PERPETUUS
tidal energy centre

Non-Technical Summary

Royal HaskoningDHV
Enhancing Society Together

iema EIA

PERPETUUS tidal energy centre

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Revision no.	Date	Author	Approved by	Comment/ reason for issue
1	26/11/14	Various	FF/AD	1st draft for PTEC review
2	28/11/14	FF/GK	FF	Final draft for PTEC review
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Glossary

Array	A set of multiple devices connected to a common electrical grid connection
Berth	Discrete area for tenant project demonstration
Berth selection process	Process for determining tenants to deploy their tidal technology in a berth at PTEC
Development site	Defined by The Crown Estate Lease boundary, the area within which the tidal devices/arrays will be deployed along with associated infrastructure such as inter-array cables, export cables, marker buoys, site monitoring equipment and electrical connections to the export cables
Device type	A characterised group of devices (e.g. surface piercing floating, piled tower, transverse axial)
Footprint	The area physically in contact with the seabed or ground
Offshore site	Cable corridor and development site combined
Onshore site	The landfall location at Castle Cove, the short onshore cable route between landfall and the onshore infrastructure (up to and including PTEC substation/control room), and the Flower's Brook area where permanent and/or temporary infrastructure will be installed
PTEC	The project
PTEC Ltd	The developer
Repowering	The removal of a tenant's infrastructure at the end of a demonstration period and replacement with new tenant infrastructure
Subsea cable corridor	The corridor within which the export cables will be routed from the development site to the landfall location at Castle Cove
Tidal device	One complete unit including: Tidal Energy Converter(s) (TEC; i.e. rotors and nacelle) Foundations Support structure Surface piercing superstructure

1 INTRODUCTION

1.1 Background

1.1.1 This document provides a Non-Technical Summary (NTS) of the Environmental Statement (ES) produced in support of the onshore and offshore consent applications for the Perpetuus Tidal Energy Centre (PTEC). PTEC will be an Isle of Wight based, world leading project that will support the commercialisation of exciting new tidal power technologies. The ES is the formal report of an Environmental Impact Assessment (EIA) undertaken by independent environmental consultants Royal HaskoningDHV and subcontracted specialists, to consider the potential environmental impact which may arise during the construction, operation, maintenance, repowering and decommissioning phases through the lifetime of the development.

1.1.2 The Isle of Wight Council was issued with an Agreement for Lease (AfL) for the development site by The Crown Estate in November 2012. Subject to achieving the necessary consents and permissions to enable the project to be constructed, the agreement will be assigned to Perpetuus Tidal Energy Centre Ltd (PTEC Ltd). This will enable PTEC Ltd to enter into a 25 year Lease from The Crown Estate for the site offshore.

1.2 Perpetuus Tidal Energy Centre (PTEC) Ltd

1.2.1 A consortium of Perpetuus Energy Limited (founded by an Isle of Wight resident), the Isle of Wight Council and TB Partners LLP was formed with the intention to construct a 30MW demonstration facility for tidal energy developers. Through an offshore demonstration site south of the Island, PTEC will create and export clean, safe, predictable and carbon free energy, fed into the local grid, with the potential to power approximately 15,700 Isle of Wight homes per year.

1.2.2 PTEC will be a world leading project, with the objective of supporting the demonstration and commercialisation of suitable tidal devices and technologies. PTEC is aimed at the deployment of up to full scale single units and, in particular, small arrays of tidal devices. It will do this by providing facilities to allow the installation, grid connection and demonstration of arrays of tidal devices. PTEC aims to assist a wide range of technology developers in bridging several of the major hurdles in the commercialisation of tidal power technology:

- by providing an existing grid connected facility with 'plug and play' capability to allow developers swift access to the grid;
- by providing access to a site with existing permission to install and run several devices on a commercial basis; and
- by providing a locus for the potential supply chain and services industries on the Isle of Wight.

1.2.3 PTEC, once constructed, will significantly reduce development risk, timescales and project cost exposure for tidal power developers, prior to them moving on to develop larger scale fully commercial tidal power arrays in other locations.

1.2.4 PTEC furthers the developments and innovations made at other test centres, notably the European Marine Energy Centre (EMEC) tidal test centre in Orkney, which currently allows the testing of single devices. By developing tidal technology skills, expertise and practical

experience, PTEC will help to stimulate and attract a network of supply chain and supporting service industries and jobs to the Isle of Wight and Solent area. As well as developing the tidal industry in the Isle of Wight, PTEC also aims to help maintain the UK's world leading position in marine renewable energy.

1.2.5 Further information can be found at http://perpetuustidal.com.

1.3 Project Details

1.3.1 The project will provide the electrical supporting infrastructure to connect several small (up to 10MW) tidal devices and device arrays within the development site. There are a number of tidal device developers, with technologies at a suitable stage of technology readiness, who are suitable potential tenants for the PTEC facilities once constructed. The details of the tenant infrastructure, including the tidal technologies to be installed, will be finalised following a berth selection process, where the berths are allocated to prospective tenants, which will be concluded following this application and consent determination.

1.3.2 The development site will provide between 3 to 6 berths for tidal devices to be deployed, with a subsea export cable(s) for each berth to bring the electricity ashore. The subsea export cables will come ashore at Castle Cove to the west of Ventnor on the Isle of Wight. As part of the project, a small substation and control room will be constructed onshore along with associated works (see **Figure 1.1**).

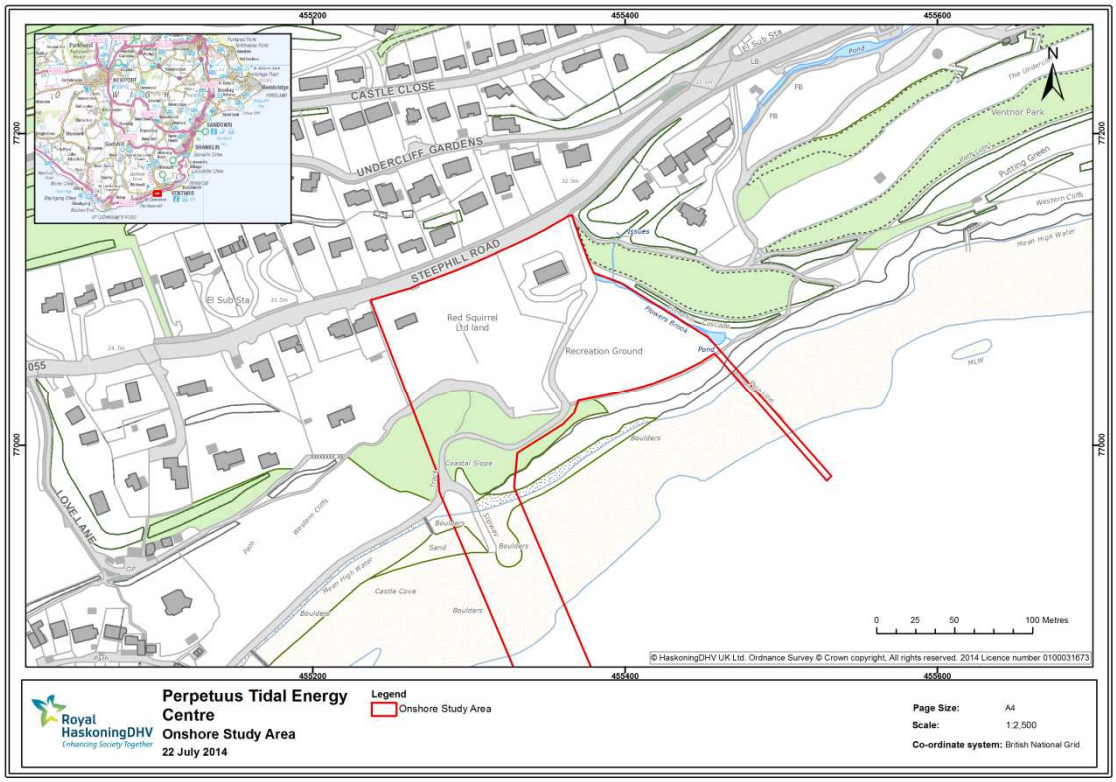


Figure 1.1 Onshore study area.

1.3.3 The PTEC development site is proposed to be situated approximately 2.5km south of St

Catherine's Point, Isle of Wight, with the development site being no greater than 5km^2 in area. The development site will then be connected to shore by electricity export cables (via a subsea export cable corridor), which will come ashore on the south coast of the Isle of Wight, see Error! Reference source not found..

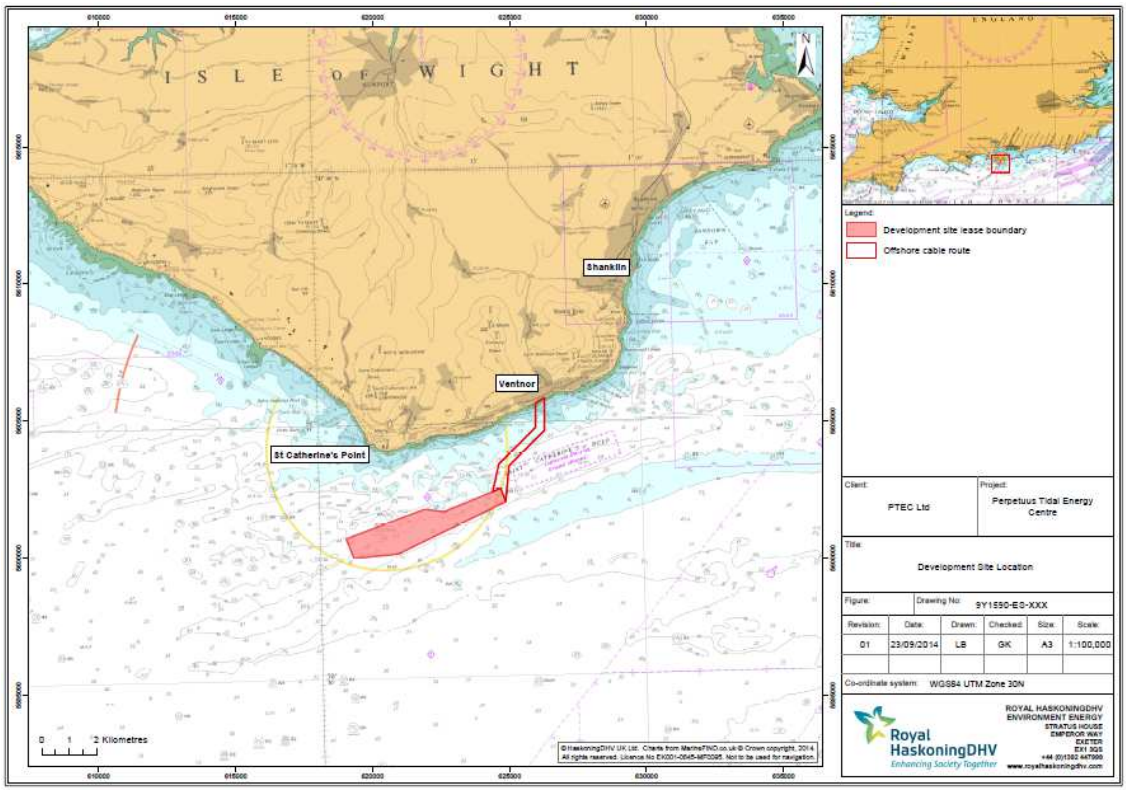
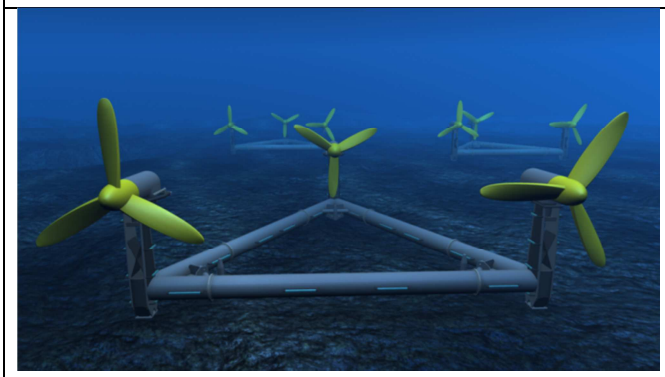
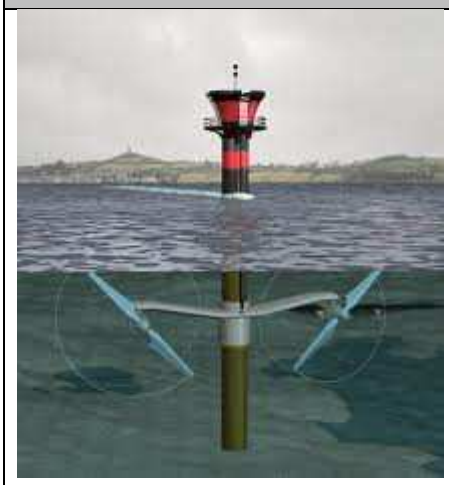
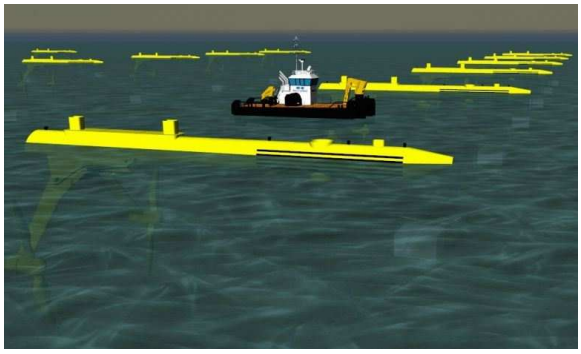
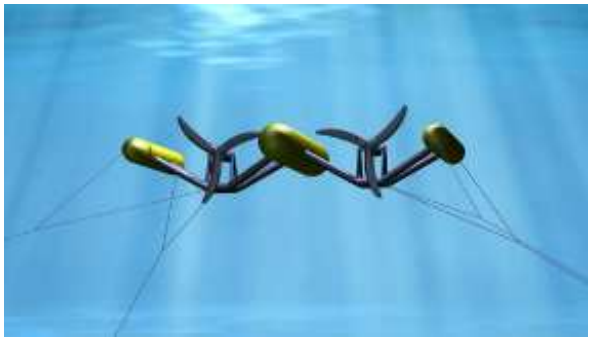


Figure 1.1 Location of the offshore site.

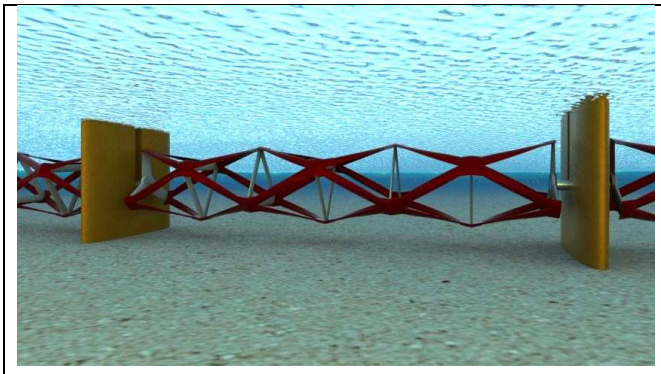
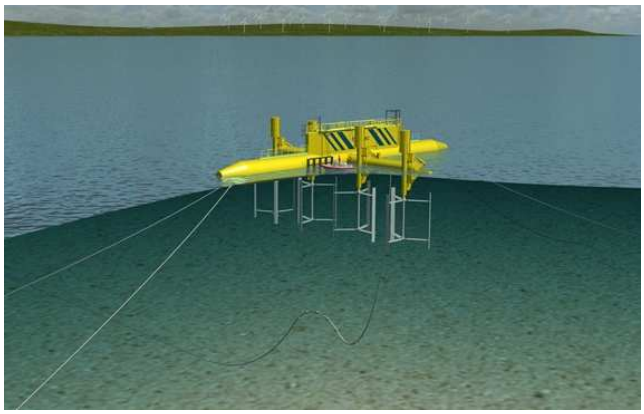
1.3.4 Several tidal devices are in the process of refinement and commercialisation. As a demonstration facility, various tidal devices and array configurations have the potential to be deployed at PTEC over its 25 year life; see Table 1.1

Table 1.1 Tidal device types with examples of existing technologies, and with potential to be deployed at PTEC.

Example Device Technology	Device Type
Bottom mounted open rotor axial flow	
 Image source: www.alstom.com	Seabed mounted single rotor. Single open rotor. Fully submerged. Base typically formed from tripod, quadrapod or monopile foundation with drilled pin piles, gravity base or drilled monopile. Example Developer: Alstom
 Image source: www.voith.com	Fast seabed mounted single rotor. As seabed mounted single rotor but with a faster tip speed Example Developer: Voith Hydro
 Image source: www.tidalenergyltd.com	3 rotor seabed mounted platform Bottom mounted platform with 3 open axial flow TECs, fully submerged. Base typically gravity base. Example Developer: Tidal Energy Limited (TEL)

Example Device Technology	Device Type
 Image source: Marine Current Turbines	Twin rotor tower Bottom mounted, pin piles or monopile with a surface piercing tower Example Developer: Marine Current Turbines (MCT) Siemens
Floating/buoyant open rotor axial flow	
 Image source: www.scotrenewables.com	Twin rotor floating Surface piercing floating superstructure with catenary moorings/anchors to hold the device in place. Example Developer: Scotrenewables
 Image source: www.sustainablemarine.com/	Twin rotor buoyant mid water Mid-water column (floating submerged), 2 tidal energy converters on a single buoyant platform located below the sea surface. Platform maintained in position with tension cables secured with pin piles or gravity anchors. Example Developer: SME

Example Device Technology	Device Type
 Image source: www.tidalstream.co.uk	Multiple rotor buoyant platform Surface piercing with buoyant superstructure attached to seabed, with monopile, pin piles or gravity structure utilising mooring lines or a rigid structure. Multiple TECs typically installed on a single platform. Example Developer: Tidal Stream Limited
Bottom mounted ducted	
 Image source: http://thinkprogress.org  Image source: Nova Scotia Power Ltd	Ducted axial flow TEC Fully submerged, bottom mounted. Typically gravity base Example Developer: Clean Current Power Systems Ducted axial flow TEC Fully submerged, bottom mounted. Typically gravity base Example Developer: OpenHydro
Transverse axis	

 Image source: www.keplerenergy.co.uk	Bottom mounted transverse axis Surface piercing support columns on monopile foundations. Example Developer: Kepler
 Image source: www.bluewater.com	Floating transverse axis Vertical transverse axis tidal energy converters mounted on a floating device, similar to axial flow floating device type. Example Developer: Bluewater

1.4 Need for the project

1.4.1 Global climate change is seen as being one of the greatest environmental challenges facing the world today, with a primary reason for the current rate of temperature increase being the high concentrations of greenhouse gases in the atmosphere. One of the principal gases is carbon dioxide (CO2) which is primarily produced through the burning of fossil fuels, a significant proportion of which are used to generate electricity. Energy generation such as tidal, wave and wind are renewable resources and create no CO2 or other air pollutants when harnessed to generate electricity. It is estimated that the PTEC project at full capacity could save more than 30,511 tonnes of CO2 each year.

1.4.2 The UK Government is committed to increasing the deployment of renewable energy technologies, with the ambition to become a world class centre of expertise in marine renewable energy. In the 2011 Renewable Energy Roadmap for the UK, the Department of Energy and Climate Change (DECC) pledged an investment of £20 million over the subsequent four years for pre-commercial marine array demonstrations in an effort to facilitate the development of marine energy technologies, suggesting that up to 300MW could be deployed in the UK by 2020. PTEC will make a significant contribution to this target.

1.4.3 Tidal energy is a clean, renewable and highly predictable source of energy. The PTEC project, allowing long-term demonstration of new technologies and small arrays of tidal devices, is an important step in developing the tidal energy industry within the UK and internationally, with significant potential socio-economic benefits as well as contributing towards the reduction of greenhouse gas emissions and greater security of energy supply.

1.4.4 The European Union has also identified tidal energy, and more widely ocean energy (tidal and wave energy combined), as having the potential to contribute significantly to climate change reduction, socio-economic and energy security objectives. In early 2014, the European Commission presented its action plan for achieving the potential for 'blue energy', aimed at facilitating the further development of the renewable ocean energy sector in Europe

1.4.5 It is estimated the UK has around 50% of Europe's tidal energy resource (DECC, 2013). Wave and tidal stream energy has the potential to meet up to 20% of the UK's current electricity demand, representing a 30 to 50 gigawatt (GW) installed capacity (DECC, 2013). However, the number of sites with sufficient tidal velocity to allow commercial exploitation is very limited.

1.4.6 PTEC will fill the gap for technology and tidal array developers between testing a prototype device and installing and operating arrays of devices. It is in this critical 'small array' stage when the reliability, management, operation and maintenance of tidal devices can be developed in a swift and cost effective manner, prior to full scale deployment in commercial arrays.

1.4.7 To date, key UK tidal energy projects are being developed or are operational in the Pentland Firth and Offshore Waters (PFOW), the west coast of Scotland, the south coast and west of England, Wales and Northern Ireland. To date, all operational projects are small scale (1.2MW or less).

1.5 Project objectives

1.5.1 The key objectives of the project are to facilitate the demonstration of tidal devices, to support

technological development and commercially generate electricity from tidal energy. As previously discussed, the project will contribute to government targets for greenhouse gas reductions and its ambition for the UK to become a world class centre of expertise in marine renewable energy.

1.5.2 Currently, there are no commercial tidal arrays installed anywhere in the world. This project will be the world's first multi-technology tidal array demonstration facility. The project is an important step towards the development of the tidal power industry, harnessing clean, predictable energy from tidal currents. It will move the industry beyond the testing of single devices (early prototypes), such as that is offered at EMEC testing facility in Orkney, by providing commercial-scale demonstration.

1.6 Consultation

1.6.1 A request for scoping opinion (Scoping Report) was submitted in January 2013 for the PTEC project, at that time known as the Solent Ocean Energy Centre (SOEC), Scoping opinions were received from statutory regulators and representations from a number of other interested parties and agencies. Comments and advice received as responses to the scoping consultation were used to direct the studies and assessments undertaken during the subsequent environmental impact assessment (EIA) and also to identify parties with which ongoing consultation was required.

1.6.2 After receipt of feedback and comments on the Scoping Report, PTEC Ltd began early consultation with a number of interested parties, including fisheries and recreational users, as well as continuing engagement with the regulators and their statutory advisors.

1.6.3 The EIA process began in July 2013, and early meetings and calls were held with the Local Planning Authority (LPA - Isle of Wight Council), Marine Management Organisation (MMO) and Natural England (NE) to obtain advice from them regarding data collection and consultation, Public engagement began in early 2014, with detailed briefing meetings with ward and parish councillors, followed by a public exhibition in March 2014.

1.6.4 Written feedback regarding PTEC was generated from 92 members of the public as a result of the public exhibition. Many more members of the public attended to discuss the project with the team members present.

1.6.5 Stakeholder consultation has been ongoing throughout the EIA process, in some cases right up to the point of submission, and has included parties representing:

- Commercial fisheries;
- Recreational users;
- Shipping and Navigation users; and
- Ministry of Defence.

1.6.6 Targeted consultation has been undertaken on specific issues, including detailed consultation on navigation risk, with a number of bodies, such as the Maritime and Coastguard Agency

(MCA).

1.6.7 Consultation with regulators and statutory consultees has also been ongoing, with advice on early draft chapters of the environmental statement being made by:

- Marine Management Organisation;
- Local Planning Authority;
- Natural England; and
- Environment Agency.

1.6.8 The application will be widely advertised, as required by law, and will be available to the public in the following ways:

- Non-technical summary will be available for viewing via the PTEC website – http://perpetuustidal.com;
- Electronic and hard copies will be available from PTEC Ltd for a fee;
- A hard copy will be available for viewing at the LPA planning offices;
- A hard copy will be available in the main library in Newport, Isle of Wight; and
- The marine application can be viewed on the Marine Management Organisation website https://www.gov.uk/government/organisations/marine-management-organisation
- The LPA (onshore) application can be viewed on the Isle of Wight Council website https://www.iwight.com/planning/

1.7 Environmental Impact Assessment (EIA)

Legislative context

1.7.1 The ES is submitted as part of the consent application for the project, as required under European and UK legislation. The EIA is undertaken by working closely with two lead Regulatosr, the Marine Management Organisation (MMO), and their advisor, Natural England for the marine or offshore part of the application, and the Local Planning Authority (LPA) – the Isle of Wight Council, for the onshore planning application. In this way there can be confidence that the process will provide the information needed for informed consenting decisions to be made.

1.7.2 The project will require consent under the following legislation:

- A Marine Licence under the Marine Coastal and Access Act (2009);
- A S36 licence under the Electricity Act (1989); and
- Planning permission under the Town and Country Planning Act 1990.

1.7.3 Under the EC Directive on the conservation of natural habitats and of wild fauna and flora (also known as the 'Habitats Directive'), it is necessary for a Habitats Regulation Assessment (HRA) to be carried out for a development which has potential to impact on European designated sites - Special Areas of Conservation (SAC) or Special Protection Areas (SPA) / Ramsar Sites. A document of supporting information has been provided to accompany the application for the Project and to inform the HRA process.

EIA Process

Consultation and scoping

1.7.4 The EIA for the project began in 2013, with collation of available information to identify the likely impacts and data gaps, to define which specific surveys and other studies would be required to inform the EIA. This process is known as Scoping. A request for a Scoping Opinion was submitted to the MMO in early 2013 and circulated to key stakeholders to gain early feedback on the approach to EIA. In addition, consultation has been ongoing with MMO and Natural England to discuss the progress of the EIA and supporting studies, ensuring that it meets their requirements.

1.7.5 Public consultation has been on-going with a local exhibition held in March 2014 (copies of the exhibition boards can be found at http://perpetuustidal.com/wp-content/uploads/2014/01/PTEC-Exhibition-Boards_final-PRINT.pdf). The PTEC website has maintained a facility for the public to provide feedback throughout the EIA process. This feedback form is also available to view online at http://perpetuustidal.com/your-feedback/.

1.7.6 Consultation on the approach to key studies is being undertaken with the relevant stakeholders to ensure the project's impact assessment takes account of socio-economic impacts. Consultee groups include commercial fishermen, recreational anglers, yachting/boating clubs, environmental groups, military, local land owners, and business operators.

Data collection

1.7.7 In order to assess the likely impacts of the project, it is important to understand the baseline environmental conditions at the site. PTEC Ltd has invested in a wide range of surveys and data analysis which have been carried out by specialists, including;

- Marine mammals and seabird surveys;
- Intertidal survey
- Underwater noise modelling
- Offshore geophysical survey and seabed ecology (benthic) survey;
- Offshore geophysical data analysed to assess the potential for unexploded ordinance.
- Offshore geophysical data analysed to assess the potential for large archaeological features.
- Marine physical processes modelling;
- Assessment of potential impacts on marine water and sediment quality
- Seascape Landscape and Visual Impact Assessment for the onshore and offshore PTEC infrastructure;
- Onshore Archaeology site visit;
- Terrestrial (onshore) ecology surveys, including:

  - Habitat mapping (Phase 1)
  - Dormouse
  - Bats
  - Red squirrel
  - Reptiles
  - Invertebrate
  - Badgers
  - Vegetation
  - Trees
- Assessment of potential impacts on land and non-marine water quality
- Shipping and navigation survey and modelling;
- Traffic impact assessment;
- Onshore noise assessment;
- Commercial fisheries assessment and consultation; and
- Tourism and socio-economics review.

1.7.8 Baseline information has been considered alongside experience gained from other offshore renewable energy tests centres, such as the European Marine Energy Centre (EMEC), Wave Hub and the National Renewable Energy Centre (NAREC):.

1.7.9 The Environmental Statement, which reports the findings of the EIA process, is composed of Introductory chapters and 19 Technical chapters where the environmental impact assessments are presented. Each impact assessment follows a procedure which considers the magnitude of the impact, based on extent and longevity, as well as the sensitivity of the receptor. The impact is then given a significance rating of **major**, **moderate**, **minor** or **negligible**. The process of EIA is intended to identify and consider those environmental impacts which may be significant (under the terms of the appropriate EIA regulations).

1.7.10 Where possible, mitigation is suggested to avoid, offset or reduce the potential impact, particularly if the impact is predicted to be of **major** or **moderate** significance. The assessment is ultimately informed by judgement of impartial experts in each field

1.7.11 At the end of each assessment, a judgement is made as to whether the impact assessed is **significant** or will **not significant (non-significant)**, both before and after application of any appropriate mitigation.

1.7.12 The EIA assesses the potential impacts for the following elements of the project during the construction, operation and maintenance, repowering, and decommissioning stages:

- Offshore;
  - Tidal devices
  - A subsea cable network, including:
    - Subsea export cable(s) to shore;
    - Cable protection measures (where necessary); and
    - Inter-array cables within each berth to connect devices to one another and / or an electrical hub
  - Possible use of electrical hubs or connectors as a means to allow multiple devices to export power through the berth's export cable;

- Site monitoring equipment; and
- Surface floating navigation buoys.

- Onshore;
  - Landfall works (where the export cable crosses the foreshore);
  - Possible transition pit(s) where the marine and onshore electricity cables are connected;
  - Cable installation from landfall to the project substation;
  - A dedicated project substation and control room;
  - Parking area;
  - Possible private road/access track alterations to ensure access is maintained;
  - Possible levelling works;
  - Temporary closure and/or diversions to the public rights of way and coastal path through Flowers Brook and Castle Cove;
  - Temporary laydown and construction area;
  - Enabling works, including security fencing and possible tree / scrub clearance.

Cumulative impacts

1.7.13 At the end of each technical chapter of the Environmental Statement, consideration is given to the potential for PTEC to have cumulative impacts on the potential receptors with other known projects in the area around PTEC and the Isle of Wight;

Advice as to the projects to consider during cumulative assessment was received from the regulators during the consultation process.

2 POTENTIAL IMPACTS

2.1.1 This section describes the potential impacts of the project on various receptors.

2.2 Physical processes

2.2.1 The project has the potential to impact upon three aspects of the physical processes environment, namely:

- Hydrodynamic regime (tidal currents and wave climate);
- Sediments and sedimentary processes; and
- Geological and geomorphological formations.

2.2.2 The potential effects have been assessed using a range of approaches, including project-specific data collection and analysis, expert geomorphological assessment, application of empirical theory and detailed numerical modelling.

2.2.3 These assessment approaches have identified that the greatest potential changes to the hydrodynamic regime are expected to be related to the operation stage of the project. In particular wake effects (on tidal regime) and physical blockage effects (on waves) will occur in the area immediately around tidal devices, although this will result in negligible impact on the seabed geomorphology within the near-field. There will be no wider-scale effects on tidal and wave regimes and no change to the seabed or shoreline geomorphology.

2.2.4 The greatest potential changes to the sediments and sedimentary processes will occur during the construction, repowering and decommissioning stages of the project. In particular sediment plumes and sediment deposition arising from the dredged spoil will be the greatest effect. However, due to the temporary nature and extremely low magnitude of both of these effects, the resulting impact on the seabed geomorphology will **not be significant** and there will be no change to the shoreline geomorphology.

2.2.5 It is during the operational stage of the project that the greatest effects on the geological and geomorphological formations will arise. This will be associated with the loss of seabed due to the direct footprint of the installed infrastructure. However, the resulting impacts will be **not significant**, and will only arise in those areas of seabed geomorphology that are directly covered by the installed infrastructure and there will be no change to the wider seabed or shoreline geomorphology.

2.2.6 Potential cumulative impacts with other plans and projects in the region were considered. As with the project specific impacts, cumulative impacts were all considered to be **not significant.**

2.3 Geology, hydrogeology and non-marine water quality

2.3.1 The potential impacts posed by the onshore development relate to removal of rock by trenching or directional drilling for installation of the onshore cables; loss of structure and/or erosion of site soils and geology through construction activities; and changes to surface water or groundwater flow patterns, potential releases of polluting materials via spillage or mobilisation of existing contamination and the potential for flooding, as a result of the construction and operation of the onshore infrastructure.

2.3.2 Due to the small scale of the onshore works and through following normal best practice measures during construction and throughout the life of the project, , these impacts are not expected to result in significant impacts .

2.4 Marine water and sediment quality

2.4.1 The existing marine water and sediment quality within the development site was established through a review of available literature and from site survey work carried out for other projects. The assessment of marine sediment contamination, and the implications for water quality, was based on accepted sediment guidelines and action levels.

2.4.2 Sediment and water quality throughout the offshore site and subsea cable corridor is considered to be generally good. The assessment has considered the impacts associated with the disturbance and re-suspension of sediments and their associated contaminants as well as from accidental releases and spills of polluting substances across the life of the project.

2.4.3 The extent and severity of the impacts associated with the project's construction, operation and maintenance, repowering and decommissioning phases are **not significant** enough to have an adverse impact on the marine water and sediment quality. Through the implementation of the PTEC Environmental Management Plan (EMP) and the proposed mitigation, the impacts of the proposed PTEC project on marine water and sediment quality are anticipated as **not significant.**

2.5 Ornithology

2.5.1 The bird's using the offshore development site were characterised by undertaking a one-year programme of boat-based surveys. The surveys were conducted between August 2013 and July 2014. The survey area comprised the development site, with a surrounding 4km buffer, with survey transects covering a total length of 107km. A total of 12 surveys were undertaken at approximately monthly intervals over the year.

2.5.2 The surveys showed that the survey area generally has low importance for seabirds, with all species present in low or very low numbers relative to their population size and densities recorded elsewhere in their ranges. The range of species and numbers present in the survey area were particularly low during the breeding season, reflecting the paucity and small size of breeding seabird colonies in the English Channel. A total of 12 seabird species were regularly recorded and very small numbers of 12 other species of seabird were recorded occasionally.

2.5.3 Impacts assessed considered all phases of the development and covered disturbance, accidental contamination, displacement and collision risk with tidal devices, In the case of collision mortality, PTEC has been shown to have the *theoretical* potential to kill small numbers (in the context of the relevant receptor population size) of guillemot (breeding and wintering populations) and razorbill (wintering population only), and is shown to have **negligible** potential to affect other species including gannet. Given the small numbers of birds and scale of impact both spatially and temporally it is considered that impacts on birds are **not significant.**

2.5.4 Potential cumulative impacts with other plans and projects in the region were considered. As with the project specific impacts, cumulative impacts were also **not significant**.

2.5.5 Onshore ornithology was not considered to be an issue for the EIA as the onshore development is of such small scale and lacks suitable habitat.

2.6 Terrestrial ecology

2.6.1 The terrestrial ecology chapter covers all onshore ecology at the PTEC onshore site and immediate surrounds. Many different surveys were undertaken to identify which habitats and species were present within the onshore site, including surveys for:

- Dormouse;
- Bats;
- Red squirrels;
- Terrestrial invertebrates;
- Reptiles;
- Badgers;
- Vegetation;
- Trees; and
- Habitat types

2.6.2 The impact assessment identified that the main potential impacts of PTEC on onshore ecology were temporary and permanent habitat loss, and potential direct impacts on protected and notable species during the construction phase of the project.

2.6.3 Potential impacts during the construction phase, without mitigation, were considered to include both **significant** and **non-significant** impacts at the county level. At a bigger scale (i.e. greater than county) there are **no significant impacts.**

2.6.4 Following the adoption of the recommended best practice guidance and mitigation measures, the residual impacts to ecological receptors from construction of PTEC will be **non-significant** at the county level.

2.7 Benthic and intertidal ecology

2.7.1 The marine species and sea bed habitat that exits across the PTEC project and surrounding area were identified using data collected from numerous survey. These surveys, which were both site specific (commissioned by PTEC) and covering the development site and a number of potential cable routes to the Isle of Wight for electricity transmission, or had been completed for other projects in the area, and in particular to collect data for the marine Special Area of Conservation. The data collected and utilised encompassed a range of techniques including: underwater video,, sediment sampling and acoustic data, all of which allowed maps of seabed conditions and habitats to be produced. An ecological survey was also carried out on the seashore, between low and high watermarks at the location where the subsea export cables from the PTEC project will come ashore.

2.7.2 The impact assessment uses information available from the Marine Life Information Network and experience from a number of seabed ecologists to identify the sensitivity of the species and habitats which may be affected by the PTEC project.

2.7.3 The main impacts on seabed and seashore ecology relate to habitat loss and disturbance due to construction and repowering activities. However all impacts are considered to be at worst of **minor adverse** significance, with many impacts likely to only be of **negligible** significance. The impact assessment concludes that it is unlikely that the PTEC project will interact with any other project or plan to produce cumulative impacts on seabed or seashore species or habitats.

2.8 Marine mammals

2.8.1 In order to estimate how many marine mammals (which include whales, dolphins, porpoises and seals) are using the PTEC site and surrounding area, surveys were conducted by qualified marine mammal observers in parallel with the ornithology surveys. The surveys, which were conducted on a monthly basis over one year, indicate that the PTEC offshore site is not an important breeding or foraging ground for any species of marine mammal and these findings were supported by other available wider studies.

2.8.2 The potential impacts identified in the assessment for marine mammals were the effects of underwater noise, collision with vessels and devices and indirect impacts from a depletion of their food resource. Due to the low marine mammal use of the site, the relatively small size of the project, and the fact that the area is already heavily used by vessels, impacts to marine mammals arising from the PTEC project are predicted to have **no significant impacts**. The assessment concludes that PTEC will also have **no significant cumulative impacts** with other projects in the area.

2.9 Fish and shellfish

2.9.1 PTEC is located in a region with a high diversity of marine and coastal habitats, however, the development site itself contains limited habitat diversity, largely comprising of exposed bedrock, cobbles and boulders. This, coupled with its tidally exposed conditions, makes it unlikely to be used as a nursery or spawning ground. Some migratory species including Atlantic salmon, sea lamprey and European eel do pass through the waters around the site, but there are no rivers near PTEC which are used by these species for important parts of their life cycle, such as breeding.

2.9.2 Potential impacts are predicted which are associated with underwater noise during installation, particularly drilling of foundations, and removal of infrastructure at repowering phases or on final decommissioning. However, these impacts will be highly localised, temporary in nature and unlikely to greatly exceed background underwater noise levels. No significant impacts are predicted as the result of any physical disturbance to, or loss of, benthic habitats during the project lifetime. This is largely due to the small project footprint and an abundance of alternative, similar habitat surrounding the PTEC offshore site. Coastal process modelling predicted that any change to suspended sediment levels will fall within the bounds of natural variation and any change to sediment deposition to be immeasurable.

2.9.3 PTEC is not expected to act as a barrier to fish or shellfish movements or migration due to its small spatial extent, open nature and the ample alternative passages offered by the surrounding open water. Collision risk has been considered and **no significant impact** was identified. The potential for anthropogenic electromagnetic fields (EMF) to impact fish and shellfish remains unknown, as it is unclear exactly what response is invoked through exposure. Therefore, predicting effects remains complex and challenging, and despite adopting a precautionary approach, it was concluded that there would be **no significant**

impact from EMF.. **No significant cumulative impacts** on fish and shellfish receptors were identified.

2.10 Commercial fisheries

2.10.1 A diverse array of fish and shellfish species is found in the coastal and offshore waters of the study area. These are targeted by a number of commercial fisheries as well as charter and recreational angling vessels. The Isle of Wight has a significant brown crab and lobster fishery that operates year round; other commercially exploited species include various flatfishes and cuttlefish. The PTEC offshore site overlaps with some of these fishing grounds, in particular part of the crab and lobster fishery. Therefore an extensive consultation-led data collection phase was undertaken to inform this impact assessment.

2.10.2 The fishing fleet operating in the vicinity of PTEC is typical of most inshore fishing fleets across Europe and, as such, competition for space and access to the fishery is high and influenced by the spatial extent of target species and the type of fishing vessel.. At a fleet level, across the study area, all impacts on commercial, charter and recreational fishing vessels have been assessed as **not significant.** However two impacts; 'loss of access, or restricted access, to traditional fishing grounds or marks' and 'displacement of fishing effort to adjacent fishing grounds' have potential to be **significant** for some vessels which traditionally fish within or adjacent to the PTEC development site. PTEC, as a responsible developer, is committed to ongoing consultation and working with the fishers who have traditionally fished the area of the proposed offshore site. A Joint Operating Agreement is proposed as a mechanism to develop mitigation plans and work towards co-existence. **No significant** cumulative impacts on commercial, charter or recreational receptors were identified.

2.11 Onshore Seascape and Landscape Visual Impact Assessment (SLVIA)

2.11.1 This assessment has examined the potential impacts of the onshore elements of PTEC on seascape, landscape and visual amenity. The onshore LVIA has considered the potential direct impacts on the landscape, as well as the potential impacts on the perception of landscape character. The assessment has also considered the potential impacts of the onshore elements of PTEC on visual amenity.

2.11.2 The scope of and approach to the assessment has been informed by consultation with the Isle of Wight Council, the Isle of Wight AONB Partnership and Natural England.

2.11.3 The onshore site is positioned towards the western edge of Ventnor. Parts of the surrounding area are recognised for their scenic beauty through the AONB and Heritage Coast designations that apply to much of this part of the Isle of Wight. In addition, the coastline, including Ventnor, is a popular tourist destination. There are a range of potential visual receptors located within the surrounding area, including residents and visitors, road users, and people engaged in both land and sea based recreation.

2.11.4 The SLVIA has considered the likely worst case scenario in terms of the likely scale, extent and nature of the onshore elements of the project, with the key element that has the potential to affect seascape/landscape character and visual amenity being the construction and operation of a small new substation and control room.

2.11.5 The potential substation locations would have variable effects on seascape and landscape character and visual amenity. Overall, it is predicted that the potential effects associated with

the substation/control room location in the privately owned 'Red Squirrel Limited (RSL) land/caravan park' would be lowest due to the potential effects on both the landscape resource and visual amenity. The potential effects associated with the option within the Southern Water Services Ltd land would be greater as it would occupy a more prominent site with greater potential physical effects on the landscape.

2.11.6 Both of the substation options could be mitigated through additional planting around the structures. This would have greatest influence on residual effects associated with the substation option within the Southern Water Services Ltd land.

2.11.7 It is concluded that changes to local landscape character from the introduction of the substation/control room would **not be significant.**

There are several relevant designations in the area surrounding the onshore site, including the Isle of Wight AONB, Tennyson Heritage Coast and a Conservation Area in Ventnor. Consistent with the evaluation of potential physical effects on landscape character, **no significant effects** on these designations are predicted.

2.12 Offshore Seascape and Landscape Visual Impact Assessment (SLVIA)

2.12.1 This assessment has examined the potential impacts of the offshore elements of PTEC on seascape, landscape and visual amenity within the study area. SLVIA has considered the potential direct impacts on the seascape and the potential impacts on the perception of seascape and landscape character. The assessment has also considered the potential impacts of PTEC on visual amenity for a range of sensitive receptors.

2.12.2 The assessment is focussed on a study area that extends 5km from the edge of the development site. However it also includes viewpoints beyond this area to provide an indication of how the offshore elements of PTEC would be seen from locations along the south coast of the Isle of Wight. The scope of and approach to the SLVIA has been informed by consultation with the Isle of Wight Council, the Isle of Wight AONB Partnership and Natural England.

2.12.3 The seascape/landscape setting of the offshore development site is a dramatic and large scale coastline. This coastline is recognised for its scenic beauty through the AONB and Heritage Coast designations that apply to much of the study area. In addition, the coastline is a popular tourist destination, including several settlements and numerous dispersed residential properties. There is a range of potential visual receptors located within the surrounding area, including residents and visitors, road users, as well as land and sea based recreation.

2.12.4 The arrays of tidal devices will potentially be seen from a number of locations and have the potential to affect the perception of seascape and landscape character. The high value placed on much of the study area is reflected in its designation as an Area of Outstanding Natural Beauty (AONB) and Heritage Coast.

2.12.5 Overall, the SLVIA has identified that there will be some adverse impacts as result of the installation and operation of the offshore elements of PTEC, but in most cases these are **not significant**. The tidal devices will be visible along the coastline and will comprise part of the open views that can be seen over the English Channel. The structures will typically comprise relatively small elements in the context of key components of the character types/units and

therefore will not become a defining feature. There are predicted to be some locally **significant** impacts in relation to the seascape/landscape at St Catherine's point. However, beyond this the predicted impacts on seascape/landscape character are **not significant**.

2.12.6 Impacts on seascape as a result of the offshore elements of PTEC can be reversed on decommissioning of PTEC at the end of the project life.

2.12.7 Consistent with the evaluation of potential impacts on character units, there will be some impacts on Conservation Areas in Ventnor and St. Lawrence, but these are typically not significant.

2.12.8 Some significant impacts are predicted in relation to the AONB and Heritage Coast, although, with the exception of the landfall point, there would not be any further physical impacts on landscape elements within these designations. Localised significant impacts in relation to the character of these designations have been identified (associated with the area in the vicinity of St Catherine's Point). However, in the context of the AONB and Heritage Coast, as a whole, the potential impacts will be limited and **not significant,** in relation to both their overall extent and special qualities.

2.12.9 A number of developments that may have cumulative impacts in relation to PTEC have been identified through consultation. Review of these identified that the key development that has the potential to result in cumulative impacts in combination with PTEC is Navitus Bay Offshore Wind Farm. However, the very long separation distance and different characteristics of the two proposals means **no significant**, cumulative seascape, landscape or visual impacts are predicted.

2.13 Traffic and transport

2.13.1 The main potential transport impact will be caused by construction traffic associated with the on-shore site. The construction phase however is expected to generate no more than 20 heavy goods vehicle and 44 light vehicle two-way trips per day, whilst the traffic requirements of the operational, repowering and decommissioning phases will be much less.

2.13.2 The impact of the proposed development has been considered in terms of the following environmental effects:

- Severance;
- Driver delay;
- Pedestrian delay;
- Pedestrian amenity;
- Fear and intimidation; and
- Highway safety

2.13.3 In each phase of the project the impact has been found to be **negligible**. In terms of mitigation, a Construction Traffic Management Plan will be produced in liaison with the Isle of Wight Council. This will ensure that the construction traffic, specifically heavy goods vehicles, will avoid causing disruption to sensitive routes, in particular during peak tourism periods and during the council's planned road improvement schemes if applicable.

2.14 Shipping

2.14.1 The existing (baseline) environment has been reviewed and a Navigational Risk Assessment (NRA) for PTEC has been undertaken for the development site and subsea export cable corridor. The assessment has included allision (a ship colliding with a structure), collision (a collision between two ships), risk modelling (including the Under Keel Clearance), and a formal safety assessment for all phases of the development, as well as an assessment of cumulative and in-combination effects.

2.14.2 The NRA was prepared in accordance with the guidance of the Maritime and Coastguard Agency (MCA) and other examples of best practice from both regulators and the maritime sector. This includes the satisfactory completion of the Marine and Coastguard Agency MGN 371 Checklist.

2.14.3 Consultation on the issues of navigation and safety has taken place with both national regulators and stakeholders; this included the regular operators (identified by investigation of the traffic operating in proximity to the site) and further local stakeholders.

2.14.4 Data for the navigation assessment was collated from a variety of relevant sources. Specific survey data was also gathered for the development site. Both a winter survey (14 days) and summer (14 days) survey took place which recorded AIS (Automatic Identifications System), radar and visual observations of the traffic operating in proximity to the development site. The summer survey was scheduled to ensure that it included the 'Round the Island Race', determining the peak traffic experienced at the south of the Isle of Wight during this event.

2.14.5 The surveys enabled the marine traffic to be quantified. This allowed the identification of traffic from key receptors (merchant shipping, commercial fishing and recreational vessels). It also highlighted the behaviour of the traffic transiting in proximity to the offshore site, where these vessels were heading, and the purpose of their presence. Models were run to establish the base case probability of allision and collision risk and the subsequent future case based on the worst case utilisation of the development site.

2.14.6 A Formal Safety Assessment was carried out. This combined expert opinion, local knowledge and a Hazard Workshop. Following identification of both future case impacts and the outcomes of the Formal Safety Assessment, an impact assessment in line with EIA guidance was undertaken. This impact assessment screened the identified impacts and the established mitigation measures, determining the residual risk.

2.14.7 After consideration of over 30 potential impacts relevant to navigation and shipping, all impacts are considered to be either 'tolerable' or 'broadly acceptable', and therefore **not significant** PTEC, as a responsible developer, is committed to ongoing dialogue with shipping regulators and stakeholders and will refine mitigation measures as the project is designed in detail prior to construction.

2.15 Onshore archaeology and cultural heritage

2.15.1 A desk-based assessment of Cultural Heritage Assets was undertaken within a 1km study area around the extent of the onshore site, above Mean High Water Spring (MHWS) tide (the 'onshore site study area'). The potential for both direct and indirect impacts on Cultural Heritage Assets has been considered. Direct impacts consist of physical disturbance of

assets due to construction works, while indirect impacts result from changes to the setting of Cultural Heritage Assets. Setting consists of the surrounding within which a Cultural Heritage Asset can be experienced and is not limited to visual perceptions.

2.15.2 Whilst previous engineering works within the onshore site mean that some areas have already been impacted, a review of available data suggests that there is still potential for archaeological remains in some areas below the previous construction depths. Previous investigations identified early medieval and post-medieval settlement as well as a large number of late Saxon or early medieval burials and a trackway still in use in the Victorian period. Part of the onshore site was developed into a recreational ground and pleasure garden in the early and mid-20th century.

2.15.3 Consideration of the known archaeological resource within the onshore site study area suggests a potential for remains from the medieval, post-medieval and 19th century to be present, as well as some potential for earlier Iron Age remains. Taking a precautionary approach, potential impacts upon archaeological remains within the onshore site there is potetential for **significant** impacts.

2.15.4 Cultural heritage is a non-renewable resource and physical impacts upon Cultural Heritage Assets will be permanent. Impacts upon currently unknown Cultural Heritage Assets within the proposed development footprint will be mitigated through a programme of works to be defined in consultation with statutory stakeholders. This may include a combination of geophysical survey, archaeological evaluation and archaeological monitoring during construction works as appropriate.

2.15.5 The potential for impacts upon the setting of selected Cultural Heritage Assets from the development has been considered in line with relevant guidance and potential visual impacts are only anticipated in relation to the substation and control room. Furthermore, any potential construction impacts will be temporary in nature.

2.15.6 Only two designated Cultural Heritage Assets were identified as potential sensitive receptors to impacts arising at the onshore site. Detailed assessment of the significant aspects of their setting as well as comparison of actual views available during the site visit concluded that any impacts arising from the proposed development would be **not significant**.

2.15.7 **No significant** potential cumulative impacts in respect of onshore archaeology and cultural heritage are anticipated.

2.16 Offshore archaeology and cultural heritage

2.16.1 A desk-based assessment of the archaeological and cultural heritage assessment has been undertaken within a 1km study area around the extent of the offshore site, below Mean High Water Springs (MHWS). The assessment includes the intertidal zone and cable route and is referred to as the offshore site study area.

2.16.2 There are no known Cultural Heritage Assets within or adjacent to the offshore site study area that are currently subject to statutory protection. There are no known accurately-located Cultural Heritage Assets within the intertidal part of the offshore site study area. Following an assessment of geophysical data it was determined that there are no known submerged prehistoric sites within the offshore site study area .

2.16.3 There are no known maritime or aviation wrecks within the offshore site and three recorded maritime wrecks within the offshore site study area. However, eight anomalies of uncertain origin, but of possible archaeological interest were identified within the offshore site and a further five within the offshore site study area. As well as the known Cultural Heritage Assets, a potential for further currently unknown maritime, aviation, and intertidal cultural heritage receptors to be present across the development footprint has been established.

2.16.4 The potential for both direct and indirect impacts on Cultural Heritage Assets has been considered and . Impacts upon all known Cultural Heritage Assets within the Offshore Site, including shipwrecks and intertidal features, will be avoided through the establishment of archaeological exclusion zones. The scope of these works will be defined in consultation with statutory stakeholders.

2.16.5 Impacts upon currently unknown Cultural Heritage Assets within the proposed development footprint will be mitigated through a programme of works to be defined in consultation with statutory stakeholders. This may include monitoring of construction activities by professional archaeologists where appropriate. A reporting protocol will be established to ensure that any currently unknown cultural heritage material encountered during seabed disturbance is reported and archaeologically recorded.

2.16.6 The potential for impacts upon the setting of selected Cultural Heritage Assets from the development has been considered in line with English Heritage's setting guidance with specific regard to the cultural heritage sensitivity of the Assets. A Zone of Theoretical Visibility was digitally generated to identify Cultural Heritage Assets at risk of setting impacts. Twelve Cultural Heritage Assets were subsequently identified as potential sensitive receptors to potential impacts. In all of these cases the impacts to their setting arising from the proposed development is considered to be **not significant**.

2.16.7 **No cumulative impacts** in respect offshore archaeology and cultural heritage are anticipated.

2.17 Onshore noise and vibration

2.17.1 A computer model was used to predict the levels of noise which would be created by construction, operation, repowering and decommissioning of the onshore elements of PTEC.

2.17.2 The impact assessment identified the potential for noise and vibration impacts to arise from construction of the control room, cable trenching activities and Horizontal Directional Drilling (HDD) if used. Impacts during the construction and decommissioning phases, without mitigation, were considered to range from **negligible** to **major** adverse significance.

2.17.3 Following the adoption of the recommended best practice guidance and mitigation measures, such as the erection of close-boarded fences during construction and around the transformer compound, the residual impacts to humans from onshore noise associated with PTEC, both during construction and operation was predicted as **not significant**. .

2.18 Socio-economics

2.18.1 A desk-based socio-economic impact assessment was undertaken for the project which considered impacts upon the value of the Isle of Wight economy as a whole (in terms of Gross Value Added, GVA), direct and indirect impacts upon the labour market, wider

qualitative impacts on the economy (these include attracting new industries to the Isle of Wight and improvements to education and skills base) and impacts upon other sectors such as commercial fisheries, tourism and recreation activities.

2.18.2 It is considered that the most significant impacts will be those during construction where there is likely to be the largest single investment of capital (with a **significant beneficial** impact) and with beneficial impacts upon employment due to both direct and indirect job creation. During operation and the repowering phase it is difficult to predict what the impacts will be in terms of inward investment and job creation and therefore these are assessed as being beneficial, although it should be noted that O&M port operations are excluded from the assessment and experience from the European Marine Energy Centre (EMEC) in Orkney suggests that this may be a conservative under-estimate. With regard to wider qualitative impacts these are again seen as beneficial throughout the project phases, which again may be underestimating the potential for wider benefits.

2.18.3 With regard to impacts upon other on-going activities, it is considered that whilst there may be in some cases impacts upon individual receptors (i.e. fishing or dive operators) displaced by PTEC, these impacts are **not significant** at the wider scale of the Isle of Wight economy.

2.18.4 Cumulative impacts with other major developments in the region (such as Rampion and Navitus bay Offshore Wind farms) are **not significant**, largely because some of the potentially most significant impacts (i.e. long term investment in O&M facilities) cannot be factored in because decisions on locations of these have not been made. However, it is likely that if these projects do go ahead much of this investment is likely to be in the Isle of Wight & Solent and South East England regions.

2.19 Tourism and recreation

2.19.1 The tourism and recreation baseline was informed through consultation with local business and amenities and through desk-based research using national and regional studies.

2.19.2 The seas off the south coast of the Isle of Wight are used for a variety of water sports activities including: diving, sailing kayaking, surfing and sea angling, however the PTEC project is not located in a hot spot for these activities. The onshore elements of the project are located near to a number of tourist and recreational facilities including the Ventnor Botanical Gardens and the Ventnor Cricket Ground. Furthermore, the Isle of Wight Coastal path runs to the south of where the onshore infrastructure would be located.

2.19.3 It is predicted that impacts to tourism and recreation would include effects on diving at five dive sites within and around the PTEC project and some disruption to water sports, sea angling and recreational sailing. A possible temporary closure of a footpath and the Isle of Wight coastal path could also impact on recreational users, however, any closures would be kept to minimum and would be implemented during the winter months where possible.

2.19.4 Overall impacts to tourism and recreation are considered to be **not significant**, once mitigation measures are put in place and it is possible that visitors may be attracted to the area by the presence of PTEC.

2.20 Military activity and UXO

2.20.1 The chapter describes the existing environment with regard to military activity and

unexploded ordnance (UXO) and assesses the potential impacts upon them from the PTEC project.

2.20.2 Military activity is considered in terms of potential impacts upon vessel movements and upon practice or exercise areas (PEXAs). There is some usage of the offshore site by military vessels and this was picked up in the marine traffic surveys. The offshore site is located within PEXA X5028, a site which is listed as a general practice and general submarine practice area. The PEXA covers an area of 371km^2 of which the PTEC offshore site covers 1.7% and the development site 1.3%. Given the scale of the overlap and the level of military traffic, it is expected that any impacts from PTEC would be minimal, however as there has been no substantive feedback from the Ministry of Defence (MoD) to date it has not been possible to assign sensitivity or magnitude in this assessment. Given that PTEC and on-going military activities will overlap, it is therefore considered that there is **potential for impact** and therefore a requirement for PTEC Ltd to agree suitable mitigation if appropriate with the MOD.

2.20.3 Given the extent of military and naval activity on and in close proximity to the PTEC offshore site, and the possibility of UXO migration in the PTEC offshore site due to tidal currents, the desk study concluded that the UXO hazard level on the offshore site is potentially **significant** The modelling study and geophysical data analysis did not identify clear zones of high UXO risk, although it was possible to identify areas with an elevated magnetic response, which are likely to contain high concentrations of ferrous metal. One of these areas is outside the offshore site boundary, and two overlap (around the landfall area of the subsea cable corridor and the eastern end of the development site). These areas may include wrecks or areas where significant amounts of scrap metal has been dumped, and cannot be ruled out as having an elevated UXO risk.

2.20.4 It will be necessary to undertake further more detailed risk assessment works in the development site and the subsea cable corridor once the final positions of infrastructure is known in order to identify any potential UXO and ascertain the requirements for any further survey and micro-siting of infrastructure.

3 CONSENTING PROCESS – WHAT HAPPENS NEXT?

3.1.1 The official notice of the application is available on the Marine Management Organisation public register at:

https://marinelicensing.marinemanagement.org.uk/mmo/fox/live/MMO_PUBLIC_REGISTER

3.1.2 A full copy of the Environmental Statement will also be sent to the MMO and Isle of Wight Council, who will in turn distribute, as required, to their consultees. A hard copy will be made available for viewing at the Planning Department of the Isle of Wight Council:

Isle of Wight Council
Planning Services
Seaclose Offices
Fairlee Road
Newport
Isle of Wight
PO30 2QS

3.1.3 Following publication of the second notice there will be a 28 day period during which representations concerning the proposed PTEC project can be made (details of how to do this are provided below). After the 28 day period the MMO and Isle of Wight Council will make their decision on whether the PTEC project should be given consent.

3.2 Have your say

3.2.1 With respect to the offshore elements of the project, you can make a representation or objection to the MMO concerning the PTEC project either by post or email. Postal correspondence should include a return address and should be sent to:

The Marine Management Organisation,
Marine Development,
Lancaster House, Hampshire Court,
Newcastle upon Tyne,
NE4 7YH

3.2.2 Alternatively correspondence can be emailed to david.morris@marinemanagement.org.uk within 28 days of the date of the second notice..

3.2.3 With respect to the onshore elements of the project, you can make a representation or objection to the Isle of Wight Council, Planning Department either by post, email or online. Postal correspondence should include a return address and should be sent to:

Isle of Wight Council,
County Hall,
High Street,
Newport,
Isle of Wight PO30 1UD

3.2.4 The planning application can also be viewed through the Isle of Wight Planning service website:

- http://www.iwight.com/planning/

The MMO and Isle of Wight Council will pass to PTEC Limited a copy of any objection or representation they receive.

3.3 Requesting full copies of the Environmental Statement

Full electronic or hard copies of the Environmental Statement can be provided by PTEC Ltd for a fee. Requests can be made to:

Freepost RSTY-ZCZK-XSTR,
Perpetuus Tidal Energy Centre,
Priestgate,
Peterborough,
PE1 1JL

3.3.1 If you have any further questions on the Environmental Impact Assessment process or the PTEC project please feel free to get in touch:

- Visit our project website: http://perpetuustidal.com/
- Fill in our online contact form at: http://perpetuustidal.com/contact/

Or for media enquiries please contact: admin@athene-communications.co.uk

3.4 References

ABPmer 2008. Atlas of UK Marine Energy Resources. [Available online: http://www.renewables-atlas.info/] Accessed 17/09/2013

Department of Energy and Climate Change (DECC) 2013. Wave and tidal energy: part of the UK's energy mix. [Available online: https://www.gov.uk/wave-and-tidal-energy-part-of-the-uks-energy-mix]. Accessed 17/09/2013