Project description/scoping document – Area N-3.8

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1. Requirements from regional planning

APPLICATION SUBJECT

In accordance with § 45 (1) of the Wind Energy on Sea Act (*Windenergie-auf-See-Gesetz*; WindSeeG), the erection and operation of plants for generation of electricity from wind energy that have been erected at sea at a distance of at least three nautical miles seaward from the coastline of the Federal Republic of Germany require plan approval. This project description is submitted for scoping for the plan approval for the construction and operation of the offshore wind farm (OWF) "N-3.8".

The project area for OWF "N-3.8" is located in the German Exclusive Economic Zone of the North Sea in the north-western German Bight, in cluster N-3 (see Figure 1). The distance to the closest islands of Norderney, Juist, Baltrum, and Langeoog south of the area is 30-40 km. The planning includes up to 31 offshore wind turbines (OWTGs) and ancillary facilities (farm-internal cabling and a transformer platform). The water depth in the examination area is between approximately 29.5 and 33.5 m Lowest Astronomical Tide (LAT).

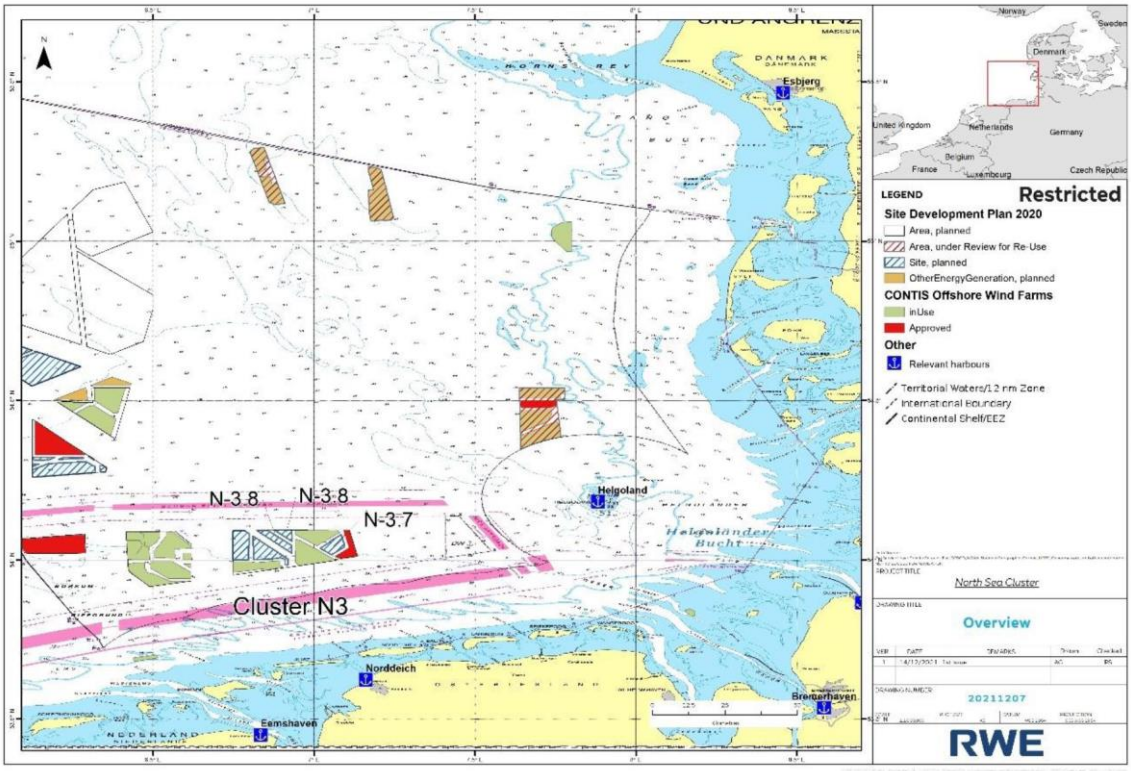


Figure 1 Position of the offshore wind farm "N-3.8" in the German North Sea

The application will be submitted by Nordsee Two GmbH in September 2022. The plan concerns erection of up to 31 offshore wind turbines (OWTGs) of the 15 MW power class (as well as ancillary facilities such as the farm-internal cabling and substation), each with a total height of max. 276 m (hub height: max. 145 m; rotor diameter: max. 250 m) on a monopile foundation. Since planning has not yet been completed, the above parameters may still change.

In September 2021, Nordsee Two GmbH, as the owner of the rights in an existing project within the meaning of § 26 (2) of the WindSeeG, participated in the call for tenders in accordance with Part 3, § 3 of the WindSeeG. In the announcement of the awards on 09/09/2021, the Federal Network Agency (*Bundesnetzagentur*; BNetzA) initially awarded EDF Offshore Nordsee 3.8 GmbH a grid capacity of 433 MW by in accordance with § 34 WindSeeG. As a result, Nordsee Two GmbH has exercised its right of entry for area N-3.8 towards the Federal Network Agency. Thus, the award for area N-3.8 has been transferred to Nordsee Two GmbH by law (cf. § 43 WindSeeG). The project planning is to use the "overplanting" concept (i.e. installation of 31 WTGs=465 MW instead of 29=435 MW). This allows wind farm output to be increased during periods of low wind, but then capped at connection capacity during periods of higher wind speeds.

Entitlement to the market premium will commence at the earliest in calendar year 2026.

In accordance with sentence 1 of § 59 (2) of the WindSeeG, the awarded bidder must submit the documents required to conduct the hearing procedure on the plan to the Federal Maritime and Hydrographic Agency (*Bundesamt für Seeschifffahrt und Hydrographie*; BSH) within 12 months of the award of the contract.

Erection of offshore wind turbines (OWTGs), and potentially also the substation, is planned using monopiles. The placement method for the monopile foundations is expected to be the conventional momentum pile driving method with appropriate system to reduce noise emissions.

Several pilot wind turbines (PWTG) may be planned in accordance with § 68 WindSeeG in the project area "N-3.8". The grid connection capacity in accordance with § 70 (1) WindSeeG, which was allocated in accordance with § 34 WindSeeG, is to be used predominantly for this purpose. A separate application will be submitted to the BNetzA for the PWTG. However, considerations for the development, construction, and operation of PWTGs are still at an early stage. No details are available yet.

This report is part of the scoping documents that represent the current planning status of the OWF "N-3.8".

1. GENERAL INFORMATION ON THE APPLICANT AND THE PROJECT

1.1 Applicant

Nordsee Two GmbH is a project company founded for the erection and operation of the offshore wind farm of the same name. The shareholders are Canadian Northland Power Inc. (NPI, 85%) and RWE RENEWABLES GmbH (15%).

Both shareholders of Nordsee Two GmbH generate electrical current partly from renewable energies. The companies are planning, erecting, and operating plants for power generation and energy production from renewable sources - mainly wind turbines (onshore and offshore), hydropower plants, and photovoltaic systems - in order to rapidly develop renewable energies as well as to improve the group's carbon footprint and ensure a secure supply of electricity for millions of people in the future.

Northland Power is an energy producer that develops, builds, and operates sustainable and green infrastructure projects in Asia, Europe, the Americas, and other regions, such as the Gemini OWFs in the Netherlands, German Bight, and Nordsee One in Germany.

RWE Renewables GmbH is primarily active in Europe, with a focus on Germany, the UK, France, Spain, Poland, Portugal, and Italy. RWE Renewables currently generates approx. 11 GW from renewable energies, mainly from wind energy.

The applicant for the erection and operation of the OWF "N-3.8" is the project company Nordsee Two GmbH as described above.

Experience of the joint venture partners in the field of German offshore wind power utilisation is available in particular through the development, erection, and operation of the OWF "KASKASI II" and the offshore wind farm "Nordsee Ost" in the immediate vicinity. This installation commenced in March 2014 and was put into operation with a capacity of 295 MW in 2015. The offshore wind farm "Nordsee One" with 54 plants and 332 MW went into operation in 2017. It is located in the wind priority area "North of Borkum" in the North Sea. In addition, Northland Power the owner and operator of the German Bight OWF and is the majority owner of the Dutch "Gemini" OWFs.

RWE Renewables has further extensive and long-standing experience with the implementation and operation of such demanding projects in Europe with the offshore wind farms "North Hoyle" (60 MW), "Rhyl Flats" (90 MW), and "Gwynt y Môr" (576 MW) off the Welsh coast that have also been implemented already. In addition, there was the "Greater Gabbard" OWF (500 MW) off the British east coast, which has been fully operational since 2012, and the "Thornton Bank" wind farm (325 MW) off the Belgian coast, which was completed in 2011. RWE Renewables in involved in either of these.

1.2 Justification of the plan

A project requiring plan approval requires a justification of the plan. This is the case if it is reasonably necessary to reach the goals of the respective specialised law.

With entering into effect of the WindSeeG and the Renewable Energies Act (*Erneuerbare-Energien-Gesetz*; EEG) 2017 on 01/01/2017, or the Climate Protection Act (*Klimaschutzgesetz*) and the coalition agreement

of the new German government respectively, the expansion targets for offshore wind energy use were legally established and a clearly defined expansion path was set. It is to be reached by tendering specific quantities. The coalition agreement of the current government coalition provides for a further increase of this target (increase from 20 GW to 30 GW in 2030; 40 GW in 2035 instead of in 2040; 70 GW in 2045). In order to ensure this, it is necessary to implement those projects that have been awarded contracts accordingly; otherwise, the expansion target would not be reached, or at least not within the scope of the planned schedule.

Furthermore, the area N-3.8 has been defined in the area development plan for the German North Sea and Baltic Sea. It was subject to an extensive procedure to determine its suitability that was completed with the enactment of the "First Ordinance on the Implementation of the Wind Energy at Sea Act" (*Erste Windenergie-auf-See-Verordnung*; 1. WindSeeV) of 15/12/2020.

Nordsee Two GmbH was awarded a contract for the offshore wind farm "N-3.8" at the scope of 433 MW for the connection line NOR-3-3 for feeding in energy by offshore wind turbines from the calendar year 2026 onwards by 09/09/2021 in the tendering procedure for existing projects in accordance with the WindSeeG.

Therefore, the project is not only reasonably required for reaching the subject statutory objectives but also necessary.

1.2.1 Legal basics

In accordance with § 45 (1) WindSeeG, the erection and operation of offshore wind turbines as well as the considerable modification of such plants or their operation require plan approval. The BSH is the hearing and plan approval authority as well as the plan approval authority. §§ 72 to 78 and § 36 (2) and (3) of the Administrative Procedure Act (*Verwaltungsverfahrensgesetz*; VwVfG) apply in accordance with § 45 (3) WindSeeG.

An environmental effect assessment must be performed in accordance with § 6 of the Environmental Effect Assessment Act (*Umweltverträglichkeitsprüfung*, UVPG) for plants for which an environmental effect assessment is mandatory as a new project.

In accordance with § 6 UVPG and No. 1.6.1 of Annex 1 to the UVPG, the erection and operation of a wind farm is a project that requires an EIA if the plants have a total height in excess of 50 metres each and if 20 or more wind turbines are to be erected. These conditions are met here.

1.2.2 Method

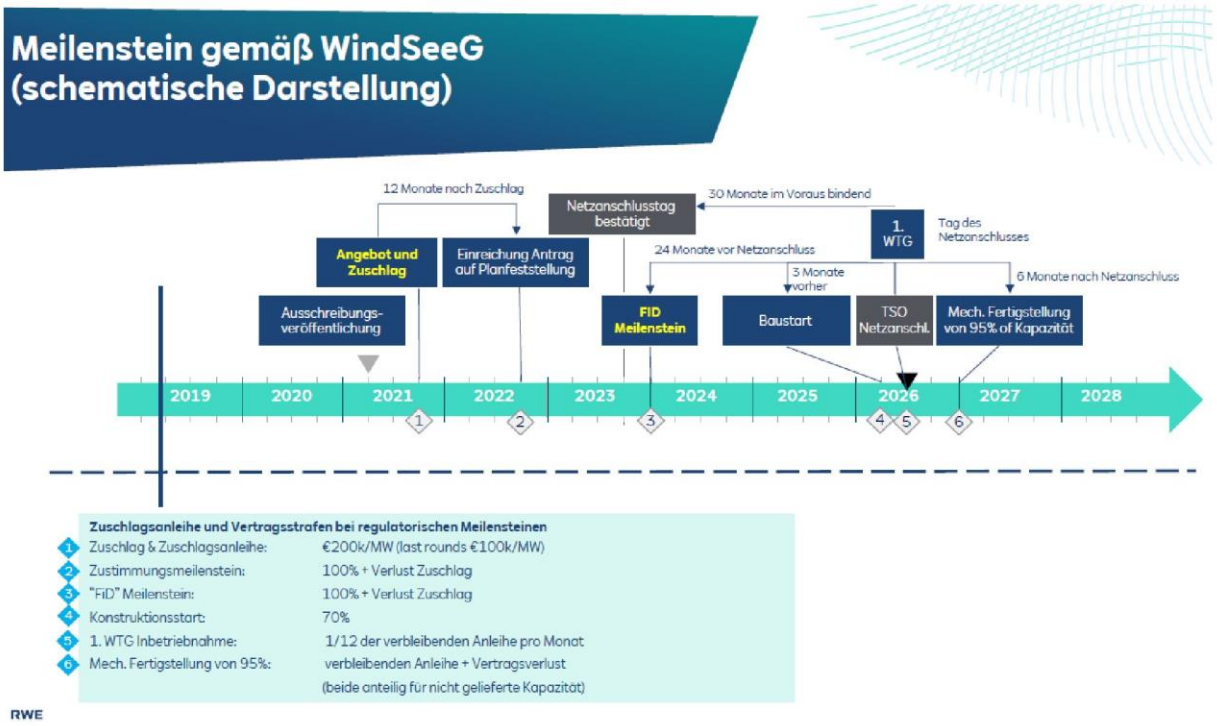
Nordsee Two GmbH will apply for up to 31 turbine sites for the erection and operation of the OWF "N-3.8" by September 2022 and submit these with the documents for obtaining the plan approval.

Planning for use of a grid capacity of 433 MW for the connection line NOR-3-3 was continued and intensified after the award of the contract in accordance with § 34 WindSeeG by the BNetzA in September 2021.

In accordance with § 47 (1) of the WindSeeG, the plan will include proof that an award has been made on

the respective area, a description of the safety and precautionary measures, a schedule of time and measures until commissioning, and the EIA report in accordance with § 16 of the UVPG in addition to the drawings and explanations in accordance with sentence 2 of § 73 (1) of the VwVfG.

Figure 2 provides an overview of the procedure steps to date with the milestones that have been reached in the meantime.



Meilenstein gemäß WindSeeG (schematische Darstellung)	Milestone in accordance with WindSeeG (schematic representation)
12 Monate nach Zuschlag	12 months after award
Angebot und Zuschlag	Bid and award
Ausschreibungs-veröffentlichung	Tender publication
Einreichung Antrag auf Planfeststellung	Submission of application for plan approval
Netzanschlusstag bestätigt	Grid connection day confirmed
30 Monate im Voraus landend	Landing 30 months in advance
24 Monate vor Netzanschluss	24 months before grid connection
3 Monate vorher	3 months in advance
1. WTG	1st WTG
Tag des Netzanschlusses	Day of grid connection
6 Monate nach Netzanschluss	6 months after grid connection
FID Meilenstein	FID milestone
Baustart	Start of construction
TSO Netzanschl.	TSO grid connect.
Mech. Fertigstellung von 95% of Kapazität	Mech. completion of 95% of capacity
Zuschlagsanleihe und Vertragsstrafen bei regulatorischen Meilensteinen	Award bond and penalties for regulatory milestones

Zuschlag & Zuschlagsanleihe:	Award & award bond:
€200k/MW (last rounds €100k/MW)	€200k/MW (last rounds €100k/MW)
Zustimmungsmeilenstein:	Approval milestone:
100% + Verlust Zuschlag	100% + loss of award
"FiD" Meilenstein:	"FiD" milestone:
100% + Verlust Zuschlag	100% + loss of award
Konstruktionsstart:	Design start:
70%	70%
1. WTG Inbetriebnahme:	Commissioning of 1st WTG:
1/ 12 der verbleibenden Anleihe pro Monat	1/ 12 of the remaining bond per month
Mech. Fertigstellung von 95%:	Mech. completion of 95%:
verbleibenden Anleihe + Vertragsverlust (beide anteilig für nicht gelieferte Kapazität)	Remaining bond + contract loss (both pro-rated for undelivered capacity)
RWE	RWE

Figure 2: Schedule and key milestones

In accordance with sentence 1 of § 59 (2) WindSeeG, the complete planning documents must be submitted within 12 months of the award of the contracts.

In the further course of project implementation of the OWF "N-3.8", the plan approval decision (PFB) is now being sought before the specific implementation measures can commence.

Applications for pilot wind turbines in accordance with § 68 WindSeeG

Nordsee Two GmbH is currently internally examining whether to file applications for pilot wind turbines. Various innovative foundation designs are currently underway. It is anticipated that a decision on whether to submit an application will be made after initial design work is completed in January/February 2022.

If the planning of PWTGs should be implemented, these plants will be "supplied" with the allocated grid connection capacity in accordance with § 70 (1) no. 1 WindSeeG.

Brief description of the project

The updated planning includes the erection of up to 31 OWTGs of the 15 MW class as well as a substation and the farm-internal cabling. The OWTG, and potentially the substation, are to be founded on monopiles with a diameter of approx. 10 m (substation possibly with smaller diameter), which will be completely driven into the ground by the momentum pile driving method. Further details on the OWTG can be found in Table 1.

Table 1 Key data of the "N-3.8" OWF

Key data	Current planning: 15 MW – class
Number of OWTGs	Max. 31
Other buildings: Substation (US)	1
Planned nominal power of the OWTG	15 MW (nominal power)
Space between OWTGs	In the prevailing wind direction approx. 5*D rotor, In the secondary wind direction approx. 3*D rotor
Rotor diameter	Max. 250 m
Rotor level	Approx. 26 m - 276 m
Hub height above LAT	Max. 145 m
Foundation (variants)	OWTG: Monopile SS: Maybe monopile, or jacket
Foundation description	Monopile: Pile diameter: approx. 10 m The monopiles will be driven completely to final depth, using state-of-the-art soundproofing systems.
Scour protection	A filter layer is first spread over an area to install scour protection. The thickness is approx. 0.5 m. On top of this, another coarser-grained surface layer with a thickness of approx. 0.7-1.0 m is applied. Alternatively, a "single layer" scour protection system can be used. This system uses a special mixture of stones of different sizes, which are installed in only one layer and in a circular shape. Maximum land use per monopile: 2,830 m^2
Corrosion protection	Active cathodic corrosion protection (ACP) with impressed current anodes in combination with a partial coating and passive ACP with sacrificial anodes in conjunction with a full coating are considered as possible corrosion protection options in the water area. In addition, corrosion allowances must be considered.
Total height	Approx. 276 m
Swept area of rotors (total OWF)	Approx. 1,522,100 m^2

The following tables present the comparison of the scenarios on which the BSH's strategic environmental

assessment was based in the course of the method for determining the suitability of area N-3.8 with the intended planning. Table 1a presents the plant-related parameters, and Table 1b presents the area-related parameters.

Table 1a: Key data of the OWF N-3.8
*Comment: Values in column N-3.8 are preliminary

	Scenario 1	Scenario 2	N-3.8*
Power per plant (MW)	9	15	15
Hub height (m)	Approx. 125	Approx. 175	145
Height lower rotor tip (m)	Approx. 26	Approx. 50	Approx. 26
Rotor diameter (m)	Approx. 200	Approx. 250	Approx. 250
Rotor swept area (m^2)	Approx. 30,800	Approx. 49,100	Approx. 49,100
Total height (m)	Approx. 225	Approx. 300	Approx. 276
Foundation diameter (m)	Approx. 8.5	Approx. 12	Approx. 10
Area of foundation excl. scour protection (m^2)	Approx. 57	Approx. 113	Approx. 80
Diameter of scour protection (m)	Approx. 43	Approx. 60	Approx. 60
Area of foundation incl. scour protection (m^2)	Approx. 1,420	Approx. 2,830	Approx. 2,830

Table 1b: Values in column N-3.8 are preliminary
****BSH-UVP was still based on 375 MW, capacity now 433 MW**

Parameter	Value BSH**	Value N-3.8*
Length of farm-internal cabling (= 0.12 km/MW*) [m^2]	45**	52
Voltage level of farm-internal cabling	33 kV	66 kV
Number of wind turbines - Scenario 1	42	-
Number of wind turbines - Scenario 2	25**	31

Parameter	Value BSH**	Value N-3.8*
Number of transformer platforms	1	1
Number of residential platforms	0	0
Surface sealing of foundation incl. scour protection [m^2] - Scenario 1	61,603	-
Surface sealing of foundation incl. scour protection [m^2] - Scenario 2	72,713**	87,730
Surface sealing of substation incl. scour protection [m^2]	1,963	1,963

Spatial description of the project

The planned OWF "N-3.8" is located in the German Exclusive Economic Zone (EEZ) of the North Sea, in the German Bight within cluster 3 of the Bundesfachplan Offshore for the German Exclusive Economic Zone of the North Sea 2016/2017 (BSH 2017), approximately 30-40 km north of Borkum. Project area N-3 is located in an area that was the subject of a strategic environmental assessment and is designated for this use by regional planning.

According to the current FEP, the NOR-3-3 grid connection system with a transmission capacity of 900 MW is scheduled for commissioning in 2023.

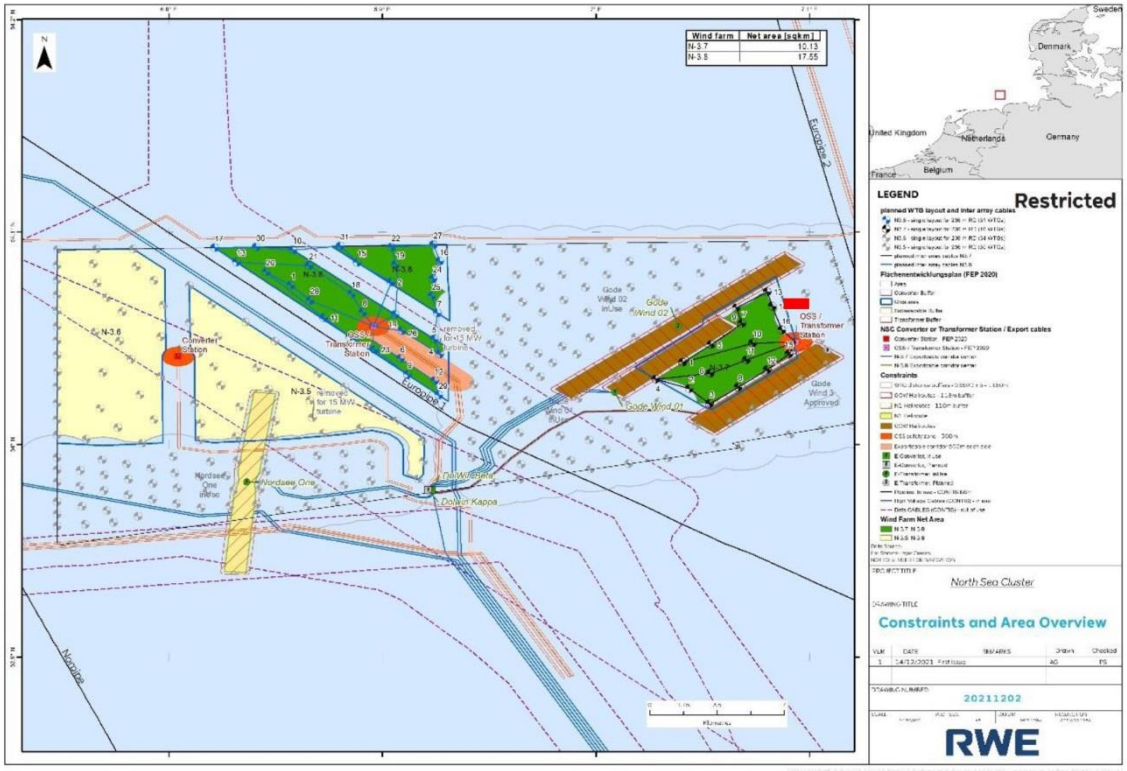


Figure 3 Position of the planned OWF “N-3.8” in cluster 3 of the BFO in the EEZ of the German North Sea

Project area, plant locations and route of the farm-internal cabling

The planned offshore wind farm “N-3.8” uses the area of the former wind farm plan for “Nordsee 2”. The area is divided into 2 parts by a data cable (TAT 14N - decommissioned since December 2020) that is no longer active and runs from north-west to south-east through the area. The distances from the neighbouring wind farms correspond to the valid distance rules. The project includes up to 31 OWTGs and ancillary facilities (farm-internal cabling and a transformer platform) over an area of approximately 23 km^2 and is described by the corner point coordinates in Table 2a and 2b.

Table 2a Geographical corner coordinates of the OWF “N-3.8, western field”

LON	**LAT**
Decimal degrees	Decimal degrees
6.8213553	54.0926130
6.8556822	54.0930276
6.9309937	54.0452602
6.9307110	54.0203586

Table 2b Geographical corner coordinates of the OWF “N-3.8, eastern field”

LON	LAT
Decimal degrees	Decimal degrees
6.8761695	54.0932717
6.9300576	54.0940130
6.9314423	54.0581456

The coordinates in Table 2a and 2b describe the project borders that define the project. All sites of the OWTGs and ancillary facilities (substation and farm-internal cabling) are located within this area. The coordinates of the OWTG corner location can be found in the following tables 3a and 3b.

Table 3a Coordinates of OWTG corner locations, western field

Designation of the OWTG	Easting UTM z31	Northing UTM z31
WTG 17	357518.9512	5996020.441
WTG 10	359912.061	5995828.582
WTG 05	364103.4215	5991030.311
WTG 29	364157.4433	5988098.636

Table 3b Coordinates of OWTG corner locations, eastern field

Designation of the OWTG	Easting UTM z31	Northing UTM z31
WTG 31	361366.4973	5995982.962
WTG 27	364221.9616	5995965.122
WTG 07	364240.9577	5992387.932

Figure 4 below shows the layout of the "N-3.8" OWF, including the substation and farm-internal cabling.

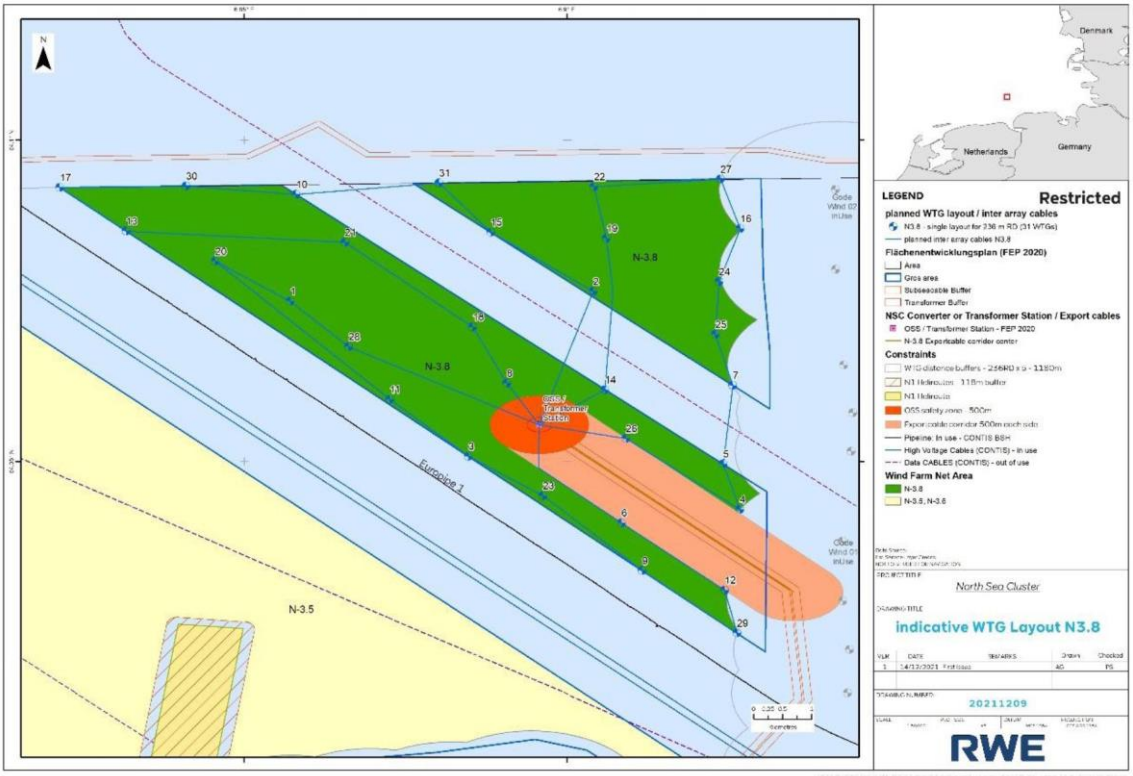


Figure 4 Layout of OWF “N-3.8” with sites of the OWTGs and the substation

Helicopter landing deck

No helicopter landing deck is planned in OWF “N-3.8”. A winch-down platform will be installed for rescue and recovery operations. Further information on emergency plans can be found in the basic concept on safety and precautionary measures, which has yet to be drawn up. 2

2. Threats to the marine environment

Floor/area

Wind turbines and transformer platform

The wind turbines and the transformer platform will be installed as deep foundations. The technical solution chosen for both the wind turbines and the transformer platform is a monopile design, to be driven into the ground using the momentum pile driving method. A technically proven noise control system will be used to ensure that the noise limit values can be complied with.

Rock filling is placed around the foundation elements to protect against scouring.

The diameter of the WTG foundations is currently planned at approx. 10 m. This results in a sealed area of

approximately 80 m^2 per plant (SEA: 113 m^2). The scour protection design provides for a diameter of about 60 m. This results in a sealed area of 2,830 m^2 (identical to SEA). However, the design will be optimised down the road to result in a smaller sealed area.

New examination is not intended as a result of this.

Construction-related:

During the foundation of the wind turbines and platforms, sediments are stirred up briefly and turbidity plumes are formed. The layout of the OWF in area N-3.8 is designed for up to 31 sites, therefore deviating from the SEA performed by the BSH by six sites. However, the latter is based on a connection capacity of 375 MW. In fact, the connection capacity is set at 433 MW. Under consideration of this capacity, an updated SEA would contain 29 sites and would be similar to the current project design.
Placement of additional foundation creates additional turbidity plumes. However, as predicted by the BSH, the expected effect from increased turbidity remains limited on a small scale. This also applies to the effects in the form of mechanical stress on the soil due to displacement, compaction, and vibration in the course of the construction phase.

Since the planned number of turbines deviates significantly from the number of plants used as a basis in the SEA, the validity of the statement in the SEA should be examined again in this regard.

Plant-related:

Due to the installation, the seabed is only permanently sealed locally to a very small extent by the insertion of the foundation elements of deep-founded wind turbines or platforms.

The plans require a monopile design for both the wind turbines and the foundation of the transformer platform.

The diameter of the monopile foundations for the wind turbines will be approx. 10 m, and the diameter for the monopile of the substation will also be approx. 10 m. The sealed areas thus amount to 80 m^2 per wind turbine site and also approx. 80 m^2 for the foundation of the substation.

The design for scour protection currently calls for a diameter of approximately 60 m for the turbine sites, and 50 m for the substation foundation. The sealed areas are calculated accordingly to approx. 2,830 m^2 (WTG) and 1,963 m^2 (OSS). However, this information is only based on initial design ideas.

Planning of up to 31 plants exceeds the approach used in the BSH SEA, which was performed on the basis of a connection capacity of 375 MW. Therefore, the results of the SEA should be examined again based on the current planning.

Operations-related:

Interaction of the foundation and hydrodynamics in the immediate vicinity of the plant may lead to permanent agitation and rearrangement of the sandy sediments for operational reasons. However, no significant substrate changes are expected due to the prevailing soil conditions and the predicted spatially confined perimeter of the scour.

Based on the above statements and the geological conditions in field N-3.8, we do not expect any changed effects on the protected asset soil in spite of the planning of an increased number of plants as compared to the SEA.

Therefore, no re-examination of the SEA results is intended.

Farm-internal cabling

Construction-related turbidity increases in the water column as a result of sediment being stirred up by cable-laying work. It is distributed over a larger area due to the influence of tidal flows. Due to the predominant sediment characteristics within the N-3.8 area under consideration, most of the released sediment will be directly at or in the immediate vicinity of the construction site. The seabed will level out relatively quickly along the affected routes due to natural sediment dynamics.

Effects in the form of mechanical stress on the soil due to displacement, compaction, and vibration that are expected to occur during the construction phase are considered to be minor due to their small-scale nature.

Planning of up to 31 plants, with a currently planned farm-internal cabling length of approx. 52 km, goes beyond the scope of the assumptions made in the BSH SEA. Optimisations of the cable routes will attempt to stay within the scope of the assumptions of the SEA.

Therefore, re-examination of the SEA results is intended.

Operations-related: The technical planning of the cable systems to be used (material, cross-sections, etc.) and the corresponding installation depth ensures that the 2K criterion will be met. As a result, no significant effects on the soil as a protected asset are expected due to the cable-induced sediment heating.

Therefore, no re-examination of the SEA results is intended.

Water

Wind turbines and transformer platform

Construction-related effects - resuspension of sediment

Only small-scale effects of short duration and low intensity are expected. Installation of up to 31 plants instead of the 25 intended in the SEA will not change this. Structural and functional impairments are low.

Therefore, no re-examination of the SEA results is intended.

Plant-related effects - change in flows and swell

The changes in the flow regime and swell due to offshore wind turbines or offshore wind farms are

long-term and medium-scale. However, the intensity of the effects is low. Based on this intensity assessment, structural and functional changes are minor, even considering more plants as intended in the SEA.

Therefore, no re-examination of the SEA results is intended.

Operations-related effects

The technical planning for corrosion protection of the foundations intends for the deployment of impressed current anodes that are inert and involve minimal emissions. Therefore, the currently applicable environmental quality standards can be met.

Effects are estimated to be long-term, small-scale, and of low intensity. Structural and functional changes are minor.

The planning of the (unmanned) transformer platform provides for use of light liquid separators that can remain below the MARPOL limit values in accordance with the state of the art. Plant cooling systems are designed as closed systems, without any material discharge to seawater.

Therefore, the effects of platform-side emissions are evaluated as long-term, small-scale, low-intensity under the present conditions. The structural and functional changes are minor.

Appropriate measures for use of operating materials that are hazardous to water, such as enclosures, drip pans, double-walled tanks, and corresponding management concepts are applied. This ensures that no fuel is released into the environment during refuelling, fuel changes, accidents, etc. Environmentally compatible, biodegradable substances are used wherever possible.

The effects on the marine environment can be considered low, due to application of the above measures.

Nevertheless, the validity of the SEA statement will be examined in the EIA report that is yet to be conducted.

Farm-internal cabling

Construction-related effects - resuspension of sediment

Laying of farm-internal cabling results in stirring up of sediment and formation of turbidity plumes. However, these effects are small-scale, short-lived, and of low intensity. The structural and functional changes are minor.

No further examination of the SEA results is intended.

Biotopes

Wind turbines and transformer platform

There are no protected biotopes in area N-3.8. As a result, these are not affected by the plants and the transformer platform. Effects from sedimentation as well as habitat alteration are small-scale and short-term, respectively.

No further examination of the SEA results is intended.

Farm-internal cabling

No protected biotopes are present in area N-3.8. As a result, these are not affected by the farm-internal cabling. Effects from sedimentation as well as habitat alteration from crossing structures are small-scale and short-term, respectively. Thus, significant construction-related, installation-related, and operations-related effects of the submarine cable systems on protected biotopes can be excluded.

No further examination of the SEA results is intended.

Benthos

Wind turbines and transformer platform

Construction-related

There will be short-term disturbance of the seabed and formation of turbidity plumes during placement of the deep foundations for the wind turbines and the transformer platform. These may have adverse effects on benthic organisms in the immediate vicinity of the plants during the construction phase. However, construction-related effects due to turbidity plumes and sedimentation are classified as short-term and small-scale based on current knowledge. The project design provides for up to 31 wind turbines, while the BSH SEA is based on 25 plants. Therefore, the validity of the statements in the SEA should be re-examined in the EIA report.

Changes in the benthic community may occur *for plant-related reasons* as a result of site sealing due to installation of the foundations and placement of hard substrates (fills of natural stones or biologically inert and natural materials) for scour protection, as well as changes in flow patterns around the plants and platform.

Since the project currently assumes a monopile diameter of approximately 10 m (SEA: 12 m), only an area of 2,434 m^2 is sealed by the foundations of the WTGs in spite of the installation of 31 wind turbines in field N-3.8. The SEA based on 375 MW grid connection capacity assumes 1,975 m^2, and the SEA adjusted to the actual grid connection capacity of 433 MW an area assumes about 2,280 m^2.

The ratios under consideration of the scour protection are as follows: According to the project planning,

the sealed area is about 87,730 m^2, compared to the SEA with about 72,713 m^2 (based on grid connection capacity of 375 MW).

Design optimisations as the project progresses should result in a reduction in sealed area.

At the substation, the sealed area of the SEA is expected to be met with up to 1,963 m^2.

Plant-related emissions of pollutants are within the scope of assumptions of the SEA and largely minimised.

The greater sealing of the soil compared to the SEA should be examined in the EIA- in this regard report.

Operations-related

Operations-related effects of the wind turbines and the transformer platform on macrozoobenthos are not expected based on current knowledge.

As presented in previous sections, closed cooling systems will be used. An external power system will be used for corrosion protection, and wastewater will be properly collected and disposed of onshore.

The overall effect is estimated to be short-term and small-scale. Only small-scale areas outside protected areas are taken up and, due to the mostly rapid regenerative capacity of the occurring populations of benthic organisms with short generation cycles and their widely spread distribution in the German Bight, rapid recolonisation is very likely.

No further examination of the SEA results is intended.

Farm-internal cabling

Construction-related

Potential effects on benthic organisms depend on the installation methods used. However, the installation method has not yet been determined at this stage of planning. It will be a state-of-the-art method. However, flushing in cable systems is a tightly constrained activity in terms of time and space.

The current project planning intends for a farm-internal cabling length of approximately 52 km. This is above the scope of the BSH SEA. Optimisations to the cable routes should permit meeting of the assumptions from the SEA.

The linear nature of the submarine cable systems also favours recolonisation of areas of the lake bottom disturbed by the installation work from the undisturbed marginal areas.

For the reasons stated above, construction-related effects are considered minor.

No further examination is intended.

Plant-related

Disturbances in the area of possible cable crossings are permanent, but also small-scale. Required cable

crossings will be secured with rock filling, which will permanently provide an off-site hard substrate. The off-site hard substrate provides new habitat for benthic organisms.

Only fills made of natural stones or biologically inert and natural materials are to be used for the area of cable crossings in accordance with the targets in the draft suitability determination. Therefore, plant-related emissions of pollutants are not expected based on current knowledge.

Operations-related

The project will provide for state-of-the-art cable configuration, as well as adequate installation depth. This will ensure that the 2K criterion is met and that no significant effects to the benthos are expected from cable-induced sediment heating. This also applies to electric and electromagnetic fields.

Based on current knowledge, no significant effects to benthic communities are anticipated from the installation and operation of the submarine cable systems. Based on current knowledge, ecological effects are small-scale and largely short-term.

No further examination of the SEA results is intended.

Fish

According to current knowledge, the planned site does not represent a preferred habitat for any of the fish species protected under the Red List and the Habitats Directive (*FFH-Richtlinie*). As a result, the fish population in planning area N-3.8 is not ecologically relevant.

Wind turbines and transformer platform

The project design is broadly consistent with scenario 2 of the SEA. However, the number of wind turbines with up to 31 plants differs from the SEA with 25 plants (based on 375 MW grid connection capacity). Therefore, the validity of the SEA statement should be re-examined.

Construction-related effects

Noise emissions

The project design intends for deployment of a state-of-the-art pile driving noise reduction system that will keep the emitted sound level below 160 dB outside of a circle with a radius of 750 m around the pile driving site. Before starting the pile-driving work, a system is used to scare off the animals, which causes them to flee. The construction of up to 31 plants is adjusted to the actual grid connection capacity of 433 MW. However, the project design with up to 31 turbines exceeds the number of 25 plants as stated in the SEA. This could increase the effect on wildlife and therefore the validity of the SEA statement will be examined in the EIA report that is yet to be completed.

Sedimentation and turbidity plumes

Construction activities of both wind turbine foundations and the transformer platform and farm-internal cabling lead to stirring up of sediment and turbidity plumes that can cause physiological disturbance and scaring effects, albeit temporary and species-specific.

However, because the planning in area N-3.8 is similar to scenario 2 of the SEA, the resulting stirring up of sediment and turbidity plumes are likely to be narrow in time and space and will be quickly dissipated by dilution and dispersion effects. In addition, fish are adapted to sediment stirring in the North Sea in a variety of ways. No significant effect to fish fauna is expected as a result of construction activities.

Due to the increased number of plants compared to the SEA, the validity of the statement of the SEA will be examined in the EIA report that is still to be performed.

Investment-related effects

Placement of hard substrate

Erection of wind farms alters the habitat structure of area N-3.8 through introduced hard substrate (foundations, scour protection). An attraction effect of artificial reefs on fish was observed in the majority of cases. However, whether this is the result of a concentration effect on fish that would otherwise remain elsewhere, or the result of increased productivity has not yet been conclusively determined. As a result of colonisation by benthic invertebrates, more fish individuals could accumulate in the vicinity of the maximum 31 wind turbines. Consequential effects would then be called increased feeding pressure or a change in dominance ratios.

This aspect will be examined again in the EIA report since the project design includes more plants than the SEA assumed.

Expected fishing ban

Regardless of the design of the future wind farm, fishing is expected to be prohibited throughout the N-3.8 area, creating refuge areas for fish fauna.

Farm-internal cabling

Construction-related effects

Fish fauna may be temporarily distressed by noise and vibration during the construction phase of submarine cable systems, both from the deployment of vessels and cranes and from the installation of the cable systems. Furthermore, construction-related near-bottom turbidity plumes and local sediment relocation may occur. These effects on fish are short-term and only affect a narrow spatial area. Since the project planning for the farm-internal cabling (approx. 52 km, cable route optimisations planned) roughly follows scenario 2 of the SEA, no significant effect on fish fauna is expected.

Therefore, no re-examination of the SEA results is intended.

Plant-related effects

Due to the installation of rock fills in the area of the planned pipeline crossings, a local change in the fish

community is to be expected. Altered fish coenosis may result in changes to dominance ratios and the food web. However, these effects are to be evaluated as minor due to the small-scale nature of the cable crossing structures.

No further examination of this aspect is planned.

Operations-related effects

The appropriate laying depth of the cables ensures that the 2K criterion is met. The cables are shielded. There are no electric fields, the induced magnetic fields are weak.

No further examination of this aspect is planned.

Marine mammals

It can be inferred from the screenings that area N-3.8 is of medium to (seasonally) high importance for harbour porpoises, and of medium importance for harbour seals and grey seals.

Wind turbines and transformer platform

Construction-related:

The project design includes extensive noise mitigation and monitoring measures to comply with applicable noise limits (sound event level (SEL) of 160 dB re 1µPa and maximum peak level of 190 dB re 1µPa at 750 m around the pile driving or placement site). The duration of pile driving will also be kept to a minimum. Appropriate measures will be taken to ensure that no marine mammals remain in the vicinity of the pile driving site. In addition, coordinating noise-intensive work with surrounding offshore wind farms under construction will result in preventing or reducing cumulative effects.

We believe that the increase in noise emissions due to the increased number of wind turbines compared to the SEA requires further examination in the EIA report.

Operations-related

Noise from wind turbines and substations does not affect highly mobile animals such as marine mammals, based on current knowledge. As a result of the SEA, no significant effects on the protected asset marine mammals are expected from the erection and operation of wind turbines and the transformer platform.

Further examination of this aspect is not included in the EIA report.

Farm-internal cabling

Construction-related

The cable-laying phase covers a narrow window in time and space. It involves slow vessel movements

and, therefore, will not significantly affect marine mammals.

Further examination of this aspect is not included in the EIA report.

Operations-related

It can be noted that no significant effects on the protected asset marine mammals are to be expected as a result of the laying and operation of the farm-internal cabling based on the SEA in accordance with the current state of knowledge.

No further examination is intended.

Sea birds and roosting birds

Wind turbines

Construction-related

Effects on sea birds and roosting birds can be expected, although the nature and scope of these effects will be limited in time and space during the erection of offshore wind turbines.

Further examination of this aspect is not included in the EIA report.

Operational and plant-related

All in all, implementation of the project in accordance with SEA scenario 2 at area N-3.8 is not expected to result in an increased collision risk to sea bird and roosting bird species. According to current knowledge, this also applies to species whose flight altitudes are within the range of the turning rotor blades, but whose flight behaviour allows them to avoid the turbines at an early stage. In light of the low seasonal and spatial occurrence of nuisance-sensitive birds such as loons in the vicinity of area N-3.8, significant effects can be ruled out with the required level of confidence. This is also true for other species found in the area.

Since this is still a closed area in spite of the increased number of plants compared to the SEA, it is assumed that the statements of the SEA are still valid. Nevertheless, this is examined in the EIA report.

Farm-internal cabling and transformer platform

The SEA evaluates the effects of cable systems and transformer platform on sea birds and roosting birds as not significant.

Therefore, no further examination of this aspect is planned.

Migratory birds

Wind turbines

Construction-related

In the first place, disturbances come from light emissions and visual disturbance. However, construction equipment lighting may also have some attraction effects for migrating birds and increase collision risk.

Since the proposed number of plants exceeds the assumptions from the SEA, this aspect will be examined in the EIA report.

Plant- and operational reasons

Seagulls: Significant effects for gulls can be excluded with a considerable level of confidence in accordance with the SEA for an offshore wind farm corresponding to scenario 2.

Tern species group: Due to the migratory behaviour of this species group (flying around the wind farms, mainly flight altitudes of up to approx. 20 m, low collision risk due to extreme manoeuvrability, etc.), the hazard potential for this species group is assessed as low.

Loon species group: Due to their pronounced avoidance behaviour regarding OWFs and their low flight altitude up to about 10 m, significant effects on this species group can be excluded with a considerable level of confidence.

Lesser black-backed gulls: Since the preferred flight altitudes are up to approximately 30 m and due to the extreme manoeuvrability, significant effects on lesser black-backed gulls can be ruled out with a considerable level of confidence.

Species group geese and ducks: The geese and ducks observed in area N-3.8 mostly fly at altitudes between 20-50 m. They are also day migrators and are able to detect and fly around vertical obstacles. Therefore, significant effects on duck and goose species that occur regularly and in significant numbers can be excluded with the required level of confidence.

Species group wading birds: Very few wading birds have been recorded in the vicinity of N-3.8 in the past. Therefore, it can be assumed that no significant effects to wading birds will result from a wind farm on area N-3.8.

Songbirds: The songbird species crossing the area in large numbers come from populations with very numerous individuals. Based on the main migration direction SW or NE, the German Bight is overflown mainly by songbirds from the Fennoscandian area. The migratory birds recorded are, therefore, presumably predominantly attributable to the breeding populations of northern Europe. Songbird species do not occur in project area N-3.8 with significant population shares according to available examinations. In light of the level of northern European breeding populations, the examination area is not of particular importance to songbird populations during migration. Appropriate lighting of the proposed wind farm (red light at night) can additionally reduce attraction effects.

Result: All in all, the individual species-specific assessment shows that for the migratory bird species occurring in the project area or their relevant biogeographical populations, significant effects caused by a wind farm on site N-3.8 can be excluded with the required level of confidence. Due to the increased number of plants compared to the SEA, this statement will be examined again in the EIA report based on the specific number of plants.

Farm-internal cabling and transformer platform

According to SEA, effects of submarine cable systems and substation platforms on sea birds and roosting birds are evaluated as not significant.

Therefore, no further examination is intended.

Bats and bat migration

There are no reliable data available to assess the potential effect of the planned wind farm in the area N-3.8 at this time.

Therefore, no further examination is intended.

OTHER HAZARDS

Climate

Effects of the construction and operation of the OWF on area N-3.8 on the climate are not expected.

Landscape

The development of the landscape will not be significantly altered by the implementation of the construction project on area N-3.8, as this area is completely enclosed by other offshore wind energy projects that are expected to be erected beforehand. This also applies to the current planning, which includes more OWTGs than the SEA.

The EIA report does not intend for any further examination as a result of this.

Cumulative effects

Soil/area, benthos, and biotope type

The SEA scenario 2 shows 72,713 m^2 of sealing for area N-3.8, with a grid connection capacity of 375 MW. Under consideration of the actual grid connection capacity of 433 MW, the sealed area would be about 84,345 m^2, for a total area of about 23 km^2 (equivalent to 375 MW: 0.32%; equivalent at 433 MW: 0.37%). The current planning for the layout of the project provides for the sealing of 87,730 m^2, which is approximately 0.38% of the total area.

Temporary area use for farm-internal cabling is approximately 020% in the SEA (375 MW, 45 km of farm-internal cabling), and approximately 0.23% of the total area of N-3.8 in the current project layout (52 km of farm-internal cabling).

Thus, the sealed area is well below 1% of the total area of N-3.8. No significant adverse effects are

expected to result in a threat to the marine environment with respect to the seabed and benthos, even when viewed cumulatively, based on current knowledge.

It is assumed that the statement made in the SEA remains valid. Nevertheless, this is cross-examined in the EIA report

Fish

Potential effects of changes in fish fauna on other elements of the food chain, both below and above their trophic levels, are not predictable at the current state of knowledge.

Further examinations are not planned as a result of this.

Marine mammals

Cumulative effects to harbour porpoise populations from the erection of offshore wind turbines and the substation within area N-3.8 will be mitigated through appropriate noise mitigation measures during foundation installation. Since the project layout exceeds the number of plants from SEA scenario 2 and temporal overlap with construction activities in Field N-3.7 appears conceivable, the SEA statement will be verified again in the EIA report.

Sea birds and roosting birds

A further project-specific assessment will be performed within the scope of the environmental effect assessment for the individual project and monitored as part of the subsequent mandatory monitoring of the construction and operation phases of offshore wind farm projects. However, cumulative effects on sea birds and roosting birds can likely be ruled out with the required level of confidence.

Migratory birds

Consideration of the existing knowledge on the migration patterns of the various bird species, the usual flight altitudes, and the diurnal distribution of bird migration leads to the conclusion that, based on the current state of knowledge, a threat to bird migration from the erection and operation of a wind farm on area N-3.8 is not likely, under cumulative consideration of the already approved offshore wind farm projects. Any flyover of the projects is currently not expected to have a significant negative effect on the further development of the populations. The EIA report does not intend for any further examination as a result of this.

Interactions

Sediment rearrangements and turbidity plumes

Significant effects on the biotic protected assets and, thus on the present interactions, can be excluded with the required level of confidence due to the mobility of the species and the temporal and spatial limitation of sediment redistribution and turbidity plumes.

Therefore, no further examination of this aspect is planned.

Sound introduction

The sound-intensive installation of the foundations may lead to temporary escape reactions and temporary avoidance reactions by various marine life. Operation of the plants, substation, and submarine cable systems does not generate significant noise emissions, with the exception of shipping connected to operations. However, there is a lack of empirical values and data to derive interactions from this. It is, therefore, probably not possible to examine this aspect any further in the EIA report at this time.

Area use

The sealing of the soil by placement of the foundations does not represent a loss of foraging habitat for benthic sea birds because the water in area N-3.8 is too deep.

Therefore, no further examination of this aspect is planned.

Placement of artificial hard substrate

The introduction of hard substrate may alter the macrozoobenthos community and affect the food base of the fish community at the site. This could attract certain fish species that increase feeding pressure on the benthos. This aspect should be examined again in the EIA report.

Prohibition of use and access

Due to the variability of the habitat and the complexity of the food web and material cycles, interactions as a whole can only be described very imprecisely. In principle, in accordance with the SEA, it should be noted that, based on current knowledge, no significant effects on existing interactions that could result in a threat to the marine environment are identifiable upon implementation of the plan.

Therefore, no further examination of this aspect is planned.

Border-crossing effects

According to the current status, no significant effects on the areas of neighbouring states adjacent to the German EEZ of the North Sea are discernible as a result of area N-3.8. Area N-3.8 is centrally located in the German EEZ of the North Sea. The distance to the Dutch EEZ is at least 47 km. Denmark (or the Danish EEZ) is much further away, at least 126 km. Thus, local effects such as turbidity plumes and land sealing on benthos, soil, or biotopes in neighbouring states, sound on marine mammals or fish, or effects on the landscape, thus on tourism, are generally not expected.

Large border-crossing effects are also not expected. Significant effects on the protected assets air and

water or the climate of neighbouring countries are not expected either.

Possible significant border-crossing effects could occur, at most, for the highly mobile protected assets fish, marine mammals, sea birds and roosting birds, and migratory birds and bats if the local effects of the project would have a significant effect on the respective population or migratory species. However, this is not the case in accordance with the above effect predictions for the individual protected assets.

Table 4: Comparison of the SEA with the examinations in the EIA report

		Further examination in the EIA report
Floor/area		
WTG and transformer platform	*Construction-related:*	The validity of the statement in the SEA is verified.
	Plant-related:	Re-examination of the results of the SEA is planned.
	Operations-related:	Not planned
Farm-internal cabling	*Construction-related:*	Re-examination of the results of the SEA is planned.
	Operations-related:	Not planned
Water		
WTG and transformer platform	*Construction-related effects* - resuspension of sediment	Not planned
	Plant-related effects - change in flows and swell	Not planned
	Operations-related effects	Validity of the statement in the SEA to be verified.
Farm-internal cabling	*Construction-related effects* - resuspension of sediment	Not planned
Biotopes		
WTG and transformer platform	There are no protected biotopes in the area N-3.8	Not planned
Farm-internal cabling	There are no protected biotopes in the area N-3.8	Not planned
Benthos		
WTG and transformer platform	*Construction-related*	Re-examination of the results of the SEA is planned.
	Investment-related	An examination of the SEA statement is only intended if the sealed area cannot be further reduced through design optimisations.
	Operations-related	Not planned
Farm-internal cabling	*Construction-related*	Not planned
	Investment-related	Not planned
	Operations-related	Not planned
Fish		
WTG and transformer platform	*Construction-related effects*	*Sound emissions* The validity of the statement in the SEA is verified in the EIA report *Sedimentation and turbidity plumes* Re-examination of the results of the SEA is

		planned.
	Investment-related effects	*Land use* The validity of the statement in the SEA is verified. *Expected fishing ban* No - No matter the design of the future wind farm, fishing will likely be prohibited throughout the area N-3.8
Farm-internal cabling	*Construction-related effects*	Not planned
	Plant-related effects	Not planned
	Operations-related effects	Not planned
Marine mammals		
WTG and transformer platform	*Construction-related:*	The validity of the statement of the SEA is verified
	Operations-related	Not planned
Farm-internal cabling	*Construction-related*	Not planned
	Operations-related	Not planned
Sea birds and roosting birds		
WTG	*Construction-related*	Not planned
	Operational and plant-related	The validity of the statement in the SEA is verified.
Farm-internal cabling and transformer platform		Not planned
Migratory birds		
WTG	*Construction-related*	Since the proposed number of plants exceeds the assumptions from the SEA, this aspect will be examined in the EIA report.
	Plant- and operational reasons	Due to the increased number of plants compared to the SEA, this statement will be examined again in the EIA report based on the specific number of plants.
Farm-internal cabling and transformer platform		Not planned
Bats and bat migration		
		Not planned
Other hazards		
Climate		No effect on climate expected.
Landscape		Not planned
Cumulative effects	*Soil/area, benthos, and biotope type*	It is assumed that the statement made in the SEA remains valid. Nevertheless, this is cross-examined in the EIA report.
	Fish	Not planned
	Marine mammals	The validity of the statement in the SEA is examined
	Sea birds and roosting birds	However, cumulative effects on sea birds and roosting birds can likely be ruled out with the required level of confidence.
	Migratory birds	Not planned
Interactions	*Sediment rearrangements and*	Not planned

	turbidity plumes	
	Sound introduction	It is therefore probably not possible for the time being to examine this aspect further in the EIA report.
	Area use	Not planned
	Placement of artificial hard substrate	Another project-related examination is provided for in the EIA report
	Prohibition of use and access	Not planned
Border-crossing effects		Not planned

3. Safety and ease of traffic

Shipping

The German Bight is a very busy area with several shipping lanes and coastal traffic zones. Shipping traffic in the German Bight is predominantly east-west (and vice versa), parallel to the German and Dutch coastlines. Here, shipping traffic is concentrated in three traffic separation areas: German Bight Western Approach (GBWA) and Terschelling German Bight (TGB) in the EEZ and Jade Approach in the territorial sea.

Area N-3.8 is located between the "Terschelling - German Bight" and "German Bight Western Approach" traffic separation areas at a minimum distance of 2 nm and has a minimum water depth of 30 m related to LAT. The main through traffic runs in each of the traffic separation areas to the north and south (where each is channelled by one-way traffic) respectively, so that there is extremely little shipping traffic within and in close proximity to area N-3.8.

No significant effects to surrounding shipping traffic are anticipated as a result of the construction site installation that could not be offset by conditions and requirements. It can be assumed that there will be an increase in feeder and plant traffic required for the construction site. In particular, this will cross the traffic separation area "Terschelling - German Bight" and then pass between the wind farms "Nordsee One" and "Gode Wind 01 + 02" to area N- 3.8. After completion of the construction work, a decrease in construction traffic can be expected. Only the vehicles required to operate and maintain the wind farm will access the area. Consequently, the traffic crossing the traffic separation area "Terschelling - German Bight" will decrease quantitatively

The number of vessels recorded on the traffic separation areas was relatively constant in the period from 1995 to 2003. According to calculations by GAUSS (2005, cited in BSH 2009), this results in an average of 35,123 ship movements per year for the period mentioned. Of these, the majority, 29,746 vessel movements per year, were in the TGB traffic separation area. There were 2,454 vessel movements in the GBWA traffic separation area (from BSH 2009).

The suitability determination for area N-3.8 is based on an expert report that determined the collision recurrence rate for the areas based on current traffic counts using quantitative risk analysis.

The collision frequency for the cumulative placement of manoeuvrable and un-manoeuvrable vessels, under consideration of AIS, an automatic traffic monitoring/sea room observation of variant 1, and the

existing sovereign emergency towing capacity, results in a repetition frequency of 100 years.

Since the value is only slightly above the reference value of 100 years, the project sponsor will submit an updated risk analysis in the plan approval procedure.

Air traffic

Construction of an OWF on the area will not significantly affect the safety and ease of aviation. In fact, the impairments caused by construction of the plants can be prevented or compensated by targets.

Appropriate aviation marking of the plants can counteract the danger of an aircraft colliding with the OWF and make the wind farm visible to pilots so that they can take the necessary action. As a result, the plants must be adequately marked.

4. Safety of national and alliance defence

Regarding military exercise areas, there is overlap of areas used for military purposes with cluster 3 of the BFO North Sea. Since the areas have already been defined as clusters with the BFO North Sea and in part as priority areas for wind energy in the regional development plan for the North Sea and no additional, other significant or new aspects are discernible, the permissibility in accordance with sentence 3 of § 5 (3) of the WindSeeG does not need to be re-examined for the time being.

5. Compatibility with priority mining activities

Area N-3.8 is fully located within a field for which the responsible LBEG has granted permission (B 20 008/71) to explore for hydrocarbons - petroleum/natural gas for commercial purposes in accordance with § 7 of the Federal Mining Act (*Bundesberggesetz*; BBergG). The first notice was issued on 08/05/2006. The permit expired on 31/05/2021.

A permit in accordance with § 8 BBergG is required for extraction of mineral resources. A corresponding permit is currently not available for area N-3.8.

6. Compatibility with existing and planned cable, offshore connections, pipe, and other lines

Area N-3.8 is divided into two areas by the data cable "TAT 14N" that is no longer active, in accordance with the determination of the FEP 2019. To the south-west, the area is bounded by the "Europipe 1" natural gas pipeline. The protection area of 500 metres around the data cable and the natural gas pipeline has already been considered when defining the area in the 2019 FEP.

However, the farm-internal cabling will have to cross the non-active data cable "TAT 14N" for connection of the north-eastern part of the area to the site of the transformer platform in the south-western part of

the area, as specified by the FEP. The data cable has been out of service since December 2020. Therefore, the crossing will have to be contractually agreed between the project sponsor and the data cable owner.

In accordance with the planning principles of the FEP 2019 ("Consideration of all existing and approved uses"), a distance of 500 m from other submarine cables (e.g. three-phase submarine cable from OWF Godewind 02 to the converter platform) will be maintained.

7. Compatibility with existing and planned converter platform sites

The transmission system operators must connect wind farms to their grid with the connection capacity allocated by the BNetzA within the scope of the tendering procedure. In this case, the electrical energy generated in the OWF is transferred to the onshore transmission grid of TenneT TSO GmbH (TenneT) by high-voltage direct current (HVDC) transmission.

The responsible transmission system operator can use the planned and already coordinated cable route from the OWF-side substation to the converter station "DolWin Kappa" for laying of two parallel 155 kV submarine cables for discharge of the energy produced in the OWF "N-3.8". The grid connection "NOR-3-3 (DolWin6/Kappa)" (with a capacity of 900 MW) also serves grid connection of the OWF "Godewind 03" and N-3.7. The energy generated in the OWF "N- 3.8" with an allocated connection capacity of 433 MW is also to be discharged via this grid connection. The task-related converter platform "DolWin Kappa" is located in cluster N-3, in the area of the south-east corner of OWF Nordsee One. The "DolWin6" direct current submarine cable route runs from the "DolWin Kappa" converter platform to the Hilgenriedersiel landing point and from there to the Emden Ost onshore grid connection point.

Approval and manufacture of the AC cable (substation to converter station) is the responsibility of the responsible transmission system operator.

8. Position of the area within a cluster of the BFO

The position of the planned OWF "N-3.8" in cluster 3 of the BFO in the EEZ of the German North Sea is shown in Figure 3.

9. No conflict with any other requirements under this act and any other provisions of public law or other overriding public or private concerns

Land development plan

The requirements of the FEP, such as keeping the export cable route corridor defined in the 2019 FEP clear and not crossing the farm-internal cabling, distance from wind turbines in adjacent areas of at least five times the respective larger rotor diameter, etc., are considered in the layout of the OWF.

Safety and health protection/ disaster prevention

Suitability of the area for the erection and operation of an offshore wind farm is only given if compliance with safety and health protection at work is ensured. Corresponding targets were included in the draft of the suitability determination (§§ 27 to 31). This aspect is, therefore, not examined again.

Fisheries and marine aquaculture

It is not evident at the moment that the suitability of area N-3.8 would be called into question due to impairment of private interests regarding fishing or marine aquaculture or that measures would have to be ordered as part of the suitability determination within the scope of this.

As a result of the strategic environmental assessment, no significant impairment of spawning and nursery areas was seen as a result of building on the site. This aspect is therefore not examined again.

Nature/species protection/and cultural heritage and tourism

Regarding cultural heritage, there is no indications of wrecks or other cultural assets worthy of protection. It has been determined that the areas are not of any outstanding relevance for tourism anyway due to their distance from the coasts and islands and due to prior effects from existing wind farms. This aspect is therefore not examined again.

International military affairs

For area N-3.8, international military concerns do not appear to be affected.

No conflict with overriding private interests

Area N-3.8 is located between the traffic separation areas "Terschelling - German Bight" and "German Bight Western Approach" at a minimum distance of 2 nm. The wind farms "Gode Wind 01 + 02" are located directly to the east of area N-3.8. The wind farm "Nordsee One" is located to the south of this area. Near the western boundary of this area, the gas pipeline "Europipe 1" runs in a north-west to south-east direction.

The distances towards the neighbouring wind farms correspond to the legal planning requirements or targets from standards and norms. For example, the distance towards neighbouring wind turbines will be at least 5 D of the rotor of the larger wind turbine.

The position of the OWF and the neighbouring wind farms is shown graphically in Figure 3.