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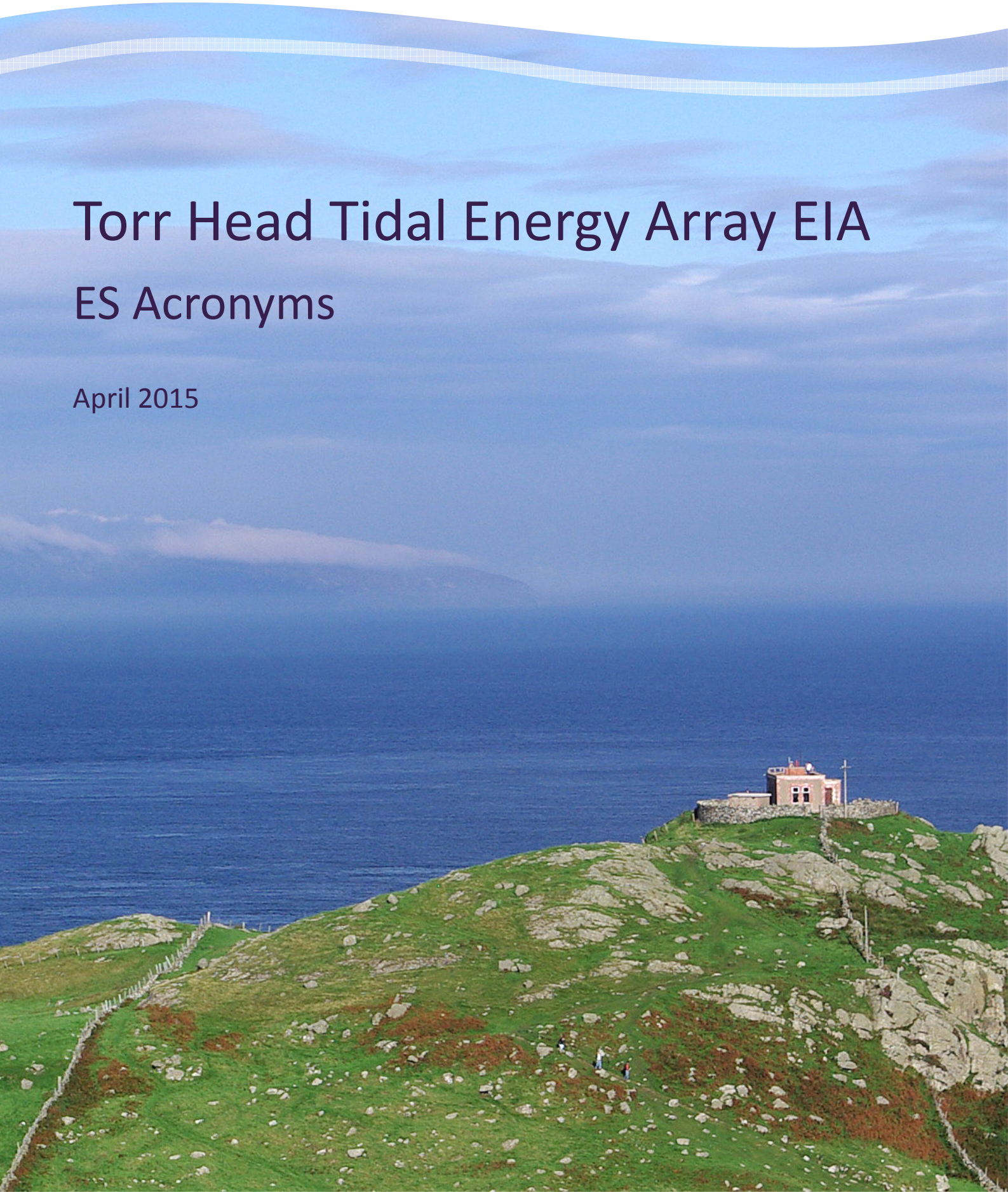


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GROUP

Torr Head Tidal Energy Array EIA

ES Acronyms

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ACRONYMS

AIS	Automatic Identification System
AC	Alternating Current
ADCO	Archaeological Diving Company Ltd
ADCP	Acoustic Doppler Current Profiler
AFBI	Agri-Food & Biosciences Institute
AfL	Agreement for Lease
ALARRP	As Low as Reasonably Practicable
ALB	All-weather Lifeboat
ANIFPO	Anglo-North Irish Fish Producers Organisation
AOD	Above Ordnance Datum
AONB	Area of Outstanding Natural Beauty
ASCOBANS	Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas
ASFB	Association of Salmon Fisheries Board
ASSI	Areas of Special Scientific Interest
AtoN	Aid to Navigation
BAG	Before-After-Gradient
BAP	Biodiversity Action Plan
BAT	Best Available Technique
BFI	Baseline Flow Index
BGS	British Geological Survey
BMAPA	British Marine Aggregate Producers Association
BODC	British Oceanographic Data Centre
BP	Before Present
BS	British Standard
BSI	British Standards Institution
BWD	Bathing Water Directive
CAES	Compressed Air Energy Storage
CBD	Convention on Biological Diversity
CCGHT	Causeway Coast and Glens Heritage Trust
CCGT	Combined Cycle Gas Turbine
CCNC	Council for Nature Conservation and Countryside
CCS	Carbon Capture and Storage
CCW	Countryside Council for Wales
CD	Chart Datum
Cefas	Centre for Environment Fisheries and Aquaculture
CEMP	Construction Environmental Management Plan
CFD	Computational Fluid Dynamics
CfDs	Contracts for Difference
CFSR	Climate Forecast System Reanalysis
CI	Confidence Interval

CIA	Cumulative Impact Assessment
CIEEM	Chartered Institute of Ecology and Environmental Management
CIL	Commissioner of Irish Lights
CIRIA	Construction Industry Research and Information Association
CIS	Celtic and Irish Seas
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMA	Centre for Maritime Archaeology
CMS	Construction Method Statement
CO ₂	Carbon dioxide
CODA	Cetacean Offshore Distribution and Abundance in the European Atlantic
COWRIE	Collaborative Offshore Wind Research into the Environment
CPA	Coast Protection Act
CRM	Collision Risk Modelling
CWSH	Coastal West Scotland and Hebrides
DARD	Department of Agriculture and Rural Development
dB	Decibel
DBA	Desk Based Assessment
DBE	DEME Blue Energy
DCAL	Department of Culture, Arts and Leisure
DCENR	Department of Communications, Energy and Natural Resources
DECC	Department of Energy and Climate Change
DEFRA	Department for Environment, Food and Rural Affairs
DETI	Department of Enterprise, Trade and Investment
DFPNI	Department of Finance and Personnel Northern Ireland
DoENI	Department of Energy Northern Ireland
DP	Dynamic Positioning
DP	Decommissioning Programme
DPE	DP Energy
DPME	DP Marine Energy Ltd
DRD	Department for Regional Development
EC	European Commission
EEA	European Environment Agency
EEC	European Economic Community
EHO	Environmental Health Officer
EIA	Environmental Impact Assessment
EMEC	European Marine Energy Centre
EMF	Electro Magnetic Field
EMP	Environmental Management Plan
EMR	Electricity Market Reform
ENVID	Environmental Issue Identification
EPA	Environment Protection Agency
EPS	European Protected Species

ERCoP	Emergency Response Corporation Plan
ERM	Encounter Rate Model
ES	Environmental Statement
ESAS	European Seabirds at Sea
ETPM	Exposure Time Population Model
EU	European Union
EUNIS	European Nature Information System
FAD	Fish Aggregation Devices
FAO	Food Agriculture Organisation
FEED	Front End Engineering Design
FHTEP	Fair Head Tidal Energy Park
FIR	Feed in Tariff
FIR	Fisheries Industry Representative
FLO	Fisheries Liaison Officer
FLOWW	Fishing Liaison with Offshore Wind and Wet Renewables Group
FORCE	Fundy Open Research Centre for Energy
FRS	Fisheries Research Services
FRV	Fisheries Research Vessel
FSA	Formal Safety Assessment
FTC	Fehily Timoney and Company
FTE	Full Time Equivalent
GBS	Gravity Base Structure
GCR	Geological Conservation Review
GDP	Gross Domestic Product
GES	Good Environmental Status
GESAMP	Joint Group of Experts on Scientific Aspects of Marine Protection
GHG	Greenhouse Gas
GIS	Geographic Information System
GLVIA	Guidance for Landscape Visual Impact Assessment
GVA	Gross Value Added
HAP	Habitat Action Plan
HDD	Horizontal Directional Drill
HDM	High Definition Mode
HIS	Historic Shipwreck Inventory
HMU	Historic Monuments Unit
HRA	Habitat Regulations Assessment
HSE	Health and Safety Executive
HVDC	High Voltage Direct Current
IALA	International Association of Marine Aids
IBA	Important Bird Area
ICC	Irish Cruising Club
ICES	International Council for the Exploration of the Sea

ICOMOS	International Council of Monuments and Sites
ICT	International Trade Centre
IEA	Institute of Environmental Assessment
IEMA	Institute of Environmental Management
IFA	Institute for Archaeologists
IFG	Inshore Fisheries Group
ILB	Inshore Lifeboat
IMO	International Maritime Organisation
IROPI	Imperative Reason of Overriding Public Interest
IS	Irish Sea
IUCN	International Union for Conservation of Nature
IWDG	Irish Whale and Dolphin Group
JIBS	Joint Irish Bathymetric Survey
JNAPC	Joint Nautical Archaeology Policy Committee
JNCC	Joint Nature Conservation Committee
kg	Kilogram
km	Kilometre
Km/h	Kilometre per hour
km²	Square kilometre
LAQM	Local Air Quality Management
LAT	Lowest Astronomical Tide
LBAP	Local Biodiversity Action Plan
LCA	Landscape Character Assessment
LCT	Landscape Character Type
LGD	Local Government District
LSCA	Landscape and Seascape Character Assessment
LSE	Likely Significant Effects
m	Metre
MAIB	Marine Accident Investigation Branch
MarLIN	Marine Life Information Network
MARPOL	International Convention for the Prevention of Pollution from Ships
MBES	Multibeam Echo Sounder
MCA	Maritime and Coastguard Agency
MCAA	Marine and Coastal Access Act
MCZ	Marine Conservation Zones
MEHRA	Marine Environmental High Risk Areas
MESH	Marine European Seabed Habitats
MESL	Marine Ecological Surveys Limited
MFA	Marine and Fisheries Agency
MGN	Marine Guidance Note
MHWS	Mean High Water Springs
MLS	Minimum Landing Size

MLWS	Mean Low Water Springs
mm	Millimetre
MMFR	Mean Maximum Foraging Range
MMMU	Marine Mammal Management Units
MMO	Marine Mammal Observer
MNCR	Marine Nature Conservation Review
MNNS	Marine Non Native Species
MNR	Marine Nature Reserves
MoD	Ministry of Defence
MPA	Marine Protected Area
MPS	Marine Policy Statement
MRESF	Marine Renewable Energy Strategic Framework for Wales
MS	Marine Scotland
ms⁻¹	Metres per second
MSFD	Marine Strategy Framework Directive
MSI	Maritime Safety Information
MS-LOT	Marine Scotland Licensing Operations Team
MSS	Marine Scotland Science
MW	Megawatts
NBN	National Biodiversity Network
NCLFA	North Coast Lobster Fisheries Association
NE	Natural England
NGR	National Grid Reference
NI	Northern Ireland
NIAUR	Northern Ireland Authority for Utility Regulation
NIEA	Northern Ireland Environment Agency
NIFPO	North Irish Fish Producers Organisation
NIMF	Nationally Important Marine Features
NIMP	Northern Ireland Marine Plan
NIRIG	Northern Irelands Renewables Industry Group
NIRO	Northern Ireland Renewables Obligations
NISFA	North Irish Salmon Fisheries Association
NISRA	Northern Ireland Statistics and Research Agency
nm	Nautical miles
NMFS	National Marine Fisheries Service
NNR	National Nature Reserves
NOAA	National Oceanic and Atmospheric Administration
NO_x	Oxides of nitrogen
NPC	Natural Power Consultants Limited
NRA	Navigational Risk Assessment
NRIP	National Renewables Infrastructure Plan
NRTF	National Rural Touring Forum

NRW	Natural Resources Wales
NSA	National Scenic Area
NTS	Non Technical Summary
NUTS	Nomenclature of Territorial Units for Statistics
OCT	Open Cut Trench
OCT	Open Centre Turbine
ONS	Office of National Statistics
OREI	Offshore Renewable Energy Installation
ORESAP	Offshore Renewable Energy Strategic Action Plan
OS	Ordnance Survey
OSPAR	Convention for the Protection of the Marine Environment of the North East Atlantic
PAM	Passive Acoustic Monitoring
PBR	Potential Biological Removal
PCC	Power Conversion Centre
PCUB	Power Conversion Unit Building
PEMP	Project Environmental Monitoring Plan
PEXA	Practice and Exercise Area
PFOW	Pentland Firth and Orkney Waters
PHA	Preliminary Hazard Analysis
PMF	Priority Marine Feature
PNNL	Pacific Northwest National Laboratory
PPE	Personal Protective Equipment
PPG	Pollution Prevention Guidelines
PPK	Post Processed Kinematic
PPS	Planning Policy Statement
PTS	Permanent Threshold Shift
QUB	Queen's University Belfast
RAF	Royal Air Force
RBMP	River Basin Management Plan
RDS	Regional Development Strategy
ReDAPT	Reliable Data Acquisition Platform Tidal
RES	Renewable Energy Strategy
REZ	Renewable Energy Zone
RG	Regional Guidance
RIB	Rigid Inflatable Boat
RLG	Regional Locational Guidance
RMS	Root Mean Square
RNLI	Royal National Lifeboat Institution
ROV	Remotely Operated Vehicle
RPM	Revolutions per Minute
RSA	Recreational Sea Angling
RSPB	Royal Society for the Protection of Birds

RYA	Royal Yachting Association
SAC	Special Area of Conservation
SAMS	Scottish Association for Marine Science
SAP	Species Action Plan
SAR	Search and Rescue
SBP	Sub-bottom Profiler
SCA	Seascape Character Areas
SCADA	Supervisory Control and Data Acquisition
SCANS	Small Cetacean Abundance in the North Sea
SCOS	Special Committee on Seals
SEA	Strategic Environmental Assessment
SEAI	sustainable Energy Authority of Ireland
SEF	Strategic Energy Framework
SEL	Sound Exposure Level
SEPA	Scottish Environment Protection Agency
SLA	Scenic Landscape Area
SLM	Sound Level Meter
SLVIA	Seascape, Landscape and Visual Assessment
SMR	Sites and Monuments Record
SMRU	Sea Mammal Research Unit
SMS	Safety Management System
SNH	Scottish Natural Heritage
SnoPUD	Snohomish County Public Utility District No.1
SONI	System Operator Northern Ireland
SOPEP	Ship Oil Pollution Emergency Plan
SO_x	Oxides of sulphur
SPA	Special Protection Area
SPG	Supplementary Planning Guidance
SPPS	Strategic Planning Policy Statement
SPR	Standard Percentage Runoff
SRKW	Southern Resident Killer Whale
SRSL	SAMS Research Services Limited
SSB	Sub-Sea Base
SSS	Sidescan Sonar
SSSI	Special Site of Scientific Interest
STCEF	Scientific Technical and Economic Committee for Fisheries
SWD	Shellfish Waters Directive
TAC	Total Allowable Catch
TCE	The Crown Estate
TGL	Tidal Generation Limited
TSS	Turbine Support Structure
TTS	Temporary Threshold Shift

TVL	Tidal Ventures Limited
UFEN	UK Fisheries Economics Network
UK	United Kingdom
UKBAP	UK Biodiversity Action Plan
UKC	Under Keel Clearance
UKCP	UK Climate Projections Report
UKHO	UK Hydrographic Office
UKRES	UK Renewable Energy Strategy
UNCLOS	United Nations Convention of the Law of the Sea
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UREGNI	Utility Regulator for Northern Ireland
USA	United States of America
UU	University of Ulster
VDRM	Value Decision Risk Management
VHF	Very High Frequency
VMADCP	Vessel Mounted Acoustic Doppler Current Profile
VMS	Vessel Monitoring System
VP	Vantage Point
VTS	Vessel Traffic Services
WANE	Wildlife and Natural Environment Act
WAR	Waves are Resources
WFD	Water Framework Directive
WHS	World Heritage Sites
WS	West Scotland

GLOSSARY

Agreement for Lease	Agreement entered into between Tidal Ventures Ltd. and The Crown Estate for the rights to development on the seabed.
Acoustic Doppler Current Profiler	Instrument, similar to sonar, which measures water current velocities over varying depths using sound waves.
Area of search for export cable corridor	Area of search within which the final export cable corridor will be located.
Odontocetes	The collective term given to toothed whales and dolphins.
Mysticetes	The collective term given to toothless (baleen) whales.
Vantage point surveys	Technique used for wildlife recording from a prominent viewpoint over a large area.
Intertidal survey	Survey covering the habitats and species found in the area of the shoreline between low and high tide.
Benthic Communities	Species and habitats found on the seabed.
Dynamic positioning vessel	A Dynamic Positioning Vessel (DP) can safely maintain its position and heading in a tidal flow using a system of thrusters. DP vessels are able to work safely and efficiently in waters deeper than vessels using anchors.
Temporary Hearing Threshold Shifts (TTS)	The level above which species of fish or marine mammals are predicted to experience temporary changes in their hearing sensitivity from underwater manmade sound sources.
Permanent Hearing Threshold Shifts (PTS)	The level above which species of fish or marine mammals are predicted to experience permanent changes in their hearing sensitivity from underwater manmade sound sources.
Environmental Impact Assessment	Process of identification and assessment of potential environmental impacts associated with the Project.
Environmental Statement	The document, required as part of the consent and licensing application process, containing the findings from the environmental impact assessment.
Export cables	Cables used to export power generated by the tidal turbines to the onshore infrastructure.
Export cable corridor	The corridor within which the export cables will be located.
Geophysical survey	Surveys based on the collection of data from the physical characteristics of the seabed environment such as depth, rock type and unique features of an area.
Gravity based structure (GBS)	A structure which uses ballast to sit securely on the seabed without needing to be stabilised by piles or anchors. The GBS is used to support a tidal turbine.
Horizontal Directional Drilling	Horizontal Directional Drilling (HDD) is a process whereby drilling of a bore departs from the vertical axis and exceeds 80° allowing bores to be drilled through a target geological formation. Directional drilling allows the drill bit to be steered in a pre-planned and hence the bore can be designed to exit the seabed in a pre-determined location.
In-Combination effects	Possible effects encountered as a result of planned works in combination with other projects or developments.
Inter-array cables	Cables connecting individual tidal turbines within an array to one another.
Landfall site	Location at which the export cable comes ashore.
Monopile	A single large diameter steel tube that is grouted into a hole bored into the seabed. The monopile is used to support a tidal turbine.
Pin pile	The use of multiple small diameter steel tubes that are grouted into a hole bored into the seabed. The pin piles are used to support a tidal turbine.
Project	For the purpose of this ES, the Project refers to the offshore components of the Torr Head Tidal Energy Array. This includes the tidal turbines, the inter-array cables, subsea cable connection hubs, export cables and landfall to Mean High Water Spring (MHWS) only.
Project area	The area covering both the Agreement for Lease (Afl) area and the area of search for the export cable corridor.

Project study area	The area covered as part of the impact assessment for specific EIA topics. This varies between topics.
Project survey area	The area covered by specialist surveys within specific EIA topics.
Indicative turbine layout	Example of a possible layout of turbines within the array. This is purely for illustration purposes only.
Remotely operated vehicle (ROV)	A Remotely Operated Vehicle (ROV) is an underwater vehicle able to undertake multiple subsea operations. ROVs are highly manoeuvrable and are controlled by operators on-board the DP vessel.
Sub-sea cable connection hubs	Structures located on the seabed to which inter array cables all connect together into an export cable.
Tidal turbine	A device that converts hydrodynamic energy in the tidal flow into electrical energy.
Tidal turbine array	Term used to describe a group of tidal turbines.
Turbine Support Structure (TSS)	A Turbine Support Structure (TSS) is the structure used to attach the tidal turbines to the seabed.