Method Statement Template

This template is intended to be used in conjunction with a Band 1 Marine Licence application. Please complete each section below following the guidance provided (max 500 words per section). For any queries relating to this template please contact: marinelicensing@cyfoethnaturiolcymru.gov.uk

1. Summary

Please provide a brief summary of the application including location of the works (coordinates - lat/long, decimal degrees). For activities that cover a large area please provide coordinates of the approximate extent of works.

The proposed works include geophysical, geotechnical and benthic ecology surveys for the Llŷr offshore demonstration projects; two 100MW sites located in the Celtic sea approx. 27 km off the Pembrokeshire coast. The total survey area covered will be 514km^2. The works proposed are sediment grab samples along the (offshore, nearshore and intertidal) potential
cable routes, including the wind farm array area of the Llŷr 1 and Llŷr 2

Co-ordinates:

ID	Decimal		Degs, mins, secs	
	Lat	Long	Lat	Long
1	51.65228855	-5.05736	51°39'08"N	005°03'26"W
2	51.64825887	-5.08064	51°38'54"N	005°04'50"W
3	51.64722904	-5.09297	51°38'50"N	005°05'35"W
4	51.64831443	-5.10651	51°38'54"N	005°06'23"W
5	51.64822254	-5.11216	51°38'54"N	005°06'44"W
6	51.64912035	-5.12156	51°38'57"N	005°07'18"W
7	51.65162866	-5.13017	51°39'06"N	005°07'49"W
8	51.65161508	-5.14751	51°39'06"N	005°08'51"W
9	51.63171075	-5.17062	51°37'54"N	005°10'14"W
10	51.60448522	-5.17765	51°36'16"N	005°10'40"W
11	51.59603868	-5.18465	51°35'46"N	005°11'05"W
12	51.51515811	-5.332	51°30'55"N	005°19'55"W
13	51.47733508	-5.352	51°28'38"N	005°21'07"W
14	51.38768843	-5.19629	51°23'16"N	005°11'47"W
15	51.27595632	-5.17957	51°16'33"N	005°10'46"W
16	51.27581147	-5.4734	51°16'33"N	005°28'24"W

ID	Decimal		Degs, mins, secs	
	Lat	Long	Lat	Long
17	51.40194545	-5.56113	51°24’07”N	005°33’40”W
18	51.4746417	-5.3788	51°28’29”N	005°22’44”W
19	51.48890675,	-5.38149	51°29’20”N	005°22’53”W
20	51.48880996	-5.38155	51°29’20”N	005°22’54”W
21	51.5342371	-5.35154	51°32’03”N	005°21’06”W
22	51.61154388	-5.21011	51°36’42”N	005°12’36”W
23	51.63797625	-5.20342	51°38’17”N	005°12’12”W
24	51.6463438	-5.19716	51°38’47”N	005°11’50”W
25	51.69098151	-5.14276	51°41’28”N	005°08’34”W
26	51.69983028	-5.13451	51°41’59”N	005°08’04”W
27	51.70309049	-5.12793	51°42’11”N	005°07’41”W
28	51.69393581	-5.05154	51°41’38”N	005°03’06”W

A shapefile has been included with this application.

Summary of Work to be undertaken - Sediment Grab Samples for Benthic Ecology `Analysis

Grab samples will be taken of the seabed to provide detail on the sediment itself and infauna (animals living within the substrate) which cannot be provided by the use of video and photography. Approximately 62 sample stations of 0.1m^2 and samples collected will be suitable for PSA and faunal analysis.

Grab samples will not be collected on hard substrates or at locations with sensitive habitats (e.g. Maerl); therefore, grab sampling will be preceded with video/camera drops. Grabs will be collected at selected video/photo sites on sedimentary substrate unless they support sensitive habitats; data collected will therefore be complementary and allow biotope classification to include consideration of infaunal components. A sediment sub-sample will also be retained from the grab for Particle Size Analysis (PSA) with the remainder sieved for infaunal analysis. The benthic sediment sampling equipment does not generate potentially significant levels of noise. Therefore, this technology does not require any further consideration with respect to potential injury or disturbance of protected species.

The offshore survey activities are scheduled to be undertaken sometime between 1st July 2022 and 30th September 2022; whilst this is a period of 92 days in total, the survey activity will be for a shorter duration. Vessel presence is expected for up to 70 days, geophysical survey activities are expected to take approximately 23 days and geotechnical activities (i.e. grab samples) are expected to take approximately 10 days. This includes an allowance for weather downtime, waiting on tides.

The primary use for the collected data will be to characterise the site for the purposes of the EIA process. Secondary uses for the data may include the following:

- Informing physical processes;
- Informing Water and Sediment Quality (WFD); and
- Supporting Benthic Ecology assessment.

2. Scope of works

Please provide a full description of all proposed works including:

- *Sequence of works (mobilisation, marine works, site remediation (if required))*
- *Estimated timing of works (duration, working hours, day/night, plus contingency)*
- *Plant, machinery or vessel required*
- *Estimated quantities (removals, deposits, construction materials)*

1. Sequence of works

A geophysical survey of the cable routes will be undertaken before sediment samples are taken. Final sediment sampling locations shall be agreed prior to commencement of the work. The key objective will be to ensure that all of the potential surface sediment types identified during the geophysical survey are sampled adequately, and therefore locations along the cable route may not have to be every 1 km.

Analysis and reporting will be in accordance with standard European OSPAR specifications or recognised industry standards.

Care will be taken during location selection to ensure that the sample site is free from obstructions and prior to the grab deployment the sampling area must be ground truthed using a drop-down camera (DDV).

2. Estimated timing of works

The offshore survey activities are scheduled to be undertaken sometime between 1st July 2022 and 30th September 2022; whilst this is a period of 92 days in total, the survey activity will be for a shorter duration. Vessel presence is expected for up to 70 days, geophysical survey activities are expected to take approximately 23 days and geotechnical activities (i.e. grab samples) are expected to take approximately 10 days. This includes an allowance for weather downtime, waiting on tides. Working hours offshore will be continuous 24 hour periods.

3. Plant, machinery or vessel required

Vessels will be mobilised as required from an agreed mobilisation port depending on the Contractor. As noted above, the type and number of vessels required to complete the works will vary depending on parameters such as weather and water depth.

The contractors that will be employed to undertake the surveys have not been selected yet, and therefore exact details of the vessels to be used are not available. The vessels detailed in Table 2.2 below are of a similar type and size that could be deployed and have been used as proxy vessels for the purposes of the EPS and Protected Sites Risk Assessment. The vessels detailed go up to the maximum size that could be provided by the contractors, thereby providing the worst-case scenario and offering maximum flexibility in the survey procurement process.

Example Vessels to be used during the survey programme

Example vessel / vehicle	Description
Surveys	
Multi-purpose vessel – both geophysical and geotechnical survey	Multi-purpose vessel which will typically have diesel-electric propulsion and a specially designed hull. Vessel will be suitable for geophysical and geotechnical survey operations up to 1000m water depth. Typical length is expected to be 54 m, beam 12.5m, deck area is 250 m^2 and the draught 3m.
Nearshore geophysical vessel	A nearshore geophysical vessel will typically have an outboard motor and will typically be a road transportable workboat. The boat will be approximately 7.4 m in length, with a beam of 2.5 m and shallow draft of 0.75m
Nearshore environmental vessel	A nearshore environmental vessel will be designed for survey operations in shallow to medium water depths.
USV	A 2 – 3 m long remotely-operated untethered vehicle which floats on the water's surface as a platform of deployment for geophysical survey equipment used in seabed or water column mapping.

4. Estimated quantities

Approximately 62 sample stations of 0.1m2 and samples collected will be suitable for PSA and faunal analysis. The total sample volume across all samples will not exceed 4 cubic metres.

3. Access and working areas

Please provide details of access to the site and working areas. This should include:

- *Attached map of the access/egress route and working areas (annotated aerial image and/or OS map)*
- *Predicted plant/vehicle movements*
- *Storage areas for plant, equipment and materials (if required)*
- *Risks to navigation*

An admiralty map showing survey boundary is provided as an attachment to this application.

Vessel presence is expected for up to 70 days, geophysical survey activities are expected to take approximately 23 days and geotechnical activities (i.e. grab samples) are expected to take approximately 10 days. This includes an allowance for weather downtime, waiting on tides.

No storage areas for plant, equipment and/or materials necessary for the proposed works.

Floventis have carried out early consultation with the RCAHMW, Trinity House and the MCA – notes of the consultation meeting are provided as an attachment to this application.

The proposed works have pose the following risks to navigation:

- Impacts on vessel navigation routes;
- Interference of project vessels with commercial and recreational vessels;
- Impacts to navigational safety;
- Collision risk with other marine users, passing vessels and project devices and infrastructure.

Prior to the activity being undertaken, appropriate Notices to Mariners (NtM's) will be issued though Kingfisher by the appointed contractor and the vessel crew and survey team will, at all times, be mindful of any fishing interests during the survey activity, particularly fixed gear and where appropriate, put in place measures to minimise and/or avoid interaction.

4. Environmental mitigation

Please list appropriate mitigation measures to minimise impacts on the marine environment these may include:

- *Pollution prevention and control procedure (guidance available at: http://www.netregs.org.uk/media/1304/gpp-5-works-and-maintenance-in-or-near-water.pdf)*
- *Spill response kits*
- *Minimise plant traffic*
- *Designated access and egress routes*
- *Storage of materials (fuel, chemicals, construction waste)*
- *Biosecurity (guidance available at http://www.snh.gov.uk/docs/A1294630.pdf)*

Note: To assist you, the following mitigation statements will be used as conditions within the licence. By signing this method statement you will be agreeing to adhere to these restrictions. If you are unable to do this, the application will not qualify as Band 1.

- ✓ All equipment, temporary structures, access tracks, waste and/or debris associated with the works will be removed on completion of the works.
- ✓ Bunding, storage facilities and spill kits will be employed to contain and prevent the release of fuel, oils and chemicals associated with the plant, refuelling and construction equipment into the marine environment.
- ✓ Plant, vehicles and machinery will not be refuelled on the foreshore.
- ✓ Coatings and treatments will be suitable for use in the marine environment and are used in accordance with best environmental practice.
- ✓ All equipment, materials, machinery and PPE used will be in a clean condition prior to their arrival on site, and upon removal from site, to minimise risk of introducing non-native species into the marine environment.
- ✓ In the event of removal of any sensitive species or habitat designated by NRW under Schedule 7 of the Environment (Wales) Act 2016, no further removals will occur at that location or within 20m of that location.

Please list your bespoke mitigations here:

- NtM's will be issued through the Kingfisher service prior to commencement of works.
- Care shall be taken to ensure that the sample site is free from obstructions and prior to the grab deployment the sampling area will be ground truthed using a drop-down camera (DDV).
- NRW guidance will be incorporated into the final survey including the following guidance documents:
  - Natural Resources Wales. (2019). GN030d Benthic habitat assessment guidance for marine developments and activities: A guide to characterising and monitoring Sabellaria reefs. Natural Resources Wales, Bangor; and
  - Natural Resources Wales. 2019. GN030c Benthic habitat assessment guidance for marine developments and activities: A guide to characterising and monitoring horse mussel Modiolusmodiolus reefs. Natural Resources Wales, Bangor.
- Potential sensitive habitats identified during the survey will be investigated using high-resolution video or stills photography and the extent of any habitats or features identified will be mapped. All sediment types identified by the geophysical data acquisition will be ground-truthed during the habitat assessment survey.
- Any potential features of cultural/heritage importance (e.g. wrecks) will be investigated.

5. Additional Information

Please list any additional information that may help with the application:

- *Consents/permissions required*
- *List of plans or drawings attached to method statement*
- *Emergency procedures*
- *Contact details*

Applications for the following consents/permissions have been submitted:

- Seabed survey license from The Crown Estate
- Licence to disturb EPS from NRW

The following attachments are also provided as part of this application for the Llŷr survey Marine License application:

- Llŷr Floating Offshore Wind Project – MCA Meeting minutes
- Llŷr Floating Offshore Wind Project – Trinity House Meeting minutes
- Llŷr Floating Offshore Wind Project – MCA Meeting minutes
- Llŷr Floating Offshore Wind Project – Feedback from RCAHMW
- The Llŷr Floating Offshore Wind Survey Area Map
- The Llŷr Floating Offshore Wind Survey Area GIS shapefiles

Emergency Procedures.

- The contracted survey company crew will be assigned emergency duties and muster points stipulated on the vessels muster list.
- The contracted survey company will issue a survey specific Emergency Response Plan that will be reviewed and approved by Floventis prior to mobilisation.
- All crew will receive a safety induction within 24 hours of arrival onboard.
- Regular muster drills shall be undertaken during operations and in port. Safety drills shall be programmed to ensure practice in a variety of potential emergency response procedures.

Additional Contact Details

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Email: gemma.lee@ciercoenergy.com

6. Customer details

Signature: 

Full name: Marc Murray

Organisation name (where appropriate): Cierco Energy

Contact email: marc.murray@cierco.co.uk

Contact phone number: + 44 (0)1383 662163