative impacts with developments in the UK or in other EEA states have been identified by the Applicant that would give rise to potential impacts on other EEA States.</p>
Carrier	<p>The potential impact pathways would be via water; and the physical presence, construction and operation of the lagoon structure within the Severn Estuary, which could lead to changes in geomorphology with consequent potential impacts on navigation and vessel collision, loss of fish habitat, effects on fish migratory routes and entrainment of fish in turbines.</p> <p>Potential transboundary impacts could include impacts on mobile species (marine mammals, fish, coastal birds); impacts on commercial fishing activities; and impacts on navigation routes.</p>
Environmental Importance	<p>The proposed footprint of the development falls wholly, or partly, within the Severn Estuary Special Area of Conservation (SAC), Special Protection Area (SPA), Ramsar and Site of Special Scientific Interest (SSSI) and Gwent Levels, which are notified within six SSSIs.</p> <p>The River Usk SAC, River Wye SAC, Newport Wetlands National Nature Reserve (NNR) are located approximately 1.7km, 23km and 1.9km north east of the proposed lagoon respectively (see Figure 16.1 of the Applicant’s Scoping Report).</p> <p>The Applicant’s Scoping Report also identifies one Marine Conservation Zone (MCZ), Lundy MCZ, within the vicinity of the proposed site. A further candidate MZC (cMCZ), North of Lundy and a recommended MZC (rMZC), Bideford to Foreland Point, have also been identified in the Applicant’s Scoping Report.</p> <p>Fish: The Applicant’s Screening Report identifies the potential for transboundary impacts upon migratory fish and commercial fisheries as a result of the Project. The fish species include Annex II migratory fish species that are listed as features of Natura 2000 sites in other European Economic Area (EEA)</p>

states. The migratory fish species may also be of commercial importance to other EEA states. The applicant's Screening Report does not provide specific detail regarding the likely EEA states that may be affected. Therefore it is not possible to identify specific states in relation to effects on fish at this time.

Marine Mammals: The Applicant's Screening Report identifies the potential for transboundary impacts upon marine mammals due to the mobile nature of marine mammal species between UK territorial waters and other EEA states. The most common cetacean recorded in the Severn Estuary and Bristol Channel is the harbour porpoise (*Phocena phocena*). Grey seal (*Halichoerus grypus*) is also known to occur in the area. Both of these species are listed as Annex II species under the Habitats Directive and are qualifying features of Natura 2000 sites in other EEA states. The Applicant's Scoping Report makes specific reference to the Republic of Ireland with respect to harbour porpoise (para 14.1.2.1 of the Applicant's Scoping Report) and to Ireland with respect to grey seal (page 18 of Appendix 14.1 to the Applicant's Scoping Report). However, although the potential for impacts on Natura 2000 sites in other EEA States, for which marine mammals are qualifying features, is identified in the Applicant's Screening Report, the Applicant does not identify impacts on specific EEA states.

Coastal birds: The Applicant's Screening Report identifies the potential for transboundary impacts upon populations of coastal birds due to the wide migratory range of overwintering and passage bird species recorded in the Severn Estuary. Several of the species are listed as qualifying features of Natura 2000 sites in other EEA states. In the absence of specific detail regarding the sites likely to be affected, it is not possible to identify specific EEA states for further consultation with respect to impacts on coastal birds at present.

The Applicant's Screening Report identifies four main commercial ports that operate within the Severn Estuary and Bristol Channel:

- Port of Bristol (including Avonmouth and Royal Portbury Dock);
- Cardiff;
- Newport; and
- Barry.

The Applicant's Screening Report identifies a further eight smaller ports including Bristol City Docks and Port of Bridgwater are present. The Severn Estuary/Bristol Channel commercial ports are a significant regional/national asset, handling approximately 4% of UK cargo (Applicant's Scoping Report paragraph 19.1.1.1). The Severn Estuary also supports pilotage, marine ferry services, maritime search and rescue, commercial aggregate extraction, dredging, some commercial and recreational fishing, recreational boating, military firing and explosives anchorages.

Extent	<p>The Applicant's Screening Report identifies the potential for the project to lead to transboundary impacts on other EEA states but no information is provided on which states may be affected, except for the potential to affect harbour porpoise and grey seal which are present in the vicinity of the Republic of Ireland.</p> <p>The Applicant's Screening Report suggests that there is potential for transboundary impacts on the activities of foreign shipping as a result of contact between vessels and the physical presence of structures; potential changes in sediment deposits and effect on navigation and dredging requirements; increase in transit times; and effects on aids to navigation. Due to the wide range of shipping interests that use the Severn Estuary ports, the limited information on vessel origins provided by the Applicant's Screening Report and the discretionary nature of vessel movements to and from the estuary ports it is not possible to identify effects on shipping for specific EEA states at the present time.</p> <p>The Secretary of State is of the view that effects on commercial shipping interests of another EEA state are unlikely to be significant based on the proportion of foreign vessels using the area from each State and likely to be affected.</p> <p>The Applicant's Screening Report also identifies the potential for transboundary effects on foreign commercial fishing interests.</p> <p>The Secretary of State is of the view that the extent of effects on commercial fishing interests within the Severn Estuary is anticipated to be limited to the area within and around the proposed tidal lagoon, with lesser effects extending to the wider area of the Bristol Channel and that any impact is unlikely to be significant in terms of the commercial fishing interests of other EEA states.</p> <p>In addition, the Applicant's Screening Report suggests that potential transboundary impacts upon the economies of other EEA states may arise through the purchase of project components, equipment and the sourcing of labour from companies based outside the UK.</p>
Magnitude	The Applicant has not identified the likely magnitude of any effects on any EEA state.
Probability	The Applicant has not identified the likely probability of any effects but indicates that there is potential for effects to arise on other EEA states.
Duration	The Applicant has not set out the likely duration of any effects on other EEA states.
Frequency	The Applicant has not set out the likely frequency of any effects on other EEA States.
Reversibility	The Applicant has not set out the likely reversibility of any effects on other EEA States.
<u>Transboundary screening undertaken by the Secretary of State</u>	
Under Regulation 24 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended) (the EIA Regulations) and on the basis of the current	

information available from the Applicant, the Secretary of State is of the view that the proposed development **is likely** to have a significant effect on the environment in another EEA State.

In reaching this view the Secretary of State has applied the precautionary approach (as explained in the Planning Inspectorate's Advice Note 12: Transboundary Impacts Consultation); and taken into account the information currently supplied by the Applicant.

Action:

Transboundary issues notification under Regulation 24 of the EIA Regulations is required.

States to be notified:

Republic of Ireland due to potential effects on marine mammals (harbour porpoise and grey seal).

Date 6 January 2016

Note: The Secretary of State's duty under Regulation 24 of the EIA Regulations continues throughout the application process.