Inch Cape
OFFSHORE LIMITED

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Inch Cape Offshore Transmission Works - Additional Landfall Works

Marine Licence MS-00010672 Variation Application Report

Inch Cape Acceptance

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Acronyms & Abbreviations

Acronym	Term
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
ELC	East Lothian Council
ES	Environmental Statement
HRA	Habitats Regulation Appraisal
ICOL	Inch Cape Offshore Limited
MD-LOT	Marine Directorate Licencing Operation Team
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
OfTI	Offshore Transmission Infrastructure
OfTW	Offshore Transmission Works
OSP	Offshore Substation Platform

Glossary

Defined Term	Meaning
The 2010 Act	Marine (Scotland) Act 2010.
The 2013 Application	The Environmental Statement, Habitats Regulation Appraisal (HRA) Report and supporting documents submitted by the Company on 1st July 2013 to construct and operate an offshore generating station and transmission works.
The 2018 Application	The EIA Report, HRA Report and supporting documents submitted by the Company on 15 August 2018 to construct and operate an offshore generating station and transmission works.
Development	The Inch Cape Offshore Wind Farm (the Wind Farm) and Offshore Transmission Works (OfTW) being developed by Inch Cape Offshore Limited (ICOL).
Development Area	The area for the Wind Farm, within which all Wind Turbine Generators, inter-array cables, interconnector cables, offshore substation platform(s) and the initial part of the Offshore Export Cable and any other associated works must be sited. As stipulated in the Crown Estate agreement for lease.
Inch Cape Offshore Transmission Infrastructure (OfTI)	Components of the Development which are permitted by the OfTI Marine Licence (as varied) (MS-00010593)
Inch Cape Offshore Wind Farm/ Wind Farm	A component of the Development, comprising wind turbines and their foundations and substructures, and inter-array cables.
Offshore Export Cables	The subsea, buried or protected electricity cables running from the offshore wind farm substation to the landfall and transmitting the electricity generated to the onshore cables for transmission onwards to the onshore substation and the electrical grid connection.
Offshore Export Cable Corridor/ Export Cable Corridor	The area within which the Offshore Export Cables will be laid from the OSP and up to Mean High Water Springs.
Offshore Transmission Works (OfTW)	The Offshore Export Cable and OSPs. This includes all permanent and temporary works required.

Defined Term	Meaning
Onshore Transmission Works (OnTW)	Onshore transmission works associated with the Inch Cape Offshore Wind Farm comprising the construction, operation and decommissioning of an onshore substation, electricity cables and associated infrastructure required to export electricity from the Inch Cape Offshore Wind Farm to the National Electricity Transmission System.
The Wind Farm	The Inch Cape Offshore Wind Farm.

Executive Summary

Inch Cape Offshore Limited (ICOL) intends to request a variation to the Marine Licence MS-00010672, granted on 15 January 2024, under section 30(7) of the under Part 4 of the Marine (Scotland) Act 2010 ("the 2010 Act"), hereafter referred as the "Additional Landfall Works Marine Licence". The proposed changes (the "Proposed Variation") were identified following updates that were made to the landfall solutions under the original application

The Proposed Variation will capture the following changes to the ICOL Additional landfall works Marine Licence (MS-00010672):

- Removal and re-construction of the East Lothian Council (ELC) outfall is no longer required;
- Minor changes to the layout and methods for the seawall removal and reinstatement; and
- Minor updates to temporary and permanent deposit of materials (not exceeding the previous allowance)

This document has been produced to provide the supporting information to vary the Additional Landfall Works Marine Licence MS-00010672.

1 Introduction

1.1 Background

1 The Inch Cape Offshore Wind Farm (the Wind Farm) and Offshore Transmission Infrastructure (OfTI), hereafter referred to as the Development, is being developed by Inch Cape Offshore Limited (ICOL) (see Figure 1.1).

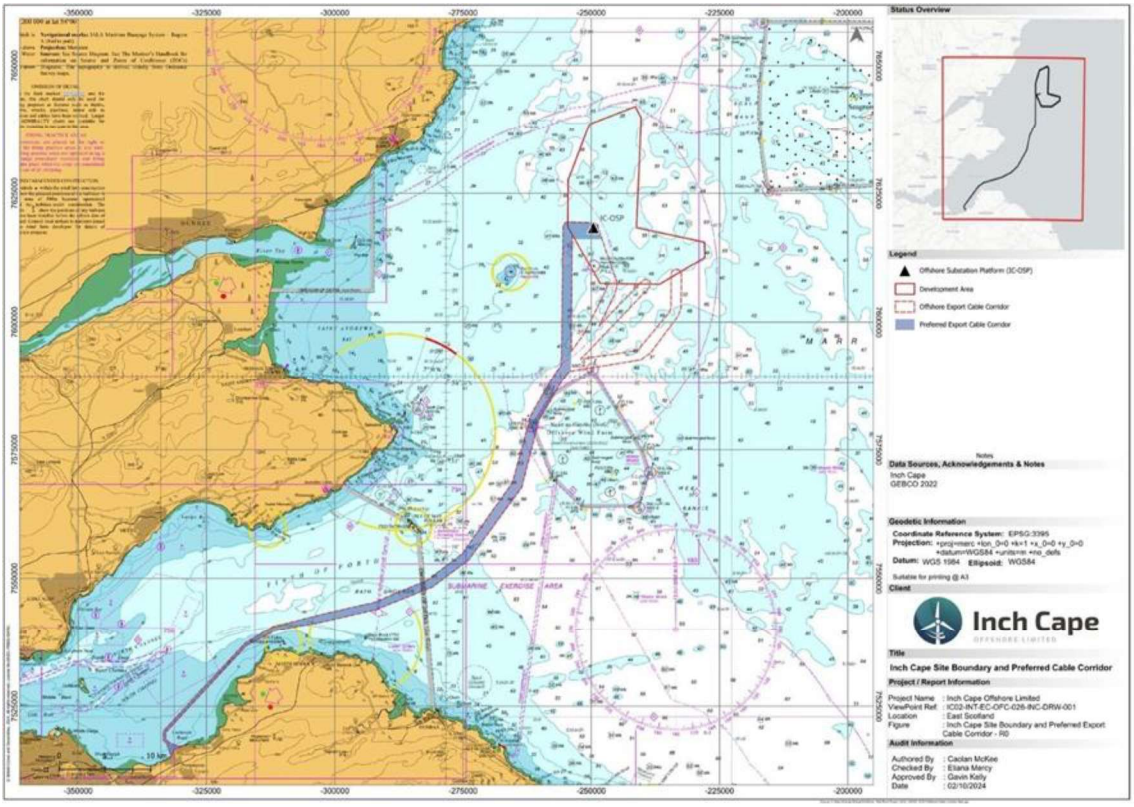

Figure 1.1: Inch Cape Offshore Development Area and Current Offshore Export Cable Corridor

2 In 2014, the Scottish Ministers granted ICOL Section 36 and marine licence consents, pursuant to the 2013 Application, for the construction and operation of an offshore wind farm and a marine licence for the construction and operation of offshore transmission works (for up to six export cables). The licences granted to ICOL in 2014 (along with those for other Forth and Tay projects, Seagreen Alpha and Bravo and Neart na Gaoithe) were subject to a petition for judicial review in early 2015. The decision was upheld following legal challenge in November 2017.

3 In 2018, ICOL submitted a separate application for a Section 36 and marine licence consents, , the 2018 Application, with a revised design that would allow the development of a project that could utilise progressions in technology since the 2014 consent. The Section 36 Consent, Generating Station (GS) Marine Licence number 06781/19/0 (hereafter referred as the 'GS Marine Licence'), and OfTI Marine Licence number 06782/19/0 (hereafter referred as the 'OfTI Marine Licence'), for the revised design, were granted by Scottish Ministers on 17th June 2019.

4 The Section 36 Consent was subsequently varied on 16th July 2020, 22nd July 2021, and 14th June 2023; the GS Marine Licence was varied on 14th June 2023 (Licence number MS-00010140); and the OfTI

Marine Licence varied on 22nd August (Licence number MS-00010314) and amended on 9th November 2023 (Licence number MS-00010593).

5 The revised design OfTI Marine Licence (as varied) permits the construction and operation of the OfTI connecting the landfall location, near Cockenzie, East Lothian, and the Inch Cape Offshore Wind Farm which is located approximately 15 - 22 km off the Angus coastline, to the east of the Firth of Tay (Figure 1.1). The variation granted on 22 August 2023 allowed for changes to temporary and permanent deposit quantities and revision of the Offshore Export Cable Corridor Coordinates to include the intended Offshore Substation Platform (OSP) location.

6 In 2023, a separate Marine Licence application was submitted for additional works at the landfall site in Cockenzie, the "Additional Landfall Works Marine Licence". The Additional Landfall Works Marine Licence number MS-00010546 was granted on 19th Dec 2023, and subsequently varied on 15th January 2024 under Licence number MS-00010672, to address minor editorial updates.

7 In 2024, ICOL submitted a Marine Licence application for the installation, operation and subsequent removal of a cofferdam to facilitate the Additional Landfall Works as part of the wider Offshore Export Cables installation for the Inch Cape Offshore Wind Farm. The Marine Licence MS-00010690 was granted on 23rd May 2024.

1.2 Intention to Vary the Existing Marine Licence

8 ICOL requests a variation to the existing Additional Landfall Works Marine Licence, Number MS-00010672, granted on 15 Jan 2024 (formerly MS-00010546), in accordance with section 30(7) of the Marine (Scotland) Act 2010 (2010 Act).

9 In line with the application dated 20th September 2023 and correspondence submitted in support of the application, the following activities were licensed under the Additional Landfall Works Marine Licence to facilitate the offshore export cable installation for Inch Cape Offshore Wind Farm:

- Removal and reinstatement of the seawall and revetment at the export cable landfall, including the installation of two concrete troughs to facilitate the pull in of the export cables;
- Removal and re-construction of the ELC outfall adjacent to the landfall site; and
- Construction and removal of a temporary road below Mean High Water Springs (MHWS).

10 The scope of work under the Additional Landfall Works Marine Licence was to be facilitated by the construction of an intertidal cofferdam for which a separate Marine Licence was granted on 23 May 2024 (Licence Number MS-00010690).

11 Since the Additional Landfall Works Marine licence variation in January 2024, the design solution for the offshore export cable installation at the landfall has been refined, and a revised landfall works methodology which avoids the need for an intertidal cofferdam[1] and some of the licenced activities is now proposed. Following meeting with Marine Directorate Licencing Operation Team (MD-LOT) on 25th July 2024, it was agreed that a marine licence variation would be required in order to de-scope the

[1] The required temporary flood defences will be constructed onshore, and covered by a separate planning consent application

licenced activities under the Additional Landfall Works Marine Licence, which is presented in this Variation Application Report, and that the trenching, installation and burial of all cable ancillary equipment and stabilization structures would fall within the OfTI Marine Licence scope.

12 The proposed variations to the activities licenced under the Additional Landfall Works Marine Licence (MS-00010672) are summarized in Table 1.1 below.

Table 1.1: Summary of proposed variations to Marine Licence MS-00010672

Activity/ Parameter of the Additional Landfall Works, as per Marine Licence MS-00010672	Revised scope of works
Removal and reinstatement of the seawall and revetment at the export cable landfall	Minor changes are proposed, as detailed in Section 2.1
Removal and re-construction of the ELC outfall	Activity is no longer required.
Construction and removal of a temporary access road below MHWS	Still required. No changes to the scope of works.
Deposit of materials (temporary and permanent)	See revised deposits in Section 2.2.
Geographic boundaries/ coordinates	No changes.

13 Any impact arising from the revised proposed works have been considered to fall within the impacts originally assessed as part of the 20th September 2023 application, and correspondence submitted in support of the application.

14 No changes are proposed to the work area coordinates where the works will take place, although a reduction is anticipated to the total estimated footprint of the work, as shown in Section 2.1 below. The Additional Landfall Works Area Coordinates are included in Appendix 1.

15 Approvals for the works above MLWS have been granted separately from ELC as the relevant planning authority and are therefore not considered further in this variation request.

2 Proposed Variation

2.1 Proposed changes to the Additional Landfall Works

16 As discussed in section 1.2, the refined design solution proposes a reduction to the existing licenced activities, as it avoids the need for an offshore cofferdam and ELC Outfall removal/ reinstatement. Minor changes to the layout and methods for the seawall removal and reinstatement licenced under the Additional Landfall Works are proposed, as shown detailed in Figure 2.1 and Table 2.1.

Figure 2.1: Proposed revised additional landfall works design for the Inch Cape Offshore Wind Farm export cable landing

Table 2.1: Changes on the Additional Landfall Works activities and parameters

Item	Revised additional landfall works design details	How it compares with previous design (20th September 2023 Application)
Seawall & Rock Revetment Works	Installation of an onshore secant pile cofferdam. This activity is permitted through a separate planning permission.	The previous design proposed using an offshore cofferdam, which is no longer required. The offshore cofferdam was permitted through a separate Marine Licence.
	Rock armour and concrete blocks will be removed in front of the section of existing sea defence wall that needs to be removed. The materials removed will be stockpiled at the intertidal zone or onshore, to be re-used for reinstatement at later stage if suitable	No changes to previous design/ methods.
	It is anticipated that approximately 24 m of continuous sea defence wall will be removed. The total length of seawall may vary, as it ultimately depends on the integrity condition of the existing structure, and final detailed survey to determine joints location.	The previous design estimated a total of 21 m of sea wall defence to be removed. At the time, it was acknowledged that there was a risk that removal of one panel may result in a breakout a 10 m section of wall bringing the maximum length of seawall to be removed and reinstated to 24 m. The new design has been revised to anticipate the need for wider removal.
	The sea defence wall will be reinstated, consisting of a gravity structure using precast reinforced concrete structure. The new sea wall will allow for two portals, where the export cables will pass through towards the transition joint bay onshore. The annulus between the cable protection system and the portals will be grouted and sealed to not provide a flow path. During construction, and prior to installation of the duct, the portals will be temporarily capped.	The previous reinstated wall design included two precast letterboxes to allow the installation of two precast concrete troughs/ U-ducts and temporary stoplogs/moveable gates used as necessary. The concrete troughs/U-Ducts are no longer required in the revised additional landfall works design. A cable protection system will be installed instead, which will form part of the scope licensed under the OfTI Marine Licence.

Item	Revised additional landfall works design details	How it compares with previous design (20th September 2023 Application)
	Following the completion of the seawall and cable protection system installation, all rock armour revetment will be reinstated. The cable protection system installation and reburial will be undertaken under the OfTI Marine Licence. While reinstatement will be undertaken by reusing the material originally from the site, there remains a chance that new imported material (gravel and boulders) may be required. This will be clean, locally sourced material from a nearby quarry.	Reinstatement of rock revetment is in line with the methods presented in the original application. The new design considers the possibility of using imported materials as detailed in Section 2.2.
Indicative Programme	It is proposed that the Additional Landfall Works will be undertaken between April 2025 and December 2028, including any backfilling activities after the cable protection systems are installed.	No changes.
Expected Plant	• Crawler crane • Excavators • Dumpers • Concrete supply • Concrete pump truck • Powercrete mixing unit/plant • Water pump / separator • marine barge, either Jack up barge or spud-leg.	Use of marine barge was not anticipated in the previous application. This equipment will be mobilized as part of the OfTI Marine Licence scope of works, and therefore will comply with all conditions and consenting plans associated to the OfTI Marine Licence. This equipment could be made available to support the landfall works if convenient.

Item	Revised additional landfall works design details	How it compares with previous design (20th September 2023 Application)
Expected working area	Total: 2,610 m^2 Including the below areas plus tolerance of 20%: • 50 m x 5 m (250 m^2) - Construction of temporary access track from upper area to foreshore. • 55m x 35m (1925 m^2) - Removal and reinstatement of the rock revetment and temporary storage of recovered material at intertidal zone (rocks, boulders and blocks) during works at the sea defence wall (including, rock trench adjacent to seawall and temporary storage) • The temporary access track will be completely removed on completion of the works and construction the site will be restored to the pre-construction conditions, as close as possible.	Total footprint has been reduced when comparing to the footprint of 3,663 m^2 provided at the original application. Note that no variations are required to the licensed boundaries.

2.2 Deposits

17 **Table 2.2** details the permitted deposits under Additional Landfall Works Marine Licence Number MS-00010672, and informs what adjustments are proposed for the Proposed Variation.

Table 2.2: Permitted deposits under Marine Licence number MS-00010672 and Proposed Variation

Type of Deposits	Quantity permitted under Licence MS-00010672	Proposed variation
Construction Materials		
Steel/ Iron	11 tonnes	No changes
Concrete	340 tonnes (dimensions: 140 cubic metres ("m³"))	160 tonnes (dimensions: 65 cubic metres ("m³"))
Plastic/Synthetic	150 square metres ("m²")	No longer required
Gravel	100 tonnes / 45 m³ (size range: 2 – 64 milimetres ("mm"))	No changes
Boulders	1700 tonnes / 900 m³ (size range: greater than 256 mm)	No changes
Outfall Pipe	50 metres (external diameter: 1200 mm	No longer required
Temporary Road Materials		
Steel/ Iron	50 tonnes	No changes
Timber	50 tonnes	No changes
Plastic/Synthetic	250 m²	No changes
Gravel	275 tonnes / 125 m³ (size range: 2 – 64 mm)	No changes

Appendix A – Additional Landfall Works Area Coordinates

The proposed Additional Landfall Works will take place within 'Additional Landfall Works Area', defined by the geographic coordinates shown below in Table A.1, and illustrated in Figure A.1.

Table A.1: Additional Landfall Works Area Coordinates

Latitude (Degrees, minutes, decimal minutes)	Longitude (Degrees, minutes, decimal minutes)	UTM30N X (Metres)	UTM30N Y (Metres)
55° 58.074' N	2° 58.518' W	501541.824	6202507.445
55° 58.079' N	2° 58.510' W	501549.810	6202516.240
55° 58.084' N	2° 58.500' W	501560.044	6202525.593
55° 58.086' N	2° 58.494' W	501565.972	6202529.268
55° 58.086' N	2° 58.539' W	501520.074	6202528.588
55° 58.086' N	2° 58.540' W	501519.033	6202529.585
55° 58.087' N	2° 58.487' W	501574.274	6202530.940
55° 58.089' N	2° 58.532' W	501526.886	6202534.637
55° 58.089' N	2° 58.531' W	501527.988	6202535.300
55° 58.090' N	2° 58.530' W	501528.764	6202536.164
55° 58.090' N	2° 58.529' W	501530.302	6202537.419
55° 58.091' N	2° 58.528' W	501531.558	6202538.159
55° 58.091' N	2° 58.527' W	501532.425	6202538.867
55° 58.091' N	2° 58.526' W	501533.769	6202539.337
55° 58.092' N	2° 58.523' W	501537.039	6202541.384
55° 58.096' N	2° 58.515' W	501544.398	6202547.691
55° 58.096' N	2° 58.514' W	501545.740	6202548.260
55° 58.096' N	2° 58.513' W	501547.284	6202548.683
55° 58.096' N	2° 58.512' W	501548.133	6202548.745
55° 58.097' N	2° 58.507' W	501553.204	6202550.769
55° 58.099' N	2° 58.501' W	501559.524	6202552.860
55° 58.099' N	2° 58.500' W	501560.820	6202553.129
55° 58.099' N	2° 58.493' W	501567.400	6202553.446
55° 58.099' N	2° 58.491' W	501570.159	6202553.864
55° 58.101' N	2° 58.481' W	501580.662	6202557.166
55° 58.101' N	2° 58.479' W	501582.162	6202557.188
55° 58.101' N	2° 58.478' W	501583.663	6202557.110
55° 58.101' N	2° 58.476' W	501585.709	6202557.389
55° 58.102' N	2° 58.463' W	501599.096	6202558.283
55° 58.102' N	2° 58.466' W	501595.780	6202559.385

Latitude (Degrees, minutes, decimal minutes)	Longitude (Degrees, minutes, decimal minutes)	UTM30N X (Metres)	UTM30N Y (Metres)
55° 58.102' N	2° 58.464' W	501597.580	6202559.411
55° 58.102' N	2° 58.462' W	501599.917	6202559.219

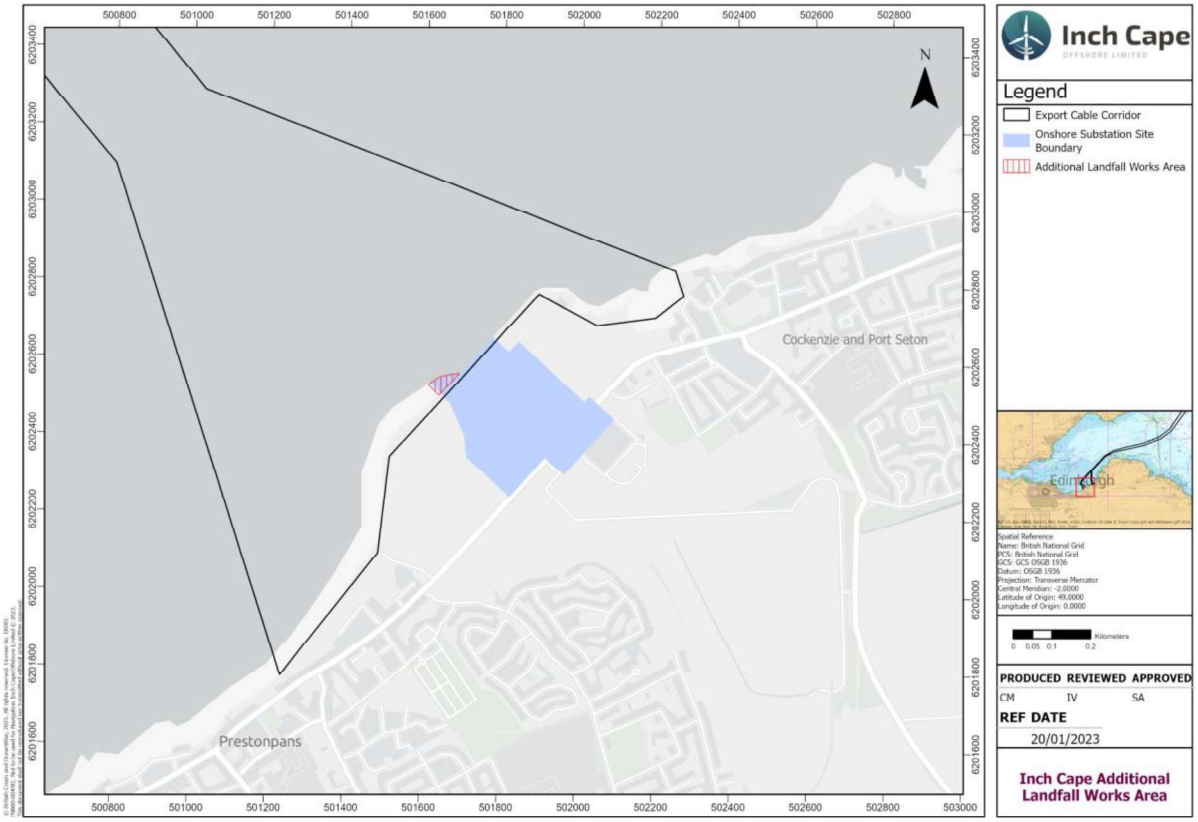

Figure A.1: Inch Cape Offshore Wind Farm Additional Landfall Works Area