

# THE CONSERVATION (NATURAL HABITAT, &c.) REGULATIONS 1994 (AS AMENDED)

# LICENCE TO DISTURB MARINE SPECIES

# Public Case Handling Report for Licence Number: EPS/BS-00010905

Site	Berth 5, Fall of Warness Tidal Test Site, Orkney	
Company	Orbital Marine Power (Orkney) plc Innovation Centre - Orkney Hatston Pier Road Kirkwall Orkney KW15 1ZL	
Brief Description of Project	The installation, operation and maintenance of the Orbital O2 tidal turbine and supporting infrastructure	
Associated Licences	Variation to Basking Shark Licence No EPS/BS-00009984	

Inshore/Offshore Inshore	
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TEST 1	Purpose of licence
	Social, economic or environmental purpose

#### **Comments**

Over the long term, tidal energy technology has the potential to underpin a global tidal stream industry of up to 10 GW in the UK and 100 GW globally, enough to power 80 million homes with low carbon electricity. The industry can make an important contribution to the lowering of the UK's carbon emissions. It will support the provision of high quality, skilled employment in the north of Scotland as part of the energy transition. This project is an important step in the commercialisation of the tidal stream energy sector. The project will support further technology learning to reduce costs, and its performance will help secure more public and private investment into developing the sector.

This type of technology is currently not available in the UK. By contrast, wind and solar energy are intermittent forms of renewable energy generation, which necessitate a range of additional energy storage projects to balance the grid network, which results in increased overall costs and environmental impacts. Nuclear energy, which is effectively prohibited in Scotland, is associated with a range of environmental issues. The public interest will therefore be served by supporting the emergence of a predictable, low carbon source of electricity with large scale roll-out potential in Scotland and the UK.

The European Marine Energy Centre is currently the only location in the UK suitable for the deployment of the O2 tidal turbine. If the project does not go-ahead at EMEC, Orbital will not be able to progress the further development of its proprietary tidal technology nor to raise further funding towards its commercialisation programme. This would result in the loss of 35 full time jobs and as a leading tidal technology developer, significantly undermine the long term potential of the sector to deliver low carbon generation and high quality jobs in the low carbon economy. This would have national and international implications for the growth of the tidal stream energy sector.

Test 1 satisfied?	YES

#### TEST 2

# Satisfactory alternatives

# **Comments**

The UK government, with active support from the Scottish Government, Highlands and Islands Enterprise and European Commission, has established the European Marine Energy Centre (EMEC) as a test site for wave and tidal energy conversion devices.

Orbital Marine Power technology development programme requires that that a full scale version of their technology, the O2 2MW be subject to long term testing at a grid connected tidal test site to verify the turbine and its various subsystems long term performance, to provide learning towards further design improvements, to demonstrate and validate the costs associated with a suite of maintenance activities and to provide confidence to policy makers, public innovation agencies and private investors as to the potential for the technology to justify further policy and financial support to the company and towards driving the growth of the tidal stream energy sector. This will in turn support the emergence of a new low carbon, predictable generating technology to support Scottish Government climate change targets.

The EMEC test site, in line with its objectives, provides the following benefits - a Section 36 consent for up to 10 MW of installed capacity, a physical grid connection and grid connection capacity. Within the UK at the moment, there are no other options available to deploy this tidal turbine with available consents, physical grid connection and grid connection capacity.

Orbital had around the time of initial deployment considered developing its own project site for demonstration purposes. It held an agreement for lease for the Lashy Sound site, Orkney. However, it was not feasible to develop a project here that would be capable of securing grid connection capacity in the timescales required for the O2 test programme. The Lashy Sound site also had water depth limitations that would prevent the deployment of the O2 style turbine.

Given that the device must be subject to long term testing, and EMEC is the only suitable and available facility in the UK to test this technology, there are no satisfactory alternatives to carrying out this activity.

Test 2 satisfied?

YES

# TEST 3 Comments

**Favourable conservation status** 

NatureScot advised in its response to the original application dated 23 May 2019 that there will be no impact on the favourable conservation status and advised that the mitigation outlined in section 3 (e) of the applications is used to minimise any potential disturbance. In its response to the 1st variation application dated 01 August 2024, NatureScot confirmed that it was content for the licence to be extended by 2 years. In its response to the 2nd variation application dated 01 August 2024, NatureScot confirmed that it was content for the licence to be extended by a further 2 years.

Test 3 satisfied?

YES

**Date original application received**: 23/04/2019 Date 1st variation application received: 12/07/2022 Date 2nd variation application received: 08/08/2024

**Original consultation start date**: 10/05/2019 1st variation consultation start date: 09/08/2022 2nd variation consultation start date: 24/07/2024

**Original consultation end date**: 31/05/2019 1st variation consultation end date: 06/09/2022 2nd variation consultation end date: 21/08/2024

Date	title	Text
2024-08-07 09:53:17	Extension consultation - PUBLIC NOTE	NatureScot was consulted on the 2nd variation application on 24 July 2024 and responded on 01 August 2024 confirming that it was content for the licences to be extended until 15 September 2026.
2024-09-05 15:07:39	Licence Variation History - PUBLIC NOTE	Original licence issued: 18 September 2020, valid until 17 September 2022 1st variation licence issued: 15 September 2022, valid until 15 September 2024

#### National Marine Plan considerations:

The decision is: In accordance and no further action required

Comments: The deployment location is situated within the Plan Option areas set out in Scotland's National Marine Plan (2015). The associated plan policy states:

RENEWABLES 1: Proposals for commercial scale offshore wind and marine renewable energy development should be sited in the Plan Option areas identified through the Sectoral Marine Plan process. Plan Options are considered the preferred strategic locations for the sustainable development of offshore wind and marine renewables.

The project will support the targets set out in the following Scottish and UK policies and associated strategies through supporting a significant demonstration project in the commercialisation pathway for tidal stream energy. A key theme of these policies is the need for a significant increase in low carbon electricity generation in the UK, with electricity generation providing a decarbonisation pathway across all energy users. Tidal stream energy has the potential to deliver around 10 GW of predictable generating capacity in the UK to support a number of environmental targets.

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