

Notice of Operations at Beatrice Offshore Wind Farm Week 20

Work Planned for the Period 15.05.2017 to 21.05.2017

Construction of the Beatrice Offshore Wind Farm commenced on the 1st of April. Pre-construction works were completed on the 12th of April. This notice will be updated weekly giving information on the progress and resources involved in the offshore project. The intention is to give an overview of activities and vessels involved. Should anyone have questions regarding the operations, we kindly ask you to put them forward well in advance.

Beatrice Offshore Windfarm Limited (BOWL) is developing the Beatrice Offshore Wind Farm in the 'Outer' Moray Firth on the north-western point of the Smith Bank, approximately 7 nm off the Caithness coastline. The development site will cover an approximate area of up to 130km² and will consist of 84 7MW offshore wind turbines (with a total capacity of 588MW) and two HVAC Offshore Transformer Modules (OTM). Water depths in the area range from approximately 38m below LAT in the south of the field to 60m below LAT in the north. The generated power will be transmitted to the grid via two subsea export / transmission cables with a landfall near Portgordon to the south of the field and grid connection at Blackhillock. The transmission cables will cover a route of approximately 38 nm from the wind farm boundary back to the landfall. The Beatrice Offshore Wind Farm development area is highlighted in red below.



Fig 1 - Beatrice Offshore Wind Farm Location



Installation works detailed below commenced on the 1st of April 2017. Pre-construction works scopes were completed on the 12th of April.

- Piling operations.
- Guard Vessel duties.
- Installation of Direct Cable Pipes at Portgordon near Buckie.
- Aberdeen University Removal of Seabed Mounted Scientific Equipment

1. Contact Details for Marine Coordination

The following contact can provide more information if required. Please note that specific queries can also be addressed to the relevant vessel or shore based representative.

Telephone Number	+44 (0) 3302 020329
Emergency Contact (24/7)	+44 (0) 7342 028207
Email for Marine Coordinator	mc.bowl@sse.com
Address	Unit 1 Harbour Office Wick Caithness KW1 5HA

2. Ongoing Operations

2.1 Beatrice Offshore Wind Farm Piling Campaign

Project:	Foundation Piling Campaign	
Contractor:	SHL	
Contract Purpose:	To install x 4 piles at the two OTM's and each Turbine Location within	
	the construction site.	
Area:	BOWL Construction Site: Foundation Locations. (See Fig 5 for	
	details).	
Deployment Dates:	01 April 2017 - 31 October 2017.	
Deployment Vessel (s):	Stanislav Yudin, Bremen Fighter, Smit Sentosa & Rix Lynx, with	
	various tugs and associated barges.	
Equipment:	Pile Installation Frame (PIF), Piling Hammer and Transport barges.	

On behalf of BOWL, Seaway Heavy Lifting will deploy various vessels to carry out the aforementioned work during the period 01/04/2017 - 31/10/2017 within the boundary of the BOWL construction site (See Vessel Data Matrix).

In preparation for the installation of wind turbine foundations, in the Beatrice Offshore Windfarm construction site, a set of four piles will be installed in the seabed at each of the foundation locations. On completion, the date will be recorded in Table 1 below. A chart of piled locations will be recorded in Fig 2 below.





Fig 2 - Piled locations

Location ID	Latitude WGS84	Longitude WGS84	Piling Complete
BE-A5	58 12.471' N	002 59.996' W	
BE-B5	58 12.687' N	002 58.873' W	
BE-B6	58 13.308' N	002 58.664' W	
BE-B7	58 13.929' N	002 58.456' W	
BE-C4	58 12.307' N	002 57.948' W	
BE-C5	58 12.902' N	002 57.749' W	
BE-C6	58 13.524' N	002 57.541' W	
BE-C7	58 14.144' N	002 57.332' W	
BE-C8	58 14.766' N	002 57.124' W	
BE-C9	58 15.386' N	002 56.915' W	
BE-D3	58 11.995' N	002 57.002' W	
BE-D4	58 12.497' N	002 56.834' W	
BE-D5	58 13.117' N	002 56.626' W	
BE-D6	58 13.739' N	002 56.417' W	
BE-D7	58 14.359' N	002 56.209' W	
BE-D8	58 14.981' N	002 55.999' W	
BE-D9	58 15.602' N	002 55.790' W	
BE-D10	58 16.223' N	002 55.582' W	

Table 1 - WTG and OTM Location Coordinates

Beatrice Offshore Windfarm Limited Construction Operations



Location ID	Latitude WGS84	Longitude WGS84	Piling Complete
BE-D11	58 16.844' N	002 55.373' W	
BE-E1	<mark>58 10.900' N</mark>	002 56.256' W	<mark>10.04.2017</mark>
BE-E2	<mark>58 11.470' N</mark>	002 56.128' W	14.04.2017
BE-E3	<mark>58 12.090' N</mark>	002 55.920' W	<mark>19.04.2017</mark>
BE-E4	58 12.712' N	002 55.710' W	
BE-E5	58 13.333' N	002 55.502' W	
BE-E6	58 13.954' N	002 55.293' W	
BE-E7	58 14.575' N	002 55.084' W	
BE-E8	58 15.196' N	002 54.875' W	
BE-E9	58 15.817' N	002 54.665' W	
BE-E10	58 16.438' N	002 54.456' W	
BE-E11	58 17.059' N	002 54.247' W	
BE-E12	58 17.680' N	002 54.037' W	
BE-F2	58 11.685' N	002 55.005' W	
BE-F3	<mark>58 12.306' N</mark>	<mark>002 54.796' W</mark>	<mark>17.04.2017</mark>
BE-F4	58 12.927' N	002 54.588' W	
BE-F5	58 13.548' N	002 54.378' W	
BE-F6	<mark>58 14.168' N</mark>	002 54.169' W	<mark>11.05.2017</mark>
BE-F8 (OTM2)	<mark>58 15.411' N</mark>	<mark>002 53.750' W</mark>	<mark>08.04.2017</mark>
BE-F9	58 16.031' N	002 53.540' W	
BE-F10	58 16.653' N	002 53.330' W	
BE-F11	58 17.274' N	002 53.120' W	
BE-F12	58 17.894' N	002 52.911' W	
BE-F13	58 18.516' N	002 52.701' W	
BE-G3	58 12.544' N	002 53.726' W	
BE-G4	58 13.142' N	002 53.464' W	
BE-G5	<mark>58 13.762' N</mark>	<mark>002 53.254' W</mark>	<mark>10.05.2017</mark>
BE-G6	<mark>58 14.384' N</mark>	<mark>002 53.044' W</mark>	<mark>06.05.2017</mark>
BE-G7 (OTM1)	<mark>58 15.004' N</mark>	002 52.834' W	<mark>03.04.2017</mark>
BE-G8	58 15.625' N	002 52.625' W	
BE-G9	58 16.247' N	002 52.415' W	
BE-G10	58 16.867' N	002 52.204' W	
BE-G11	58 17.488' N	002 51.994' W	
BE-G12	58 18.109' N	002 51.784' W	
BE-G13	58 18.730' N	002 51.574' W	
BE-G14	58 19.351' N	002 51.362' W	
BE-H4	58 13.356' N	002 52.339' W	
BE-H5	58 13.977' N	002 52.130' W	
BE-H6	<mark>58 14.598' N</mark>	<mark>002 51.920' W</mark>	<mark>20.04.2017</mark>
BE-H7	58 15.219' N	002 51.709' W	
BE-H8	58 15.840' N	002 51.499' W	
BE-H9	58 16.461' N	002 51.289' W	
BE-H10	58 17.082' N	002 51.079' W	
BE-H11	58 17.703' N	002 50.867' W	
BE-H12	58 18.324' N	002 50.657' W	
BE-H13	58 18.944' N	002 50.446' W	

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Location ID	Latitude WGS84	Longitude WGS84	Piling Complete
BE-J5	<mark>58 14.192' N</mark>	002 51.005' W	<mark>04.05.2017</mark>
BE-J6	58 14.812' N	002 50.795' W	
BE-J7	58 15.433' N	002 50.585' W	
BE-J8	58 16.055' N	002 50.373' W	
BE-J9	58 16.675' N	002 50.163' W	
BE-J10	58 17.296' N	002 49.952' W	
BE-J11	58 17.917' N	002 49.741'W	
BE-J12	58 18.538' N	002 49.530' W	
BE-J13	58 19.159' N	002 49.319' W	
BE-K6	58 15.027' N	002 49.669' W	
BE-K7	58 15.648' N	002 49.459' W	
BE-K8	58 16.269' N	002 49.247' W	
BE-K9	58 16.890' N	002 49.036' W	
BE-K10	58 17.510' N	002 48.825' W	
BE-K11	58 18.131' N	002 48.614' W	
BE-K12	58 18.752' N	002 48.403' W	
BE-L7	58 15.862' N	002 48.333' W	
BE-L8	58 16.482' N	002 48.122' W	
BE-L9	58 17.104' N	002 47.910' W	
BE-L10	58 17.724' N	002 47.698' W	
BE-M9	58 17.317' N	002 46.784' W	
BE-M10	58 17.938' N	002 46.571' W	

3. Beatrice Offshore Wind Farm Guard Vessel Deployment

Project:	Beatrice Offshore Windfarm Guard Vessel Deployment.	
Contractor:	SHL – SFF Services Ltd.	
Contract Purpose:	Guard Vessel for the Windfarm site.	
Area:	BOWL construction site: within the array cable routes and foundation	
	locations. (See Fig 1 for details)	
Deployment Dates:	Opportune from 4 th May	
Deployment Vessel (s):	Opportune WK171	
Equipment:	N/A	

On behalf of BOWL, Seaways Heavy Lifting has contracted the Scottish Fishermen's Federation to provide guard vessels during the piling and foundation installation campaigns. These vessels will change regularly, however apart from times of extreme weather, there will always be at least one guard vessel on station. The guard vessel's primary duty is security of the construction site by informing and warning non-construction vessels of the ongoing activities and associated Safety Zones. The Guard Vessel Opportune, WK171 has taken over guard duties from the 4th May 2017.

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Construction Operations

Opportune WK 171 on station from 4 th May 2017		
General Description and Dimensions	Guard Vessel: L:21.0m B:7.0m D: 3.5m	
Call Sign:	2WKN	
MMSI:	233608000	
On Board Contact:	D Frazer	
E-mail:	ops@sff.co.uk	
Onshore Representative:	SFF Services Limited Office. Tel: 01224 646966	



4. Export Cable Installation Stage 1 – Installation of Direct Cable Pipes at Portgordon

Project:	Export Cable Installation Stage 1 Commences May 2017.	
Contractor:	Nexans	
Contract Purpose:	Installation of Direct Cable Pipes at Portgordon	
Area:	Portgordon near Buckie	
Deployment Dates:	Approximately May – July 2017.	
Deployment Vessel (s):	Haven Seariser 1, Forth Constructor & Skua	
Equipment:	Diving operations, tunnelling & seabed preparation equipment.	

BOWL intends to install the export cables beneath Portgordon Beach. Pre-installed Direct Cable Pipes require to be installed from the shoreline to an offshore exit point. These pipes are installed using a micro-tunnelling machine pushed through the ground beneath the seabed. At the exit points approximately 420-450m offshore, the removal of the Tunnelling tool and excavation works associated with this operation will take place. During this period Diving & Underwater operations shall be conducted.

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Construction Operations



Fig 3. Offshore exit point, approximately 420-450m from the Portgordon Beach.

Jack Up Barge Locations	Latitude WGS84	Longitude WGS84
EC1	57° 40.113'N	003° 02.471'W
EC2	57° 40.143'N	003° 02.655′W



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Fig 4. Work locations approximately 420-450m from the Portgordon Beach near Buckie.

Direct pipe drilling, this method installs the pipe directly as part of the drilling operation, is suitable for sea outfalls as the pipeline is simultaneously installed whilst the borehole is being drilled. The pipeline provides support reducing the risk of borehole collapse in soft sediments

This method is referred to as 'direct pipe' because in a single step, a prefabricated pipeline can be installed and the required duct excavated at the same time. Once installed, the pipeline permanently supports the ducts, thus avoiding the risk of collapse. Seabed sediments are excavated by a micro-tunnelling machine and excavated material is pumped out via the prefabricated pipeline, which is connected to the tunnelling machine. The tunnelling system is lubricated with Bentonite solution.

Fig 5. Main system components of the Direct Pipe drill method





The micro-tunnelling machine and pipeline behind it are pushed into the ground from onshore by a pipe thruster from a launch pit. The cutting wheel at the machines head breaks down and removes the material as it is directed along the determined route beneath the seabed.



Fig 6. Micro tunnelling machine

The drill machine is disconnected once it reaches the appropriate distance offshore and is recovered by divers or crane barge once it reaches the outfall. The pipe opening is then sealed to prevent sediment entering the pipeline. If any difficulties are encountered, the pipe thruster can pull back the pipeline together with the Direct Pipe machine to begin the process again. Direct Pipe methodology offers a number of benefits over HDD for installation; allowing a shallower profile that results in fewer transmission losses and reduced installation risks.

4.1	Vessels Involved with Installation of Direct Cable Pipes at Portgordon

Haven Seariser 1	
General Description and Dimensions	Jack Up Barge, L:29.6 / B:17.07 / D:2.44
Call Sign:	N/A
MMSI:	N/A
On Board Contact:	Kristen Branford & Paul Ridout
E-mail:	enquiries@r7m.co.uk
Onshore Representative:	Øyvind Haug BEATRICE Installation Engineering Manager Mob: +47 916 27 674 Office: +47 22 88 65 09



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Construction Operations

	Forth Constructor
General Description and Dimensions Multicat Work Vessel.L:28.50m B:9.45m D:4.27m	
Call Sign:	GXAD
MMSI:	235004217
On Board Contact:	Graham Gray
E-mail:	(e) marketing@briggsmarine.com
Onshore Representative:	Øyvind Haug BEATRICE Installation Engineering Manager Mob: +47 916 27 674 Office: +47 22 88 65 09

Skua				
General Description and Dimensions	Crew Transfer Vessel, L:10.5m B:3.51m D:1.1m			
Call Sign: N/A				
MMSI:	N/A			
On Board Contact:	Bill Ruck			
E-mail:	bill@moraymarine.com			
Onshore Representative:	Øyvind Haug BEATRICE Installation Engineering Manager Mob: +47 916 27 674 Office: +47 22 88 65 09			





5. Aberdeen University - Installation & Removal of Seabed Mounted Scientific Equipment

Mariners are advised that, further to notice UoA/03/2017, in conjunction with Beatrice Offshore Windfarm Limited (BOWL) and in accordance with marine licence 05594/15/0, the University of Aberdeen intends to install scientific equipment moorings in the Moray Firth at the locations listed below (see also chart extracts at the foot of this notice):

Name	Proposed coordinates (WGS84 datum)		Characteristics			
65	57° 42.526' N 3° 30.171' W		urface marked (dhan, 12' aluminium & RADAR reflector)			
65	57° 43.485' N 3° 25.174' W		Surface marked (dhan, 12' aluminium & RADAR reflector)			
66	57° 43.082' N	3° 14.977' W	Surface marked (dhan, 12' aluminium & RADAR reflector)			
67	57° 42.074' N 3° 10.027' W		Surface marked (dhan, 12' aluminium & RADAR reflector)			

The moorings support sound recording equipment, and acoustic loggers that record echolocation clicks of dolphins and porpoises (see images of devices at the foot of this notice). The above moorings consist of a 150kg weight and surface marked rope riser. All are marked as noted in the table above.

Mariners are also advised that the University of Aberdeen intends to <u>remove</u> seabed mounted scientific equipment moorings in the Moray Firth at the locations listed below (see also chart extracts at the foot of this notice):

Name	As laid coordinates (WGS84 datum)		Characteristics
40	57° 48.984' N 3° 36.382' W		Subsurface with acoustic release.
41	57° 51.154' N	3° 33.048' W	Subsurface with acoustic release.
44	57° 56.416' N	3° 21.417' W	Subsurface with acoustic release.
46	58° 00.858' N	3° 15.396' W	Subsurface with acoustic release.
47	58° 00.816' N	3° 08.539' W	Subsurface.
48	58° 04.006' N	3° 06.914' W	Subsurface.
49	58° 04.449' N	3° 00.998' W	Subsurface.
53	58° 11.741' N	2° 45.762' W	Subsurface.
54	58° 13.517' N	2° 41.969' W	Subsurface.
55	58° 16.158' N	2° 39.644' W	Subsurface.
56	58° 18.725' N	2° 37.063' W	Subsurface.
76	58° 17.337' N	2° 50.312' W	Subsurface with transponder.
78	58° 13.565' N	2° 56.750' W	Subsurface.
82	58° 00.621' N	3° 25.692' W	Subsurface with acoustic release.
90	58° 01.061' N	3° 36.584' W	Subsurface with acoustic release.
98	57° 54.165' N	3° 17.854' W	Subsurface with acoustic release.
99	57° 50.856' N	3° 24.445' W	Subsurface with acoustic release.
108	58° 18.998' N	2° 59.211' W	Subsurface.
110	58° 07.667' N	2° 45.368' W	Subsurface.
143	58° 14.730' N	2° 53.056' W	Subsurface with transponder.
144	58° 14.818' N 2° 52.414' W		Subsurface with transponder.



145	58° 15.174' N	2° 52.555' W	Subsurface with transponder.			
146	58° 15.231' N	2° 53.321' W	Subsurface with transponder.			
147	58° 15.523' N	2° 54.256' W	Subsurface with transponder.			
148	58° 15.689' N	2° 53.414' W	Subsurface with transponder.			
149	58° 16.002' N	2° 52.037' W	Subsurface with transponder.			
150	58° 16.660' N	2° 51.076' W	Subsurface with transponder.			
151	58° 14.933' N	2° 54.903' W	Subsurface with transponder.			
152	58° 14.808' N	2° 56.411' W	Subsurface with transponder.			
153	58° 14.746' N	2° 57.912' W	Subsurface with transponder.			
154	58° 10.770' N	2° 55.745' W	Subsurface with transponder.			
155	58° 10.678' N	2° 56.563' W	Subsurface with transponder.			
156	58° 10.993' N	2° 56.624' W	Subsurface with transponder.			
157	58° 10.241' N	2° 54.663' W	Subsurface with transponder.			
158	58° 09.747' N	2° 53.444' W	Subsurface with transponder.			
159	58° 09.262' N	2° 52.228' W	Subsurface with transponder.			
163	58° 17.960' N	2° 44.988' W	Subsurface.			
165	58° 12.471' N	3° 01.260' W	Subsurface.			
166	58° 07.799' N	2° 55.205' W	Subsurface.			

Mariners are further advised that the following existing moorings will be serviced and <u>re-installed in</u> <u>their current location</u> in the Moray and Cromarty Firths (see also chart extracts at the foot of this notice):

Name	As laid coordinates (WGS84 datum)		Characteristics
17	57° 57.759' N	3° 31.258' W	Subsurface with acoustic release.
42	57° 52.338' N	3° 29.066' W	Subsurface with acoustic release.
45	57° 57.261' N	3° 16.063' W	Subsurface with acoustic release.
89	57° 56.051' N	3° 38.250' W	Subsurface with acoustic release.
160	58° 17.636' N	2° 49.911' W	Subsurface.
161	58° 12.998' N	2° 55.942' W	Subsurface.
162	58° 18.195' N	002° 54.113' W	Subsurface with transponder.
164	58° 12.831' N	002° 51.691' W	Subsurface with transponder.

Mariners should note that the following existing moorings will <u>remain in place</u> in the Moray and Cromarty Firths, as per our Notice to Mariners UoA/03/2017 (see also chart extracts at the foot of this notice):

Name	As laid coordinates (WGS84 datum)		Characteristics		
1	57° 41.407' N 003° 58.922' W		Subsurface		
2	57° 35.130' N 004° 05.870' W		Surface marked (NB50 buoy, red)		
3	57° 44.083' N 003° 19.783' W		Surface marked (dhan, 12' aluminium & RADAR reflector)		
4	57° 41.379' N 003° 05.623' W		Surface marked (NB50 buoy, red)		



All works will be carried out by Moray First Marine, using the vessel "Coral Wind" (see below). Installation works will take place on 28th April. Removal and service works will commence w/c 1st May, subject to weather and progress of BOWL piling operations.

Coral Wind				
General Description and Dimensions:	Workboat, UK MCA Cat.2, 60nm from safe haven			
-	LOA 14m, Beam 5.1m, Draft 1.2m			
Call sign:	2EMX8			
MMSI:	235086491			
On Board Contact:	Bill Ruck, 07775 802963			
E-mail:	bill@moraymarine.com			
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A further Notice to Mariners will be issued when the removed moorings are permanently discontinued.

For information and enquiries please contact: Tim Candido Barton, Lighthouse Field Station, University of Aberdeen, George St., Cromarty, Ross-shire, IV11 8YL. +44 (0)1381 600548. t.r.barton@abdn.ac.uk



Fig 7. Examples of equipment which the above moorings support.





Fig 8. Mooring locations – Moray Firth, all existing sites



Fig 9. Mooring Locations – Detail of Smith Bank Sites, Moray Firth.





Fig 10. Mooring locations – detail of south side of Moray Firth sites.

7. General Safety Advice

All vessels engaged in the activity 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 Secretary of State has authorised the use of the following safety zones as per Notice to Mariners LF000005-NTM-004.

- 1. 500 metres radius around each wind turbine, offshore transformer module and / or their substructures and foundations comprising the Beatrice Offshore Wind Farm whilst work is being performed as indicated by the presence of construction vessels.
- 2. 50 metres radius around each wind turbine, offshore transformer module and / or their substructure and foundations installed but waiting to be commissioned as part of the Beatrice Offshore Wind Farm.

ALL VESSELS ARE REQUESTED to give all construction and support vessels a wide berth.

MARINERS ARE REMINDED to navigate with caution and keep continued watch on VHF Ch. 70 / 16 when navigating the area.

8. Dedicated Guard Vessel

The Guard Vessel Opportune WK171 will take over guard duties from the 4th May 2017

Guard Vessels can be contacted on VHF Ch16 and Ch13



9. Fisheries Liaison

Fisheries liaison associated with the activity will be co-ordinated by Brown and May Marine. For any commercial fishery queries please contact: Alex Winrow-Giffin, telephone: +44 (0)1379 872144 and mobile: +44 (0)7760 160039.

10. Distribution List

The distribution of this notice is as per email recipient's header. A central list of recipients is maintained by the Marine Coordinator; if you are not the appropriate recipient of these notices, or do not wish to receive the notices in the future, please contact us at the address included in Section 1 of this notice.

11. Website

The official website of Beatrice Offshore Windfarm Limited can be found at:

https://www.beatricewind.com/

This contains all Notices to Mariners (NtM) published by BOWL and all Weekly Notices of Operations, together with a large amount of general information about the Project.

There is also a Twitter feed at <u>https://twitter.com/beatricewind</u>.

Beatrice Offshore Windfarm Limited Construction Operations



No Ref	Vessel Picture	Vessel Name / Flag	Type / Function	Operator	Contact / contact details	Call sign / MMSI / IMO 🖵	LOA (m) Beam (m) Draft (m)	Date on Site
1		Bremen Fighter	Anchor Handling Tug assisting the Stanislav Yudin	Seaway Heavy Lifting (SHL)	Danny Sprangers (SHL) C/o Subsea 7 East Campus Arnhall Business Park Westhill, A berdeenshire AB32 6FE +31 653997158 EMAIL:dsprangers@shl.nl	V 20Y 1 / 304742000	48.1/14.06/6.0	27.03.2017
2		Stanislav Yudin	Heavy Lift Vessel	Seaway Heavy Lifting (SHL)	Danny Sprangers (SHL) C/o Subsea 7 East Campus Arnhall Business Park Westhill, A berdeenshire AB32 6FE +31 653997158 EMAIL:dsprangers@shl.nl	5BYM 27 21 0334000	183.3740.078.9	27.03.2017
3		Smit Sentosa	Anchor Handling Tug assisting the Stanislav Yudin	Seaway Heawy Lifting (SHL)	Danny Sprangers (SHL) C/o Subsea 7 East Campus Arnhall Business Park Westhill, A berdeenshire AB32 6FE +31 653997158 EMAIL:dsprangers@shl.nl	O RRX / 205696000	51.8/15.0/6.2	27.03.2017
4		Rix Lynx	Crew Transfer Vessel / CTV	Seaway Heavy Lifting (SHL)	Danny Sprangers (SHL) C/o Subsea 7 East Campus Armhall Business Park Westhill, A berdeenshire AB32 6FE +31 653997158 EMAIL:dsprangers@shl.nl	2JGQ6/ 235115745	26 / 7.0 / 2.0	27.03.2017
5		Union Boxer	Barge Tow Vessel	Seaway Heavy Lifting (SHL)	Danny Sprangers (SHL) C/o Subsea 7 East Campus Prospect Road Arnhall Business Park Westhill, A berdeenshire AB32 6FE + 31 653997158 EMA IL dsprangers@shl.nl	0 RP S / 205575000	40.6/21.5/6.3	01.04.2017
6		Opportune WK 171	Guard Vessel	Seaway Heawy Lifting (SHL)	Danny Sprangers (SHL) C/o Subsea 7 East Campus Arnhall Business Park Westhill, A berdeenshire AB32 6FE +31 653997158 EMAIL:dsprangers@shl.nl	2W KN/233608000	21.0/7.0/3.5	04.05.2017
7		Union Princess	Barge Tow Vessel	Seaway Heavy Lifting (SHL)	Danny Sprangers (SHL) C/o Subsea 7 East Campus Arnhall Business Park Westhill, Aberdeenshire AB32 6FE +31 653997158 EMAIL:dsprangers@shl.nl	ORQU/205642000	67/16/6.2	16.04. 2017
8		Smit Seraya	Barge Tow Vessel	Seaway Heavy Lifting (SHL)	Danny Sprangers (SHL) C/o Subsea 7 East Campus Arnhall Business Park Westhill, A berdeenshire AB32 6FE +31 653997158 EMAIL:dsprangers@shl.nl	9∀9845/ 566804000/	51.8 x 16 x 6	13.05.2017

Beatrice Offshore Windfarm Limited Construction Operations



Reference to Marine Licence Conditions 2.5, 2.6 and 3.1.2

Vessel Data Matrix for Buckie



No Ref	Vessel Picture	Vessel Name / Flag	Type / Function	Vessel Contact / Master's name	Company Name / Contact / contact details	Call sign / MMSI / IMO	LOA (m) Beam (m) Draft (m)	Date on Site
1		Haven Seariser 1	Jack Up mobile barge.	Kristen branford & Paul Ridout	Red7marine+44(0) 1255 886 710 www.red7marine.co.uk enquiries@r7m.co.uk	N/A	29.6 / 17.07 / 2.44	06.05.2017
2		MV Skua	Crew Transfer Vessel / CTV.	Bill Ruck 07775802963 bill@moraymarine.com	Moray First Marine Ltd Wester Oldtown Roseisle Elgin Moray IV30 5YD	N/A	10.5 / 3.51 / 1.1	06.05.2017
3		Forth Constructor	Service Vessel	Graham Gray	Briggs Marine & Environmental Services Head Office Seaforth House Seaforth Place Burntisland Fife KY3 9AX	GXAD / 235004217	L:28.50m B:9.45m D:4.27m	06.05.2017