



The Great Grid Upgrade

Eastern Green Link 5 (EGL 5)

English Marine Options Appraisal: Non-Technical Summary

May 2025

national**grid**



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English Marine Options Appraisal

Non-Technical Summary

Prepared for: National Grid Electricity Transmission (NGET)

nationalgrid



collaborative
environmental
advisers

Date: April 2025

Document Reference: C01521_NGET_REP_D0507

Version Number: 2

Point of Contact: Anna Farley

Tel: 077708 872 706

Email: anna.farley@ceaenvironmental.co.uk

Collaborative Environmental Advisers
Registered in England at Mountbatten House, 1 Grosvenor Square,
Southampton, SO15 2JU
Registered number: 11114584

Tel: + 44 (0) 7719 523106 or +44 (0) 7920 714 411
Email: info@ceaenvironmental.co.uk
www.ceaenvironmental.co.uk




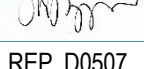


Record of Changes

Rev #	Date	Description	Approved
0	02/04/2025	First issue	Anna Farley
1	07/04/2025	Final	Julie Drew-Murphy
2			
3			
4			
5			
6			

Distribution List

#	Function Title	Company	Name (optional)
1		NGET	Nick Moore
2		NGET	Judith Vokes
3			
4			
5			
6			
Notes:			

Responsible for	Job Title	Name	Date	Signature
Content	Associate Director	Eric Houston	02/04/2025	
Checked & Approved	Director	Anna Farley	02/04/2025	
Content	Associate Director	Eric Houston	07/04/2025	
Checked & Approved	Director	Julie Drew-Murphy	07/04/2025	
Copyright:	CEA ©	Document Reference:	C01521_NGET_REP_D0507	

This document has been checked in line with internal quality control requirements.

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Abbreviations/Glossary

AONB	Area of Outstanding Natural Beauty
ASTI	Accelerated Strategic Transmission Investment
CPRSS	Corridor and Preliminary Routeing and Siting Study
DCO	Development Consent Order
DESNZ	Department of Energy Security and Net Zero
EGL 3, 4 & 5	Eastern Green Link 3, 4 & 5
EIA	Environmental Impact Assessment
ESO	Electricity System Operator
GCR	Geological Conservation Review
HPMA	Highly Protected Marine Area
IBA	Important Bird Area
km	Kilometre
LLD	Local Landscape Designation
MCZ	Marine Conservation Zone
MNR	Marine Nature Reserve
MoD	Ministry of Defence
MPA	Marine Protected Area
NCMPA	Nature Conservation Marine Protected Area
NESO	National Energy System Operator
NGET	National Grid Electricity Transmission
NNR	National Nature Reserve
NSA	National Scenic Area
NSIP	Nationally Significant Infrastructure Project
OWF	Offshore Wind Farm
PEXA	Practice and Exercise Area
SAC	Special Area of Conservation
SOCI	Species of Conservation Interest
SoS	Secretary of State
SNCB	Statutory Nature Conservation Body
SPA	Special Protection Area
SSEN-T	Scottish and Southern Electricity Network – Transmission
SSSI	Site of Special Scientific Interest
TSS	Traffic Separation Scheme
UK	United Kingdom
UKHO	UK Hydrographic Office
WHS	World Heritage Site



1. Overview and Purpose

The Eastern Green Link 5 (EGL 5) project is a proposed offshore high voltage electricity link, with associated onshore infrastructure, between Aberdeenshire, Scotland and Lincolnshire, England. The English components of the Project are being developed by National Grid Electricity Transmission (NGET).

The Clean Power 2030 Action Plan sets out the United Kingdom (UK) Government's ambition to strengthen our grid infrastructure to support the UK's energy security, economic growth and other important infrastructure such as connecting offshore renewables generation to the electricity network by 2030. EGL 5 was specified by the National Energy System Operator (NESO) formerly known as the Electricity System Operator (ESO) as part of the Pathway to 2030 Holistic Network Design¹ as required to provide additional network capacity and greater power transfer capability across the Anglo-Scottish border. EGL 5 would transport enough clean energy from Scotland to power up to two million homes in parts of the North, Midlands and South of England. By doing so, it would play an important role in building a more secure and resilient future energy system and decarbonising the UK. EGL 5 is part of this major reinforcement of the electricity transmission system that will allow renewable power to reach consumers. It has been identified provisionally as an Accelerated Strategic Transmission Investment (ASTI) project by Ofgem, the UK energy regulator.

The marine elements of the Project are not the type of project that would be categorised as Environmental Impact Assessment (EIA) development under the Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) and could be consented under the Marine and Coastal Access Act. It would not require a statutory EIA. The project does not automatically qualify as a Nationally Significant Infrastructure Project (NSIP) under Section 14 of the Planning Act 2008 ("the 2008 Act"). However, the Project will request a direction pursuant to Section 35 of the 2008 Act from the Secretary of State (SoS) for Energy Security and Net Zero (DESNZ) during Spring 2025, to bring the project into the Development Consent Order (DCO) regime. Should a direction pursuant to Section 35 of the 2008 Act be issued by the SoS, the project would be directed into the 2008 Act and therefore a DCO application would be prepared and submitted to the Planning Inspectorate who acts on behalf of the SoS for the relevant department. It is intended that a DCO application for the Project would include all English onshore elements of the Project, as well as the offshore elements in English waters by inclusion of a deemed Marine Licence within the DCO.

As the consenting regime for the Project has not been confirmed, NGET have assumed that either the Project will require a statutory EIA under the EIA Regulations in England² or as a matter of best practice (and under Schedule 9 of the Electricity Act 1989 which places an obligation to preservation of amenity)³, and in line with the requirements of the Habitats Regulations and Offshore Habitats Regulations⁴, Environmental Appraisals to the same standard would be undertaken.

As such NGET should be able to demonstrate that all reasonable feasible alternatives have been assessed and that the least damaging option has been selected.

NGET undertook a Marine Options Appraisal to identify the emerging preferred marine cable route and landfall site. This document is a non-technical summary of the English Marine Options Appraisal. It details the approach taken by NGET, the environmental, socio-economic and technical constraints considered, and the work undertaken (including consultation with stakeholders) to evaluate and appraise the individual options, that concluded with the identification of an emerging preference.

The emerging preference for EGL 5 may be subject to modification following further consultation with stakeholders, technical/engineering feasibility studies, marine survey results and public consultation.

This document should be read in conjunction with the Corridor and Preliminary Routeing and Siting Study (CPRSS) for England, the documents collectively will inform the preferred end-to-end solution for the Project in English waters.

NGET is seeking to develop EGL 5 in coordination with the Eastern Green Link 3 (EGL 3) and Eastern Green Link 4 (EGL 4) projects (similar proposed offshore high voltage direct current electricity links between Scotland and England). The options appraisal process has sought to draw upon data, technical assessments, studies and stakeholder opinions available from EGL 3 and EGL 4 projects where feasible, to accelerate development. The opportunities and risks associated with coordination of the projects has been considered in the evaluation. All relevant decisions made for EGL 3 and EGL 4 have been back-checked and validated to ensure applicability and acceptance for EGL 5.

¹ Pathway to 2030 Holistic Network Design. July 2022 <https://www.neso.energy/document/262681/download>

² The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended)

³ National Grid's commitments when undertaking works in the UK, <https://www.nationalgrid.com/electricity-transmission/document/81026/download>

⁴ Conservation of Habitats and Species Regulations 2017 (as amended) (England) and Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) (Scotland) and the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended)



2. Options Appraisal Approach

An options appraisal is used to consider the implications of the selection of certain options when developing infrastructure projects. NGET has developed a set of over-arching guiding principles for option appraisals. These principles assist in the decision-making process by helping achieve an appropriate balance between the different competing interests that need to be looked at during an options appraisal. There is no hierarchy in the principles, and they are as follows:

- Using or adapting existing infrastructure will generally be given priority over creating new infrastructure.
- Shorter routes will generally be given priority over longer ones, as smaller-scale infrastructure projects are likely to have lower environmental, safety, sustainability and cost implications (for comparable technology options).
- Financially less-expensive options, both in terms of capital and lifetime cost, will generally be given priority, as these support National Grid's statutory duty to develop and maintain an 'efficient, coordinated and economical' network.
- Options which avoid or minimise and mitigate impacts on environmental or socio-economic constraints will generally be given priority over those which have likely significant residual effects, as less environmentally and/or socially damaging routes support National Grid's statutory duty to '*have regard to the desirability of preserving amenity*' and will more readily achieve consent.

Four topic areas were considered during the option appraisal process: environment, socio-economic, technical and cost. Within these topic areas there are a list of sub-topics which align with best practice informed by the requirements of the EIA Regulations. Table 2-1 shows the sub-topics used in the marine options appraisal.

Table 2-1: Topics used during the marine options appraisal

Sub-topic	Constraints
Biological Environment	<ul style="list-style-type: none"> • Highly Protected Marine Areas (HPMAs) • European Sites: Special Area of Conservation (SACs), Special Protection Areas (SPAs), Ramsar Sites • Marine Protected Areas (MPA): Marine Conservation Zones (MCZ), Nature Conservation Marine Protected Area (NCMPA) • Sites of Special Scientific Interest (SSSI) • Geological Conservation Review (GCR) sites • National Nature Reserves (NNRs)/Marine Nature Reserves (MNRs) • National Parks • Areas of Outstanding Natural Beauty (AONBs)/National Scenic Areas (NSAs) • World Heritage Sites (WHS) • UNESCO Biosphere Reserves • Heritage Coasts • Local Landscape Designations (LLD) England (various names) • Important Bird Areas (IBAs) • Annex I Habitat • Species of Conservation Interest (SOCI)/Priority Coastal Habitats • Sensitive Fish Habitat
Historic Environment	<ul style="list-style-type: none"> • Protected Wrecks • Charted Wrecks
Physical Environment	<ul style="list-style-type: none"> • Sub Cropping or Outcropping Bedrock • Superficial Sediments • Mobile Sediments e.g., sandbanks, sand waves • Bathymetric Features e.g., large intertidal expanse, bathymetric deeps, steep slopes
Socio-Economic Environment	<ul style="list-style-type: none"> • Infrastructure (existing, consented or planned) e.g., offshore wind farms, pipelines, cables, oil and gas structures. • Shipping and Navigation e.g., shipping lanes/density, traffic separation schemes (TSS), restricted navigation channels, anchorages, port limits, navigation lines, pilotage stations



Sub-topic	Constraints
	<ul style="list-style-type: none"> • Restricted Areas e.g., military practice and exercise areas (PEXA), marine aggregate areas, carbon capture and storage areas, geological disposal facilities. • Commercial Fisheries e.g., bottom drift netting areas, static gear areas, shellfish waters • Recreational activities, tourism, and bathing waters • Marine Planning • Major Projects

The appraisal process was completed in three stages as shown Figure 2-1 below.

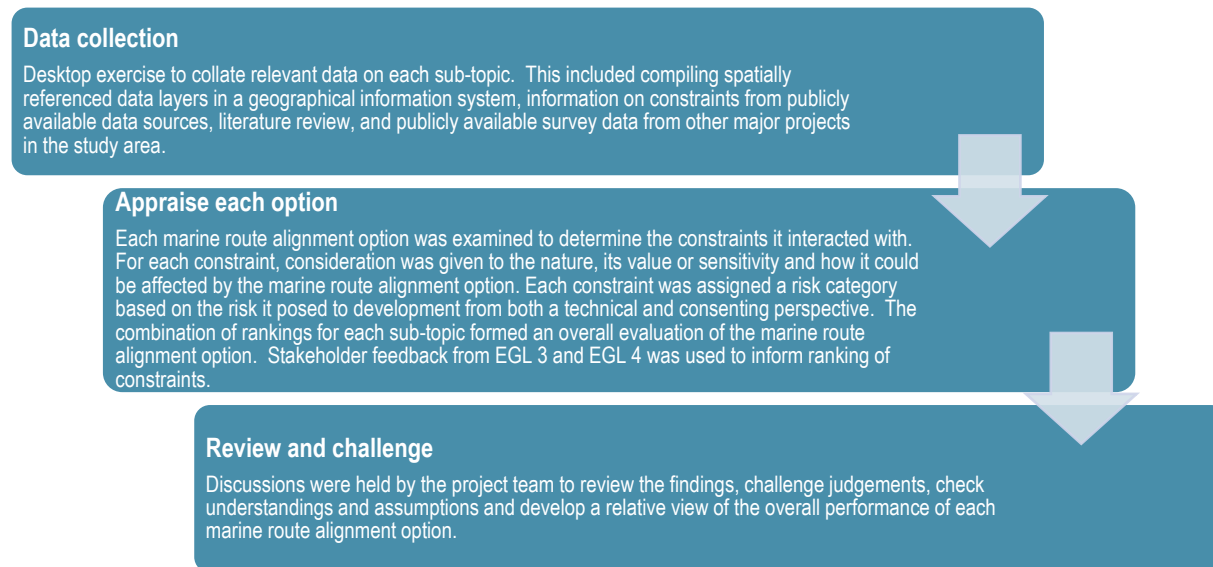


Figure 2-1: Appraisal process

The risk that each sub-topic presented to the viability of the development from either a technical or consenting perspective was assessed by the project team. The categories used were:



Several feasible English marine route alignments were developed. As many routes shared areas of commonality, these routes were segmented into marine route alignments, with the appraisal carried out on each marine route alignment. This allowed marine route alignments to be grouped together (i.e., a combination of an English Landfall alignment, Offshore Alignment and Offshore Approach towards Scottish Waters alignment making up a single route corridor) to allow multiple England marine cable route options to be assessed.

An iterative process was used to assess these marine route alignments which consisted of review of constraints, workshops (including input from technical and environmental disciplines from both the marine and terrestrial teams) and consideration of key marine statutory stakeholder and industries consultation from the EGL 3 and EGL 4 projects. This process resulted in the development and appraisal of ten marine route alignments before the emerging preferred marine cable route option was selected.



3. Landfall and Route Corridor Identification Process

The first stage of the project development process was to identify where the cables could connect into the transmission networks in England.

A separate strategic options stage of National Grid's approach identified the section of coastline from Humber to Sheringham for consideration to accommodate landfalls for the EGL 5 project. The strategic options appraisal identified two landfalls in Lincolnshire, Theddlethorpe and Anderby Creek (North and South) for consideration by the options appraisal process. The strategic options stage ruled out landfalls in Norfolk and around The Wash on the basis of significant environmental impacts and stakeholder feedback.

When considering the development of marine route alignments, NGET took the decision to parallel the EGL 3 and EGL 4 routes within English waters as far as possible. This decision is in line with National Policy Statement EN-5, including Paragraph 2.12.4 and 2.12.6.

In Scotland, NGET's project partner, Scottish and Southern Electricity Networks – Transmission (SSEN – T) have identified a connection point on the Aberdeenshire coastline. Along the Scottish / English border two floating offshore wind farm (OWF) areas are in the pre-application stage of consent; Morven and Ossian. The locations of these wind farm sites constrain the approach into Scottish waters from England.

Marine route alignments were designed to the potential landfalls in England that were technically suitable and avoided key constraints where possible. The primary principle of the exercise was to design a cable route, that is technically feasible, between the English/Scottish border and the English landfall connection point, to deliver the objective of the project. However, within this parameter, the aim was to create the shortest marine cable route possible which will minimise the length of cable needed, reduce the manufacturing and installation costs, and minimise the environmental footprint of the project. Marine route alignments were also designed with the following principles in mind:

- Avoid environmentally sensitive areas, where possible.
- Avoid areas which would represent restrictions to vessel movement e.g., anchorages, restricted navigation channels, where possible.
- Avoid areas of archaeological importance and wrecks, where possible.
- Avoid existing offshore infrastructure, where possible.
- Avoid and then minimise the crossing of in-service cables and pipelines. Where it is not possible to avoid a crossing altogether, then to seek to optimise the crossing angle and to ensure that navigational safety or water depth is not adversely affected.
- Avoid hazardous seabed e.g., mobile sediments or bedrock outcrops and sub crops.
- Avoid and then minimise any impact on third party considerations such as seasonal fishing activities or local tourism.

Figure 3-1 illustrates the marine route alignments that were developed in three distinct areas:

- England landfalls – incorporating the English landfall marine route alignments: ENG Route A to F
- Offshore section – incorporating the offshore marine route alignment: Offshore Route
- Approach to England / Scotland border – incorporating the marine route alignments: SCOT Route A to C

The marine route alignments start at the English landfalls and merge to a common point approximately 125 km offshore. From the first common point in English waters, the offshore route extends to another common point in English waters, before splitting into further marine route alignment segments leading to the potential transition points across the border between English and Scottish waters. The three transition points provide optionality on the approach to the Scottish Connection location around the proposed Morven and Ossian OWFs which lie in Scottish waters immediately adjacent to the England / Scotland border.

For EGL 3 and 4 projects two offshore routes were developed during options appraisal (Offshore Route A and Offshore Route B). For EGL 5 a decision was taken to parallel the EGL 3 and 4 projects as far as possible. Constraints in the offshore area were extensively investigated for the EGL 3 and 4 projects, and the offshore area was identified as relatively benign. One offshore route was therefore developed for EGL 5 that routes to the east of EGL 3, to avoid an infrastructure crossing of the proposed cables, avoid potential areas of *Sabellaria spinulosa* reef identified on UK Hydrographic Office (UKHO) high resolution bathymetric data and optimise the route length. Additional options would add route length to EGL 5 without bringing any technical or environmental benefit.

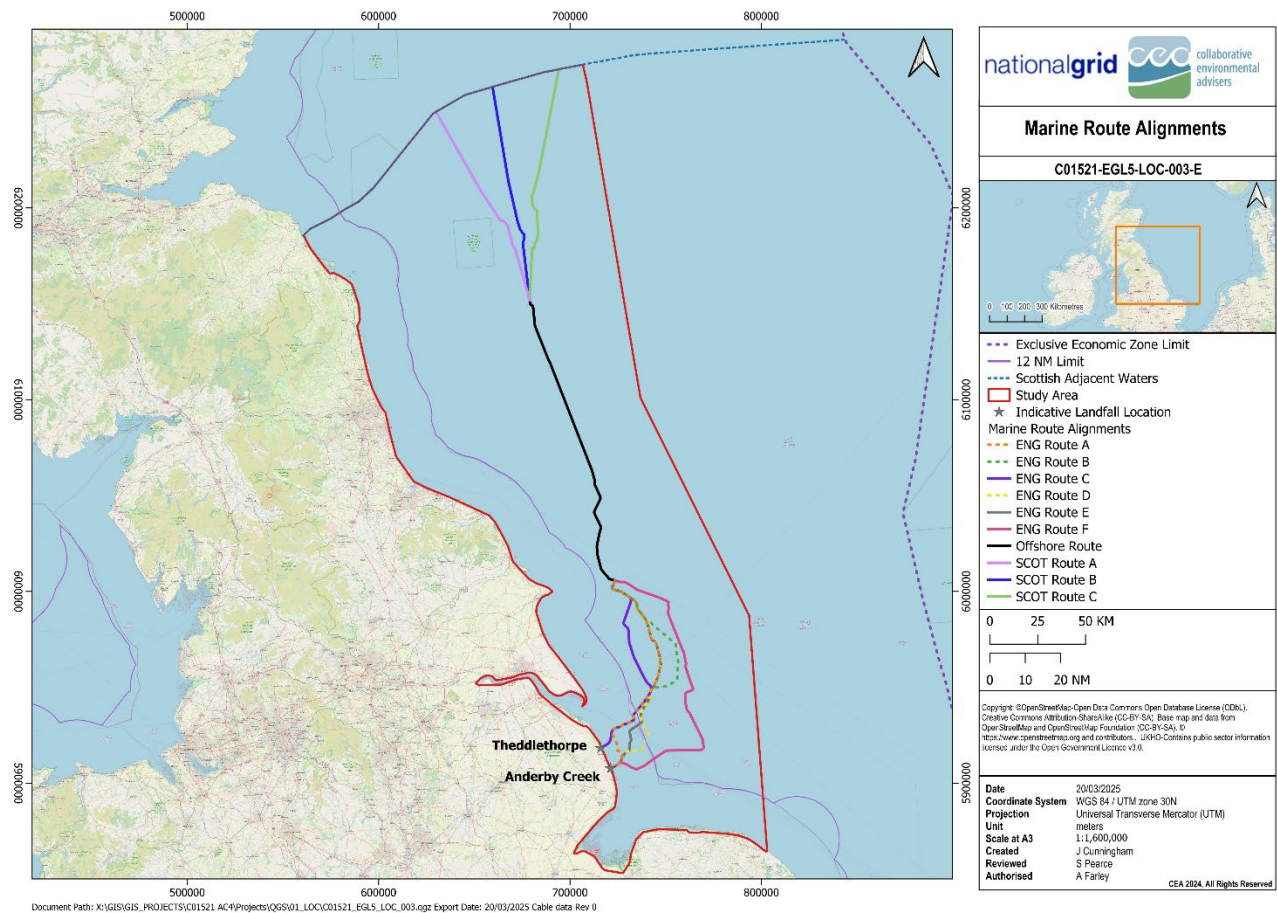


Figure 3-1: Marine route alignments



4. Environmental and Socio-Economic Constraints

The English landfall areas and marine route alignments are heavily constrained by both environmental and socio-economic aspects. Table 4-1 summarises these constraints.

Table 4-1: Environmental and socio-economic constraints

Topic	Subtopic/constraint	Summary of constraints within English Waters
Biological Environment	Designated sites with marine components	Marine route alignments interact with: 3 SACs, 2 SPAs, 1 MCZ, 1 SSSI These sites protect harbour porpoise, wintering bird species and broadscale habitats. The marine route alignments avoided a further 29 designated sites.
	Designated sites - terrestrial	Marine route alignments interact with: 1 NNR – present at Theddlethorpe landfall site
	Annex I Habitats	Marine route alignments interact with: 1110 – Sandbanks which are slightly covered by sea water all the time. 1170 – Reef i.e., rocky marine habitats or biological concretions that rise from the seabed.
	Priority Coastal Habitats	Marine route alignments interact with: Coastal Lagoons – present at Theddlethorpe landfall site Fixed dunes with herbaceous vegetation ('grey dunes') - present at Theddlethorpe landfall site
	Priority Marine Features/Biodiversity Action Plan Priority Habitats/Sensitive Fish Habitat	Marine route alignments interact with: Sandeel habitat and herring spawning and nursery grounds Donna Nook seal haul out site
Historic Environment	Protected Wrecks Chartered Wrecks	No protected wrecks within or in close proximity to marine route alignments. Over 94,000 wrecks or obstructions found around the UK, a 250 m buffer was used in development of marine alignments to avoid interaction with known/charted wrecks.
Physical Environment	Sub Cropping or Outcropping Bedrock Superficial Sediments Mobile Sediments Bathymetric Features	A data set which shows area of hard substrate was used in conjunction with the high-resolution UKHO bathymetry data set to identify areas of potential subcropping/outcropping, mobile sediments and bathymetric features which were avoided by the marine route alignments.
Socio-economic Environment	Infrastructure Offshore Wind Farms	13 operational OWFs 9 OWFs in planning/construction stage
	Cables	Marine route alignments interact with: 2 operational interconnectors, 7 planned reinforcement cable projects or interconnectors, 6 operational telecommunication cables, 7 operational OWF export cables
	Oil & Gas	Marine route alignments interact with: 27 active pipelines and 11 not in use or abandoned pipelines
	Shipping and Navigation	The route engineering has designed crossings to avoid any TSSs and high-density shipping areas. Crossing within shipping lanes perpendicular to minimise distance through these areas and to minimise disruption to shipping during the survey and installation campaign. Consideration has been given to the design of cable crossings in shallow water so that



Topic	Subtopic/constraint	Summary of constraints within English Waters
		they are designed to keep under keel clearance of vessels to a maximum to minimise impact to shipping and navigation especially in those areas of high intensity. Marine route alignments were designed to be a minimum of 50 m away from any navigation buoys and point infrastructure such as harbour facilities including posts/stakes and outfall pipe diffusers.
	Restricted areas	No aquaculture sites 15 aggregate extraction sites 11 dredging, spoil and dumping grounds 4 small explosive dumping grounds 16 MoD PEXA, including Donna Nook Firing range, England
	Commercial fisheries	A preliminary review of commercial fishing activity was undertaken on all of the proposed marine route alignments
	Marine planning	Consideration given to: North East Offshore Marine Plan East Inshore and Offshore Marine Plan
	Major projects in planning (excluding power cables which are noted above)	Geological Disposal Facility 2 Carbon Capture and Storage projects South Humber Gateway Strategy



5. Assessment Summary

The marine route alignments were split into three groups: English landfalls, Offshore route and Scottish Water Approaches. Table 5-1 presents the appraisal of the English landfall marine route alignments.

Table 5-1: Appraisal for English landfalls

	Theddlethorpe Beach	Anderby Creek				
	ENG Route C	ENG Route A	ENG Route B	ENG Route D	ENG Route E	ENG Route F
Route length (km)	111.7	126.4	141.7	126.1	121.7	168.6
No. of crossings	7 (2)*	13 (5)*	14 (5)*	13 (5)*	13 (5)*	14 (9)*
No. of crossings in protected sites	2 (3)*	8 (3)*	7 (3)*	8 (3)*	8 (3)*	5 (3)*
Biological Environment	Very High Risk	Very High Risk	Medium-High Risk	Very High Risk	Very High Risk	Very High Risk
Historic Environment	Low Risk	Low Risk	Low Risk	Low Risk	Low Risk	Low Risk
Physical Environment	Medium-High Risk	Medium-High Risk	Medium-High Risk	Medium-High Risk	Medium-High Risk	Medium-High Risk
Socio-Economic Environment	Medium-High Risk	Medium-High Risk	Medium-High Risk	Medium-High Risk	Medium-High Risk	Medium-High Risk
Overall Environmental Implications	Very High Risk	Very High Risk	Medium-High Risk	Very High Risk	Very High Risk	Very High Risk
* numbers in bracket indicate potential crossings with major developments if infrastructure is constructed in advance of EGL 5.						
Key to Risk Categories	Showstopper	Very High Risk	Medium – High Risk	Medium Risk	Low Risk	Very Low Risk

The appraisal of the English landfall marine route alignments concluded:

- All landfalls and marine route alignments had significant challenges associated with them which resulted in the categorisation of very-high risk for all options appraised with the exception of ENG Route B which had an overall categorisation of Medium-high risk. Many of the marine route alignments had the same constraints and challenges as they cross the Southern North Sea SAC and Greater Wash SPA.
- Marine route alignment ENG Route F to Anderby Creek was assessed as the least preferred of the marine route alignments, as although technically feasible, it crosses the Inner Dowsing, Race Bank and North Ridge SAC. It was therefore, assessed as very-high risk under the biological environment category with potential for permanent loss of supporting habitats from pre-sweeping / dredging across protected sandbank features but also the potential for infrastructure crossings. The marine route alignment also crosses a protected sandbank outside of the SAC and in the nearshore crosses the Greater Wash SPA, requiring four infrastructure crossings. It is also the longest of the landfall approach marine route alignments.
- Marine route alignments ENG Routes A, C, D and E were assessed as having a very high risk under the biological environment category as they cross the Holderness Offshore MCZ. Each marine route alignment would also require a crossing of the West Sole to Easington pipelines, within the MCZ. In addition, it is expected that full burial in the seabed would not be achievable through the full site due to ground conditions, requiring external cable protection deposits.
- Marine route alignment ENG Route B intersects the Holderness Offshore MCZ, however the marine route alignment is significantly shorter than ENG Routes A, C, D and E and was therefore assessed as having a medium – high risk under the biological category due to potential reduction in the likelihood of requiring external cable protection. The marine route alignment does interact with a protected geological feature of the MCZ, the 'North Sea glacial tunnel valley'. However, applying advice received from EGL 3 and EGL 4 indicates that installation through this feature would not hinder site objectives.
- ENG Route E was the second least preferred of the marine route alignments. Whilst it avoided Inner Dowsing, Race Bank and North Ridge, it was one of the least preferred routes with respect to Holderness Offshore MCZ and in addition crossed through a marine aggregate production area.
- ENG Route C and D were ranked in the middle of the marine route alignment options. Both share the constraints associated with crossing Holderness Offshore MCZ. However, ENG Route C routes to Theddlethorpe (the least preferred



- landfall) and crosses the Donna Nook Firing Range. ENG Route D overlaps the eastern edge of a marine aggregate production area and consultation identified that sensitive *Sabellaria spinulosa* reef would likely be present along the route.
- ENG Route A and ENG Route B follow a similar nearshore approach to the Anderby Creek landfall. Both interact with Holderness Offshore MCZ, with ENG Route A marine route alignment routing directly through the middle of the MCZ and marine route alignment ENG Route B avoiding the majority of the MCZ and only crossing the south-east corner for a short distance. At this stage of the Project it is considered that further information on ground conditions is needed to assess the relative impact of the cable installation methods and likely associated remedial external cable protection of both marine route alignment options through Holderness Offshore MCZ before discounting either one of these.

Two features offshore Lincolnshire, the Holderness Offshore MCZ and the Silver Pit bathymetric deep significantly constrain cable route development to the landfalls. Statutory Nature Conservation Body (SNCB) guidance is that development should be avoided within MCZs where possible, and if a site cannot be avoided (i.e. there are no feasible alternatives) then impacts should be minimised e.g., by taking the shortest route through the site, avoiding certain activities which could hinder the achievement of the conservation objectives. The MCZ is at the northern end of Silver Pit, with part of the North Sea glacial tunnel valley entering the MCZ. Silver Pit has very steep slopes at the sides which are technically challenging for cable burial. There is therefore a pinch point at the southeastern corner of the MCZ between the site boundary and the Hornsea 1 and 2 OWF export cables which cross Silver Pit slightly to the southeast. EGL 3 have taken the optimal route to avoid the MCZ and cross the Silver Pit in this gap. EGL 4 have chosen the second technically preferential route across the Silver Pit (where slope angles are reduced) but in doing so cross Silver Pit within the MCZ.

Whilst EGL 5 has sought to parallel the EGL 3 cable route within English waters, for security of supply reasons it cannot be installed in proximity, space between the two cable systems is required in this specific area. Therefore, whilst still the preference for the reasons provided above, marine route alignment ENG Route B could not avoid the Holderness Offshore MCZ completely.

The options appraisal concluded, from a marine technical and consenting perspective, that both **ENG Route A and ENG Route B are taken forward for further consideration as the preferred English marine route alignment** until further site specific survey data can be acquired to discount one of those marine route options as less preferred due to increased installation and cable protection constraints and their associated risks.

Table 5-2 presents the appraisal of the Offshore marine route alignment.

Table 5-2: Appraisal for Offshore marine alignments

	OFFSHORE ROUTE A
Route length (km)	157.8
No. of crossings	14 (11)*
No. of crossings in protected sites	0
Biological Environment	
Historic Environment	
Physical Environment	
Socio-Economic Environment	
Overall Environmental Implications	
* numbers in bracket indicate potential crossings with major developments if infrastructure is constructed in advance of EGL 5. Figures assume Dogger Bank A & B cables will be constructed in 2024.	
Key to Risk Categories	Showstopper Very High Risk Medium – High Risk Medium Risk Low Risk Very Low Risk

The overall environmental implications of marine route alignment Offshore Route A were assessed as low risk. Offshore Route A avoids crossing any designated sites and mapped Annex I habitat. No additional offshore routes were considered.

The options appraisal concluded, from a marine technical and consenting perspective, **Offshore Route A is the preferred offshore marine route alignment**



Table 5-3 presents the appraisal of the marine route alignment to the Scottish border.

Table 5-2: Appraisal for Scottish water approaches.

	SCOT A	SCOT B	SCOT C			
Route length (km)	111.6	113.8	124.5			
No. of crossings	1 (3)*	1 (3)*	1 (3)*			
No. of crossings in protected sites	0	0	0			
Biological Environment						
Historic Environment						
Physical Environment						
Socio-Economic Environment						
Overall Environmental Implications						
* Numbers in bracket indicate potential crossings with major developments if infrastructure is constructed in advance of EGL 5.						
Key to Risk Categories	Showstopper	Very High Risk	Medium – High Risk	Medium Risk	Low Risk	Very Low Risk

The appraisal of the Scottish water approaches marine route alignments concluded:

- There is little to differentiate the three Scotland approaches marine route alignments in English waters.
- Marine route alignments SCOT Route A, B and C, all pass through areas important for commercial fisheries. SCOT Route A crosses an area identified as a potential sandeel spawning ground which SCOT Route A and B both avoid.

The selection of a marine route alignment in English waters has been driven by the conclusions from SSEN-T's option appraisal process. In Scottish waters marine route alignment SCOT Route A would pass through the Firth of Forth Banks Complex NCPA and was therefore identified as the least preferred of the three options. SSEN-T also identified SCOT Route C as less preferential from a Scottish perspective due to the length of the marine route alignment. As there was no differentiator between SCOT Route B and SCOT Route C the shortest most economical route was chosen.

The options appraisal concluded, from a marine technical and consenting perspective, **marine route alignment SCOT Route B is the preferred Scottish marine route alignment.**

6. Emerging Preference

The marine route options appraisal concluded that the following marine route alignments represent the emerging preferred marine route:

- Landfall at Anderby Creek
- Marine Route Alignment ENG Route A or ENG Route B
- Offshore Route A
- Marine Route Alignment SCOT Route B

It should be noted that the emerging preferences may change following the geophysical, geotechnical and environmental survey which are due to be undertaken for the project. Should something unexpected emerge from these surveys, the route designs will be revisited.

The emerging preference for EGL 5 is the marine cable route as presented in Figure 6-1.

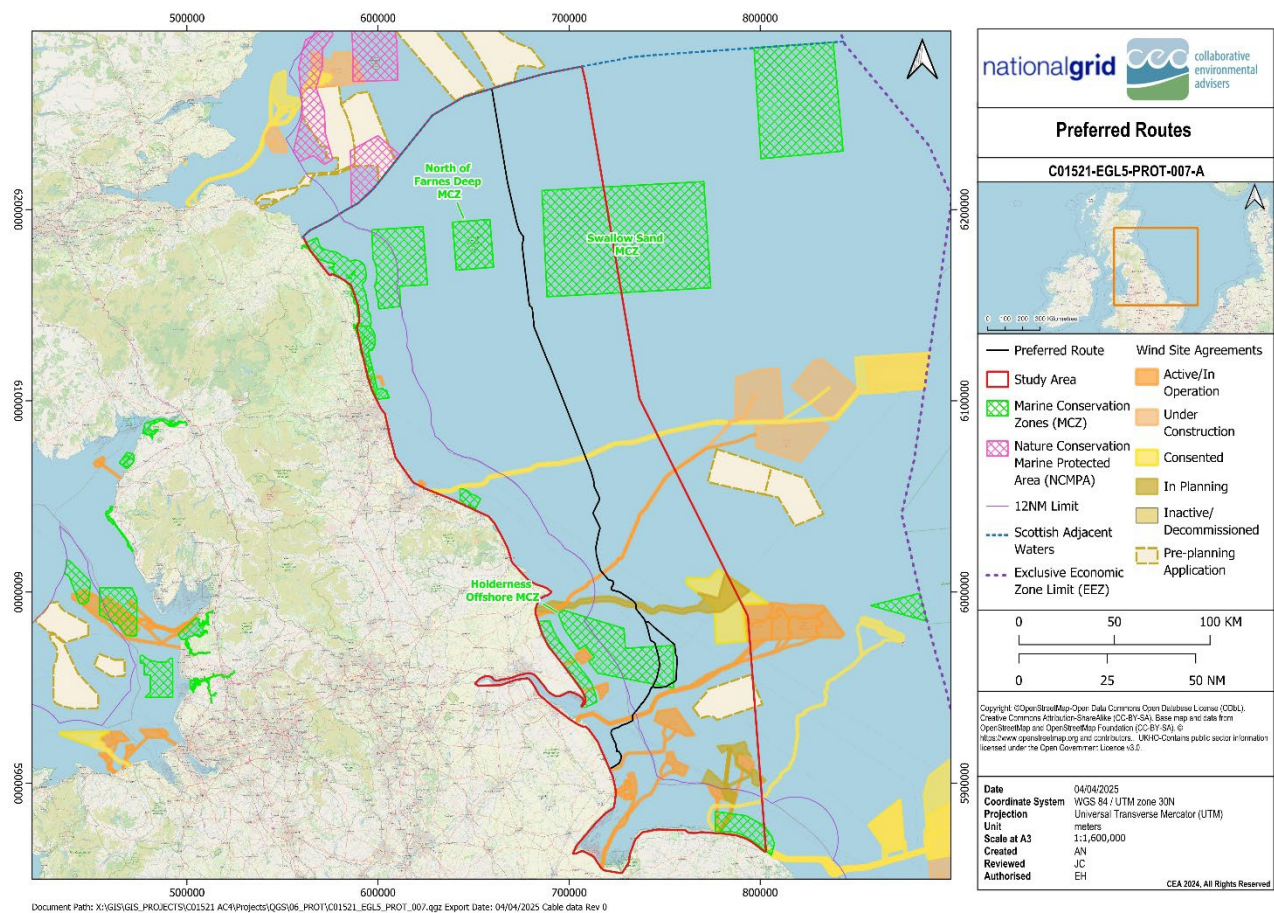


Figure 6-1: Emerging preference for



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