

NOTICE TO MARINERS

Berwick Bank Wind Farm

Wind Farm - Notice to Mariners, date 26/10/2021

Mariners are advised that SSE Renewables will be deploying a floating LiDAR buoy within the proposed Berwick Bank Wind Farm array area. The floating LiDAR buoy will measure the wind conditions to provide meteorological data to the offshore community that is needed for offshore wind resource characterisation. All locations referred to are outlined in Table 1 and displayed in Figure 1. These locations are all within the Berwick Bank Wind Farm array area in the outer Firth of Forth and Firth of Tay on the east coast of Scotland.

The equipment will be deployed during November 2021, with an estimated start date for deployment set for the 5th November 2021. However, this may be subject to change due to weather and/or operational delays. The buoy will be deployed for at least 12 months with maintenance and monitoring completed at three-month intervals.

Table 1 – Location of buoy deployment

Location	Easting (UTM 30N)	Northing (UTM 30N)	Latitude (DMS)	Longitude (DMS)
1 (currently deployed)	596420	6239991	56° 17′ 41.588″ N	01° 26′ 31.3939″ W
2	575648	6247088	56° 21′ 44.642″ N	01° 46′ 31.974″ W



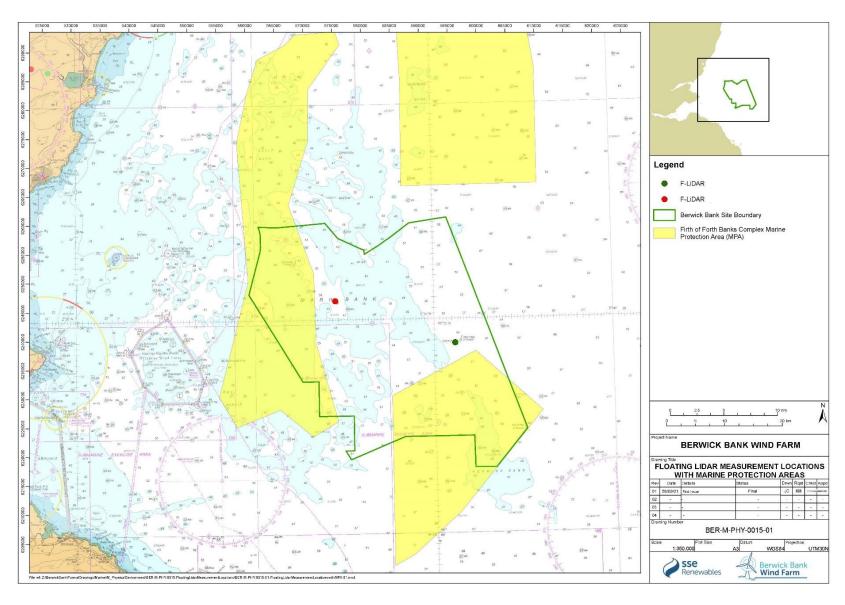


Figure 1: LiDAR Deployment Location (F-LiDAR 2)

Deployment

The proposed location of the LiDAR buoy is illustrated in Figure 1. The deployment will include the Fraunhofer IWES Wind LiDAR Buoy which is based on a proven design used for navigation buoys (Figure 2).

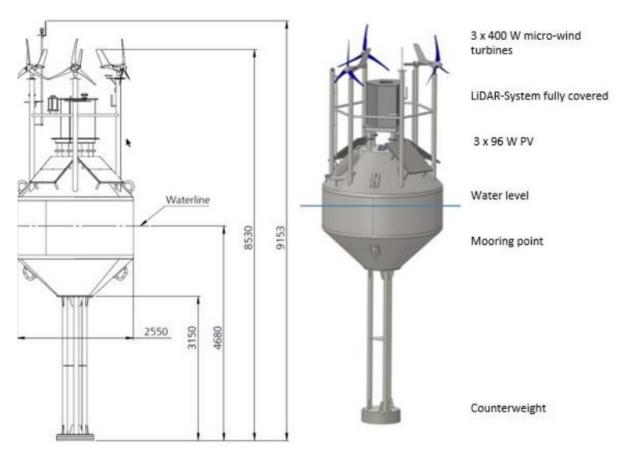


Figure 2 – Schematic and Design of Fraunhofer IWES Wind LiDAR Buoy

Deployment will be undertaken from a single vessel (the Isle of Jura or other similar vessel) and is expected to take up to three days (including transfer to site and testing of the equipment). All equipment will be loaded at the designated port using the vessel cranes before heading to the offshore location.

The LiDAR buoy has an autonomous power system featuring 3 x 400 watt micro-wind turbines and a back-up diesel generator and will have its own dedicated mooring system. The system comprises a 190 m chain with a dimeter of 143 mm. This will be attached to a concrete sinker weight with dimensions of each being 1 m x 1 m (weight 4.2 tonnes) (Figure 3). In addition to this, based on the International Association of Lighthouse Authorities (IALA) standards and recommendations the LiDAR buoys will be equipped with the following sea marks:

- A buoy hull and superstructure above waterline (+30 cm) coloured in Yellow (RAL1023);
- Yellow X mark;
- Radar reflector; and
- 2 x LED Marine Lantern, minimum one with GPS monitoring and tracking feature.

The flash frequency and intensity of the two SABIK LED Marine lanterns can be individually set, exhibiting a yellow light group flashing five times every 20 seconds with the flash automatically synchronised by GPS. The lantern is solar powered with premium components and a rugged design.

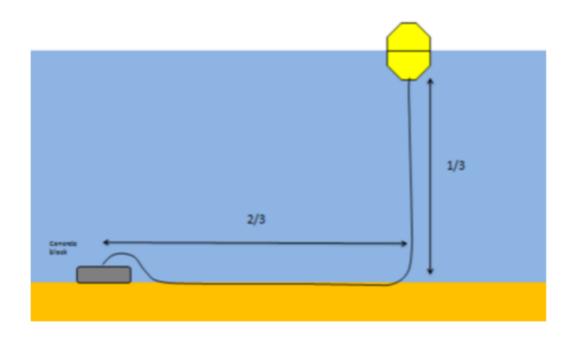


Figure 3 – LiDAR Mooring Configuration (for contextual purposed only)

The buoys will be deployed during daylight hours from a single vessel with associated activities expected to take up to 3 days but may be extended due to weather. Therefore, we would like the validity period for this Notice to Mariners to be the 01 November 2021 – 30 November 2022 to allow for any eventualities during installation operations and also to cover the aforementioned O&M activities throughout the deployment period.

General Safety Advice

The work boat will exhibit appropriate lights and shapes prescribed by the International Regulations for Preventing Collisions at Sea; relative to their operations. All vessels engaged in the activity will also transmit an Automatic Identification System (AIS) message. The activity location is defined by the coordinates in Table 1, which provides the location of the buoys to be removed.

ALL VESSELS ARE REQUESTED to give the work boat engaged in the deployment activity a wide berth.

MARINERS ARE REMINDED to navigate with caution and keep continued watch on VHF Ch. 71 & 16 when navigating the area.

Deployment Vessel



Isle of Jura

The Isle of Jura is a Utility Vessel that was built in 2019 (2 years ago) and has a LOA of 33m, a beam of 15m and a draught of 2.5m. The Isle of Jura will operate from the Port of Dundee for the initial deployment of the LiDAR buoy.

Vessel Contact Details

Isle of Jura

Vessel Call Sign: MFFY6

IMO Number (MMSI): 232021966 Bridge: +44 (0) 7808 067960

Contact Details

Further marine enquiries should be addressed to the following person:

Sarah Zwick

Telephone: +49 (0) 151 58705475 Email: sarah.zwick@iwes.fraunhofer.de

Contact Details – Fisheries Liaison

Onshore fisheries liaison for this survey will be co-ordinated by Brown and May Marine (BMM). If there are commercial fishery queries, please contact Sophie Farenden, Office T: 01379 872149; Mobile T: 07525 128344 (sophie.farenden@brownmay.com).

Due to the restricted size of the support vessel there will not be an offshore fisheries liaison officer (FLO) aboard. However, the skipper of the vessel will issue regular broadcasts whilst the vessel is operating to ensure minimal disruption and that vessels maintain an appropriate and safe distance. SSE Renewables are not expecting any fishermen to relocate gear; on this occasion the vessels will work around any gear on location.

FURTHER DETAILS ARE AVAILABLE FROM:

Adrian How SSE Renewables 1 Waterloo St., Glasgow, G2 6AY

Telephone: +44 (0) 141 224 7053 / +44 (0) 7342 026 379

Email: adrian.how@sse.com

If not available, please contact:

Douglas Watson
SSE Renewables (at the above address)

Mobile: +44 (0) 7342 028219 Email: douglas.watson2@sse.com