Our Ref: 01.01.01.01-6553U
UKOP Doc Ref:1446884

Offshore Petroleum Regulator for Environment & Decommissioning

NET ZERO NORTH SEA STORAGE LIMITED
CHERTSEY ROAD
SUNBURY ON THAMES
MIDDLESEX
UNITED KINGDOM
TW16 7BP

Registered No.: 12473084

Date: 21st May 2026

Department for Energy Security & Net Zero

AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

Tel [redacted]
Fax

www.gov.uk/desnz
opred@energysecurity.gov.uk

Dear Sir / Madam

THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2020
Northern Endurance Partnership Development - Phase I (Trunkline and Infield)

I refer to your amended application dated 20th May 2026, reference PL/2543/2 (Version 6).

It has been determined that the proposed changes to the project is not likely to result in a significant effect on the environment, and therefore an environmental impact assessment is not required.

A screening direction is therefore issued for the changes to the project. An amended schedule of conditions, comments, and main reasons for the decision on the amended application, are attached. A copy of this screening direction will be forwarded to the application consultees, the Oil and Gas Authority and published on the gov.uk website.

If you have any queries in relation to this screening direction or the attachments, please do not hesitate to contact [redacted] on [redacted] or email the Environmental Management Team at opred@energysecurity.gov.uk.

Yours faithfully

Signature Not Verified
Digitally signed by Department for Energy Security and Net Zero
Date: 2026.05.21 10:44:58 BST
Reason: On behalf of the Secretary of State
Location: Offshore Petroleum Regulator for Environment and Decommissioning

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THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2020

SCREENING DIRECTION CONFIRMING THAT AN ENVIRONMENTAL IMPACT ASSESSMENT IS NOT REQUIRED

Northern Endurance Partnership Development - Phase I (Trunkline and Infield)

PL/2543/2 (Version 6)

Whereas NET ZERO NORTH SEA STORAGE LIMITED has made an application dated 20th May 2026, under The Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Assessment) Regulations 2020, and whereas the Secretary of State has considered the application and is satisfied that the project is not likely to have a significant effect on the environment; in exercise of the powers available under regulation 6, the Secretary of State hereby directs that the application for consent in respect of the project need not be accompanied by an Environmental Impact Assessment, provided that the project is carried out as described in the application for the screening direction and in accordance with the conditions specified in the attached schedule.

In giving a screening direction under regulation 6 of the above Regulations, the Secretary of State accordingly gives agreement to the Oil and Gas Authority to the grant of consent for the project as detailed in the application, PA/5187 and PA/5229 and PA/5927.

Effective Date: 21st May 2026

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THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2020

SCHEDULE OF SCREENING DIRECTION CONDITIONS

The grant of this screening direction is conditional upon the screening direction holder complying with the following conditions.

1 Screening direction validity

The screening direction shall be valid from 4 April 2025 until 31 March 2028.

2 Commencement and completion of the project

This Screening Direction has been approved to allow for the pre-installation and installation activities associated with PL6549 (the 143 km 28" CO2 export pipeline) and for approval of the relevant NSTA PWA consents. A new Screening Direction must be submitted prior to any further offshore construction work.

The holder of the screening direction must confirm the dates of commencement and completion of the project covered by the screening direction. Notification should be sent by email to the Environmental Management Team Mailbox: opred@energysecurity.gov.uk

3 Nature of stabilisation or protection materials

Rock deposits

1,922,122 tonnes of clean, inert rock material, containing minimal fines, (The quantity of rock deposited should be the minimum required to provide the necessary stabilisation or protection, and any surplus rock must be returned to land).

Concrete mattress deposits

1,290 concrete mattresses. (The number of mattresses deposited should be the minimum required to provide the necessary protection, and any surplus mattresses must be returned to land).

Hessian grout bags

1,020 tonnes of hessian grout bags (The number of grout bags deposited should be the minimum required to provide the necessary protection, and any surplus mattresses must be returned to land).

4 Location of pipeline and stabilisation or protection materials

Within an area bounded by the coordinates as detailed in the application.

5 Prevention of pollution

The holder of the screening direction must ensure that appropriate measures are taken to minimise discharges, emissions and waste, in particular through the appropriate use of technology; and to ensure that necessary measures are taken to prevent incidents affecting the environment or, where they occur, to limit their consequences in relation to the environment.

6 Inspections

Should the Department consider it necessary or expedient for an inspector appointed by the Secretary of State to investigate whether the conditions of the screening direction are being complied with, the holder of the screening direction shall afford the inspector with such facilities and assistance as the inspector considers necessary to exercise the powers conferred by the regulations. The holder of the screening direction shall additionally ensure that copies (electronic or paper) of the screening direction and any other relevant documents are available for inspection by the inspector at:

a) the premises of the holder of the screening direction; and
b) the facilities undertaking the project covered by the screening direction.

7 Monitoring

The results of any pre or post-placement surveys carried out to confirm the necessity for the deposits covered by the screening direction and/or to confirm the accurate positioning of the stabilisation or protection materials, should be forwarded to the Department following completion of the surveys

8 Check monitoring

Should the Department consider it necessary or expedient to undertake an independent monitoring programme to assess the impact of the project covered by the screening direction, the screening direction holder shall afford the Department with such facilities and assistance as the Department considers necessary to undertake the work.

9 Atmospheric emissions returns

Following completion of the project covered by the screening direction, the holder of the screening direction shall report all relevant atmospheric emissions, such as combustion emissions, using the appropriate Environmental Emissions Monitoring System (EEMS) reporting forms.

10 Deposit returns

The holder of the screening direction shall submit a report to the Department following completion of the deposit covered by the screening direction, confirming the quantity of materials deposited and the estimated area of impact, using the appropriate Environmental Emissions Monitoring System (EEMS) reporting form. Where no deposits are made, a 'nil' return is required.

11 Unauthorised deposits

Following completion of the project covered by the screening direction, the holder of the screening direction shall recover any materials accidentally or temporarily deposited on the seabed, such as debris, temporary containers, structures or deposits, or scientific instruments, and shall return the materials to land. If it is not possible to recover any of these deposits, full details of the materials remaining on the seabed must be reported to the Department in accordance with the requirements of Petroleum Operations Notice No.2 (PON2).

12 Screening direction variation

In the event that the holder of the screening direction proposes changes to any of the particulars detailed in the application for a screening direction, the holder must notify the Department immediately and submit an application for a post screening direction amendment. The post screening direction must be in place prior to the amended proposals taking effect.

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COMMENTS ON THE APPLICATION FOR SCREENING DIRECTION

Section 1

The attention of screening direction holders is drawn to the following provisions regarding The Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Assessment) Regulations 2020.

1) You are deemed to have satisfied yourself that there are no barriers, legal or otherwise, to the carrying out of the project covered by the screening direction. The issue of a screening direction does not absolve the screening direction holder from obtaining such authorisations, consents etc that may be required under any other legislation.

2) The Department would draw your attention to the following comments:

n/a

3) All communications relating to the screening direction should be addressed to:

opred@energysecurity.gov.uk

or

Offshore Petroleum Regulator for Environment & Decommissioning
Department for Energy Security & Net Zero
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

Tel [redacted]

Offshore Petroleum Regulator
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SCHEDULE OF SCREENING DIRECTION DECISION REASONS

The Secretary of State has decided that, based on the information provided, the project is not likely to have a significant effect on the environment. The main reasons for this decision are:

1) Decision reasons

The following provides a summary of the assessments undertaken by OPRED to determine whether an Environmental Impact Assessment is required for this project, summarises the information considered, the potential impacts, and sets out the main reasons for the decision made.

Assessment is required or not, the following have been taken into account:
a) the information provided by the developer;
b) the matters listed in Schedule 5 of The Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Assessment Regulations 2020) (the Regulations);
c) the results of any preliminary verifications or assessments of the effects on the environment of the project; and
d) any conditions that the Secretary of State may attach to the agreement to the grant of consent.

Characteristics of the Project

Having regard, in particular, to the matters identified at paragraphs 1(a) to (g) of Schedule 5 to the Regulations, the characteristics of the project include the following:-

Summary of changes to the project

PLA/1120 PL/2543/2 (Version 4) - further details of the pre-installation and installation activities associated with PL6549 (the 143 km 28" CO2 export pipeline).

Further details are provided within the Screening Direction for PL6546 (the 5.89 km; 28" CO2 infield pipeline)

Further details are also provided for landfall sections of PL6545 (the 6 km spare power and communication cable) and of PL6548 (the 151 km power and communication DCFO cable). These works will be subject to a further variation anticipated to be submitted in 2027.

PLA/1120, PL/2543/1 (version 2) - addition of boulder clearance operations.

Ahead of pipeline installation, the proposed route will be cleared of boulders to enable operations. Approximately 350-6,350 boulders, ranging from 0.3 m to 1.5 m in diameter, will be relocated beyond the pipeline corridor. The clearance corridor will

extend about 10 m on either side of the route, widening to 50 m between KP117 and KP143 to accommodate sandwave pre-sweeping and installation access.

Boulder relocation will be performed using an AUX Remotely Operated Vehicle (ROV) equipped with a peel grab, deployed from a multi-purpose offshore vessel. This method allows precise removal with minimal seabed disturbance. Identified boulders will be lifted and repositioned on the seabed outside the pipeline corridor, either 10 m or 50 m from the route.

The following assessment record has been updated and remains valid.

Summary of the Project

The Northern Endurance Partnership Carbon Capture and Storage ("NEP Development") proposal consists of the drilling of six wells for the storage of dense phase fluid carbon dioxide within the Endurance Store, which is a saline aquifer making up part of the Bunter Sandstone formation. Carbon dioxide will be transported to the Endurance store site using a 28" concrete coated trunkline going ashore at Teesside. A later expansion phase will include a Humber gathering system and further 28" pipeline **.**

The project for which this approval applies to covers the following:

i) Installation of a 28" carbon dioxide trunkline running from Teesside to the Endurance Store.
ii) Installation of a 28" carbon dioxide infield pipeline.
iii) Installation of three power and communication cables (Main DCFO to Four-slot Manifold, splice to Co-mingling Manifold, nearshore spare).
iv) Installation of five 8" carbon dioxide pipelines (between manifolds and wells).
v) Installation of six power and communication cables (between manifolds and wells).
vi) Installation of two manifolds and 6 X-trees.
vii) Subsea rock installation will be required for several reasons. The deposits will consist of:

1,922,122 tonnes rock (Rock deposit 1 - 5" grade)
1,290 concrete mattresses (6 m x 3 m)
1,020 tonnes of hessian grout bags

Description of the Project

This phase of the project covered by PL/2543/2 involves the pre-installation and installation activities associated with PL6549 (the 143 km 28" CO2 export pipeline from Teesside to the Northern Endurance Store site).

It is proposed that carbon dioxide will be transported to the Endurance store site using the 28" concrete coated trunkline. The trunkline, approximately 143 km in length, will make landfall on the Tees coast to the south of the mouth of the Tees Estuary.

Nearshore works including seabed sweeping will create a recovery pit for the Tunnel Boring Machine and a pre-cut shore approach trench. The landfall installation of the trunkline at Teesside will be undertaken using a direct pipe construction method, whereby a Tunnel Boring Machine advances from an onshore launch pit while a 56" steel casing is simultaneously installed behind the cutter head via pipe-jacking. The casing will be installed beneath the intertidal zone to a termination point at approximately KP1.3. The installed casing will then remain in situ to receive the 28" CO export pipeline. Following installation, annular cement will be pumped from onshore to secure the pipeline within the casing.

A specialist nearshore pipelay vessel will then install the pipeline into the pre-swept corridor from KP1.3 to KP3.3. On completion of nearshore operations, the pre-cut shore approach trench and TBM recovery pit between KP1 to KP3.3 will be backfilled with material excavated during the pre lay phase.

Between KP3.3 and KP7.3, the pipeline will be progressively welded and laid within the defined anchor corridor. Post-lay trenching works will then be undertaken using a mechanical trenching system deployed from a multi-service vessel. Seabed material will be displaced during trenching and deposited along either side to form berms. The excavated sand will subsequently be used for backfilling to cover the pipeline and reinstate the seabed to conditions comparable to those prior to installation.

From KP7.3, the C1 will undertake pipelay operations using dynamic positioning and will continue with pipelay operations to the Endurance Store at KP143.

From KP7.3 to KP34.8, the pipeline will be surface laid using an offshore pipelay vessel, with rock and concrete mattresses being required at points in advance. From KP34.8 to KP79, the pipeline will be surface laid with sporadic rock protection required. From KP79 to KP117, post-lay trenching will be carried out using a mechanical trenching system. Displaced sand will be left in situ to naturally backfill.

Pre-installation seabed sweeping will be required offshore in areas of mobile sandwaves between KP117 and the Endurance Store area at approximately KP143. The pre-swept corridor is assumed to be up to 40 m wide and will extend from KP117 to KP134 along the CO export pipeline. Relocated sand will be deposited within a pre-identified emplacement corridor located at least 1 km from NEP infrastructure.

Future works

Further details of the construction methods for the electric power and fibre-optic communications cable and the infield infrastructure will be provided in a subsequent screening direction prior to offshore construction commencing. These are described below.

An electric power and fibre-optic communications control cable will run from Teesside to the subsea infrastructure at the Endurance Store. The project also includes a 28" CO2 pipeline between two manifolds at the Endurance Store and three power and

communication cables running from onshore at Teesside to the Store.

Infield at the Endurance Store, the Screening Direction covers five 8" CO2 infield pipelines along with six power and communication cables and two manifolds.

The infield CO2 pipelines will be trenched by plough which will be supported from a trenching/ploughing vessel. It is assumed the worst-case disturbance width will extend up to 12 m, with a target trench depth of 1.5 m to allow for a 1.0 m cover from the top of the pipeline to mean seabed level. Further details of the construction methods will be provided in a subsequent screening direction prior to offshore construction commencing.

Subsea infrastructure at the Endurance Store will be electrically powered via a power and fibre-optic communications control cable from Teesside. Two manifolds will be connected by a surface laid and partially trenched 28" infield pipeline of approximately 6 km length and an electric power and fibre-optic communications control cable. The manifolds will then be connected to the five injection wells and a monitoring well.

The 8" infield pipelines will be trenched and backfilled, with concrete mattress and rock for protection as described in the Screening Direction.

The manifolds will be connected to the six wells by power and fibre-optic communications control cables. The two manifolds are a crossover co-mingling manifold (16 m 20 m), which will distribute CO2 for injection into two wells, and a four-slot manifold (24 m 10 m) at the Endurance Store, connected to the other three injection wells, with the potential to support a further tie-in point. Four piles may be used to anchor each manifold. A variation will be submitted at a later date to facilitate the installation of the piles.

The proposed operations will therefore result in a total area of approximately 3.7 km2 of long term disturbed seabed, 35.2 km2 of direct temporary impacts and 70.85 km2 of temporary indirect impacts.

It is not considered likely that the project or change to the project will be affected by natural disasters.

Location of the Project

Having regard, in particular, to the matters identified at paragraphs 2(a) to (c) of Schedule 5 to the Regulations, the environmental sensitivity of geographical areas likely to be affected by the project has been considered as follows:-

The Endurance Store is located approximately 63 km from the nearest coastline in water depths of approximately 65 m. The Teesside trunkline, approximately 142 km in length, will make landfall on the Tees coast to the south of the mouth of the Tees Estuary.

Fish and shellfish

The proposed Endurance store area lies within numerous spawning and nursery areas of fish species. Of the species which may be present in the Endurance Store area, cod and spurdog are on The Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) list of threatened and/or declining species and habitats. Spurdog is additionally globally classed as vulnerable under the International Union for Conservation of Nature Red list. Sandeels (specifically *Ammodytes marinus*) are listed as a species of principle importance under the UK Biodiversity Action Plan and as Features of Conservation Importance (FOCI) defined in relation to the Marine Conservation Zone (MCZ) network. There is evidence that the western end of the store exhibits some suitability for sandeel spawning.

Species using the proposed trunkline route for spawning and nursery grounds are similar to the proposed Endurance store area, however, *Nephrops* , plaice and ling may use points on the trunkline route as nursery grounds. *Nephrops* also use some of the area as spawning grounds. Much of the trunkline route has been identified as either rarely or occasionally used by cod for spawning. Sediment along the trunkline route were assessed as being 'prime', 'sub-Prime' or 'suitable' for sandeel spawning at several stations distributed along the route and preferred herring spawning potential was identified at four locations.

Seabirds

Multiple species of seabird could be present in the vicinity of the store or pipelines in various levels of abundance, dependent upon the season. The 28" trunkline passes through the Teessmouth and Cleveland Coast SPA which supports breeding little tern (*Sterna albifrons*) and passage of sandwich tern (*Sterna sandvicensis*). It also supports wintering knot (*Calidris canutus islandica*), redshank (*Tringa totanus totanus*), and an assemblage of over 20,000 wintering waterfowl. The 2001 SPA review identified an internationally important population of passage ringed plover (*Charadrius hiaticula*). In addition the Northumbria Coast SPA is 15 km north-northwest of the trunkline route. The SPA is designated for breeding Arctic tern and little tern and non-breeding purple sandpiper and turnstone.

European Protected Species and pinnipeds:

A total of 19 species of cetacean have been recorded in UK waters. With the exception of harbour porpoise, the SNS typically has a lower density of cetaceans than the Northern North Sea (NNS) and Central North Sea (CNS). Across the Endurance store and the trunkline route, bottlenose dolphin, harbour porpoise, white-sided dolphin, pilot whale, minke whale, white-beaked dolphin, and common dolphin have all been observed at various times of year in differing numbers. Harbour porpoise is the most abundant cetacean species in the area.

The Endurance store lies within the Southern North Sea Special Area of Conservation (SNS SAC) of which Harbour porpoise is the designated feature. Further assessment of the impacts of the project on the relevant SAC has been

undertaken through a Habitats Regulations Assessment undertaken under Regulation 5 of the Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001.

Offshore, at the Endurance Store, the density of grey and harbour seals is relatively low. The Teesmouth and Cleveland Site of Special Scientific Importance (SSSI) is designated for both geological and biological features, including breeding harbour seals and will be intersected by the Teesside trunkline.

Other Users of the Sea

Fisheries

The fishing effort for the majority of the project area is low to moderate. The most common gear types in the NEP Development area close to shore are pots and traps, and gears using hooks. Further offshore, demersal trawls/seines, beam trawls, and dredges dominate.

Shipping

Shipping density in the project area ranges from a density of 5.1 average weekly vessel transits to 250 transits per 4 km2. Vessel presence is lowest at the Endurance Store, and this increases as the trunkline gets closer to the shore. This area of coastline, from Teesside to Humber is extremely busy with most traffic attributed to cargo vessels and tankers.

Military Activity

Military Practice and Exercise Areas (PEXAs) overlap with the NEP Development, including the trunkline routes The Endurance Store is located within PEXA D323C. In addition, special consultation conditions are flagged by the Ministry of Defence (MoD) in relation to some of the UKCS Blocks in the vicinity of the NEP Development due to their proximity to training ranges.

Cables

The proposed trunkline route will cross two wind cable lease areas which are currently in the planning phase.

The trunkline route will cross the following telecom cables:

UK-Denmark 4 (operated by British Telecom (BT)) disused cable.
Pangea North (operated by ASN) active cable.
A fibre optic cable associated with the Breagh field: and
TATA North Europe (operated by TATA Communications) active cable.

The proposed Scotland England Green Link 2 (SEGL2) is a High Voltage Direct Current link between Peterhead and Drax that is currently in the pre-planning phase. It is anticipated that this will cross the trunkline route.

Archaeological Features

There are no records of protected wrecks in the vicinity of the trunkline route. Archaeological interpretation of survey data obtained within the NEP Development area identified two wrecks within the Endurance Store area and 11 wrecks along the trunkline route.

In-combination, cumulative and transboundary sensitivities

The project area is located 105 km from the UK/Netherlands median line. The installation of infrastructure (siting of the wells and infield flowlines at the Endurance Store and the trunkline) will reduce availability of the natural environment to activities such as fishing, but this will be offset by trenching and burying of the infield flowlines and utilising construction methods such as direct pipe installation for the trunkline nearshore which will mean no infrastructure will be on the seabed long term so that fishing activities can continue in those locations. The proposed NEP Development is located in an area of oil and gas exploration and production and there is a large amount of oil and gas infrastructure in the region. There are 16 oil and gas installations located within 40 km of the Endurance Store. Much of the oil and gas infrastructure is due to be decommissioned in the coming years which could potentially increase interactions with the NEP Development due to increased vessel presence and activities in the surrounding waters.

There are a number of Offshore Wind Farm (OWF) licensed areas and OWF projects under development in the vicinity of the NEP Development. The Endurance Store area overlaps with the lease area for the proposed Hornsea 4 project however at this time the plans for Hornsea 4 have been discontinued and there are not currently plans to develop on the leased site. Hornsea 2 and Hornsea 1 are operational. No other renewables lease areas, operational or under agreement, are located within 50 km of the Endurance Store.

Type and characteristics of the potential impact

In accordance with paragraph 3 of Schedule 5 to the Regulations, the likely significant effects of the change to the project on the environment have been considered. Potential effects on the environment from the activities associated with the project were assessed, including impacts arising from atmospheric emissions, seabed disturbance, physical presence, planned discharges and accidental spills. Other than the matters considered further below, there is not likely to be any significant impact from the change to the project on population and human health.

Physical presence of temporary and permanent infrastructure

The physical presence of the pipelay vessel and supporting vessels, will displace other users of the sea, which is predominately shipping, fishing and seabirds. In addition, including the infield pipelines and the trunk line are considered to be permanent infrastructure.

Seaward of mean low water spring, no permanent infrastructure will be present above the sea surface, and there will be no alteration to the existing landscape or seascape.

Development activities may directly disturb birds leading to displacement from foraging or loafing areas, causing birds to move elsewhere, potentially affecting breeding productivity or survival rates at an individual or population level.

Shipping

Intensity of shipping activities varies across the project area. The Endurance Store area experiences low vessel traffic and the safety zone will be in an area of open water which will allow vessels to avoid the safety zone. It is not anticipated that access to any ports or harbours will be reduced as a result of the construction work at the store.

The pipeline installation works will lead to temporary and short-term exclusion to vessels from the immediate vicinity of the installation vessels as they travel along the proposed pipeline routes. Limited exclusion impacts are expected during operation. The trunkline is proximal to a number of ports and harbours, and as such construction vessels have the potential to reduce access to the ports, however these operations will be localised and occur over a short time period. The expectation is that vessels will be able to navigate past the construction and any delays will be minimal.

Fishing

Fishing intensity is highest at the nearshore areas, which includes fishing using pots and traps, as well as scallop dredging. Demersal trawling is the primary fishing method at the Endurance Store area. Nearshore, the trunkline will be installed using direct pipe technique which will reduce the amount of pipeline on the seabed nearshore. Highest landings values and fishing effort occur in the coastal ICES rectangles relevant to the proposed trunk line route, with considerably lower landings values and effort in the Endurance Store area. Fishing vessels may experience temporary loss or restricted access to fishing grounds in the immediate vicinity of the installation vessels. Temporary loss of access will represent a small portion of the available fishing grounds in the area.

The surface laid or partially trenched sections of the trunkline route will represent increased snagging risk for trawler vessels but represents a small extent of the fishing grounds available to fishing activities, and fisherman will be made aware of the location of all infrastructure through existing systems e.g. FishSafe and navigational charts. The area lost to fishing activity represents a small extent of the available grounds in the area, and therefore, limited long-term exclusion is expected from the operation of the pipelines or cables. The impacts to the fishing industry are not considered significant.

Renewables

The Endurance Store area overlaps with the lease area for the Hornsea 4 project; however, at this time the plans for Hornsea 4 have been discontinued and there are not currently plans to develop on the leased site. Hornsea 2 and Hornsea 1 are operational. No other renewables lease areas, operational or under agreement, are located within 50 km of the Endurance Store. There are a number of smaller OWFs operational close to the pipeline routes. As with the shipping routes, the expectation is that vessels will be able to navigate past the construction areas and any delays or disruption will be minimal.

Seabirds

Any disturbance to seabirds relating to the physical presence of vessels will predominantly occur during the construction period. At the Endurance Store, pipeline and cable installation will be of a short duration and localised, and therefore any impact associated with the physical presence of vessels during the construction activities is considered to be not significant. The bird species most likely to be found in the NEP Endurance Store area have some degree of habitat flexibility and are not generally considered vulnerable. In the case of species which are more sensitive, the extent of disturbance predicted in line with the construction of the Development is such that any significant effect is not anticipated.

Further assessment of the impacts of the project on the relevant SPAs has been undertaken through a Habitats Regulations Assessment undertaken under Regulation 5 of the Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001.

I agree with the assessment, that the impacts resulting from the physical presence of the vessels and associated infrastructure, will have no significant effect on the environment.

Seabed disturbance and impacts

Aspects of the project which will lead to seabed disturbance and seabed impacts are:

Construction of the pipeline landfalls at Teesside.
Seabed preparation, trenching, installation, burial and protection (as required) of the trunk line, the Teesside - Store cable.
Installation of subsea infrastructure at the Endurance Store.
Seabed preparation, trenching, installation, burial and protection (as required) of the infield pipeline, flowlines and cables; and
Physical presence of the surface-laid pipelines, subsea infrastructure and protection structures for the lifetime of the NEP Development.

Pipeline landfall

The landfall installation of the trunkline will lead to seabed disturbance. The direct pipe technique will be used for construction of the landfall section of the trunkline.

Direct pipe involves a borehole going ashore from offshore so that the pipeline will be under the seabed and have minimal seabed disturbance. Direct pipeline installation will result in an area of direct disturbance, this area will be within the Pipelay anchor corridor.

The jack-up vessel proposed for the nearshore seabed intervention works utilises three spud legs fitted with spud cans. Seabed impression from a single spud can is approximately 2.9 m (1.7 m 1.7 m) with a penetration depth of approximately 1 meter. There is anticipated to be approximately 350 placements to execute the nearshore seabed intervention works. Surficial seabed sediments within the nearshore are dominated by fine to medium sand. Under prevailing wave and tidal conditions, these sediments are frequently mobilised, with finer fractions resuspended during higher wave energy and spring tidal phases. In the shallow waters of the SPA, sediment entrainment thresholds are regularly exceeded, reflecting a naturally dynamic and turbid coastal environment.

The nearshore pre-cut shore approach trench and TBM recovery pit will lead to temporary seabed disturbance within the anchor corridor. On completion of the nearshore pipelay, the temporarily relocated sediment will be used to backfill the TBM recovery pit and pre-cut shore approach trench leading to no long term impact.

These impacts are considered to be temporary in nature as the seabed will return to its original state after the construction phase.

Offshore pipeline installation

The offshore sections of the trunkline will be installed using an "S" lay pipelay vessel. The operator's preference is to use dynamic positioning (DP) to position the vessel.

The remaining sections of the trunkline will be surface laid except where partial trenching may be required to mitigate scour, and the design of the trunkline aims to minimise the requirements for rock protection. The base case is for no rock placement along the route of the trunkline however contingency may be required.

The worst-case scenario is the Teesside flowline requiring rock placement to protect 68 km of the trunk line. This equates to a total of 1,922,122 tonnes of rock, 1,290 mattresses and 1,020 tonnes of hessian grout bags (including all pipelines, trunkline, crossing and transitions).

An electric power and fibre-optic communications control cable will run from Teesside to the subsea infrastructure at the Endurance Store. The cable will be laid within a pre-cut trench. During trenching, a corridor up to 15 m wide along the cable route may be disturbed. The cable will require rock protection along sections of the route, with a worst-case total of 262,781 tonnes of rock. Where it is established that rock placement is needed, this would be applied above the cable by installation of a berm of crushed rock, achieving a minimum depth of cover of 0.5 m. Installation of the cable will be covered by a future Screening Direction.

Seabed habitats and species

The presence of rock protection, surface-laid pipeline and infrastructure on the seabed will result in a permanent impact to the seabed and have the potential to cause topographical changes due to the presence of structures on the seabed.

Seabed disturbance during installation will result in the compaction and removal of sediments within the footprint of infrastructure and along trench routes, leading to the temporary loss of benthic habitats and exclusion of species from these areas while infrastructure remains in place. Trenching activities will create localised disturbance corridors (approximately 15 m wide for the trunkline), generating spoil berms and causing some sediment resuspension. While this may lead to short-term smothering of sensitive species, such effects are expected to be temporary and spatially limited, with most suspended material settling close to the trench. Both epifaunal and infaunal communities are generally adapted to natural sediment dynamics and are therefore expected to recover relatively quickly, although recovery times may vary depending on local seabed conditions. In lower-energy environments, seabed features may persist longer, but biological recovery can occur even where physical disturbance remains visible.

The pipeline will pass adjacent to the Runswick Bay MCZ. The closest point to the MCZ is 440 m away. The section adjacent to the MCZ will be surface laid. It is not anticipated that the work will have any impact on the features of the MCZ.

The introduction of stabilisation materials represents a permanent localised change in habitat type, the overall footprint is small relative to the available seabed, and impacts on surrounding soft sediment communities are expected to be minimal. Sensitive habitats and species, including reef features, Sabellaria spinulosa, ocean quahog, and spawning grounds for certain fish species, may be present along the route, but impacts are generally predicted to be localised and not significant at a population or habitat scale. Recovery potential varies, with some species (e.g. ocean quahog) exhibiting slow recovery rates, but the limited spatial extent of disturbance and the dynamic nature of the environment mean overall ecological effects are expected to be negligible.

Archaeological features

The operator has identified a number of wrecks which have the potential to be impacted by the NEP Development activities e.g. trenching and backfilling works when laying pipelines and subsea infrastructure. Archaeological Exclusion Zones have been placed around these wrecks and there is agreed measures to avoid impacts. There is also agreed protocol in place to deal with unexpected discoveries.

Fish and Shellfish

The construction works may have an impact on fish and shellfish through seabed disturbance (smothering) and sediment re-suspension, and through long term

changes to the seabed habitat due to new infrastructure on the seabed. Adult and sub-adult fish and shellfish are expected to move away from disturbance and re-colonise the NEP Development area once the disturbance from installation activities has ceased. Suspension of sediment is expected to be very short term with most sediment settling after 24 hours and rapid recovery of populations.

Fish eggs are sensitive to smothering and sediment re-suspension and the work overlaps with the period of herring spawning. However, impacts arising from smothering and sediment re-suspension are short-term (generally over a period of a few days to a few weeks). Given the small area of potential herring spawning ground and spawning grounds of other species that may be affected, and the expected short-term nature of the disturbance, the NEP Development will not have a significant effect on herring spawning or the spawning of other species at the population level.

Seabirds and harbour porpoise

Indirect effects on seabirds and harbour porpoise may occur either through settlement of additional sediment on the seabed causing smothering of benthic prey items, or through the suspension of sediment in the water column reducing visibility and the ability of birds to find food.

The sensitivity of birds to habitat loss varies with species. Species that are sensitive to habitat loss generally have smaller foraging ranges and/or utilise fewer specific habitat. Species which may be impacted due to habitat loss are little tern and Red throated divers.

The trunkline passes through the Teessmouth and Cleveland Coast SPA which supports breeding little tern (Sterna albifrons) and passage of sandwich tern (Sterna sandvicensis). It also supports wintering knot (Calidris canutus islandica), redshank (Tringa totanus totanus), and an assemblage of over 20,000 wintering waterfowl. The 2001 SPA review identified an internationally important population of passage ringed plover (Charadrius hiaticula). In addition the Northumbria Coast SPA is 15 km north-northwest of the trunkline route. The SPA is designated for breeding Arctic tern and little tern and non-breeding purple sandpiper and turnstone.

Further assessment of the impacts of the project on the relevant SPA has been undertaken through a Habitats Regulations Assessment undertaken under Regulation 5 of the Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001.

The effects of the NEP Development project associated with seabed disturbance on seabirds are considered to be not significant.

The project will lead to the loss of seabed for Harbour Porpoise to utilise and cause potential changes to the availability of harbour porpoise prey fish species within the SNS SAC. The seabed footprint for the structures proposed to be installed on the seabed within the SAC amounts to a worst case of 0.1683 km2, representing 0.0004% of the overall SAC seabed area. Given the localised seabed footprint of the

subsea infrastructure and pipeline installation, the impacts on the supporting habitats and the availability of harbour porpoise prey species within the SNS SAC are not considered to be significant or pose a likely significant effect on the SNS SAC either alone or in-combination.

Further assessment of the impacts of the project on the relevant SAC has been undertaken through a Habitats Regulations Assessment undertaken under Regulation 5 of the Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001.

Discharges to sea

There will be limited discharges of chemicals used during the pipeline commissioning. Water quality and marine organisms were identified as key receptors. The impacts to water quality are likely to be localised and short term given the selection of chemicals which are low risk to the environment. The discharge of drill cuttings and chemicals are not considered to have a significant effect on the environment.

Atmospheric Emissions

Atmospheric emissions will arise from the project from the vessel fuel combustion during installation and commissioning.

Atmospheric emissions from the construction phase of the project will be related to fuel combustion from numerous vessels. The total estimated CO2(e) emissions from installation of the pipelines and infrastructure covered by this Screening Direction is 129,053 tonnes CO2e is equivalent to 0.694% of 2023 emissions from offshore activities (including emissions from shipping and oil and gas exploration and production).

Effects on air quality will be localised and given the distance from the UK/Netherlands median line, no transboundary impacts are expected. At Teesside, the nearest human receptors are recreational and include the Cleveland Golf Links and Redcar Beach Caravan Park which lie within 1 km of the landfall. Shipping activity for the NEP Development area is described as busy Nearshore, emissions from vessels that are temporarily present as a result of the NEP Development are considered negligible and are unlikely to be discernible from existing ongoing activities in the area.

The UK Climate Change Committee assessment for shipping (CCC, 2020; CCC, 2022), estimates that the Government's Net Zero pathway requires shipping emissions to fall by around 28% by 2035, relative to 2019 levels (i.e. from 14.3 MtCO2e/year to 10.3 MtCO2e/year). Currently there are no statutory sectoral emissions targets in the UK, including for the shipping sector. In 2035, vessel emissions from the Development are estimated to be around 3 kt CO e, representing 0.03% of the 10.3 MtCO2e (i.e., the 28% reduction in emissions relative to 2019 levels).

I agree with the assessment that the environmental effects from the atmospheric emissions are not significant.

Underwater noise

Noise generated from the vessel presence, dredging activities and potential rock dumping are non-impulsive noise sources and therefore considered to have a negligible effect on the marine environment.

Piling during installation of manifolds (which will be undertaken during a later stage of the project and will be assessed further in a subsequent Screening Direction) in the Endurance Store area was considered to have the greatest effect. Modelling of the noise generated by the manifold piling was undertaken to assess the impact to marine mammals and fish.

The predicted sound levels from the piling were compared to the sound pressure levels and sound exposure levels of the cetaceans known to frequent the area. The modelling concluded that the noise levels could disturb marine mammals up to a distance of 7.2 km (from the manifold piling work) and the potential to injure marine mammals would be within 100 m of the noise source. The developer has stated that JNCC mitigation guidelines will be followed during the piling operations, which includes the use of soft starts and a monitoring zone of 500 m. Given the proposed noise mitigation measures and that the piling works will be temporary in nature and short duration, the project will not have a significant effect on marine mammals and fish.

Sound modelling was also undertaken for fish species for both piling and concluded that injury would be temporary and highly localised, and disturbance is likely to occur over a slightly greater area range than for cetaceans. However, this is not likely to have a significant effect on fish species.

Harbour and grey seals may be present within the NEP Development area; however, the number of seals present is likely to be low and any noise impacts are considered not to pose a significant effect on seal species. Harbour seals may be impacted by operations however Harbour seals are generalist predators, and their broad habitat range in UK waters indicates that harbour seal is a very adaptable species. Modelling shows a potential radius of disturbance of 3.6 km from the piling sound source. Harbour seals in the UK, including those associated with the Tees estuary, are likely to forage generally within 50 km of their haul-out sites and there is extensive alternative foraging habitat out with the disturbance area.

The Endurance Store lies within the Southern North Sea SAC and as such additional protections exist for the effect of noise sources on Harbour porpoise. The piling work will require further approval prior to the work being undertaken. As part of this, there will be procedures in place to ensure that daily and seasonal noise thresholds are not exceeded either for the activities alone or in combination. There is potential for prey species of harbour porpoise (fish) to be impacted by underwater sound, but the piling

operations are considered to have a significant effect on fish species and will therefore not have a significant effect on harbour porpoise.

Effects of unplanned or accidental events

The following release scenarios are considered within the Screening Direction:

Diesel from the installation vessels
Chemicals from the installation vessels.

Diesel release from drilling rig and installation vessels

In the event of an unplanned release, the maximum loss of diesel inventory from the pipelay vessel is 8098 m3. Stochastic modelling showed the maximum quantity of marine diesel predicted onshore was 1,308 tonnes. The maximum probability of contamination to a UK shoreline (99.1%) occurred at Redcar and Cleveland with an arrival time of 3 hours. Additional worst case deterministic runs were conducted based upon the results of the stochastic modelling to fully evaluate the predicted mass onshore. Worst case shoreline impact was predicted to be a maximum of 701 g/m2 after 30 days, extending over a total shoreline area of 17.8 km2.

Given the results of the modelling, and the type of hydrocarbons, it was concluded that the loss of hydrocarbons from the pipelay vessel will not have a significant effect on the environment.

In addition, the developer will have Shipboard Oil Pollution Emergency Plan (SOPEP) for the vessels. Offshore training will be undertaken, and appropriate contracts will be in place to facilitate a response to a release should an event occur.

Chemical release from vessels

Approved operational procedures will be implemented to mitigate the likelihood of the accidental release of chemicals and to minimise their impact should they occur. The risk of a significant effect arising from the accidental release of the chemicals specifically used for the NEP Development are assessed to be negligible, due to the low quantities of chemicals present, the nature of chemicals and the low probability of an incident.

Cumulative Impacts

Physical Presence

The submission lists OWFs which overlap and are adjacent to the project area. The nearest operational OWF is the Hornsea Two which is 25 km ESE from the Endurance Store and consists of 165 turbines and covers an area of 462 km2. There will be no surface infrastructure built as a result of the NEP project however vessel activity may lead to some cumulative impacts for other users of the sea and seabirds. The cumulative impacts associated with the physical presence of the vessels has been assessed along with other vessels and permanent infrastructure in the area.

Given the temporary and localised impacts associated with the vessels and the project is not likely to have a significant effect from the presence of the vessels.

Further assessment of the impacts of the project on the relevant SPA has been undertaken through a Habitats Regulations Assessment undertaken under Regulation 5 of the Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001.

Seabed Disturbance

The assessment considered other nearby projects, including the early-stage Kumatage gas field and the proposed Dogger Bank A transmission asset, and found no significant cumulative impacts on benthic habitats within the SNS SAC. Existing seabed deposits from offshore operations occupy a small proportion of the SAC (around 0.00053%), and when combined with the proposed Development, total coverage would remain below 0.001% of the SAC area. Although these activities may locally alter sandy and coarse sediments that support harbour porpoise prey, the scale of change is negligible and unlikely to affect prey availability or conservation objectives.

Similarly, other developments and activities near the Teesside pipeline landfall, including offshore wind infrastructure, ports, and dredging operations, are sufficiently distant or limited in scale such that no meaningful cumulative effects are expected. Temporary seabed disturbance during construction is short-term, with rapid recovery anticipated, and sediment plumes from installation and dredging activities are expected to disperse quickly and remain minor compared to natural sediment dynamics. Overall, cumulative impacts from the Development, in combination with other projects, are considered insignificant.

Noise

No significant cumulative effects are predicted from underwater noise as a result of piling and seismic operations as part of the project. Operations within the Southern North Sea SAC will be assessed cumulatively with other operations to ensure that set thresholds of disturbance are not exceeded. If necessary, coordination will be undertaken with other developers to ensure that projects do not overlap, which could result in the thresholds being exceeded.

Atmospheric Emissions

The project contributes to the UK CO2 emissions, emitting 129 kt CO2e during the construction, which equates to 0.694% of 2023 emissions from offshore activities (including emissions from shipping and oil and gas exploration and production). Given the temporary nature of the construction phase emissions, it is not considered that the project will have a significant effect on cumulative CO2 emissions from offshore activities.

Discharges to Sea

With respect to discharges to sea, no cumulative effects with other oil and gas activities are expected because commissioning discharges will be temporary and spatially restricted.

Transboundary Impacts

The UK/Netherlands median lies approximately 105 km East from the nearest part of the NEP Development, which is the Endurance Store. There is the potential for the project to have an impact on global climate change however, as previously described, the project will not have a significant effect on UK emission levels. The storage of CO2 will contribute to UK and global net zero goals. There is not expected to be any transboundary effects from seabed disturbance, underwater sound, discharges to sea, potential accidental events, air quality or the physical presence of vessels.

Marine Plans

The Screening Direction details how the proposals meet the various objectives and policies of the East Marine Plan and North East Marine Plan.

2) Decision

Taking the above considerations into account, the Secretary of State has concluded

that the project is not likely to have a significant impact on the environment and that

an environmental impact assessment is not required.

2) Mitigation of significant effects

The following are features of the project or measures envisaged that the developer has proposed to avoid or prevent what might otherwise have been significant adverse effects on the environment:

n/a