Intended for

Viking Energy Wind Farm LLP

Date

June 2022

Project Number

1620009158

# VIKING ENERGY WIND FARM PLANNING MONITORING OFFICER AUDIT REPORT 020: 21<sup>ST</sup> MAY 2022 TO 17<sup>TH</sup> JUNE 2022



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Ramboll 80 George Street Edinburgh EH2 3BU United Kingdom T +44 131 297 2650 www.ramboll.co.uk

### **CONTENTS**

1.	AUDIT DETAILS	1
1.1	Audit Details	1
1.2	Distribution	1
1.3	Terms of Reference	1
1.4	Role of the Planning Monitoring Officer	2
1.5	General Limitations and Reliance	3
2.	INTRODUCTION	4
2.1	Objectives of Audit	4
2.2	Scope of Audit	4
2.3	Site Personnel	4
3.	SITE SETTING, RECORDS AND OBSERVATIONS	5
3.1	Kergord	5
3.2	Sandwater Track	5
3.3	Mid Kame Ridge	5
3.4	North Compound	6
3.5	North Nesting	6
3.6	Main Compound	6
3.7	Nesting	7
3.8	Substation	7
3.9	Communication with SIC	8
3.10	Communication with Clerks of Work	8
3.11	Scope of next audit	9
4.	AUDIT FINDINGS AND REQUIRED ACTIONS	10

### 1. AUDIT DETAILS

### 1.1 Audit Details

Audit Number	PMO 020		
Location	Kergord		
	Sandwater Road		
	Mid Kame Ridge		
	North Compound		
	North Nesting		
	Main Construction Compound		
	Nesting		
	Substation		
Weather Conditions	Slight breeze, Dry and overcast (11°C).		
Audit Date	15 <sup>th</sup> June 2022		
Audit Period	21st May to 17th June 2022		
Audit Owner	Ramboll UK Ltd		

1

### 1.2 Distribution

Position	Action
Ramboll Project Director Planning Monitoring Officer	For information
SSE Renewables Development Manager	For information
SSE Renewables Consents Manager	For information
SSE Renewables Environmental Advisor	For information
RJ McLeod Design Management Engineer	For Information
Shetland Islands Council Planning Enforcement Officer	For information
Shetland Islands Council Natural Heritage Officer	For information

### 1.3 Terms of Reference

This audit has been completed with reference to the following key documents:

 Application under Section 36C of the Electricity Act 1989 to vary the consent granted under Section 36 of that Act on 4 April 2012 to construct and operate the Viking Wind Farm located in Shetland Islands Council Planning Authority Area and for a direction under Section 57 of the Town and Country Planning (Scotland) Act 1997 for planning permission to be deemed to be granted in respect of the proposed development (i.e. the 'Variation Application').

The Viking Wind Farm project will comprise the construction of 103 wind turbines with a turbine tip height of 155 m; development of a temporary construction compound; construction of associated access tracks; development of a substation; development of a convertor station; erection of permanent Met Masts; and the excavation of borrow pits.

The project was consented as detailed above, receiving Section 36C Consent and deemed planning permission on 24<sup>th</sup> May 2019.

Separate planning consents are in place for the following specific aspects of the development:

- Construction of the Kergord Access Track<sup>1</sup> (consented on 29<sup>th</sup> April 2019).
- Re-alignment of Sandwater Road<sup>2</sup> between the Burn of Weisdale and the junction with the A970 to facilitate construction access for the Viking Wind Farm (consented on 26<sup>th</sup> May 2020).
- Formation of temporary construction compounds at two locations; Sandwater (Main)<sup>3</sup>, consented on 22<sup>nd</sup> June 2020; and North (South of Voe)<sup>4</sup> consented on 9<sup>th</sup> September 2020.

### 1.4 Role of the Planning Monitoring Officer

Condition No. 3 of the Variation Application states that:

"No development shall commence unless and until the Planning Authority has approved in writing the terms of appointment by the Company of an independent and suitably qualified environmental consultant to assist the Planning Authority in monitoring compliance with the terms of the deemed planning permission and conditions attached to this consent (a Planning Monitoring Officer ("PMO"). The terms of the appointment shall:

- Impose a duty to monitor compliance with the terms of the deemed planning permission and conditions attached to this consent;
- Require the PMO to submit a monthly report to the Planning Authority summarising works undertaken on site; and
- Require the PMO to report to the Planning Authority any incidences of non-compliance with the terms of the deemed planning permission and conditions attached to this consent at the earliest practical opportunity.

The PMO shall be appointed on the approved terms throughout the period from Commencement of Development to completion of post construction restoration works.

In order to discharge the above requirements, the PMO undertakes site-based audits at monthly intervals to monitor the compliance with the conditions of the consent. The primary documents used for compliance monitoring are the Construction Environmental Management Plan (CEMP); and the Pollution Prevention Plan (PPP). Additional documents will be referenced as required for specific detail.

The following traffic light system is used to indicate action status:

	Green – activities appear to be compliant with the CEMP, PPP and other applicable environmental management procedures and plans and there are no other issues.
	Amber – in general activities are compliant with the CEMP, PPP and other applicable environmental management procedures and plans but there are minor actions required.
Red – activities may not be compliant with the CEMP, PPP and other applications environmental management procedures and there are critical actions.	

 $<sup>^{\</sup>rm 1}$  Shetland Islands Council Planning Reference No: 2018/096/PFF

<sup>&</sup>lt;sup>2</sup> Shetland Islands Council Planning Reference No: 2019/079/PPF

<sup>&</sup>lt;sup>3</sup> Shetland Islands Council Planning Reference No: 2019/188/PPF

<sup>&</sup>lt;sup>4</sup> Shetland Islands Council Planning Reference No: 2019/210/PPF

### 1.5 General Limitations and Reliance

This report has been prepared by Ramboll UK Limited ("Ramboll") exclusively for the intended use by Viking Energy Wind Farm LLP (the "client"). No other warranty, expressed or implied, is made as to the professional advice included in this report or in respect of any matters outside the agreed scope of the services or the purpose for which the report and the associated agreed scope were intended or any other services provided by Ramboll.

In preparation of the report and performance of any other services, Ramboll has relied upon site observations, publicly available information, information provided by the client and information provided by third parties. Accordingly, the conclusions in this report are valid only to the extent that the information provided to Ramboll was accurate, complete and available to Ramboll within the reporting schedule.

Ramboll's services are not intended as legal advice, nor an exhaustive review of site conditions and/or compliance. This report and accompanying documents are intended to form a record for the purpose of documenting compliance with Condition No. 3 of the Variation Application. Ramboll neither owes nor accepts any duty to any third party, unless formally agreed by Ramboll through that party entering into, at Ramboll's sole discretion, a written reliance agreement.

### 2. INTRODUCTION

### 2.1 Objectives of Audit

The purpose of the PMO Audits is to monitor the provision of appropriate environmental management at active work sites of the project, via desk-based review of relevant documentation and site visits to be undertaken on a monthly basis to ensure compliance with the conditions of the planning consent and associated environmental management plans.

### 2.2 Scope of Audit

The scope of the audit was as follows:

- Liaison with SIC regarding public concerns or complaints received during the audit period.
  - A complaint surrounding sediment observed in the Burn of Grunnafirth.
- Review of documents provided by the Client and Principal Contractor prior to and following the audit visit. Specific references are included in the relevant sections of the report.
- A site visit attended by the PMO, SSE Renewables Environmental Site Manager, RJM Environmental Clerk of Works and SIC Planning Enforcement Officer undertaken on 15<sup>th</sup> June 2022 which included the following locations:
  - Kergord;
  - Sandwater Road;
  - Mid Kame Ridge;
  - North compound;
  - Main Compound; and
  - Nesting;
- Discussions were held with the Geotechnical Clerk of Works (GCoW), Environmental Clerk of Works (ECoW) and Archaeological Clerk of Works (ACoW).

A selection of photographs taken during the audit are included in Appendix 1.

### 2.3 Site Personnel

The following site personnel were interviewed as part of this audit:

Company	Position	
SSE Renewables	Environmental Advisor	
RJ McLeod	Design Engineer	
Tony Gee and Partners	Geotechnical Clerk of Works	
MBEC	Environmental Clerk of Works	
Headland Archaeology	Archaeological Clerk of Works	

### 3. SITE SETTING, RECORDS AND OBSERVATIONS

Observations made during the audit are described in this section. Corresponding photographs are included in Appendix 1, alongside a plan of the site indicating the location of each photograph.

### 3.1 Kergord

### 3.1.1 Site Setting and Activities

Access to the Kergord Arrays is taken via the Kergord Access Track (KAT), which was accessed from the Sandwater track along the southern boundary of the central area of the development.

Activities in this area during the audit included progression of access tracks and peat restoration areas, rock extraction at borrow pits and formation of crane pad hardstanding areas.

### 3.1.2 Observations

The construction of tracks and bases has continued across the arrays with steelwork and concrete pouring, and the backfilling of bases ongoing. Installed drainage measures are of good quality and preventative mitigation will continue to be installed as turbine base and hardstanding excavation continue. The construction of blade fingers at K44 was observed by the PMO. The design engineer noted that a toe bund had been constructed between the two blade fingers (Photo 1), and peat will be infilled between the fingers once the turbines have been erected.

The PMO observed the storage of peat within the KBP02 borrow pit. The peat was being stored in cells (Photo 2) which will be re-landscaped following the decommissioning of the borrow pit. It is noted that a geotechnical engineer completes monthly audits of the stability of the borrow pits.

The steel rebar cage was being constructed in K71 and K72. Works on the track at Spur 07 meant that the westernmost part of the area was not accessible.

### 3.2 Sandwater Track

### 3.2.1 Site Setting and Activities

A track has been constructed at Sandwater, located at the southern limit of the central site area, which provides access to the Kergord and Mid Kame Ridge wind farm areas for all construction traffic. The new track is located adjacent to the existing Sandwater Road (B9075), which remains operational for public traffic until handover of the New Sandwater Road at project end.

The Sandwater Loch is located directly to the south of the site boundary. Sandwater Loch is designated as a Site of Special Scientific Interest (SSSI)<sup>5</sup>, notified for 'Open Water Transition Fen' and 'Mesotrophic Loch' habitats.

### 3.2.2 Observations

A drainage culvert has been improved and leads into the burn at the western side of the track (Photo 3).

### 3.3 Mid Kame Ridge

### 3.3.1 Site Setting and Activities

The Mid Kame Ridge (MKR) is accessed from the Sandwater track and stretches northwards to Hamarigrind Scord.

 $<sup>^{\</sup>rm 5}$  As notified under the Nature Conservation (Scotland) Act 2004

Cable trench excavation, the laying of the base material (site won aggregate) and the laying of the cables was being undertaken during the audit.

### 3.3.2 Observations

Mid Kame Ridge was not accessible during the PMO visit due to works at the southern end of the main access track.

### 3.4 North Compound

### 3.4.1 Site Setting and Activities

The North Compound is located towards the northern limit of the site on the eastern side of the A970. At the North Compound batching plant 1 and 2 are in place.

### 3.4.2 Observations

The PMO visited the North Compound during the audit.

The fuel storage at the compound was noted to be in good order, with spill kit provided.

PMO 19 noted that IBCs were being stored on the compacted stone surface rather than on hardstanding. The Developer and the PMO agreed that temporary bunding would be necessary to mitigate the risk from potential spills from the IBCs reaching the ground.

During PMO 20, three IBCs were observed to be on the compacted stone surface (Photo 4), however all were in use with the concrete pouring works that were ongoing. The remainder of the IBCs were on hardstanding. It was discussed with the H&S Advisor during the walkover that the management of the IBCs were under review and that risk assessments were being updated. It was however agreed that if IBCs are not being stored on hardstanding then they should be in a temporary bund.

### 3.5 North Nesting

### 3.5.1 Site Setting and Activities

The northern Nesting turbine arrays are located towards the northern limit of the site on the eastern side of the A970. Track and bridge construction, peat restoration, reinstatement, crane pad hardstanding formation and cable trench excavation were being undertaken during the audit.

### 3.5.2 Observations

During the PMO visit, base N95 was being poured (Photo 5), and several other bases had been poured and backfilled since PMO 019 (Photos 6 and 7). Water crossing 15 has also been completed since PMO 019 (Photo 8).

### 3.6 Main Compound

### 3.6.1 Site Setting and Activities

The Main Compound is located at the southern extent of the development site, accessed from the A970. The lower level comprises car parking and site offices and welfare facilities. The upper level is in use for material and equipment laydown.

### 3.6.2 Observations

The car parking, site offices and welfare facilities are functioning well. All materials are stored according to regulations. No evidence of leaks or staining was observed in the vicinity of the store. All waste skips are clearly labelled.

### 3.7 Nesting

### 3.7.1 Site Setting and Activities

The Nesting arrays are accessed from the A970. Activities in this area during the audit included progression of access tracks, bridges and peat restoration areas, cable trench excavation, rock extraction at borrow pits and formation of crane pad hardstanding areas.

### 3.7.2 Observations

Cable trenching works had been carried out between N140 and N141 (Photo 9).

N143 base had been up-filled, ready for blinding and steel fixing, during the PMO audit, but had been noted by several parties to have been a success, despite the deep excavation and groundwater management that was required to found the base on suitable strata (Photo 10 courtesy of RJ Macleod).

During the construction of base N140, water had been pumped from the base excavation and into the Burn of Grunnafirth, as per the discharge consent for the works. On the 8<sup>th</sup> of June, site personnel noticed high levels of sediment in the Burn, that was traced back to the water being pumped from N140. The pump was stopped, and sediment and water stopped flowing into the Burn. Following an investigation, the sediment concentrations were within the levels specified by the discharge consent, and no breach was recorded. Nonetheless, the site team informed SEPA of the incident, for their records. Additional mitigating measures put in place ensured no further sediment entered the Burn. These additional measures included allowing the water to enter the ground at a point further away from the Burn, to allow vegetation and silt traps to catch the sediment prior to entry into the Burn, the instalment of additional silt traps, and a reduction in the flow rate of the pump.

During the PMO visit, the pumping hose running further from the Burn was noted (Photo 11), and the Burn was free of sediment (Photo 12).

### 3.8 Substation

### 3.8.1 Site Setting and Activities

The Substation occupies the northern third of the HVDC Converter Station Platform located in the Kergord Valley, between Mid Kame Ridge and Kergord. Access to the Substation is taken via the KAT. Only the substation area is subject to the PMO audit. Activities in this area included construction of building frame, cladding and pre-cast equipment foundations.

### 3.8.2 Observations

The substation was not visited during this PMO inspection. An incident where a person died occurred on Sunday 5 June. An investigation is underway.

Views from Kergord access tracks showed that additional cladding had been installed since PMO 18 (Photo 13).

### 3.9 Communication with SIC

As described in Section 3.7, SIC advised the PMO of a public complaint that had been received regarding sediment observed in the Burn of Grunnafirth.

Correspondence was shared by SIC on the  $9^{th}$  of June. The incident had occurred on the  $8^{th}$  of June and by the time of the correspondence the incident had been noted, works had stopped, and SEPA had been informed. As described in Section 3.7, mitigation is in place to ensure similar sediment impact to the Burn does not reoccur.

The Developer has provided detailed response to SIC which has been communicated to the relevant parties.

### 3.10 Communication with Clerks of Work

### 3.10.1 GCoW

Condition 39 of the planning consent requires the appointment of a Geotechnical Clerk of Works (GCoW) to minimise the risk of peat failure arising from the development. A discussion was held between the PMO and GCoW before the site visit, on the 8<sup>th</sup> June 2022.

The GCoW described the ongoing monitoring work across the site. This has included monitoring of the general construction works, monitoring peat restoration areas and providing advice on peat handling.

There is ongoing supervision throughout the site with the GCoW working with the ECoW to perform snagging on completed peat restoration areas.

The GCow indicated that there may be further works required regarding the peat storage in KBP02, however there is no requirement to move the peat during the current period works.

### 3.10.2 ECoW

Condition 19 of the planning consent requires the appointment of an Ecological Clerk of Works to ensure protection of the natural heritage of the area. A discussion was held between the PMO and ECoW before the site visit, on the 9<sup>th</sup> June 2022.

The ECoW continues to work with the Principal Contractor to identify and implement mitigation measures throughout different stages of construction. The measures aim to ensure the project maintains compliance with relevant licences. The ECoW is monitoring the progress of these measures on an ongoing basis. The ECoW reported the sediment impact to the Burn and commented on how well this was dealt with by all on site. Since the concentration of sediment is below the threshold of the discharge consent, there are no ecological impacts.

The ECoW reminded of the importance of dust mitigation, including mitigating the dust spread onto nearby vegetation.

The ECoW mentioned that the area of cabling track opened up may cause issues when the weather turns wetter. Large areas of cable track may be subject to erosion by the rain unless they are covered following the cable laying. Discussions held with the Designer during the PMO suggested that this is a temporary issue due to delayed installation of cables, and should be back on track before the next PMO visit. The delay relates to leaving the trenches open for additional cable checks and testing to be carried out. The cable tracks will be raised again during the next PMO site visit.

The ECoW is also working with GCoW to perform snagging on completed peat restoration areas.

### 3.10.3 ACoW

Condition 29 of the planning consent requires the appointment of an Archaeological Clerk of Works to ensure archaeological features are protected and recorded during the development. The ACoW communicated the ongoing works to the PMO on the 7<sup>th</sup> June 2022.

The ACoW described the ongoing and completed monitoring works across the site. Track construction watching briefs are complete other that one spur in Kergord which is ongoing. Cable trench works in Kergord have been completed in areas where watching briefs are required.

The ACoW noted dialogue with the SSE Environmental Site Manager regarding the level of monitoring required for the cable trench works and the cross-country cable routes has completed and are in agreement.

The ACoW has continued with daily checks across the project site.

### 3.11 Scope of next audit

The scope of the next PMO audit will be dependent on the specific activities undertaken at the development site in the preceding days and weeks. This is likely to include:

- Update on progress of construction works at Kergord, Mid Kame Ridge, Sandwater Road, North Compound and North Nesting, Main Compound and Nesting.
- Consideration of any comments received by the SIC or the Developer in relation to the works, including visits to view specific areas of concern.
- Update on the cable track areas.
- Update on the construction of the VEWF Substation incident, and undertake PMO audit of the substation area.
- Updates from the ACoW, ECoW and GCoW teams.

## 4. AUDIT FINDINGS AND REQUIRED ACTIONS

Issue	Auditor Comments	Required Action	Action Owner	Status
Materials Storage and Handling (e.g. oil/fuel storage and peat/mineral soil storage and handling).	Peat restoration areas are managed through the project Habitat Management Plan and by a dedicated HMPO which balances the geotechnical and ecological objectives of the restoration.  Potential risks relating to storage of peat are recorded on the PRRs and communicated to the Principal Contractor to allow mitigation / monitoring to be undertaken. The PMO will request evidence in future audits to confirm compliance with requirements for GCoW and	No action required	Principal Contractor	Green
	ECoW approval of proposed peat restoration areas.  The project COSHH stores are typically used for the storage of maintenance oils and greases. The stores were all locked and the assessment for each substance was readily available in each store. The stores were bunded and no leaks or staining was observed around the stores.			
Materials Storage and Handling (e.g. oil/fuel storage and peat/mineral soil storage and handling).	PMO observed non-compliance with the waste management plan. Approximately 3 no. IBCs were being stored directly on the ground, rather than on an area of hardstanding.	A temporary bund is required whist the IBCs are being stored off the hardstanding.	Principal Contractor	Amber
Natural and Built Environment (e.g. ecology, biosecurity, protected sites, archaeology and site restoration).	Ecological constraints identifed by the ECoW team are communicated to the Principal contractor and Developer to allow mitigation measures to be implemented and rescheduling of preparatory and construction work as required. These are also marked out by poles on the site and included on ecological sensitive plans issued to the Principal contractor.  Watching briefs have been undertaken by the	No action required.	N/A	Green
	AcoW where potential archaeolgical constraints			

Issue	Auditor Comments	Required Action	Action Owner	Status
	are identifed. Where there are known archaelogical features the track is micro-sited to avoid the feature.			
Pollution Prevention and Response (e.g. use of spill kits, silt control, cement/concrete, water resources).	The project has recieved authorisation to abstract water from eight locations from SEPA. The authorisation allows the water to be used for dust suppression. The PMO has reviewed documents confirming that the appropriate registration is in place with SEPA under The Water Environment (Controlled Activities) (Scotland) Regulations 2011, as amended.  During the audit the PMO observed spill kits to be well stocked and readily available in areas where liquids are stored.  The project continues to improve the pollution prevention measures with additional measures installed in high risk area. PMO observed effective measures in place including but not limited to cut off drains, settlement ponds, silt controls, track side ditches and water pump reactor.	No action required.	N/A	Green
Pollution Prevention and Response (e.g. use of spill kits, silt control, cement/concrete, water resources).	An incident where elevated concentrations of sediment were realsed into a Burn due to pumping of a base excavation occured on 8th June. The discharge consent was not breached. Site personnel reacted quickly and mitigation has been put in place to ensure this incident is not repeated.	No action required.	N/A	Green
Noise, Dust, and Air Quality	Complaints regarding dust had been received by SIC during the audit period. The weather had been particularly dry during this time.	Continued monitoring of dust conditions and implementation of control measures as needed; and ongoing liaison as required with other construction operators.	N/A	Green

VIKING ENERGY WIND FARM

Issue	Auditor Comments	Required Action	Action Owner	Status
Resources, Waste and Transport.	The project manages wastes through a Site Waste Management Plan, the plan identifies the contractors transferring the waste and the disposal sites. Documents are retained in line with regulatory requirements.	No action required.	N/A	Green
Pre-Planning Works (e.g. site set-up and general management, access tracks, community liaison).	Evidence of pre-planning works observed and reported during the audit included pre-construction surveys, nesting bird surveys, and micro-siting of access tracks to account for constraints. Potential constraints are identified and suitable mitigation measures implemented to prevent negative impacts.	No action required.	N/A	Green

PLANNING MONITORING OFFICER AUDIT REPORT 020: 21st May 2022 To 17th June 2022	
VIKING ENERGY WIND FARM	

APPENDIX 1
SITE LOCATION PLAN, PEAT RESTORATION PLAN AND PHOTOLOG





**Photo 1.** Toe bund between blade fingers at K44



**Photo 2.** Peat being stored in KBP02

Title:	Photographic Log	Client:	Viking Energy Wind Farm
Site:	Viking Energy Wind Farm	Date:	15 <sup>th</sup> June 2022





**Photo 3.** Drainage culvert on Sandwater road



**Photo 4.** IBCs directly on compacted stone surface

Title:	Photographic Log	Client:	Viking Energy Wind Farm
Site:	Viking Energy Wind Farm	Date:	15 <sup>th</sup> June 2022





**Photo 5.** N95 base being poured



**Photo 6.** N93 base poured

Title:	Photographic Log	Client:	Viking Energy Wind Farm
Site:	Viking Energy Wind Farm	Date:	15 <sup>th</sup> June 2022





**Photo 7.** N89 base backfilled



**Photo 8.** Bridge at Water crossing 15

Title:	Photographic Log	Client:	Viking Energy Wind Farm
Site:	Viking Energy Wind Farm	Date:	15 <sup>th</sup> June 2022





**Photo 9.** Cable trenching works between N140 and N141



**Photo 10.** N143 deep base (photo courtesy of RJ Macleod)

Title:	Photographic Log	Client:	Viking Energy Wind Farm
Site:	Viking Energy Wind Farm	Date:	15 <sup>th</sup> June 2022





**Photo 11.** Longer hose route for water being pumped from base



**Photo 12.** Burn of Grunnafirth free of sediment

Title:	Photographic Log	Client:	Viking Energy Wind Farm
Site:	Viking Energy Wind Farm	Date:	15 <sup>th</sup> June 2022





**Photo 13.** View of substation.

Title:	Photographic Log	Client:	Viking Energy Wind Farm
Site:	Viking Energy Wind Farm	Date:	15 <sup>th</sup> June 2022



Title:	Photographic Log	Client:	Viking Energy Wind Farm
Site:	Viking Energy Wind Farm	Date:	15 <sup>th</sup> June 2022