Planning Inspectorate
Arolygiaeth Gynllunio

Transboundary screening undertaken by the Planning Inspectorate (the Inspectorate) on behalf of the Secretary of State (SoS) for the purposes of regulation 32 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (The 2017 EIA Regulations)	
Project name:	Mersey Tidal Power Project
Address/Location:	A tidal range barrage across the River Mersey, Liverpool, England.
Planning Inspectorate Ref:	EN0110006
Date(s) screening undertaken:	First screening – 03 April 2025 following the Applicant's request for a scoping opinion

FIRST TRANSBOUNDARY SCREENING	
Document(s) used for transboundary Screening:	Mersey Tidal Power EIA Scoping Report ('the Scoping Report') September 2024
Screening Criteria:	**The Inspectorate's Comments:**
Characteristics of the Development	The proposed development comprises: A partially submerged permanent tidal power generation structure across the river channel between Liverpool and The Wirral in Merseyside, England, which would contain: • a power generation system with control equipment and a sub-structure housing turbines with an expected electrical output of up to 1 Gigawatt (GW) • hydro control system (including sluice gates) • marine navigation system (including locks) • power export system • onshore operational facilities including control centre, maintenance, stores and office buildings, car parks • rock armour and breakwaters • onward grid connection to a National Grid substation or other substations • use of the surrounding Liverpool port facilities during the construction phase in addition to other potential associated developments which may support the construction phase

	Duration The proposed development would be constructed over a 7 to 10 year period and operational for 120 years. The Scoping Report identifies that the grid connection would be in place by 2035 and the tidal barrage would be operational in 2038. Although details of the decommissioning period are not fully described in the Scoping Report, it states that a 12 month decommissioning period would be required at the end of the 120-year operational period for above ground structures. The Mersey Tidal Power Project area covers 16.6km^2 in the Scoping Report. This consists of two development areas: **Tidal barrage area** The barrage area would cover approximately 24km^2 and comprise up to 50 power generating turbines located in the deepest part of the river channel (approximately -23.5m Above Ordnance Datum). Electricity would be generated either using the incoming or outgoing tides or a combination of both. A series of sluice gates are proposed to control water levels and flow. A marine navigation system would be in place to allow ships to pass through the structure using locks. The barrage would be secured to the estuary bed and an area of land reclaimed from the river at either bank linking the barrage to both sides of the estuary. The Scoping Report states that the design and numbers of the locks and navigation systems are yet to be defined. **Grid connection development area** The Scoping Report identifies a 14.2km^2 area for the onshore transmission infrastructure. The location for the grid connection point and substation has not yet been determined but four likely substation locations are identified: Birkenhead, Capenhurst, Lister Drive and / or Breck Road Substation and would have a capacity of 1GW. Cabling linking to the tidal barrage would be installed either underground or via overhead cabling. **Port and Marine facilities** The proposed development would require the use of existing port and marine facilities during the construction phase within Liverpool. No details of the facilities required, or their location are available in the Scoping Report.
Location of Development (including existing use) and Geographical area	**Distance to European Economic (EEA) States** The tidal barrage is situated wholly within UK Exclusive Economic Zone (EEZ) Waters. The nearest EEA state to the proposed development is not identified within the Scoping Report. The Scoping Report identifies industrial (including chemical and petro-chemical uses), commercial (such as ports, ferries and cargo facilities), recreational and residential uses within and adjacent to the proposed development. 13 offshore windfarms are identified off Liverpool within the Irish Sea, the closest identified

	as Burbo Bank Offshore and Burbo Bank Extension windfarm, 10km from the proposed development.
Environmental Importance	**Designated sites** The following UK European sites are identified in the Scoping Report as either within or close to the scoping boundary for the proposed development: • Mersey Narrows and North Wirral Foreshore Special Protection Area (SPA), Special Area of Conservation (SAC) and Ramsar Site (within scoping boundary) • Mersey Estuary SPA and Ramsar site (within scoping boundary) • Sefton Coast SAC • Dee Estuary SAC • Liverpool Bay SPA and Marine Protection Area (MPA) • Ribble and Alt Estuaries SPA and Ramsar Site • North Channel SAC **Marine Mammals (Scoping Report Chapter 8)** The following species are identified as present in the area: • harbour porpoise (*Phocoena phocoena*) • common dolphin (*Delphinus delphis*) • bottlenose dolphin (*Tursiops truncatus*) • Risso's dolphin (*Grampus griseus*) • minke whale (*Balaenoptera acutorostrata*) • grey seal (*Halichoerus grypus*) • harbour seal (*Phoca vitulina*) Sites designated for marine mammals in France and Ireland are identified as potentially affected (appendix 3.3, table 4-4). **Marine and Intertidal Ornithology (Scoping Report Chapter 9)** The proposed development includes land used by both breeding/ passage and overwintering bird species, set out in Scoping Report paragraphs 9.6.12 to 9.6.22 and table 9.9. They include (but are not limited to) teal, shelduck, pintail, dunlin, black-tailed godwit, little gull, golden plover, redshank, red-throated diver and internationally important waterbird assemblages. International sites within the specified Marine and Intertidal Ornithology study areas with additional bird species are also outlined in appendix 3.3, table 4-6 that considers species with a wide foraging range such as manx shearwater, storm petrel, fulmar and gannet.

	Commercial Fisheries (Scoping Report Chapter 11) The scoping report (paragraph 11.6.6) identifies species of high commercial value within the study area including whelks (*Buccinum undatum*), king scallops (*Pecten maximus*), queen scallops (*Aequipecten opercularis*), European lobster (*Homarus gammarus*), sole (*Solea solea*) and sea bass (*Dicentrarchus labrax*). The majority of catches are to English, Scottish and Welsh registered vessels. **Shipping and Navigation (Scoping Report Chapter 16)** The scoping report identifies that commercial ships operate from the Mersey Estuary ports, identified as the 3rd busiest UK port for commercial freight. Port facilities support international trade between the UK and North America, China, Europe and Canada. **Major Accidents and Disasters (MA&D) (Scoping Report Chapter 15)** By definition, a MA&D event could result in a significant environmental effect and may result in transboundary effects. The scoping report identifies that the Environmental Impact Assessment (EIA) will consider potential transboundary effects for those MA&D types which have been scoped in for further assessment. The scoping report also provides information on the receiving offshore environment in relation to: • coastal processes • benthic ecology and plankton • Invasive Non-Native Species (INNS) • fish and shellfish • underwater noise and vibration • military and civil aviation • marine archaeology and cultural heritage • seascape and landscape • infrastructure and other marine users • greenhouse gases • climate change resilience The Inspectorate has taken into account the potential impacts, extent, magnitude, probability, duration, frequency, reversibility and potential for cumulative effects. Significant transboundary effects are not considered likely for the above discussed offshore matters and they are not therefore discussed further in this screening.

	No potential receptors of environmental importance have been identified in the onshore environment that could result in transboundary impacts. Onshore receptors and impacts are therefore not discussed further in this screening.
Potential impacts and Carrier	**Marine Mammals** The Scoping Report states that there is potential for transboundary impacts on marine mammals due to the mobile nature of marine mammal species and the geographical scale of management units particularly where these extend beyond the limits of UK waters. 19 Transboundary French Sites and 13 Transboundary Irish Sites (appendix 3.3, table 4-4) are identified for potential effects on harbour porpoise. Direct impacts may occur during the construction, operation and maintenance, and decommissioning phases of the proposed development. Likely significant effects upon European Sites with marine mammals as qualifying features will be assessed within the Habitats Regulations Assessment (HRA) Report. Potential impacts on marine mammals are outlined in table 5-6 in appendix 3.3, from underwater noise and vibration effects, effects on prey, accidental pollution, vessel disturbance and increased collision risk (vessels and turbines), barrier to movement, and changes to tidal currents. **Marine and Intertidal Ornithology** There is a potential for transboundary impacts on marine and intertidal ornithology due to the mobile nature of bird species, particularly where foraging ranges extend beyond the limits of UK waters. Direct impacts could occur during the construction and decommissioning phases of the proposed development and impacts to marine and intertidal receptors are proposed to be subject to transboundary assessment in the EIA. Likely significant effects upon non-UK European Sites with marine and intertidal ornithology as qualifying features are screened out of the HRA. Potential impacts to marine and intertidal ornithological sites are outlined in appendix 3.3 table 5-7, from habitat loss, collision risk, accidental pollution, noise, visual disturbance, barriers to movement and changes to light, tidal changes and water clarity. Indirect effects on birds from changes to prey are also identified. **Commercial Fisheries** Impacts on international fishing fleets will be considered within the EIA. No further details are provided on potential transboundary impacts on commercial fisheries in the Scoping Report. **Shipping and Navigation** The scoping report, in paragraph 16.14.1 and within appendix 4.2, states that due to the localised nature of the potential impacts,

	transboundary effects are unlikely to occur on shipping and navigation. It is recognised that ships may be internationally owned or operating between different ports in different states, but impacts are not identified within the Scoping Report and will be captured and assessed within the shipping and navigation chapter of the EIA. **Major Accidents and Disasters (MA&D)** By definition, a MA&D event could result in a significant environmental effect and may result in transboundary effects. The EIA will consider potential transboundary effects for those MA&D types which have been scoped in for further assessment.
Extent	The extent of potential transboundary impacts has not been determined at this stage and would be subject to assessment in the ES, as applicable. The Scoping Report indicates the following: **Marine Mammals** The Scoping Report utilises a 40km buffer around the scoping boundary has been used and that due to the mobile nature of marine mammals, transboundary impacts are possible. **Marine and Intertidal Ornithology** A wide foraging range for bird species is considered within the HRA screening appendix 3.3. Due to the wide foraging and migratory ranges of bird species, transboundary effects are possible.
Magnitude	The magnitude of impacts has not been evaluated at this stage and will be subject to further assessment.
Probability	The probability of transboundary effects occurring has not yet been evaluated and will be considered within the EIA. The Inspectorate considers that, given the information provided in the Scoping Report, that impacts on marine mammals, marine and intertidal ornithology and commercial fisheries are most likely to result in significant transboundary effects. Further information is required to understand the likelihood of transboundary impacts occurring in respect of shipping and navigation.
Duration	**Marine Mammals, Marine and Intertidal Ornithology, Commercial Fisheries, Shipping and Navigation, Major Accidents and Disasters** Should they be identified, transboundary impacts during construction would occur over the duration of the construction period (up to 10 years for construction and 2 years for commissioning). Impacts during operation would be long-term over the barrage's operational life (120 years).
Frequency	The frequency of potential transboundary effects has not been fully evaluated at this stage.

	Major Accidents and Disasters The Scoping Report identifies there are unlikely to be frequent impacts from major accidents and disasters, as these would expect to be isolated events if occurring.
Reversibility	The reversibility of potential transboundary effects has not been fully evaluated at this stage.
Cumulative impacts	The applicant's cumulative impact assessment has not yet been undertaken and the applicant has not identified any likely significant transboundary cumulative effects at this stage. However, on a precautionary basis, the Inspectorate considers that the effects identified in this screening could contribute to cumulative effects, subject to the outcomes of further assessment.

Transboundary screening undertaken by the Inspectorate on behalf of the SoS

Under Regulation 32 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (The 2017 EIA Regulations) and on the basis of the current information available from the applicant, the Inspectorate is of the view that the proposed development **is likely** to have a significant effect on the environment in an EEA State.

In reaching this view the Inspectorate has applied the precautionary approach (as explained in its Advice Page Nationally Significant Infrastructure Projects: Advice on Transboundary Impacts and Process) and taken into account the information currently supplied by the applicant.

Action:

Transboundary issues notification under Regulation 32 of the 2017 EIA Regulations is required.

States to be notified:

- France (marine mammals)
- Republic of Ireland (marine mammals, marine ornithology)

Date: 03 April 2025

Note: The SoS' duty under Regulation 32 of The 2017 EIA Regulations continues throughout the application process.

Note:

The Inspectorate's screening of transboundary issues is based on the relevant considerations specified in the annex to its Advice Page, Nationally Significant Infrastructure Projects: Advice on Transboundary Impacts and Process, available at:

'Nationally Significant Infrastructure Projects: Advice on Transboundary Impacts and Process'.