The shaded blocks below indicate the areas of activity published within this Bulletin.

This Bulletin, along with previous issues, can be viewed at: www.kingfishercharts.org, or you can register for an email alert by contacting: kingfisher@seafish.co.uk

All co-ordinates listed in this Bulletin refer to WGS84 datum
Firth of Forth Wind Farm – Meteorological Mast

Please be advised that Fred Olsen United, on behalf of Seagreen Wind Energy Ltd (Seagreen), will be commencing the installation of a Meteorological Mast in the Firth of Forth Round 3 Offshore Wind Zone from approximately 26th March 2013. The Meteorological Mast will be installed at the location below.

Installation of the Meteorological Mast will be achieved using the jack up vessel Brave Tern operated by Fred Olsen Windcarrier. This vessel has 4 legs which will be lowered to the seabed for the installation operation. Once Brave Tern is secured in position the Meteorological Mast foundation will be installed, followed by the installation of the met mast topsides. Foundation installation is estimated to take up to 4 days and topsides installation and commissioning up to 2 weeks. The Brave Tern will be the only vessel required for the installation.

The Meteorological Mast will support a variety of meteorological data collection equipment, including a vertical array of anemometers for measurement of wind speed and direction, and will extend to a maximum height of 120m above lowest astronomical tide (LAT). The mast will be painted and otherwise marked according to the requirements of the Northern Lighthouse Board and Maritime and Coastguard Agency. Navigation lighting, a fog detection and signalling system and a radar reflector will be fitted. The Meteorological Mast topsides will be secured to a steel suction caisson foundation secured to the seabed. Following installation service visits will be undertaken at approximately 6 month intervals.

Latitude          Longitude
56° 36.696'N    01° 58.341'W

For further information, please contact: Rebecca Radford, Brown & May Marine Ltd, Tel: 01379 870181 email: Rebecca@brownmay.com

NAREC Offshore Demonstrator Platform – Construction Activities

Installation vessel MPI Adventure is currently jacked up on the NAREC Offshore site, 3NM off Blyth. The foundation jacket has been positioned on the seabed. All 3 piles have been stabbed and drilling operations are currently in progress.

During this period, a 500m safety zone has been established and all vessels are requested to keep clear. Once the foundation is fully installed, MPI Adventure will lift on the platform and tower sections. During these activities, a 500m safety zone will be established and vessels are requested to keep clear. During construction activities, personnel transfer vessels Endurance and Celtic Challenger will be transiting between the Port of Blyth and the construction site.

Installation: NOAH
Position: 55° 08'.775'N 001°25'.252'W
Markings: NH
Height: 168.5m above chart datum
Colour: Yellow
Lights: All round white light flashing Morse ‘U’ 15s, 23m, 10M
Sounds: Morse ‘U’ 30s

For further information, please contact: Jonathan Nuttall, Tel: 07827 933 507, Email: noah.traffic@searoc.com
Dudgeon Offshore Wind – Geophysical Survey

Geophysical and UXO survey of proposed wind farm site and cable route.

<table>
<thead>
<tr>
<th>Company, Vessel &amp; Call Sign</th>
<th>Area Covered</th>
<th>Start Timeframe &amp; Duration</th>
<th>Area</th>
</tr>
</thead>
</table>

For further information, please contact: Matt Howell, Fugro EMU Limited, Tel + 44(0) 1489 860 064 email: matt.howell@fugroemu.com

Lincoln Offshore Wind Farm – Construction Activity & Survey

Ongoing wind turbine erection is being undertaken at selected locations by the “Resolution”. 500m safety zones will apply around these locations during wind turbine erections, reverting to 50m safety zones once complete. Temporary navigation lights (FI Y 2.5s with 2nm range) are in place on all installed foundations.

Completion of final cycle of WTG erection and demobilisation of resolution from site.

- Start of geophysical survey (predicted start date 08/04/13) of inter-array cables within main site via MV Chartwell and 2 x export cables via MV Freja (predicted start date 08/04/13). The survey contractor is Osiris Projects and these works are expected to last 1-2 weeks, subject to weather conditions.
- MV Chartwell (call sign MHGV6) is a 26m mono-hull and will be undertaking 24hr operations.
- MV Freja (call sign VSY07) is a 12m mono-hull and will be undertaking 12hr operations.
- These surveys works will require both vessels to tow survey equipment up to 100m astern of the vessel so mariners are advised to maintain a safe working distance from both vessels.
- As advised in previous NTM’s, a Fisheries Liaison Officer (FLO) - Mobile Number 07745 - is now located offshore to deal with any fishing/construction interactions over the next few weeks as commercial fishing activity increases around the site. The FLO should be contacted for any queries relating to site access/vessel movements and/or this geophysical survey.
- Continuation of secondary foundation and commissioning works at selected locations via various vessels.

Inter-Array Cables – Main Site
All inter-array cables are now installed, although some exposed cable ends exist near turbines. Mariners are reminded of the 50m Safety Zones in existence around all uncompleted structures.

Export Cables
The Huntress of Grimsby remains on site to provide guard vessel duties between KP8.0 and KP24.0.

Coordinates of Operations
The position and type of these buoys is shown below:

<table>
<thead>
<tr>
<th>Buoy</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Buoy</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Cardinal (VQ (3) 5E)</td>
<td>53°07.340’N</td>
<td>00°25.700’E</td>
<td>Special Mark (FI Y 2.5s)</td>
<td>53°13.900’N</td>
<td>00°28.390’E</td>
</tr>
<tr>
<td>East Cardinal (VQ (3) 5E)</td>
<td>53°09.070’N</td>
<td>00°31.490’E</td>
<td>North Cardinal (VQ)</td>
<td>53°15.170’N</td>
<td>00°30.350’E</td>
</tr>
<tr>
<td>Special Mark (FI Y 2.5s)</td>
<td>53°10.970’N</td>
<td>00°31.500’E</td>
<td>West Cardinal (VQ (9) 106)</td>
<td>53°14.670’N</td>
<td>00°27.020’E</td>
</tr>
<tr>
<td>East Cardinal (VQ (3) 5E)</td>
<td>53°12.440’N</td>
<td>00°31.460’E</td>
<td>West Cardinal (VQ (19) 106)</td>
<td>53°09.450’N</td>
<td>00°26.050’E</td>
</tr>
</tbody>
</table>
London Array Wind Farm – Construction Works

The London Array Offshore Wind Farm is being constructed in the Outer Thames Estuary, it will be situated midway between the Kent and Essex coastlines, more than 20km (12 miles) from each shore. Phase one consist of 175 wind turbines, installed on two sandbanks; Long Sand and Kentish Knock and in the Knock Deep channel.

Current work activities include:

- The Survey Vessels Line and Sander 2 are carrying out depth of cable surveys on the array cables. Vessel HBC Performer on site to assist Sander 2 in recovery of ROV.
- Construction site guard vessel duties will be covered by the Mary Ann 1.
- Crew boats Sea Rex, MPI Cardenio, Marian Array, Smeaton Array, Ellida Array, Conwy Bay, Towyn Bay, Aberffraw Bay, Cwind Alliance, Cwind Athena, Cwind Asherah, Cwind Astute, Voyager, Transporter, Distributor, Provider, Cardinal P, Admiral P, Sea Ferret & Sea Weasel will take offshore technicians to the installed foundations and construction vessels, and perform personnel transfer duties. Some of these vessels will undertake generator refueling and maintenance duties.
- Cable burial vessel Pontra Maris assisted by tugs, Amstelstroon and Claudia B will commence cable burial operations at shallow water locations. Whilst construction is taking place at these positions a 500m safety zone is established, and all vessels are to keep clear.
- The Hotel ship Wind Ambition situated in the Knock Deep anchorage NE of site, acting as accommodation for offshore technicians working on the WTG’s.
- The vessel Meriel D conducting site survey work, including the export cable route and array cables.

For further information, please contact: Email: Londonarraytraffic@dongenergy.dk, Tel: +44(0)7909414690 or +45 31727585

Kingfisher Awareness Flyer: London Array Offshore Wind Farm

For a copy of the Kingfisher Awareness Flyer for the London Array Offshore Wind Farm, please contact the undersigned. Alternatively, click on the link below, or visit www.kingfishercharts.org
Teesside Offshore Wind Farm – Safety Zone Cardinal Buoys Out of Service

Teesside Offshore Wind Farm is located within Tees Bay approximately 1.5km off the coast of Redcar in Cleveland. The site will consist of 27 Siemens 2.3 MW Turbines and is connected by two undersea export cables to an onshore sub-station based at Warrenby.

The following activities are continuing:

- Tower and Nacelle Only B15 & B16
- Wind Turbines A04 – A01, C19 – C21
- Scour Protection within Windfarm Site

WARNING: The South Cardinal Buoy is currently unlit, the West Cardinal Buoy is currently off location.

<table>
<thead>
<tr>
<th>Buoy</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Cardinal</td>
<td>54° 39.020’N</td>
<td>01° 07.260’W</td>
</tr>
<tr>
<td>South Cardinal</td>
<td>53° 38.070’N</td>
<td>01° 05.180’W</td>
</tr>
</tbody>
</table>

Lynn and Inner Dowsing Wind Farm – Notice to Mariners

The Aids to Navigation on four of the Lynn and Inner Dowsing turbines have been repaired.

There is a planned power outage at the wind farms over a number of days in April and May 2013. Lynn Wind Farm 20th May to 31st May 2013. Inner Dowsing Wind Farm 15th April to 3rd May 2013.

This will result in a loss of power to the Aids to Navigation and therefore there will be no navigational aids in operation during these periods. Please note the existing navigational aids associated with the adjacent Lincs wind farm will not be affected.

<table>
<thead>
<tr>
<th>Turbine Number</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID01</td>
<td>53°12.777’N</td>
<td>000°25.959’E</td>
</tr>
<tr>
<td>ID10</td>
<td>53°10.168’N</td>
<td>000°25.964’E</td>
</tr>
<tr>
<td>LN10</td>
<td>53°08.754’N</td>
<td>000°26.360’E</td>
</tr>
<tr>
<td>LN30</td>
<td>53°08.798’N</td>
<td>000°28.691’E</td>
</tr>
</tbody>
</table>

Foundation remediation works will be continuing at the Lynn and Inner Dowsing sites between May and September 2013.

All works will take place within the wind turbines however there will be an increased number of vessel movements (four workboats) to and from the wind farm sites and Grimsby docks during this time, during the day and night. In addition, a dive standby vessel will be utilised throughout the works and will remain on site, or in the vicinity of the sites, for the duration. At this stage it is anticipated that the "Thor" will undertake this role. Diving activities will be internal within the wind turbine foundations and may be undertaken during the day and night.

For further information, please contact: Simon Prince, Tel: 07920 273866, Email: sprince@rssmarine.co.uk; Richard Hart, Tel: 07584 514942, Email: rhart@rssmarine.co.uk
Hornsea Offshore Wind Farm – Survey Activities

Buoys
A directional wave rider (DWR) buoy is located at Schooner Field (location 7a) and will be serviced at 6 monthly intervals, and remain in place until further notice. The DWR buoy is painted to IALA standard and is equipped with a radar reflector and an amber navigation light set to flash 5 times at 1Hz every 20 seconds. The DWR buoy is moored to the seabed through a series of rubber compliant sections at the sea surface and a plaited rope riser line throughout the water column. The result of this mooring configuration is a large excursion of the buoy about its mooring; we ask that passing vessels give the buoy a wide berth of approximately 300m.

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Equipment</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>7a</td>
<td>Schooner Field</td>
<td>DWR buoy</td>
<td>53° 53.367'N</td>
<td>01° 59.100'E</td>
</tr>
</tbody>
</table>

Met Mast
A meteorological mast is located at the position: 53°53.143'N 001°59.497'E

In Foggy conditions the fog detection and control system is diverting the primary navigation lights and fog horn to the emergency navigation lights and fog horn. Be extra vigilant when navigating in adverse foggy conditions in the met mast area.

For a copy of the Kingfisher Awareness Flyer for the Hornsea Offshore Wind Farm, please click on the link below, or visit www.kingfishercharts.org

Kingfisher Awareness Flyer: Hornsea Offshore Wind Farm

Hornsea Gateway Offshore Wind Farm – Survey

SMart Wind intend to undertake a geophysical survey in the area shown

<table>
<thead>
<tr>
<th>Company, Vessel &amp; Call Sign</th>
<th>Area</th>
<th>Area</th>
<th>Start Timeframe &amp; Duration</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smart Neptune</td>
<td>1. 53°49.108'N 001°25.861'E</td>
<td>2. 53°44.016'N 001°20.153'E</td>
<td>3. 53°44.748'N 001°24.717'E</td>
<td>53°44.786'N 001°27.338'E</td>
</tr>
</tbody>
</table>

For further information, please contact: Keith Harsham, SMart Wind Ltd, Tel: +44(0)20 7776 5515; Mob 07876454649
Email: keith.harsham@mainstreamrp.com
Humber Gateway Offshore Wind Farm – Unexploded Ordnance

E.ON Climate and Renewables (E.ON) are currently undertaking an Unidentified Magnetic & Sonar Anomaly investigation within the project area of the planned Humber Gateway Offshore Wind Farm. The purpose of the investigation is to identify items that have the potential to be Unexploded Ordinance (UXO) or Archaeology prior to the main installation phase of the project. Any positively identified UXO or items of Archaeological significance can then be dealt with in a controlled manner.

E.ON have engaged a professional diving and ROV contractor (Red7Marine) who along with their UXO Contractor (BACTEC International) have significant UXO investigation experience.

Please be advised that E.ON have investigated one target that is likely to be UXO, have marked it with a buoy and are currently implementing an investigation and possible disposal strategy.

Immediate Action

Enhanced Safety Procedures Given that the item is likely to be UXO, it potentially is a hazardous item; however it could only be initiated if there is a significant physical interaction with it. Therefore a vessel and marine activity exclusion zone of 200m radius has been recommended by E.ON’s UXO risk consultant. At this stage, the item does not pose any direct hazard to shipping or the local environment. For the purposes of absolute safety, the suspect item is to be avoided, pending further actions by E.ON.

Target Location and Markings

The suspect target is located approximately 8.5km offshore, North-East of Kilnsea, and is located in approximately 15m (LAT) water depth. The target is located within the offshore wind farm project area and has the following coordinates:

UXO Coordinates 53°39.539’N 000°15.124’E
UXO Marker Buoy 53°39.507’N 000°15.139’E

The target has been temporarily marked with a buoy with the following characteristics: Location: 65m South of the target (Bearing 170 Degrees) Size: approx. 750mm diameter Colour: Orange

Buoy - Prior to Installation E.ON are currently sourcing a lighted buoy to replace this temporary buoy. Details will be forwarded accordingly.

Suspect Unexploded Ordnance (UXO)

The suspect targets are located approximately 8.5km offshore, North-East of Kilnsea, and is located in approximately 21m water depth. The target is located within the offshore wind farm project boundary. A 400 metre radius exclusion zone has been set around the suspect UXO no 3 & 4 locations.

The target will be marked ASAP with a buoy complete with NAV aids: (An update will be issued once the buoy has been deployed)
Location: 65m south of the target (Bearing 180 Degrees) Once the UXO has been retrieved or disposed of an updated NTM be distributed.

UXO Coordinates Location 3 53°39.383’N 000°16.867’E
UXO Coordinates Location 4 53°38.383’N 000°17.850’E

For further information, please contact: Nigel Proctor, Fisheries Liaison Officer, Tel: 07702730891, Email: n.proctor@precisionmarine.co.uk
Gordon Bain, Humber Gateway, E.ON. UK Tel +447787241442 email: gordon_bain@yahoo.com
**Dogger Bank Wind Farm – Geophysical Survey**

Mariners are advised that the M/V Vigilant and M/V Sea Surveyor shall begin geophysical survey of the Dogger Bank Wind Farm Tranche C area and proposed in-zone cable corridors in the week beginning 01st of April 2013.

<table>
<thead>
<tr>
<th>Company, Vessel &amp; Call Sign</th>
<th>Area Covered</th>
<th>Start Timeframe &amp; Duration</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forewind MV Vigilant &amp; MBN X</td>
<td>1. 55°11.812'N 001°31.577'E</td>
<td>01st April 2013 To July 2013</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. 55°13.838'N 001°35.128'E</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. 55°24.715'N 001°54.834'E</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. 55°31.031'N 002°28.321'E</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. 55°34.255'N 002°41.976'E</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. 55°09.867'N 002°42.159'E</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. 55°16.135'N 001°51.893'E</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>8. 55°03.905'N 001°30.558'E</td>
<td></td>
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</tbody>
</table>

For further information, please contact: Callum Duffy, Forewind Ltd, Tel: +44(0)118 9556188 email: callum.duffy@forewind.co.uk

**Greater Gabbard Offshore Wind Farm – Unexploded Ordinance (UXO)**

Greater Gabbard Offshore Winds Limited (GGOWL) has been made aware by their Unexploded Ordinance (UXO) contractor, Ramora UK Limited, of one seabed target which is likely to be a UXO.

The potential UXO is located within 15 metres of the following coordinates: 51° 50.890’ N, 001°55.334’ E in 30 metres of water.

GGOWL and their contractor are currently implementing an investigation and possible disposal strategy. The aim is to remove this object as soon as possible, probably using the MSC Annika.

The possible UXO is not currently marked.

GGOWL are proposing to carry out protection of export cables by placing concrete mattresses at one remaining site along the export cable.

GGOWL has applied to the Marine Management Organisation under the Marine and Coastal Access Act 2009, Part 4, for a marine licence to carry out this work at the following location between:

001°42.176’E 52°09.350’N and 001°42.219’E 52°09.287’N

Copies of the application and associated information may be viewed online in the public register at www.marinemanagement.org.uk/publicregister.

For further information, please contact: Jonathan Keer, Brown & May Marine Limited; 01379 870181 email: jonathan@brownmay.com
**East Anglia Offshore Wind – Geophysical Survey**

Mariners are advised that Bethnic Survey work will commence at East Anglia Offshore Wind. The survey will involve collecting seabed grabs and carrying out short scientific beam trawls from a number of locations across the survey area. Survey operations will be carried out on a 24 hour basis.

<table>
<thead>
<tr>
<th>Company, Vessel &amp; Call Sign</th>
<th>Area Covered</th>
<th>Start Timeframe &amp; Duration</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emu Limited</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MV Julie H</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HP3209</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. 53° 14.737'N 003° 04.168'E</td>
<td></td>
<td>19th April 2012</td>
<td></td>
</tr>
<tr>
<td>2. 52° 51.721'N 003° 10.693'E</td>
<td></td>
<td>For 20 Days</td>
<td></td>
</tr>
<tr>
<td>3. 51° 59.771'N 002° 27.113'E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. 52° 00.509'N 002° 06.860'E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. 52° 17.373'N 002° 08.422'E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. 52° 15.913'N 001° 52.032'E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. 52° 24.077'N 001° 55.881'E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. 52° 26.158'N 002° 13.462'E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. 52° 35.985'N 002° 14.408'E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. 52° 49.507'N 002° 02.592'E</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

For further information, please contact: Martin Whyte, East Anglia Offshore Wind Ltd, Tel: (0) 141 6140424 email:Martin.whyte@scottishpower.com

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**Dudgeon Offshore Wind – Geophysical Survey**

Mariners are advised that MV Ocean Seeker will be undertaking geophysical surveys at one site, which is located approximately 33km to 40km offshore from the north Norfolk coastal town of Cromer between the Inner Cromer Knoll and Cromer Knoll.

<table>
<thead>
<tr>
<th>Company, Vessel &amp; Call Sign</th>
<th>Area Covered</th>
<th>Start Timeframe &amp; Duration</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guardline Geosurvey Ltd</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MV Ocean Seeker ZNZK5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. 53° 15.738'N 01° 19.272'E</td>
<td></td>
<td>2nd April 2013</td>
<td></td>
</tr>
<tr>
<td>12. 53° 18.300'N 01° 19.482'E</td>
<td></td>
<td>30th April 2012</td>
<td></td>
</tr>
<tr>
<td>13. 53° 15.348'N 01° 25.848'E</td>
<td></td>
<td>For 20 Days</td>
<td></td>
</tr>
<tr>
<td>14. 53° 12.780'N 01° 25.650'E</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For further information, please contact: Ian Ashman, Gardline Geosurvey Limited, Tel: +44(0)1493 845600 email: ian.ashman@gardline.com
Mariners are advised that the jack up vessel Brave Tern shall begin installation of two meteorological masts within the Dogger Bank Round 3 wind farm zone.

Once installed, the top height of the masts shall be 113.8m above MSL. The foundation and platform for Met Mast 1 were installed in February (the structure is equipped with fully functional navigational aids). The next two phases of the installation are planned as follows:

Phase 2 – Installation of the lattice tower for Met Mast 1: planned for 20 March – 3 April.

Phase 3 – Installation of the foundation, platform and lattice tower for Met Mast 2: dates to be advised.

Please note the above schedule is subject to weather delays. Any major changes to the completion date will be followed up with further communication.

The vessel and crew will be working on the installation activities 24 hours per day.

Whilst installation of the meteorological masts is in progress, the vessel shall be stationary and unable to manoeuvre. Vessels are advised to keep a distance of at least 1nm away from the vessel.

For further information, please contact:
Simon Franey, Forwind Ltd, Tel: 07818598066  email: simon.franey@forewind.co.uk

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As part of the Dudgeon wind park development, Fugro GEOS will be deploying a wave buoy on behalf of Statoil for a period of 12 months. The buoy will measure waves, currents and water level and will transmit the data to shore via satellite telemetry.

The wave buoy is a Fugro Oceanor Seawatch Midi. It is approx.. 2m in diameter and will be moored to the seabed using a combination of chain, flexible rubber cord and rope. Fl 5 20s.

The deployment is planned for 11th March 2013. Service visits are scheduled for July and November 2013, with demobilization expected March 2014. The MV Sheerkham will be used.

For further information, please contact: Mark Jones, Fugro GEOS, Tel: +44(0)1491 820 500  email: m.jones@geos.com
Humber Gateway Offshore Wind Farm – Survey

Mariners are advised that Fugro Subsea Services Ltd will be carrying out cable trenching and burial trials including ROV survey operations approximately 10 miles offshore from Spurn Head, on the Yorkshire coastline. Trial operations will involve mechanical cutting and jetting by tracked vehicle via umbilical feed deployed up to 200m port side of the vessel “Havila Phoenix” at pre-defined export substation and wind farm array cable route locations.

In addition, ROVs will provide simultaneous survey support up to 500m in any direction as required. In addition to the trenching trials, the “Havila Phoenix” maybe utilised to carry out remedial works to the existing Met-Mast. “Havila Phoenix” is a 110m x 23m multi purpose offshore DP2 vessel. A wide berth is requested at all times as the vessels will be restricted in her ability to manoeuvre. Vessel will operate on a 24hr basis and will display appropriate day shapes & lights during survey operations, and will actively transmit an AIS signal.

Race Bank Offshore Wind Farm – Docking Shoal Meteorological Masts

Centrica Renewable Energy Limited (“Centrica”) has taken the decision to decommission the meteorological masts (“met masts”) for the Race Bank Offshore Wind Farm (“Race Bank”) and Docking Shoal Offshore Wind Farm (“Docking Shoal”) for safety reasons as soon as is practicable. A risk assessment undertaken by Centrica has identified that the methodology used to design the mast structures (prior to installation in 2005) may make them susceptible to early fatigue failure. It is anticipated that the removal of the lattice towers will occur in March / April this year following the granting of consent from the Marine Management Organisation (“MMO”) for this operation.

As per the previous Centrica Notice to Mariners (“NTM”), dated 7th December 2012, Mariners are strongly advised against accessing the Race Bank and Docking Shoal met masts and are strongly recommended to give them a wide berth of at least 250m.

Further, Mariners are advised that Aid to Navigation (“AtoN”) reference N15113 (lighted beacon) on the Race Bank meteorological mast is extinguished and therefore additional caution should be exercised when in the vicinity of this mast.
Greater Gabbard Offshore Wind Farm – Exposed Export Cable Areas

Underwater mattress laying operations along the Greater Gabbard Offshore Windfarm export cable commencing 13th January 2013.

- Mv. “Maersk Recorder” (Call Sign: OZXK2, MMSI: 219899000) will commence underwater ‘mattress’ laying operations on Sunday 13th January 2013 on the Greater Gabbard Offshore Windfarm export cable between positions: 51° 54.51N, 001° 39.923E at the Inner Gabbard OSP and 52° 03.804E N, 001° 42.599E E, approx. 12 n.m. to the NW.
- Operations will continue until cancellation of this notice. The guard vessel m/v. “Reliance” will be guarding the export cable between the northern end of the Inner Gabbard wind farm and towards the northwest. The guard vessel m/v “Annette” continues to guard the inshore end of the export cable off Sizewell.

For further information, please contact: Simon Prince, RSS Marine, Email: sprince@rssmarine.co.uk or aprince@dsml.co.uk

Exposed Export Cable Areas

<table>
<thead>
<tr>
<th>Area</th>
<th>Start</th>
<th>End</th>
</tr>
</thead>
<tbody>
<tr>
<td>East of Sizewell Bank</td>
<td>52°12.195N</td>
<td>52°12.187N</td>
</tr>
<tr>
<td>South of Concerto</td>
<td>52°09.776N</td>
<td>52°09.760N</td>
</tr>
<tr>
<td>South of Farland</td>
<td>52°03.655N</td>
<td>52°03.237N</td>
</tr>
<tr>
<td>North of Gabbard</td>
<td>52°00.771N</td>
<td>52°00.748N</td>
</tr>
<tr>
<td>North of Gabbard</td>
<td>51°59.244N</td>
<td>51°59.236N</td>
</tr>
<tr>
<td>Northern Inner Area of Gabbard</td>
<td>51°59.136N</td>
<td>51°59.048N</td>
</tr>
<tr>
<td>North Gabbard</td>
<td>51°57.479N</td>
<td>51°57.355N</td>
</tr>
<tr>
<td>Central Gabbard</td>
<td>51°59.426N</td>
<td>51°59.378N</td>
</tr>
</tbody>
</table>

All these areas will have mattress protection fitted during 2013. Guard vessels monitoring the exposed areas are – Reliance/Anne Scott / Annette

For further information, please contact: Glynn Fereday, SSE, Tel: +44(0)1502 509210

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London Array Wind Farm – HV1/HV4 Subsea Rock Installation

There are a total of four 150kV power cables to be installed from a landfall in The Swale, north of Cleve Hill, Graveney out to the London array wind farm approximately 12 miles from the Kent and Essex coasts.

SRI work consists of post-lay rock installation on the HV1 and HV4 export cables at crossings with Kentish Flats wind farm export cables and a crossing with the BritNed interconnector cable. SRI operations for the London Array wind farm area will be conducted within the area defined by the coordinates below:

<table>
<thead>
<tr>
<th>Location</th>
<th>Position</th>
<th>Location</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shivering Sand anchorage Bulk Carrier 1</td>
<td>51°30.80’N 001°08.50’E</td>
<td>BritNed HVDC interconnector crossing</td>
<td>51°28.50’N 001°17.50’E</td>
</tr>
<tr>
<td>Shivering Sand anchorage Bulk Carrier 2</td>
<td>51°30.80’N 001°07.00’E</td>
<td>Kentish Flats export cables crossings</td>
<td>51°25.25’N 001°06.00’E</td>
</tr>
</tbody>
</table>

For a copy of the Kingfisher Awareness Flyer for the London Array Offshore Wind Farm, please contact the undersigned. Alternatively, click on the link below, or visit www.kingfishercharts.org

Kingfisher Awareness Flyer: London Array Offshore Wind Farm

For further information, please contact: Email: londonarraytraffic@dongenergy.dk, Tel: +44(0)7909414690 or +45 31727585
First Published: 08 May 2013 | Latest Update: 09 April 2013
Barrow Offshore Wind Farm – Operations

Please note, there are exposed sections of cable (or Cable Buried to less than 0.2M). Please refer to KFB 14/2012 for these locations.

Repairs to the fault on the Infield or Inter-Array Power Cable on the B - ROW at the BARROW OFFSHORE WIND FARM are continuing.

DIVERS from the Dive Support Vessel ‘HBC SUPPORTER’ are working at Turbine position WTG 23 - B01 where the
A 500 meter safety exclusion zone is requested around ‘Odin’ and the support vessels at all times when on site. Any vessel engaged on any kind of work at this Wind Farm can be contacted on VHF Channels 16 & 12.

In the interests of safety mariners are requested not to anchor within at least 500 meters of the wind farm perimeter and, because there is a danger of exposed power cable on the seabed close to some of the turbine structures, fishermen are requested to observe the agreed extended safety zone of 100 meters around each turbine and the need to exercise extreme caution when operating in the vicinity of any of the wind farm turbines.

For further information, please contact: Tom Watson, Tel: 01253 875565, Mob: 07903 173 624

First Published: 05 December 2012 | Latest Update: 09 April 2013
West of Duddon Sands Offshore Wind Farm – Construction Works

The West of Duddon Sands offshore windfarm is a joint venture between DONG Energy West of Duddon Sands (UK) Limited and ScottishPower Renewables (WoDS) Limited. The West of Duddon Sands project is located, at its closest point, 14km west of Walney Island, Cumbria in the Irish Sea. The windfarm project covers an area of 66km2 and will achieve a total combined capacity of up to 500MW.

The Cable Lay vessel ‘STEMAT SPIRIT’ as well as multipurpose tug ‘COASTAL VANGUARD’ and the work boat ‘ODIN’ are on site in the Heysham Lake / Middleton Sands area in preparation for laying the 2 EXPORT CABLES.

‘COASTAL VANGUARD’ will carry out grapnel runs along the 2 EXPORT CABLE ROUTES from the Landfall position (Middleton Sands) out to 6 miles offshore.

Cable Lay operations can be expected to start shortly and ‘STEMAT SPIRIT’ will start from the Landfall position at Middleton Sands out to approx. 6 miles offshore.

Boundary of Location Activities:

<table>
<thead>
<tr>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>54°00.15’N</td>
<td>003°33.52’W</td>
</tr>
<tr>
<td>54°01.78’N</td>
<td>003°26.67’W</td>
</tr>
<tr>
<td>53°58.35’N</td>
<td>003°22.80’W</td>
</tr>
<tr>
<td>53°56.64’N</td>
<td>003°25.37’W</td>
</tr>
<tr>
<td>53°56.72’N</td>
<td>003°29.33’W</td>
</tr>
</tbody>
</table>

Further information on the West of Duddon Sands project may be obtained from Ian Renshaw (email address: IANRE@dongenergy.co.uk, telephone number: 0207 811 5395).

Notice is hereby given that DONG Energy West of Duddon Sands (UK) Limited and ScottishPower Renewables (WoDS) Limited (whose registered offices are at DONG Energy West of Duddon Sands (UK) Limited, 33rd Floor, City Point, 1 Ropemaker Street, London, EC2Y 9UE and ScottishPower Renewables (WoDS) Limited, Cathcart Business Park, Spane Street, Glasgow, Scotland, G44 4BE) will commence construction works on 21st January 2013.
**Kingfisher Fortnightly Bulletin**

**Offshore Wind and Marine Renewables**

**11 April 2013 | Issue 08**

For ‘live’ Kingfisher updates of all Cable & Wind Farm activities, please visit www.kis-orca.eu

The Start of construction with the installation of the first Turbine Foundation is scheduled to start during the first week in May 2013.

Schedule of Activities:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Anticipated Dates</th>
<th>Vessel</th>
<th>Call Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter Layer Placement</td>
<td>15th February 2013 to 30 May 2013</td>
<td>Sandpiper</td>
<td>3ERG6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rock Piper</td>
<td></td>
</tr>
</tbody>
</table>

Following Activities |

<table>
<thead>
<tr>
<th>Activity</th>
<th>Anticipated Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offshore Substation Installations</td>
<td>May 2013</td>
</tr>
<tr>
<td>Export Cable Installation</td>
<td>March – October 2013</td>
</tr>
<tr>
<td>Foundation Installations</td>
<td>May – November 2013</td>
</tr>
<tr>
<td>Array Cable Installations</td>
<td>June 2013 – March 2014</td>
</tr>
<tr>
<td>Installation of Turbines</td>
<td>August 2013 – June 2014</td>
</tr>
<tr>
<td>Turbine Commissioning</td>
<td>August 2013 – October 2014</td>
</tr>
</tbody>
</table>

*Dates are anticipated and are subject to change*

In case of emergency, please contact: Dan Torben Christensen, Dong Energy, Tel: +44(0)7528921388 email: danch@dongenergy.dk

First Published: 30 June 2012 | Latest Update: 27 March 2013

**Shell Flats Bank – Malfunction to Navigation and Aviation Lighting**

The two special marker buoys are still in situ at the 80m mast on the Shell Flats Bank and will remain in position until the Aviation lights on this mast have been repaired. The buoys are deployed approx. 75m either side of the mast on a North and South orientation.

Positions of the two buoys:

<table>
<thead>
<tr>
<th>Latitude</th>
<th>Longitude</th>
<th>Buoy</th>
</tr>
</thead>
<tbody>
<tr>
<td>53°52.477’N</td>
<td>003°12.133’W</td>
<td>North Mast Special Mark</td>
</tr>
<tr>
<td>53°52.369’N</td>
<td>003°12.133’W</td>
<td>South Mast Special Mark</td>
</tr>
</tbody>
</table>

The Navigation Lights at the 80m mast have now been repaired, the aviation lights at this mast are still not working.

**It has been reported that the navigation light on 50m mast are not working.**

Characteristics of the Special Marker Buoys  - Flashing sequence: 0.5s ON & 2s OFF. Flash colour: Yellow. The two Metrological Masts are situated at the following positions:

<table>
<thead>
<tr>
<th>Latitude</th>
<th>Longitude</th>
<th>Mast</th>
</tr>
</thead>
<tbody>
<tr>
<td>53°52.423’N</td>
<td>003°12.133’W</td>
<td>80m</td>
</tr>
<tr>
<td>53°51.600’N</td>
<td>003°17.663’W</td>
<td>50m</td>
</tr>
</tbody>
</table>

For further information, please contact: Tom Watson, Tel: 01253 875565, Mob: 07903 173 624
Gwynt y Môr Offshore Wind Farm – Construction Activities

The Gwynt y Môr Offshore Wind Farm Project is located between 15km to 20km off the coast of North Wales in the Liverpool Bay area of the Irish Sea. It is adjacent to RWE Inngoy’s North Hoyle and Rhyl Flats offshore wind farms. The consented site covers an area of 124km². The water depth ranges from 12m to 28m LAT with a tidal range of 8.5m.

Activities due to commence:

- CTVs Tremadoc Bay, Penrhos Bay, Penrhyn Bay, Colwyn Bay, Kinmel Bay, Caernarfon Bay, Gardian, Gaillion, Chinoak & Scirocco
- will continue to be utilised as required and shall sail from Liverpool Marina and Canada Dock respectively. ERT embarked on relevant CTVs
- DSV Normand Tonjer will continue diving ops including working with the Polar Prince to aid installation of the inter array cables.
- Friedrich Ernestine install F14E TP, due to enter CLD wet basin on Tuesday 9th April.
- Guard vessel Northern Viking will continue to guard the export cable, South of GYMOWF.
- The cable layer Polar Prince will continue with cable laying ops at GYMOWF.
- Cable Enterprise and support vessels continue laying Export cable 2.
- Stemat 89 and support vessels will arrive at GYMOWF stand by location south of field, to commence the export cable join repair.
- Sea Jack, turbine installation vessel expected to arrive at Port of Mostyn around the 13.04.2013.
- Component coasters Joerg N, Bente and Marlene expected at CLD wet basin this week.
- Tessa W depart CLD wet basin, heading for Stemat 89 location.
- Terramar 1 will continue with diving ops at GYMOWF.

Export Cable Jointing Works: Please be advised that the Stemat 89 assisted by Anchor handling support tugs Nova K and Tessa W, Fenna and 2 cables from Pensarn to the Sub Station East Platform. Cable installation barge “Cable Enterprise” will be installing cables supported by ‘Norne’, MCS Ailsa and Forth Jouster.

WTG Installation Works: Please be advised that Wind Turbine Generator [WTG] installation works will commence on the 5th April 2013. The Turbine installation vessel Sea Jack will be the first installation vessel on site from the 5th April 2013, and will be joined by another installation vessel the Sea worker at a later date. The Sea Jack will be towed out of Mostyn to the Gwynt y Mor offshore wind farm site on a regular basis, the tugs involved with the Sea Jack will be the Sea Golf and the Bever. These vessel’s will be conducting operations within the Gwynt y Mor offshore wind farm site at various locations, and when on location will require a 1000m clearance at all times. During transit to/from the port of Mostyn the vessel should receive the appropriate clearance for a Tug and tow. The vessel will monitor VHF CH 16 at all times.

Recommencement of Export Cable Works: Export Cable works are expected to commence on the 1st April 2013. These works will last until further notice. There will be 4 export cables in total. 2 cables from the beach at Pensarn Leading to the Offshore Sub Station West Platform and 2 cables from Pensarn to the Sub Station East Platform. Cable installation barge “Cable Enterprise” will be installing cables supported by ‘Norne’, MCS Ailsa and Forth Jouster. The Cable Enterprise will deploy Anchors, Cables and Buoyas. All vessels are requested to keep at least 1200m clear of the Cable Installation Barge at all times when on location. As well as Cable laying operations there will be other operations involved including a PLGR (Pre Lay Grapnel Route Survey) carried out by The Support vessels. All vessels are to give 500m clearance from these vessels at all times. All vessels will be contactable on VHF 16.

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For ‘live’ Kingfisher updates of all Cable & Wind Farm activities, please visit www.kis-orca.eu

For a copy of the Kingfisher Awareness Flyer for the Gwynt Y Mor Offshore Wind Farm, please contact the undersigned. Alternatively, click on the link below, or visit www.kingfishercharts.org

Kingfisher Awareness Flyer: Gwynt Y Mor Offshore Wind Farm

For further information, please contact: Lee Cornwell, RWE npower renewables, Mob: +44 (0) 7557 319473, Email: lee.cornwell@rwe.com

First Published: 02 July 2012 | Latest Update: 26 February 2013

Walney 1, 2 & Extension Offshore Wind Farm – Construction Activity / Consultation

DONG Energy wishes to make you aware that, as a result of recent technical investigations and consultations, an additional cable route option is now being proposed for the Walney Extension Project.

All of the Turbines at the Walney Offshore Wind Farm are operational and switched to automatic and producing power to the National Grid.

All of the power cables are buried (both infield and export) and anybody who is unsure of the Rock Dump positions along the export cable routes should contact.

A programme involving some remedial work to one of the infield, or Inter-Array cables, inside Walney 1 is scheduled for March and notices informing of this work will be issued shortly.

There is now only one Wave Rider Buoy within the perimeter of the Wind Farm

54°01.297’N | 003°29.402’W

This buoy carries a flashing Yellow Light Fl(5)Y.20s and is visible up to 3 miles

Marker Buoys for Wet Storage Area

The 4 Buoys marking what was the wet storage area inside of Walney 2 are still in place although there are no anchors or obstructions on the seabed.

Position of Wet Storage Buoys

54°04.380’N | 003°37.480’W

These Buoys are equipped with solar powered quick flash lights and will be removed at some future date. Until notice has been given that these buoys have been removed all mariners, and especially fishermen, wishing to navigate within the Wind Farm for whatever reason are advised to note these positions and enter them on their charts / plotters and keep clear.

For further information, please contact: Tel: 02078 115439 or email walneyextension@dongenergy.co.uk


For a copy of the Kingfisher Awareness Flyers for the Walney Offshore Wind Farms, please contact the undersigned. Alternatively, click on the link below, or visit www.kingfishercharts.org

Kingfisher Awareness Flyer: Walney 2 Offshore Wind Farm

Kingfisher Awareness Flyer: Walney 1 Offshore Wind Farm

For further information, please contact: Tom Watson, Tel: 01253 875565, Mobile: 07903 173624
Irish Sea Zone – Metocean Equipment

Metocean equipment was deployed in the following locations: 7, 8 and 12 in the Irish Sea Zone.

<table>
<thead>
<tr>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>53°25.60’N</td>
<td>004°22.20’W</td>
</tr>
<tr>
<td>53°25.12’N</td>
<td>004°21.13’W</td>
</tr>
<tr>
<td>53°25.30’N</td>
<td>004°17.99’W</td>
</tr>
</tbody>
</table>

For further information, please contact: Laura Lilley, Celtic Array Ltd, Tel: 07557612061 email: Ceri@centrica.com

Robin Rigg Offshore Wind Farm – Hazard / Plotter Files / Operations

An anchor has been lost within the Wind Farm at position: 54°44.52’N 003°42.84’W. Several unsuccessful attempts have been made to retrieve this anchor and therefore it is likely that it will remain at this position for some time.

It has been reported that the Aviation Light on Turbine RRB05 is not working.

Turbine position : 54°45.75’N 003°41.03’W

This fault has been reported to the Northern Lighthouse Board and will be rectified as soon as weather and conditions permit proper inspection and repair. Once the light has been repaired / rectified a further notice will be issued.

A CD of the Robin Rigg layout including Inter-Array or Infield Cables as well as the Export Cable Route is now available. The disk contains fishing plotter files and is compatible with the following plotters: Litton Fish master, Sodena Turbo, Maxsea, TRAX, Transas Navi-Fish, SIS Microplot, Quodfish, TM Planner and Penta plotters.

For a copy of the Kingfisher Awareness Flyer for the Robin Rigg Offshore Wind Farm or Fishing Plotter CD, please contact the undersigned. Alternatively, click on the link below, or visit www.kingfishercharts.org

Kingfisher Awareness Flyer: Robin Rigg Offshore Wind Farm
Kingfisher Fishing Plotter CD: Robin Rigg Offshore Wind Farm

For further information, please contact: Tom Watson, Tel: 01253 875565, Mob: 07903 173 624