Notice to Mariners

East Anglia TWO

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Final

Scottish Power Renewables

Document Control

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Client Information

Client	Scottish Power Renewables
Client Address	1 Tudor Street, 3rd Floor, London, EC4Y 0AH
Client Contact	Beatriz Galán

Revision History

Issue	Date	Status	Comments on Content	Prepared By	Checked By	Approved By
08	2 June 2021	Updated	Planned service visit	MML	CAB	MML
09	7 June 2021	Updated	Vessel confirmed	MML	CAB	CAB
10	3 September 2021	Updated	Vessel confirmed for final recovery	CAB	CAB	CAB

Project Team

Initials	Name	Role
LF	Lars Fogelin	Project Manager
MML	Matthew Linham	Senior Oceanographer
CAB	Chloe Bodemeaid	Senior Oceanographer

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1. Introduction

Mariners are advised that the SeaWatch LiDAR Buoy (SWLB) currently deployed at the East Anglia TWO wind farm site is now due for recovery. These works are planned for 7 September 2021 onwards, subject to vessel availability and suitable weather.

The equipment is to be recovered by a single vessel, which is expected to take approximately 3 hours to complete.

The SWLB is a sea state measurement instrument (referred to as 'the equipment'). The deployment location is within the UK Sector of the North Sea off the coast of East Suffolk and Essex.

The mooring design is specific to each SWLB deployment and location. The equipment is moored through a combination of steel chains, rope and rubber cord to approximately 2250 kg anchor weight at the seabed.

The equipment has been deployed within the East Anglia TWO wind farm site limits and will be recovered indefinitely.

2. Area of Operations

The equipment is located within the East Anglia TWO offshore development site. Coordinates for the equipment are provided in Table 1 and Figure 1.

Table 1: SWLB coordinates

Name	Latitude [WGS84]	Longitude [WGS84]	Depth [m]
SWLB deployed location	52° 06.990' N	002° 11.890' E	39

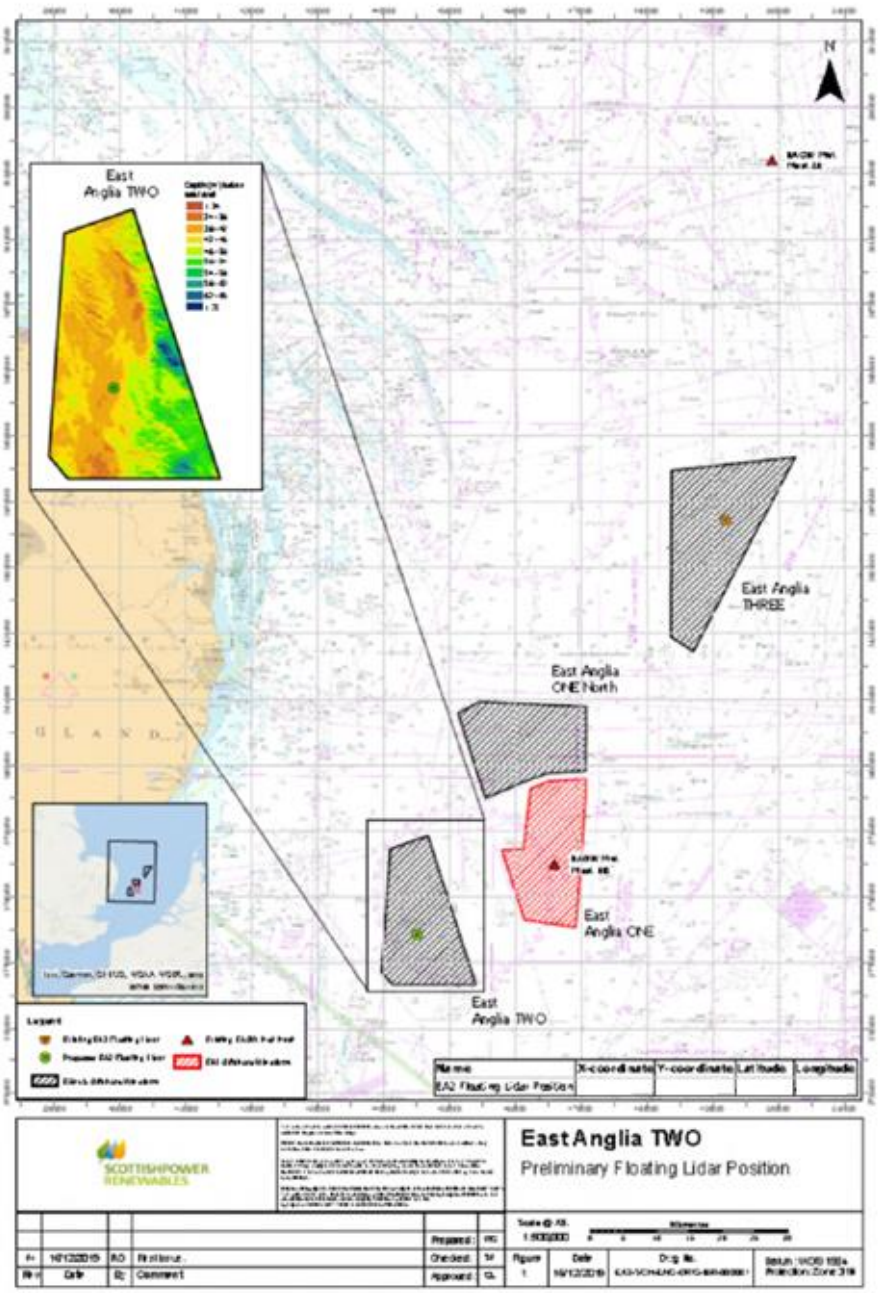

Figure 1: SWLB deployment location

3. Offshore Metocean Measurements

3.1 The Equipment

The equipment is an integrated Seawatch Wavescan buoy and ZX 300M LiDAR; the purpose of the equipment is to collect oceanographic and meteorological data using a single platform. The equipment is supplied and charged by an onboard power system which uses methanol fuel cells and solar panels to recharge onboard lead acid batteries.

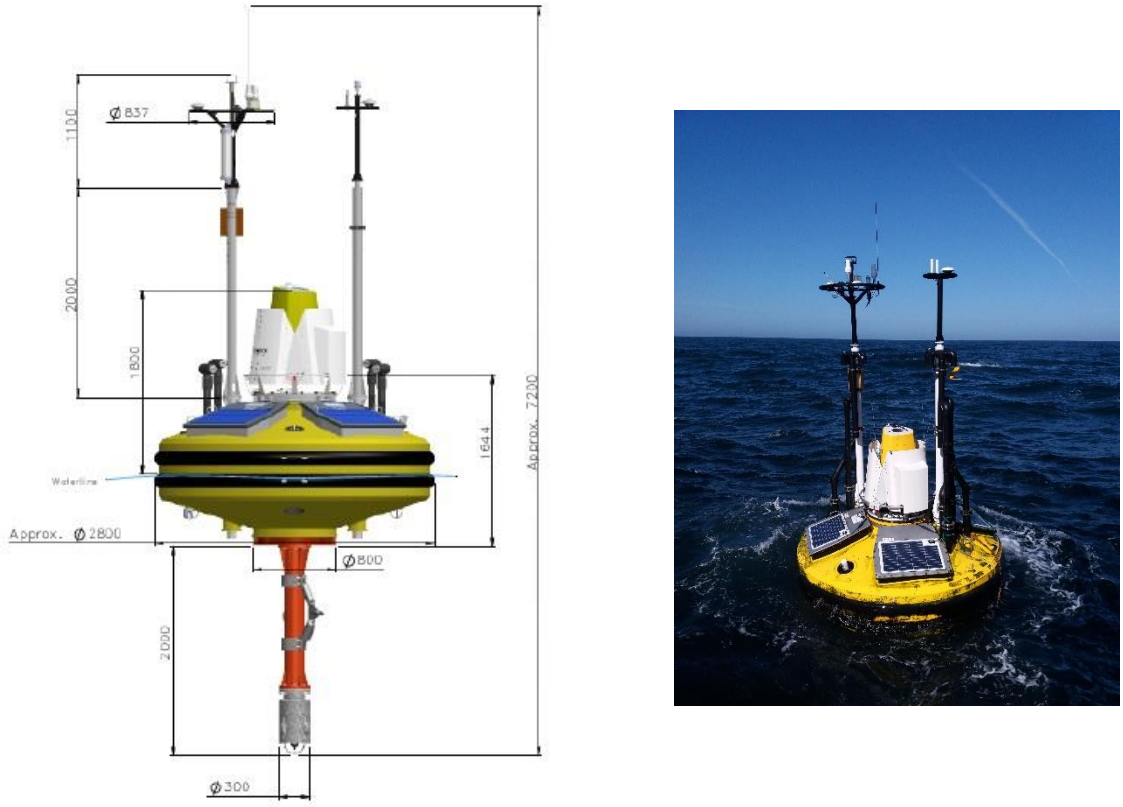

Figure 2: Equipment dimensions (left), example deployment (right)

In order to minimise the risk to other sea users, the measures listed below have been adopted for this deployment:

The equipment is equipped with a F1 (5) Y 20 s light with 4-5 nautical mile range; the light is mounted at the top of one of the masts, approximately 4 m above sea level. The flash sequence for this light is detailed in Table 2.

Table 2: SWLB light flash sequence

Flash Code	On [s]	Off [s]	On [s]	Off [s]	On [s]	Off [s]	On [s]	Off [s]	On [s]	Off [s]
FL (5) 20 S	0.8	1.2	0.8	1.2	0.8	1.2	0.8	1.2	0.8	11.2

Additional risk reduction measures include the use of passive radar reflectors to make the buoy more visible on vessel radars, Automatic Information Systems (AIS) to broadcast the buoy position to marine AIS platforms, Global Positioning Systems (GPS) position monitoring of the buoy at 30-minute intervals and an independent GPS tracker used for backup position monitoring of the equipment in the event of primary GPS failure.

The equipment is moored using a single point mooring. The mooring design allows for free movement of the buoy over a radius that is approximately equal to the water depth. The anchor weight used to moor the equipment is approximately 2250 kg weight and comprised of large diameter scrap chain.

It should be noted that some elements of the mooring float just below the sea surface. To avoid the risk of entanglement, vessels should allow a minimum 200 m clearance from the surface buoy.

3.2 Safety

It is requested that anybody having knowledge of any potential objects submerged or moored on the seabed close to the deployment zone, that could be damaged or form a hazard to the vessel and its equipment advises the Project's Fishing Industry Liaison Officer of their position and nature.

4. Immediate Contacts

The contents of this notice are based upon our current understanding of East Anglia TWO requirements.

Enquiries regarding the contents of this Notice to Mariners or any other matters should be directed to the persons outlined in Table 3.

Table 3: Contact persons

Role	Name	Contact Details
Scottish Power Renewables FliDar Package Manager	Beatriz Galán	+34 659 027 371 bgalan@iberdrola.es
Scottish Power Renewables Senior Engineering Manager	Irina Cortizo	+44 7926 084 400 icortizo@scottishpower.com
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Operations Manager	Jamie Dollman	+44 2392 205 570 +44 7825 016 333 j.dollman@fugro.com

5. Survey Vessel

Table 4: Vessel details Voe Vanguard

Vessel	Voe Vanguard
Vessel type	Anchor Handling Tug
Operator	Delta Marine
Call sign	MBEN9
IMO	9809693

6. Distribution List

This NtM has been distributed to the following parties.

Table 5: Distribution list for this NtM

Distribution List
marine@scottishpower.com
jonathan@brownmay.com
sarah@gobeconsultants.com
jyoung@ScottishPower.com
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aschmidt-hansen@scottishpower.com
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wm.humber@mcga.gov.uk
sdr@ukho.gov.uk
offshore.energy@ukho.gov.uk
noticestomariners@ukho.gov.uk
navigationsafety@mcga.gov.uk
navigation.directorate@thls.org
lowestoft@marinemanagement.org.uk
kingfisher@seafish.co.uk
zone10@hmcg.gov.uk
NavWarnings@UKHO.gov.uk
nmoccontroller@hmcg.gov.uk
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