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CABLE PLAN

KINCARDINE OFFSHORE WINDFARM PROJECT

Prepared	Checked	Reviewed	Approved	ECoW Approved
Mar 23, 2020				
Organisation:	Organisation:	Organisation:	Organisation:	Organisation:
KOWL	KOWL	KOWL	KOWL	KOWL
Name / Signature:				
Alan West	Charlie Whyte	John Giles	Alan West	Catrin Fowden



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Revision History

Date	Rev. Status	Purpose of Issue*	Remarks	Initials
21-03-2018	A1	For Review		JD
23-03-2018	B1	External Review	Issued for External Review	JD
01-05-2018	C1	For Information		AHP
17-04-2019	C2	For Information	Issued for External Review	JG
09-10-2019	C3	For Information	Re-Issued for External Review	JD
15-01-2020	C4	For Information	Re-Issued Southern Cable Information Included	JG
27-03-2020	C5	For Information	Various updates	JG

*Purpose of Issue: for information, for review, for approval



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Detailed Change Log

Date	Rev. Status	References	Description of changes	Initials
23-03-2018	A1	CRS	See CRS for comments	JD
01-05-2018	C1	-	Minor changes to text and Logo	AHP
16-04-2019	C2	-	Major text and formatting changes throughout.	JG
09-10-2019	C3	Appendix A	Updated Field Layout	JD
15-01-2020	C4	Appendix B	2018 Southern Cable installation information including remedial rock dumping works	JG
27-03-2020	C5	2.9, Appendix B	Southern Cable route with rock dump illustration, C4 information removed. Section 2.9 added – reporting following lay.	JG



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ACRONYMS, ABBREVIATIONS AND DEFINITIONS

AC	Alternating Current		
ALARP	As Low As Reasonably Practical		
СаР	Cable Plan		
DDSFB	Dee District Salmon Fisheries Board		
EMF	Electromagnetic Field		
ES	Environmental Statement		
HDD	Horizontally Directional Drill		
KOWL	Kincardine Offshore Wind Farm Limited		
m	Metre		
MCA	Maritime and Coastguard Agency		
MS-LOT	Marine Scotland Licensing Operations Team		
MW	Mega Watt		
NLB	Northern Lighthouse Board		
nm	Nautical Mile		
OREI	Offshore Renewable Energy Installation		
S	Second		
SFF	Scottish Fisherman's Federation		
ИКНО	United Kingdom Hydrographic Centre		
UXO	Unexploded Ordnance		
WROV	"Work Class" Remotely Operated Vehicle		

1. INTRODUCTION

1.1. Purpose of the Document

This document has been authored to satisfy Condition 17 of the Section 36 Consent issued to Kincardine Offshore Windfarm Ltd (KOWL) for the Kincardine Offshore Windfarm (the Project). This document provides the current Cable Plan (CaP) proposed for the Project, (see Section 1.5 for the wording of the condition).

1.2. Scope of the Document

Since the last issue of this document, the southern export cable has been laid, (See information in Appendix B) and is now operational. Both the land fall HDD's have been completed, and both the onshore cables have been laid and buried. The substation and the link to the grid are now operational. This document outlines the location of the second or northern of the two KOWL export cables and the inter-array cables. The document shall also consider the cable laying, and monitoring techniques to be used during installation.

1.3. Project Overview

The Project has been included within the Survey, Deploy and Monitoring scheme for offshore renewable systems (similar to wave and tidal devices).

The Project is located south-east of Aberdeen approximately 8nm (15km) from the Scottish coastline, in a location that provides suitable water depth for a floating offshore wind demonstrator development (approximately 60-80m) (See Appendix A).

The onshore work is complete, as with the HDD and cable lay for the southern export cable and is in production. This CaP focuses on the offshore elements only as per Section 36 Consent and Marine Licences granted.

Since consent was granted, there have been several changes to the Project, and an application for a variation of the Section 36 consent was granted by the Scottish Ministers under S36C of the Electricity Act 1989 was applied for in December 2017 (the 'Variation Application'). The table below outlines the application dates, relevant ES Documents and the components of the Project as were included in the Original Application and the Variation Application.



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Table 1-1 Summary of document timelines

Original Documents	Addendums	Variation	Variation		
Date Submitted:	Date Submitted:	Date Submitted:	Date Submitted:		
March 2016	September 2016	November 2017	April 2018		
Original Application Original Application		S36C Variation Application	S36C Variation Application		
Kincardine Offshore Windfarm ES (Original ES)	ES Additional Information Addendum (ES Addendum)	Section 36C Variation ES (Variation ES)	Section 36C Variation ES (Variation ES)		
Maximum generation capacity: 50MW	Maximum generation capacity: 50MW	Maximum generation capacity: 50MW	Maximum generation capacity: 50MW		
WTGs: 8 x 6MW	WTGs: 8 x 6MW	WTGs: 1 x 2MW and 6 x 8.4MW	Individual turbine capacity removed.		
Substructures: semi-	Substructures: semi-	Substructures:	Substructures:		
submersible	spar	combination of semi- submersible and semi- spar	Semi-submersible.		
Cables: 33kv inter- array and export cables	Cables: 33kv inter- array and exportcables	Cables: 33kv inter- array and exportcables	Cables: 33kv inter-array and export cables		

1.4. Project Components

As noted in the table above, the maximum generation capacity of the windfarm is capped at 50MW, the main difference between the various stages of the applications have been the number and size of the turbines, and the substructure type.

As applied for in the Varied Application, the remaining offshore schedule for the project will now consist of the following offshore components:

- WTGs: 1 x 2MW and 5 x 9.5MW.
- Substructures: semi-submersible Windfloat™ design.
- 33kv inter-array and two export cables.
- Onshore substation.
- Horizontal Directional Drilling landfall (x2) and onshore cable route.

The first WTG and associated substructure, anchors and mooring lines with a generating capacity of 2MW ('Turbine 1') was installed in Qtr 3 2018. The Third Party Certification for the initial period sought for Turbine 1, is limited to three years, due to the engineering life of the substructure (ten years from initial substructure construction in 2011).

At the expiry of the WTG platform substructure certification, Turbine 1 will only be re-deployed if (i) the platform structure is re-certified following inspection and (ii) if MS-LOT (in consultation with SNH,

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Historic Environment Scotland, Aberdeen City Council and Aberdeenshire Council) is satisfied that the re-deployment at the proposed location within the Site would not give rise to new or materially different effects to those identified in the seascape and visual assessment of the Variation ES.

If Turbine 1 is not re-deployed within 6 months, it will be decommissioned (in line with condition 5 of the S36 consent on redundant turbines).

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1.5. Construction Programme Overview

The remaining construction activities will follow a series of scopes including:

- Installation of the northern export cable
- Removal of the current KIN-01 floating 2 MW WTG and moorings (Layout 1 only)
- Installation of the 6 sets of moorings for KIN-01 to KIN-06 (Layout 1, otherwise 5 sets)
- Installation of the inter array cables
- Installation of the Floating WTG's to the moorings and cables
- Commissioning of the wind farm

A field layout drawing of the work described above can be found in Appendix A, and is the document KOWL-DR-0001-015

1.6. Approach to Amending and Updating this Cable Plan

Where the need for an update or amendment is identified following approval from Marine Scotland Licensing Operations Team (MS-LOT) of the CaP, either through a consultation response, or due to practicalities arising as the project progresses, KOWL will communicate the suggested update/amendment to MS-LOT prior to editing the approved document. If the suggested change is accepted by MS-LOT, the CaP will be redrafted, and submitted for re-approval.

1.7. Consent Conditions

The following consent condition is taken from the S36 Consent which forms the requirements for this CaP.

Licence	Condition Number	Name	Details	Where Addressed in this Document
S36	17	Cable Plan	The Company must, no later than 6 months prior to the Commencement of the Development or at such a time as agreed with the Scottish Ministers, submit a Cable Plan ("CaP"), in writing, to the Scottish Ministers for their written approval. Such approval may only be granted following consultation by the Scottish Ministers with SNH, SEPA, MCA, SFF, Esk DSFB, and any such other advisors or organisations as may be required at the discretion of the Scottish Ministers. The CaP must be in accordance with the ES and ES Addendum.	a. The planned cable route for the export cables and inter-array cables is shown in Appendix A. The cable laying

Table 1-2 Licence conditions relevant to the CaP

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The CaP must include, but not be limited to, the following;	techniques are described in Section 2.4 and 2.5.
a) The location and cable laying techniques for the inter-array cables;	 Details of the cables are provided in Sections 2.4 and 2.5.
b) Technical specification of inter array cables, including a desk- based assessment of attenuation of electro-magnetic field strengths and shielding;	c. Details are provided in Section 2.6
c) A burial risk assessment to ascertain burial depths and, where necessary, alternative protection measures;	d. Detailed are provided in Section 2.7
d) Methodologies for surveys (e.g. over trawl) of the inter array cables through the operational life of the wind farm where mechanical protection of cables laid on the sea bed is deployed;	e. Details are provided in Section 2.8
e) Methodologies for inter array cable inspection with measures to address and report to the Scottish Ministers any exposure of inter	f. Details are provided in Section 2.4.
 array cables; and f) Demonstration of avoidance of sensitive periods for relevant bird species during the cable laying works within the intertidal zone. 	Details of the planned post installation surveys are provided in Section 2.7
Any consented cable protection works must ensure existing and future safe navigation is not compromised. Scottish Ministers will accept a maximum of 5% reduction in surrounding depth referenced to Chart Datum.	
	 The CaP must include, but not be limited to, the following; a) The location and cable laying techniques for the inter-array cables; b) Technical specification of inter array cables, including a desk-based assessment of attenuation of electro-magnetic field strengths and shielding; c) A burial risk assessment to ascertain burial depths and, where necessary, alternative protection measures; d) Methodologies for surveys (e.g. over trawl) of the inter array cables through the operational life of the wind farm where mechanical protection of cables laid on the sea bed is deployed; e) Methodologies for inter array cables inspection with measures to address and report to the Scottish Ministers any exposure of inter array cables; and f) Demonstration of avoidance of sensitive periods for relevant bird species during the cable laying works within the intertidal zone. Any consented cable protection works must ensure existing and future safe navigation is not compromised. Scottish Ministers will accept a maximum of 5% reduction in surrounding depth referenced to Chart Datum.

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1.8. Links to Other Consent Plans

The following consent condition is taken from the Marine Licence with which this CaP has linkages to.

|--|

Licence	Condition Number	Name	Details
Marine Licence	3.2.3.3.	Navigational Safety	The Licensee must ensure that navigable depth is not altered by more than 5% referenced to Chart Datum unless otherwise agreed, in writing, with the Licensing Authority in consultation with the MCAand NLB.





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2. CABLE PLAN DETAILS

2.1. Cable Routing

The routing of the export and inter-array cables have been determined following a range of offshore surveys which have been conducted to ascertain the following aspects:

- Seabed bathymetry.
- Shallow soils composition and makeup.
- Wrecks and debris on the seabed.
- Magnetic anomalies and other hazards.
- Potential Unexploded Ordnance (UXO).
- Trenching assessment.

The routes of the as laid southern cable and the proposed route for the northern export cables are shown in Appendix A drawing number KOWL-DR-0001-015, are within the Offshore Export Cable Corridor defined in the consented boundary also shown in the drawing.

The route for the inter-array cables has been defined around the mooring layouts within the Development Area. There was no indication of potential inter-array routes defined in the Original ES or subsequent ES Addendum and Variation ES.

The results of the geophysical surveys undertaken are also shown in Appendix A, and shows the seabed composition which primarily informed the cable routing. The confirmed locations of identified wreck sites from the geophysical survey undertaken are also shown.

2.2. Hazards and UXO

A UXO survey of the southern cable route was undertaken in 2018, and a second survey will be carried out prior to the installation works. The survey shall include the moorings, inter-array cables and the northern export cable route

2.3. Cable Description

The cable for the export cables and inter-array cables is alternating current (AC) and has a crosssection as illustrated below. The cable is a 33kv rated voltage with a 500mm² core area. The outside diameter is nominally maximum 170mm and it has a weight of 57kg/m in air with an estimated weight in seawater of 35kg/m. This is compliant with the type of cable assessed in the Original ES, ES Addendum and Variation ES where applicable.

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Description	Details
Conductor	Stranded, round and compacted copper, longitudinally water blocked
Conductor screen	Extruded bonded semi conductive compound
Insulation	EPR
Insulation screen	Extruded bonded semi conductive compound
Screen bedding	Semi conductive screen bedding
Metal screen	Individual Copper Braid screen on each phase
Sheath bedding	Sheath bedding tapes
Power core sheath	Polyethylene sheath
Fillers	Extruded shaped fillers
Binder tape	Synthetic tape for bounding the assembled cores.
1 st Armour bedding	Polypropylene Yarns bedding
0 1st Armouring	One layer of galvanized steel wires, filled with Bitumen.
2 nd Armour bedding	Polyester tape + Polypropylene Yarns bedding
2 nd Armouring	One layer of galvanized steel wires, filled with Bitumen.
Serving	Polyester tape + Polypropylene Yarns + Polyethylene sheath
OF cable	1 x Optical Fiber Cable with 20SM+4MM fibers, 4SM + 2MM as contingency

Figure 2-1 Cross section of the 33kv export and inter-array cables

Due to operating as AC the electromagnetic field (EMF) will be significantly less than for a DC cable, due to the field largely being cancelled out. The cable to be used is double-armoured whereas it was assumed in the ES that it would only be single armoured. The conductivity of the double armouring arrangement affects the EMF resulting in reduced field strength.

The impact of the EMF field is under assessment, based on the target depth of burial (see Section 2.6) and soils anticipated to be expected along the route and maximum operational load through each cable. Further details will be provided when available.

The cable routes are shown in Appendix A. The lengths are provided in the Table 2-1 below.

Table	2-1	l enath	of Export	Cable	1	and 2
rabie	<u> </u>	Lengui		Cable	1	anu z

Export Cable Number	Length (m)
Export Cable 1	17,100
Export Cable 2	18,500

The inter-array cables layout are provided in drawing number KOWL-DR-0001-015, Appendix A. There are a total of five inter-array cables, four of which are approximately 1.2km in length and a single cable of approximately 3km in length. It should be noted that the cables will be in a buoyant wave configuration prior to entering the turbine and hence the plan distance of the cable route will be slightly less. The exact length of each cable will be confirmed once the final seabed routing has been completed.

2.4. Cable Laying – Export Cables

The export cable installation will be performed using a dedicated cable installation vessel, which will setup offshore to feed out the cable as it is pulled up the HDD to the onshore location. The cable will then be laid completely, prior to commencing trenching operations.

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Installation and trenching of the Northern Export Cable avoids sensitive periods for smolts (April and May). It is also noted that in the condition it is required that sensitive periods for relevant bird species should be avoided in the inter-tidal zone. As there is no inter-tidal zone work that will be affected by the Project, it is not considered necessary to avoid any periods for bird species. It is noted that the timings presented below for installation are longer than that assessed in the Original ES (five days), however, the methodology for installation has not changed and therefore there is no change to the predicted significance of impact from this activity.

The export Cable is planned to be installed during Qtr 2 2020.

2.5. Cable Laying – Inter-Array Cables

The inter-array cables will be arranged as illustrated the Site Layout Plan shown in Appendix A, routing around the mooring lines. The cable will be installed between each turbine and consist of buoyancy modules in the area close to the turbine in order to generate a "lazy wave" profile. This profile will be within the mooring pattern of the turbine.

As installation of the inter-array cables is scheduled for 2020, details of the methodology are not known at this time, and this will be updated in a future iteration of this document.

2.6. Cable Burial

Based on the geotechnical investigations performed trenching of the export cables may prove difficult along certain section, in particular around 5km and 9km from the shore. However, different equipment will be used for the Northern Cable and greater success is expected for achieving the burial depth of 1.5m along the complete length. Currently it is not anticipated that there will be as much, if any, rock placement along the cable.

The burial operations will be conducted using a combination of jet, ploughing and cutting configurations due to the variability of the soils along the route. Typical equipment for trenching activities given below:



Figure 2-2 Canyon Offshore i-Trencher / T1200 Jet Trencher (courtesy Canyon Offshore)

The target depth of burial of the cable will be 1.5m. Due to local seabed conditions this burial depth may, in some areas, not be achieved; henceforth why it is termed a "target" burial depth. If the minimum depth of burial of the cable is not achieved consideration will be given to protection in the form of rock dumping or concrete mattresses in the localised areas. A risk assessment for the cable will be carried out prior to the remedial work (rock dumping or concrete mattresses) is undertaken and following discussion with MS LOT.

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The inter-array cables are not planned to be trenched, unless required for physical stabilisation on the seabed. The exception to this may be the cables which have significant length outside of the anchor pattern between turbines.

2.7. Post Lay Survey

The position and depth of the export cables will be measured following all trenching operations (or during trenching operations). The survey normally consists of a 'Work Class' Remotely Operated Vehicle (WROV) with a pipe tracker system (typically TSS-440) which records the depth of the cable. In addition, the profile of the seabed either side of the trench (including the trench and any material to the side) will be recorded using profiling sonars.

2.8. Operational Inspections

The operational inspection of an export cable is difficult to perform due to the cable being buried and hence remote monitoring of the cable. The fibre optic core allows historical monitoring of the cable temperature and strain. Any changes can indicate effects such as increased or reduced burial depth and identify the position on the cable

Where additional protection is applied to the cable the monitoring of the stability of any such rock dump can be performed by visual inspection by WROV and comparison with the previous survey data, to establish the stability and hence continuity of cover over the cable.

For the inter-array cables, they are mostly unburied and near to the turbine held in a lazy-wave profile. These sections will undergo a visual monitoring for damage and any change of position using well established WROV techniques.

Further information on the surveys to be undertaken during the operational phase will be provided in the Operation and Maintenance Programme.

2.9. Reporting

Following the installation of the cable a report will be sent to MS-LOT, CES, SNH. NLB, Kingfisher and the UK Hydrographic office all in accordance with the consent. This report will provide the route in Latitude and Longitude and UTMs all in WGS 84. This will be provided in electronic chart form and an excel file with the position listings with associated depth.

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3. COMPLIANCE WITH THE ASSOCIATED ENVIRONMENTAL STATEMENTS

The final design and installation of the export and inter-array cables for the Project requires compliance with the parameters defined the Original ES and ES Addendum and Variation ES where applicable as stated in the wording of the condition in Section 1.5.

This Section sets out information from the Original ES regarding compliance with the export and interarray cables.

3.1. Compliance with the Original ES, ES Addendum and Variation ES

The Original ES set out the specifications and parameters which are to be applied during in the installation of the export cables and inter-array cables, this took the form of a 'Rochdale Envelope'. In order to demonstrate compliance with the Original ES, the cable parameters considered are compared with the cable parameters set out in this CaP.

The embedded mitigation measures, as described in the Original ES, have been maintained as much as possible within the technical requirements of the Project. The embedded mitigation measures included in the Original ES are outlined in Table 3-1 below.

Embedded Mitigation	Reference (ES Chapter)	Where Addressed in this CaP
Export cables will be buried to a target depth of 1.5m or will be protected by other means when burial is not practicable, this will help to reduce the risk of snagging fishing gear	Commercial Fisheries	Section 2.6
Export cables will be buried to a target depth of 1.5m or protected by other means when burial is not practical.	Benthic Ecology	Section 2.6
Export cable will be buried to a target depth of 1.5m in accordance with DECC Guidelines (2011) which will reduce the potential for impacts relating to EMF	Fish and Shellfish	Section 2.6
Cables will be specified to reduce EMF emissions as per industry standards and best practice such as the relevant IEC (International Electro-technical Commission) specifications	Fish and Shellfish	Section 2.3
Export cables will be buried to a depth of 1.5m or protected by other means where burial is not practicable, which will reduce potential of the Electromagnetic Fields (EMF)	Marine Mammals	Section 2.6

Table 3-1 Embedded Mitigation

KAWL

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3.2. Export Cable

In the Original ES and ES Addendum mitigation measures relevant to the installation of the export cables are detailed below

Table 3-2 presents a comparison of the consented project parameters relevant to the installation of the export cables as set out in the Original ES against the details set out in this CaP.

Table 3-2 Compliance with Rochdale Envelope Parameters defined in the Original ES

Construction Related Parameter	Parameter Defined in Original ES	Parameter Defined in CaP
Number of Export Cables	2	2
Total Length	19km (per cable)	Up to 19km (per cable)
Length Offshore	15km	15km
Cable outer diameter	180mm	Nominally 170mm
Installation method offshore	Trenching, laying and burial	Trenching, laying and burial
Trench width per cable	3m	Unknown at this time but not expected to be >3m
Trench depth	1.5m	Target depth of 1.5m
Separation distance between cables	50m	50m
Rated capacity	33kv	33kv
Burial at landfall	HDD	HDD
Burial offshore if 1.5m depth not achieved	Rock dumping in trench to bury cable if the sediment removed from trench does not provide sufficient material to bury the cable. Max anticipated 10% of cable length, 1.5km each cable therefore total 3km.	Further details will be provided following the detailed cable burial risk assessment. Rock dumping in trench to bury cable if the sediment removed from trench does not provide sufficient material to bury the cable

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Scour protection	None considered – to be monitored during operational phase	Further details will be provided following the detailed cable burial risk assessment if necessary.
Installation	1 vessel, 2 days transit and 3 days of operations = 5 days total for both cables	1 vessel, 9 days in total for cable trenching (per cable)

3.3. Inter-array Cables

As installation of the inter-array cables is scheduled for H2 2020, details of the methodology are not known at this time, therefore Table 3-3 will be updated in a future iteration of this document.

Table 3-3 presents a comparison of the consented project parameters relevant to the installation of the Inter-array cables as set out in the Original ES against the details set out in this CaP.

Construction Related Parameter	Details of Commitment	Implementation
Number of inter-array cables	12	5
Length	2.5km each, total 30km	TBC
Cable outer diameter	180mm	180mm
Total area of seabed coverage	5400m ²	<5400m ²
Rated capacity	33kv	33kv
Installation	Laid on seabed	Laid on seabed
Burial	None anticipated	None planned
Scour protection	None considered	
Installation	1 vessel, 1 day transit, 13 days of operations = 14 days	

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APPENDIX A

FINAL LAYOUT PLAN



		LEGEN				
	PLANNED TURBINE LOCATIONS					
REF	EF WGS-84					
	N W					
KIN-	KIN-01* 57° 00'19.095" 01° 52'52.				.181"	
KIN-0	KIN-02 56° 59' 21.214" 01° 51' 59.				.710 .269"	
KIN-	04	57° 01'06.828"	01°	51' 18	.166"	
KIN-(05	57° 00'37.897"	01°	50'51	.666"	
KIN-0	06*	57° 00' 08.931"	01° :	50'25	.179"	
* CU WILL KIN-(* CURRENT 2MW TURBINE AT KIN-01 LOC WILL BE REMOVED AND REDEPLOYED A KIN-06 LOCATION				OCATI AT	ON
REF		WGS84 UTM30N	I			
		NORTHINGS	FAS	TING	s	
KIN-	01	6318532.87	5679	955.65	5	
KIN-	02	6317645.51	5684	416.70)	
KIN-	03	6316758.16	568	878.75	5	
	04 05	6320034.94 6319147 58	569	017.80 078.02) 1	
KIN-	06	6318260.23	5704	440.96	5	
A4 A3 A2 A1		SUED FOR COMMENT SUED FOR COMMENT SUED FOR COMMENT SUED FOR COMMENT	JO JO JO GB	JG JG JG	AW AW AW	03/04/2019 01/04/2019 29/01/2019 28/01/2019
REV		DESCRIPTION	ORN	CKD	APP	DATE
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uent KI	NCAR	DINE OFFSHORF		ARM	LIMIT	ED
PROJEC KI	⊤ NCAR	DINE OFFSHORE	WINDF	ARM	PROJ	ECT
FIELD LAYOUT CONSENT AND WTG POSITION CHECK						
CLIENT	DRAWIN	IG NUMBER	SHEET	OF 1	SHEE	T SIZE A3
SCALE	UNO				REV	
1:	60	KOWL-DR-0	001-01	15		A4
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APPENDIX B

SOUTHERN CABLE AS INSTALLED ROUTE SHOWING THE LOCATIONS AND LONGITUDINAL PROFILES OF ROCK BERMS.



		LE	GEND				
	PLAN VIEW	As-Built Cable					
30000N	1	Coastine Rock Berm Midpoint Location & Be	m Number				
28000N							
26000N							
2000014							
24000N	SCALE						
	GEODET		1000 1500		2000 metres		
	Datum Ellipsoid Semi Major Axis Semi Minor Axis Eccentricity Square	- WGS84 : WGS84 : 6378137.000m : 6356752.314m d : 0.00669438 : Universal Transverse Mercetor	1. Berm profile JDN1732-S JDN1732-S 2. Berm Locati JDN.1732.KI	s & Cable Po UR-SV-RQ2 UR-SV-RQ2 ons taken fr NCARDINE.	osition taken 2000-2001 - 2000-2006 om: As_built_rep	from: ort	
	Figlection False Easting False Northing Latitude of Origin : Central Meridian : Scale Factor at C.I	. 0010012011200000 : 50000000 : 000 00000 : 000 0000 00 00 00.00° N 3. 00° 00.00° W <i>M</i> . : 0.9996					
22000N	CLIENT						
		Kincardina Offshara	Nindform E	vport (Cable		
20000N		Rock Ber	m Locations	s	Jable		
	Issue No. Date	Description		Drawn	Checked	Approved	Client App
	D4			TOP		005	
	CONTRACTOR	issued for external rev	Original Size:	IBE	LWA A3	GBR	
			Chart:	001	of 002		
		SURVEY	Client Drawing No:				
			AS Drawing No:	AS-P474	8-DWG-000	4	



KOWL-PL-0004-009 - Cable Plan -C5

Final Audit Report

2020-03-31

Created:	2020-03-27
Ву:	Hira Qayyum (hqayyum@w3gmarine.co.uk)
Status:	Signed
Transaction ID:	CBJCHBCAABAAHWsE3QCa_qVekOS_WHnHoWmMeURiKP2Q

"KOWL-PL-0004-009 - Cable Plan -C5" History

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