Intended for
Viking Energy Wind Farm LLP

Date
April 2023

Project Number
1620009158

VIKING ENERGY WIND FARM
PLANNING MONITORING OFFICER AUDIT REPORT 030: 20TH MARCH TO 16TH APRIL 2023

RAMBOLL

VIKING ENERGY WIND FARM
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030: 20TH MARCH TO 16TH APRIL 2023

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1. AUDIT DETAILS

1.1 Audit Details

Audit Number	PMO 030
Location	Kergord Main Construction Compound Nesting North Nesting North Compound
Weather Conditions	Overcast with showers at times (7°C). Moderate breeze
Audit Date	13th April 2023
Audit Period	20th March – 16th April 2023
Audit Owner	Ramboll UK Ltd

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
SSE Renewables Vestas Package Manager	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 24th May 2019.

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

- Construction of the Kergord Access Track[1] (consented on 29th April 2019).
- Re-alignment of Sandwater Road[2] between the Burn of Weisdale and the junction with the A970 to facilitate construction access for the Viking Wind Farm (consented on 26th May 2020).
- Formation of temporary construction compounds at two locations; Sandwater (Main)[3], consented on 22nd June 2020; and North (South of Voe)[4] consented on 9th 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 applicable environmental management procedures and there are critical actions.

[1] Shetland Islands Council Planning Reference No: 2018/096/PFF
[2] Shetland Islands Council Planning Reference No: 2019/079/PPF
[3] Shetland Islands Council Planning Reference No: 2019/188/PPF
[4] 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 Audit 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 (if any).
- 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 and SSE Renewables Environmental Advisor was undertaken on the 13th of April 2023. It is noted that the RJM Design Engineer and SIC Planning Enforcement Officer were not present during the audit; however, liaison in the lead up and following the audit was undertaken with both parties. The site visit included the observation of the following locations:
  - Kergord;
  - Sandwater Road;
  - Mid Kames Ridge;
  - Main Compound; and
  - Nesting;
- Discussions were held with the SSER Geotechnical Clerk of Works (GCoW), Environmental Clerk of Works (ECoW), Archaeological Clerk of Works (ACoW) and Vestas' Package Manager.

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
RJ McLeod	Design Engineer
Tony Gee and Partners	Geotechnical Clerk of Works
MBEC	Environmental Clerk of Works
Headland Archaeology	Archaeological Clerk of Works
SSE	Vestas Package Manager

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. The turbine numbers used in the site plan have been updated to the operational numbering. The turbine numbering system previously shown is being phased out in line with onset of turbine erections.

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 and backfilling of cable trenches. Rock extraction was continuing at borrow pits. The Vestas satellite compound at KBP05 was in use with waste storage and refuelling areas. Turbine components deliveries were ongoing, with both main lattice boom and telescopic mobile cranes present on site for turbine assembly.

3.1.2 Observations

During the visit, rock was being taken out of borrow pit KBP02 (photo 1). This is part of the reprofiling process of exposed section of oxidising rock in the northern section of the borrow pit as discussed with SEPA, to expedite capping of the borrow pit. The full reinstatement of the northern section is scheduled for April 2023 in keeping with mitigation commitments made to SEPA. Design works for further settlement ponds are being undertaken in line with longer term treatment plans agreed with SEPA. These involve treatment of the water to raise the pH and counter the hydrochemical reactions which are occurring in the lower reaches of the affected water courses.

KBP03 was undergoing preparation for a blast that was scheduled for later in the day.

Cable laying is ongoing across Kergord. Where this has been completed, cable tracks were being backfilled with peat (photo 2). Part of the works in the cable trenches included the relaying of the cable bedding material base given that some had been noted to erode during the time that the cable trenches had been open (photo 3).

Turbine components had been laid at several base areas (photos 4 and 5) and the first two tower section were also observed to have been erected at many locations, including K50 which was being lifted during the audit (photo 6). K77 turbine tower and nacelle erection had been completed and was awaiting the blades to be lifted into place (photos 7 and 8 show the lattice boom crane in position). It was observed during the audit that no spill kits were present within the working area; however, it is noted that no works were being undertaken at the time due to the wind conditions. Conversations with site personnel building the crane explained that spill kits were in the form of mobile bins that were kept centrally and brought to the crane when it was operational. It is recommended that SSE complete audits of the spill kits and refuelling procedures when these works are being undertaken.

The access track for the cross-country route was being finalised, with construction having reached an area adjacent to the three cable jointing bays to the north of the substation. The track was being extended further towards the Burn at the time of the audit (photo 9). No turf strip of excavations relating to the cable trench had been carried out at the point of the audit.

Silt fences at the Droswell Burn were observed to be full. It was explained by the Design Engineer that following the installation of the permanent drainage, not all the temporary drainage

(i.e silt fences) are required; however, they remain in-situ given that the removal is not currently a high priority. The temporary drainage is programmed to be removed in the upcoming months, following completion of the cabling works. In the case of the silt fences adjacent to the Droswell Burn, the silt fences remain in operation and the Design Engineer should continue their maintenance on these fences when required.

The ECoW had mentioned a silty water event at the Weisdale Burn following a period of heavy rain in the week prior to the audit. It seems that drainage is flowing from the access track into low points (including a cattle grid) that had filled up and impacted the drainage route (photo 14). SSE engineers are currently reviewing the design of the road and the drainage in order to prevent silty water incidences in periods of high rainfall. Following the audit, it was confirmed that the Design Engineers have pumped out the water from the cattle grid.

3.2 Mid Kame Ridge and Sandwater Track

3.2.1 Site Setting and Activities

The Mid Kame Ridge (MKR) is accessed from the Sandwater track and stretches northwards to Hamarigrind Scord. MKR was not visited during the audit.

Activities in this area include creating an access track in preparation of the cross-country cable route from Pettawater bridge to the A970, erecting sections 1 and 2 of the turbine tower along MKR, and the excavation of the cross-country cable trench from K88 to the substation.

3.2.2 Observations

The cross-country cable trench was being excavated. The turf stripping had been completed for the majority of the route, and the excavation of the peat was being undertaken at the point of the audit (photos 10 and 11).

The bottom and mid sections of the turbine tower had been erected at several locations at the point of the audit and works were continuing along the ridge from south to north. The turbine components had been delivered along Mid Kames Ridge (photo 12).

A floating access track was being constructed from Pettawater bridge to the A970 in preparation for the excavation of the cross-country cable route (photo 13). Drainage between Mid Kames Ridge and Pettawater had already been upgraded in preparation for the works, including new culverts, an extension to the drainage ponds, surface water pumps and preferential rock drainage pathways.

3.3 North Compound

3.3.1 Site Setting and Activities

The North Compound is located towards the northern limit of the site on the eastern side of the A970. RJ Macleod has demobilised the concrete batching plant, reinstated the drainage management and concrete washout pits and has handed over the North Compound to Vestas for use as a satellite compound.

3.3.2 Observations

The north compound was not visited during this PMO audit.

3.4 North Nesting

3.4.1 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.

Activities in this area during the audit included progression and backfilling of the cable trenches, delivery of turbine components and turbine erection.

3.4.2 Observations

North Nesting was not observed during this PMO audit.

3.5 Main Compound

3.5.1 Site Setting and Activities

The Main Compound is located at the southern extent of the 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.

3.5.2 Observations

Vestas have set up site offices and welfare facilities across the car park, opposite the original offices and welfare facilities.

The car parking, original site offices and welfare facilities are functioning well. All materials (including materials on the upper level) were stored according to regulations. No evidence of leaks or staining was observed in the vicinity of the store. All waste skips were labelled.

3.6 Nesting

3.6.1 Site Setting and Activities

The Nesting arrays are accessed from the A970.

Activities in this area during the audit included progression of cable trench backfilling, cabling, rock extraction and reprofiling work at borrow pit NBP05.

3.6.2 Observations

Borrow pit restoration plans have been issued in draft to SSE for NBP01. Review is ongoing, and further geotechnical profiles and analysis are expected from the Principal Contractor's consultants for additional review.

Material had been backfilled along a number of the cable trenches. Some of the trenches had evidence of erosion of the cable bedding material following the wet weather over the winter period, and this was re-laid prior to laying of the cables.

The ECoW had noted a silty water event in the area of N112 following the reprofiling of the area surrounding the blade fingers. During the time of the audit, a localised peat slump was observed between the blade fingers, and the silt fences at the base of the reprofiled areas had failed due to the movement (photo 15). At the time of the audit, a machine was working on the reprofiling and stabilising works. This area should continue to be monitored by the Clerks of Work and SSE and will be monitored again during the next PMO audit.

3.7 Substation

3.7.1 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 the interior of buildings, watercourse diversion, cabling, backfilling of cable arrays, the reprofiling of the areas north and south of the northern water course and the ongoing offsite removal of excess construction materials and materials.

3.7.2 Observations

External building works in the substation area have primarily been finalised and the majority of the works now include the setting up and testing of the internal equipment.

The area to the north of the substation has been reprofiled following the diverting of the watercourse and laying of the cable ducts (photo 16). The reinstatement of the Northern Watercourse is the responsibility of the HVDC project. Following the construction of the cable ducts by the Principal Contractor, the construction liabilities have been handed back to the HVDC project. The excavation and formation of three jointing bays will be done following the laying of the cables from K88 to the substation, and it has been agreed to delay seeding of this area until those works are completed.

3.8 Off site activity/ turbine component delivery convoys

No blade or turbine component delivery was observed during this PMO audit. The SIC Planning Enforcement Officer noted in communications following the audit that there has been no correspondence from the public regarding the abnormal load convoys, indicating that the management plan and communications protocols are working effectively.

3.9 Communication with SSER Clerks of Work

3.9.1 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 9th of March 2023.

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

No specific areas of concern were highlighted by the GCoW during the audit period.

3.9.2 ECoW

Condition 19 of the planning consent requires the appointment of an Ecological Clerk of Works (ECoW) 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 13th March 2023.

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 is having ongoing communication with the Principal Contractor including details of open cable trenches and maintenance of silt fences. Discussions with the contractor are with a view to minimising the risks associated with heavy rainfall and washing out cable dust in particular; however, this is becoming less of an issue now that the cable trenches are being backfilled. Discussions about dust mitigation with the Design Engineer and Vestas has begun now that the weather is improving on Shetland.

Bird surveys have commenced as species begin to set up their breeding territories. This information is being communicated to the project team.

The ECoW noted silty water incidents in the area of N112 and the Weisdale Burn, as reported in sections 3.6.2 and 3.2.2, respectively. The ECoW also noted that a toolbox talk had been given to SSE Networks for the works in the area of the substation, near the Burn of Weisdale. The works are is within groundwater dependent habitats and the toolbox talk reminded the contractors of the importance of ecological and drainage mitigation in the area near the Burn.

3.9.3 ACoW

Condition 29 of the planning consent requires the appointment of an Archaeological Clerk of Works (ACoW) to ensure archaeological features are protected and recorded during the development. The ACoW communicated the ongoing works to the PMO on the 8th March 2023.

The ACoW described the ongoing and completed monitoring works across the site. Monitoring was being undertaken on the cross country cable route at the time of the audit.

3.10 Communication with Vestas' Package Manager

A teams call was held with the SSE Package Manager for the Vestas works on the 19th of April. As of the 18th of April 34 turbines have the base and mid sections of the tower installed and three turbines had been fully installed (including blades).

There are two fitter teams – Flexwind and Fairwind working on site. Flexwind are working in North Nesting and fairwind are working in Kergord. The Fairwind fitters are operating a double shift (dayshift and nightshift).

At present there are two pre-assembly cranes on site (these carry out the lifting for the base and mid sections of the turbine mast) and four main cranes (these are capable of installing the top sections of the tower, the nacelle, the drive train and the blades).

The hardstanding areas prepared by RJ Mcleod are being signed off and handed over to Vestas approximately one week prior to the lifting operations begin, which is working well at present.

A starling nest had been identified on a flat bed trailer in the north compound. The ECoW assessed the nest and put in place mitigation and cordoned off the area. The nest has since failed, and the mitigation has been removed. This incident has aided in the development of the procedure about mitigation for nesting and breeding birds for plant and turbine components, for example the use of netting and plastic wrap around the components whilst they are waiting to be lifted into position.

A spill incident occurred at N101 on the 22nd of March, where 25 l of fuel was noted to be lost. The spill was from a third party refuelling truck (not part of Vestas / sub-contractor fleet), and occurred whilst refuelling. The spill procedures were followed and successfully mitigated the spread of the spill. No fuel reached watercourses and the spill area has since been cleaned up. The vehicle has since been repaired and an investigation report from the third party will be made available in due course. The investigation report should be reported before the next PMO audit and further information will be reviewed at that point.

3.11 Communication with SIC

The PMO asked SIC if there had been any observations or complaints from members of the public regarding activities on site or as a result of the turbine component deliveries. SIC confirmed it had received no observations or complaints.

3.12 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, site wide reinstatement works and cable trench backfilling, and the cross-country cable route construction.
- Update on the N112 reinstatement works.
- Update on the N101 spill incident.
- Update on Vestas satellite compounds, delivery schedule and turbine erection.
- Update on borrow pit detailed reinstatement and restoration plans.
- 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 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.	No action required	Principal Contractor	Green
Natural and Built Environment (e.g. ecology, biosecurity, protected sites, archaeology and site restoration).	Ecological constraints identified 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 ACoW where potential archaeological constraints are identified. Where there are known archaeological features the track is micro-sited to avoid the feature.	No action required.	N/A	Green

Issue	Auditor Comments	Required Action	Action Owner	Status
Pollution Prevention and Response (e.g. use of spill kits, silt control, cement/concrete, water resources).	The project has received 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. The project continues to improve the pollution prevention measures with additional measures installed in high risk areas (e.g. downsteam of KBP02). 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).	Silty water has been observed being discharged for a short time into watercourses during period of heavy rainfall. This was not a long and uncontrolled continuous discharge. The levels of sediment in the water have not exceeded the permitted levels. Further mitigation has been put in place in the areas of concern.	No action required. Field testing for suspended solids determines whether further action and/or external reporting is required.	N/A	Green
Pollution Prevention and Response (e.g. use of spill kits, silt control, cement/concrete, water resources).	The SSE Renewables Environmental Manager notified the PMO that there have been some exceedances of Environmental Quality Standards of some trace metals in water quality sampling in the Burn of Lunklet.	Short-term mitigation measures are in the process of being implemented as per the SEPA accepted mitigation plan with long-term mitigation strategy progressing.	VEWF	Green
Pollution Prevention and Waste (e.g. use of spill kits and littering)	During the audit the PMO observed spill kits to be well stocked and readily available in areas where liquids are stored.	No action required	Principal Contractor SSE	Amber

Issue	Auditor Comments	Required Action	Action Owner	Status
	SSE to carry out their own audits on spill kits and refuelling processes when Vestas contractors are conducting the lifts.	Review of Vestas' contractors procedures during lifting operations		
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 archaeological watching brief, community liaison. Potential constraints are identified and suitable mitigation measures implemented to prevent negative impacts.	No action required.	N/A	Green

APPENDIX 1
SITE LOCATION PLAN, PEAT RESTORATION PLAN AND PHOTOLOG

FOR ARRAYS DETAIL PLEASE REFER TO DRAWING NUMBER SPECIFIED ON MAIN PLAN VIEW

- ARRAY A - REFER TO SWECO DRAWING 65201850-100-A-110
- ARRAY B - REFER TO SWECO DRAWING 65201850-100-B-110
- ARRAY C - REFER TO SWECO DRAWING 65201850-100-C-110
- ARRAY D - REFER TO SWECO DRAWING 65201850-100-D-110
- ARRAY E - REFER TO SWECO DRAWING 65201850-100-E-110
- ARRAY F - REFER TO SWECO DRAWING 65201850-100-F-110
- ARRAY G - REFER TO SWECO DRAWING 65201850-100-G-110
- ARRAY H - REFER TO SWECO DRAWING 65201850-100-H-110
- ARRAY I - REFER TO SWECO DRAWING 65201850-100-I-110
- ARRAY J - REFER TO SWECO DRAWING 65201850-100-J-110
- ARRAY K - REFER TO SWECO DRAWING 65201850-100-K-110
- ARRAY L - REFER TO SWECO DRAWING 65201850-100-L-110
- ARRAY M - REFER TO SWECO DRAWING 65201850-100-M-110
- ARRAY N - REFER TO SWECO DRAWING 65201850-100-N-110
- ARRAY O - REFER TO SWECO DRAWING 65201850-100-O-110
- ARRAY P - REFER TO SWECO DRAWING 65201850-100-P-110

NOTES

1. CONTAINS ORDNANCE SURVEY DATA RECEIVED FROM SSE ON 27.08.2020.
2. ALL DIMENSIONS IN MILLIMETRES AND ALL LEVELS IN METRES AOD UNLESS SHOWN OTHERWISE.
3. TURBINE LOCATIONS BASED ON: "VIKING MICROSITING TRACKER" DATED 24.07.2020.
4. ACCESS TRACKS AND HARDSTANDINGS BASED ON SSE LAYOUT: "S115056-TG-XX-XX-M3-C-1000_ALL_SPURS _HARDSTANDS-P01". ARRAY LAYOUTS SUBJECT TO VALUE ENGINEERING DESIGN BY RJM.
5. FOR CULVERT CATCHMENT ASSESSMENT REFER TO SWECO DRAWING 65201850-100-101.

LEGEND

- SITE PLANNING BOUNDARY
- PROPOSED NEW TRACK
- PROPOSED CONSTRUCTION COMPOUND
- PROPOSED COMPOUND
- PROPOSED BATCHING PLANT
- BORROW PIT SEARCH AREA
- PROPOSED WTG LOCATION
- AREA 1 - WEST (KERGORD)
- AREA 2 - RIDGE (KERGORD CENTRAL)
- AREA 3 - EAST (NESTING SOUTH)
- AREA 4 - NORTH (NESTING NORTH)
- PROPOSED WATERCOURSE CROSSING
- 50m MICROSITING
- SANDWATER ROAD
- CROSS COUNTRY CABLE ROUTES
- (A) ARRAY GROUPS

Rev.	Date	Amendment Details	Drawn	Chk'd	App'd
05	16.01.23	FOR CONSTRUCTION SSE REV07	AF	RE	RY
04	27.01.22	FOR CONSTRUCTION SSE REV06	BH	RP	CM
03	07.07.21	FOR CONSTRUCTION SSE REV05	BH	RP	KS
02	08.06.21	FOR CONSTRUCTION SSE REV04	BH	RP	KS
01	23.02.21	FOR CONSTRUCTION SSE REV03	BH	RP	KS

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SWECO

Client: SSE Renewables; RJ McLEOD; viking energy — Harnessing Shetland's natural resources

Drawing Status: FOR CONSTRUCTION

Project Title: VIKING WIND FARM

Drawing Title: SITE GENERAL ARRANGEMENT

Scale	Designed	Drawn	Checked	Approved
1:25000	RV	RV	RP	KS
Original Size: A1	Date: 11.09.20	Date: 11.09.20	Date: 17.09.20	Date: 17.09.20

Drawing Number: 65201850-100-100 — Revision: 05

SSE Drawing Number: 177-0802-1001-000 — SSE Revision: 07

SCALE 1 : 25000

1000m 0 1000m

ACCEPTANCE OF DRAWING

CODE 1 ACCEPTED		CODE 2 ACCEPTED WITH COMMENTS		CODE 3 REJECTED		CODE 4 INFORMATION ONLY	

IMPORTANT

HEALTH, SAFETY & ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARDS AND RISKS NORMALLY ASSOCIATED WITH THE TYPE OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING ADDITIONAL RISKS TO HEALTH AND SAFETY:-

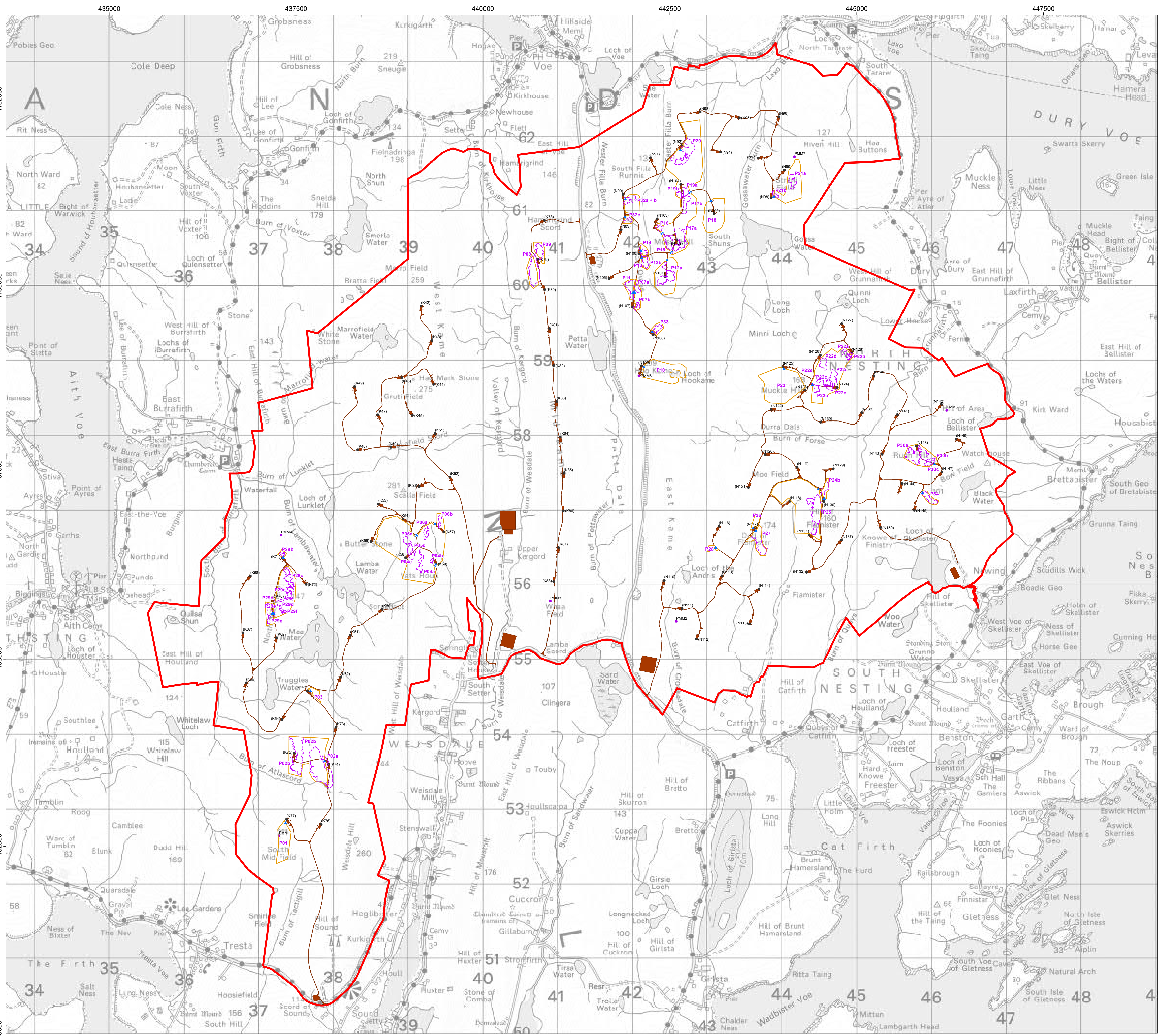
DESIGNER'S RISK ASSESSMENT REFERENCE GIVING FULL DETAILS:-

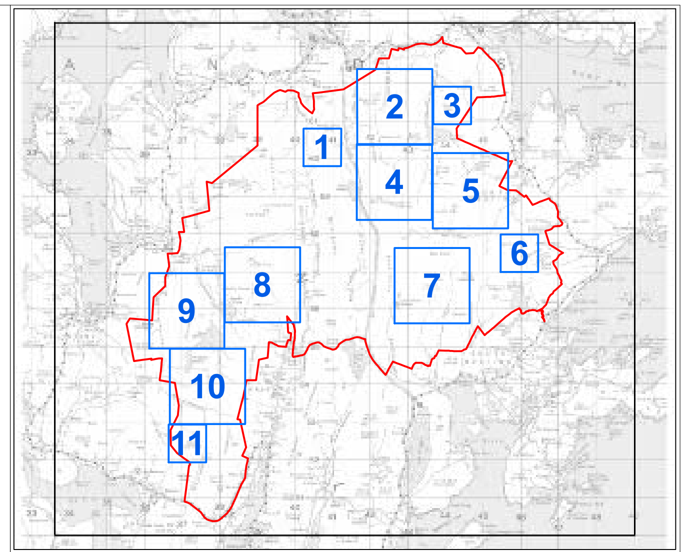
IP09-F01 DESIGN RISK ASSESSMENT

CONSTRUCTION PHASE:-
1. UNKNOWN SERVICES
2. WORKS TO BE COORDINATED WITH CABLE DESIGN
3. POTENTIAL FOR PUBLIC ACCESS
4. RISK OF GENERATING CONTAMINATED/SILT LADEN RUNOFF TO SENSITIVE ENVIRONMENTAL AREAS. CONTRACTOR TO PROPOSE ADDITIONAL TEMPORARY CONSTRUCTION STAGE DRAINAGE.
5. RISK OF PEAT SLIP ACROSS THE SITE
6. FORESEEABLE RISK OF DROWNING. SELECT PERSONAL BUOYANCY EQUIPMENT.

IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT.

\\...\04 Deliverables Management\Drawings\Working\1_General_Infrastructure\ (working) 65201850-100-100_Site_General_Arrangement.dwg





Legend

- Site Boundary
- Turbine
- Permanent Met Mast
- Indicative Cattle Grid Location
- Indicative Gate Location
- Fencing
- HMP Phase 1 - Areas of Peat Deposition and Profiling
- Microsited Site Layout

Note 1: Phase 1 areas beyond the fence line are to allow cable laying and access.

Note 2: Areas within the fence line not noted as HMP Phase 1 will be subject to Phase 2 Technique considerations.

0 1 2 km

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Project Name

VIKING ENERGY WIND FARM

Drawing Title

PEAT RESTORATION

Rev	Date	Remarks	Drwn	Chkd
R0	23/02/2021	First Issue	TD	EM
R1	12/01/2022	Revised HMP	AM	DM
R2	04/02/2022	Fencing boundary changes, gates and cattle grids added	AM	DM

Drawing Number

LN000046-VIK-ENV-SK-0040-01

Scale	Plot Size	Datum	Projection
1:18,000	A0	OSGB36	BNG

File ref: E:\PORTFOLIO\01_Onshore_Wind\01_Development\Viking\Drawings\02_Environmental\Sketches\0040_PeatRestorationAreas\LN000046-VIK-ENV-SK-0040-01-PeatRestorAreas-R02-A0.mxd

Photo 1. View of KBP02

Photo 2. Backfill of cable tracks from KBP02 to K51

Title: Photographic Log	**Client:** Viking Energy Wind Farm
Site: Viking Energy Wind Farm	**Date:** 13th April 2023

Photo 3. Erosion of cable bedding material

Photo 4. Laydown of turbine components at K63

Title: Photographic Log	**Client:** Viking Energy Wind Farm
Site: Viking Energy Wind Farm	**Date:** 13th April 2023

Photo 5. Laydown of turbine components at K52

Photo 6. Turbine erection at K50

Title: Photographic Log	**Client:** Viking Energy Wind Farm
Site: Viking Energy Wind Farm	**Date:** 13th April 2023

Photo 7. K77 lifting preparation

Photo 8. K77 lifting preparation

Title: Photographic Log	**Client:** Viking Energy Wind Farm
Site: Viking Energy Wind Farm	**Date:** 13th April 2023

Photo 9. Construction of cross-country cable access track

Photo 10. Turf stripping at cross-country cable route

Title: Photographic Log	**Client:** Viking Energy Wind Farm
Site: Viking Energy Wind Farm	**Date:** 13th April 2023

Photo 11. Cable trench excavation at cross-country cable route

Photo 12. Towers being erected on Mid Kames Ridge

Title: Photographic Log	**Client:** Viking Energy Wind Farm
Site: Viking Energy Wind Farm	**Date:** 13th April 2023

Photo 13. Pettawater Bridge to A970 access track

Photo 14. Drainage defects near the Weisdale Burn

Title: Photographic Log	**Client:** Viking Energy Wind Farm
Site: Viking Energy Wind Farm	**Date:** 13th April 2023

Photo 15. N112 reinstatement

Photo 16. Reprofiling to the north of the substation

Title: Photographic Log	**Client:** Viking Energy Wind Farm
Site: Viking Energy Wind Farm	**Date:** 13th April 2023

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Site:	Viking Energy Wind Farm	**Date:**	13th April 2023