Date 13-02-2025
Status Approved

Various Wind Farm Sites in the Dutch North Sea – Search area 6/7 & Search area 3

Annex 6

STARTING POINTS AND ASSUMPTIONS

Colophon

Project name	Search Area 6/7 site characterisation
Project number	202501025
Version	Final
File name	Sa67_QES_Annex 6 Starting Points and Assumptions
Appendix(ces)	4
Author	Sil Mossel
Reviewed	Peter-Paul Lebbink/Joep Bronkhorst
Approved	Joep Bronkhorst

Contents

1 Introduction

This document provides the starting points and assumptions for the Supply of Data for Various Search areas within the potential Dutch Offshore Wind Farm Zones. The starting points and assumptions are to be used by Contractors when executing investigations, studies or likewise, for the development of the Various Sites – described later in the document - within the Dutch Offshore Wind Farm Zones, and commissioned by one of the following organisations:

- The Ministry of Economic Affairs and Climate Policy
- The Ministry of Infrastructure and Water Management
- Netherlands Enterprise Agency (RVO), henceforth Contracting Authority
- Rijkswaterstaat
- TenneT TSO B.V.

This document is part of the QA/QC process for these studies.

Please note:

- This is a living document; before use check for the latest updates (to be confirmed by your Contracting Authority)

If you have any queries, please contact your Contracting Authority.

2 General introduction to the offshore wind energy in the Netherlands

2.1 Existing offshore wind farms

The Netherlands' existing offshore wind farms have a combined capacity of approximately 4,700 MW (see **Fout! Verwijzingsbron niet gevonden.**). Click here to learn more about the current state of the Dutch Offshore wind Energy infrastructure [or copy https://windopzee.nl/onderwerpen/waar-staan-komen-windparken-zee/].

2.2 The offshore wind energy roadmap 21 GW

The Dutch government has created the offshore wind roadmaps 2030+ to set out a schedule of tenders for wind farm permits (see Figure 1 and **Fout! Verwijzingsbron niet gevonden.**). In the beginning of 2022, the Dutch Government announced three new Wind Farm Zones called Lagelander, Nederwiek (Nederwiek zuid site I and Nederwiek noord sites II and III) and Doordewind. The development of the southern part (HKWWFS VIII) of the Hollandse Kust (west) Wind Farm Zone and the IJmuiden Ver Wind Farm Site Gamma in the IJmuiden Ver Wind Farm Zone were also confirmed. The total capacity of offshore wind energy will then be 21 GW and around 90 TWh of power production. This equals around 75% of the current Dutch electricity consumption. Search area 6/7 will add to the next iteration of the Dutch Government future offshore wind energy roadmap.

The wind farms will be built in designated Wind Farm Zones. Wind farms outside these Wind Farm Zones are prohibited. Within the designated Wind Farm Zones, the government defines the specific sites where wind farms can be constructed using a so-called Wind Farm Site Decision ('Kavelbesluit'). This Wind Farm Site Decision contains all conditions for building and operating a wind farm on that specific site.

Developers can apply in tenders for the permits to build and operate a wind farm according to a Wind Farm Site Decision. Winners of these permit tenders will be granted a permit and a grid connection to the mainland.

The Dutch Government provides comprehensive site data and Dutch transmission system operator TenneT is responsible for grid connection. RVO is responsible for the site data, which can be used for the preparation of bids for these tenders.

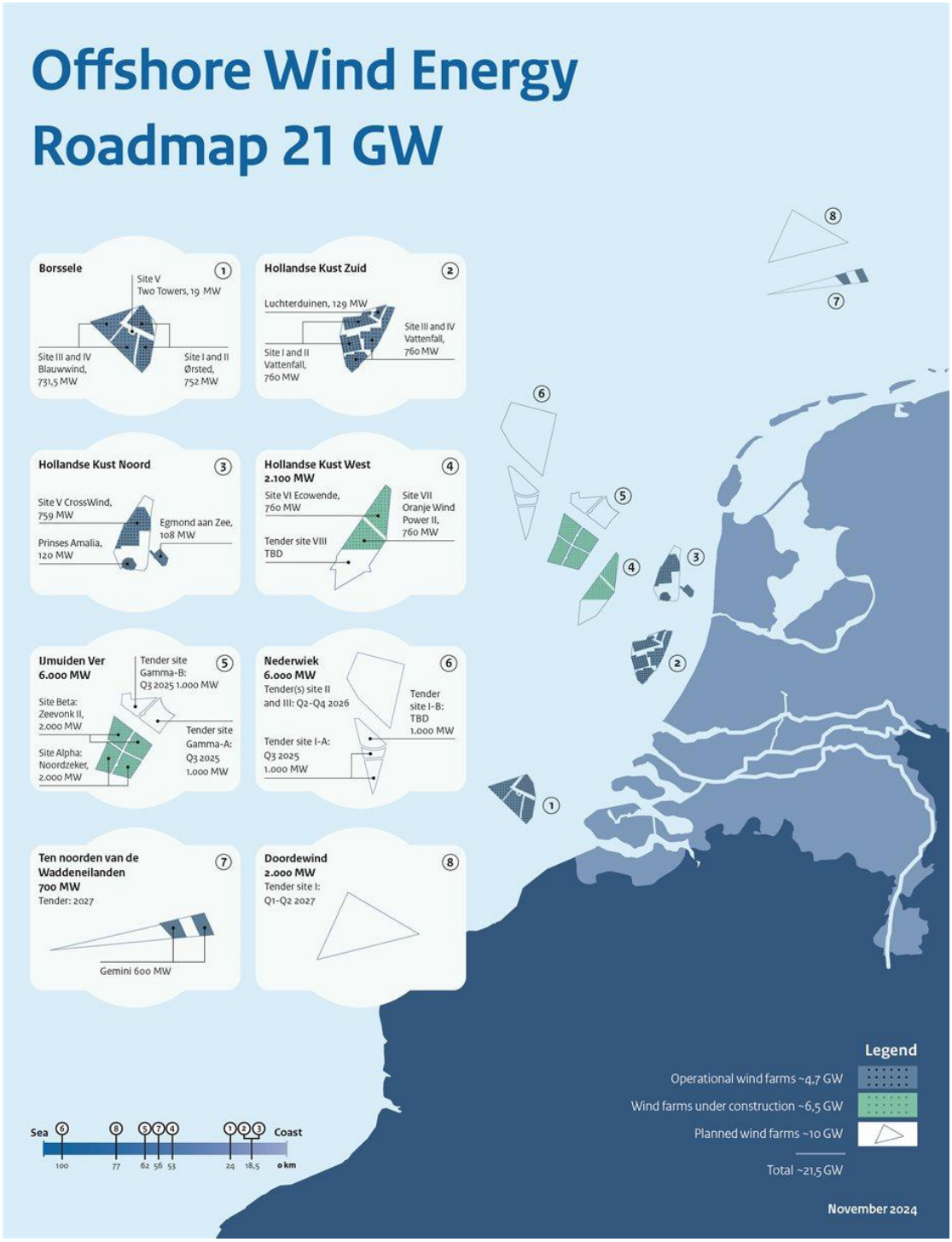

Figure 1: Dutch Offshore Wind Farm Zones roadmap overview

3 General introduction Search Areas 6/7 and 3

3.1 Layout & coordinates

Search areas 6/7 and 3 are located within the northern part of the Dutch North Sea (see Figure 2), which are located approximately 40 to more than 150 kilometres off the coast of the Netherlands. General characteristics of the investigation area are shown in Table 1. Table 2 to **Fout! Verwijzingsbron niet gevonden.** show the coordinates of the individual Search Areas.

A separate map and a GIS dataset of the Search Areas can be found in a zipped file attached in Appendix C: GIS Maps & Packages.

Table 1: Characteristics of the investigation area

Characteristics	
Water depth	Approximately 10-50 m LAT
Distance from shore	Approximately 40-150 km

Table 2: Coordinates of Search Area 6 & 7

Search Area 6/7 Coordinates according EPSG 25831 – WKID: 25831 Authority ESPG Surface area: 4,539 km²					
Point No.	**Easting**	**Northing**	**Point No.**	**Easting**	**Northing**
SA67_01	587733	5992788	**SA67_12**	608304	6077115
SA67_02	538463	5987173	**SA67_13**	628170	6085037
SA67_03	547764	6024837	**SA67_14**	628497	6073575
SA67_04	552005	6036010	**SA67_15**	628567	6071121
SA67_05	554221	6041848	**SA67_16**	628859	6060861
SA67_06	564157	6041978	**SA67_17**	629047	6054265
SA67_07	567397	6042021	**SA67_18**	630609	6053189
SA67_08	580903	6042198	**SA67_19**	629605	6051380
SA67_09	580726	6050115	**SA67_20**	587899	5993020
SA67_10	580760	6050132	**SA67_21**	587766	5992800
SA67_11	580597	6059228	**SA67_22**	587733	5992788

Table 3: Coordinates of Search Area 3

Search Area 3 Coordinates according EPSG 25831 – WKID: 25831 Authority ESPG Surface area: 276 km²		
Point No.	**Easting**	**Northing**
SA3_01	540020	5954594
SA3_02	530910	5966451
SA3_03	532261	5968131
SA3_04	549568	5971954
SA3_05	565675	5974304
SA3_06	540020	5954594

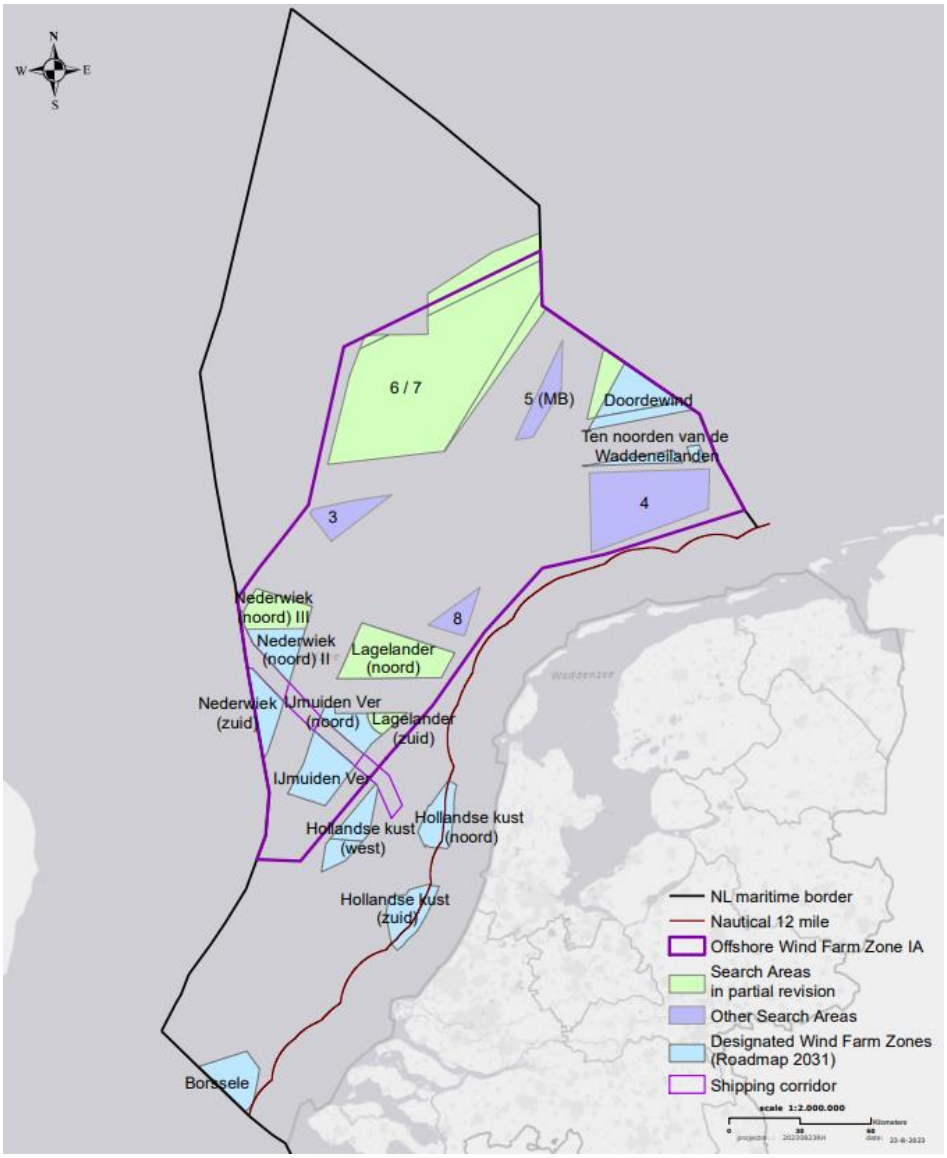

Figure 2: Map of the Offshore Wind Farm Zone investigation area, Search Areas in partial revision and other search areas

3.2 Cables and pipelines within the Investigation Area & Search Areas

Pipelines and their status, the platforms (above and below water) and cables and their status located within the Investigation Area are illustrated in Figure 3 and Table 4 to **Fout! Verwijzingsbron niet gevonden.**. Digital data on cables, pipelines and platforms can be found in Appendix C: GIS Maps & Packages.

Several inactive cables cross the Search Area 6 and 7 and an active pipeline enters this area to the south connecting to a platform that is not in use. Search Areas 3 has one pipeline in use crossing its area and Search Area 8 has several pipelines in use that cross the area, see Figure 3.

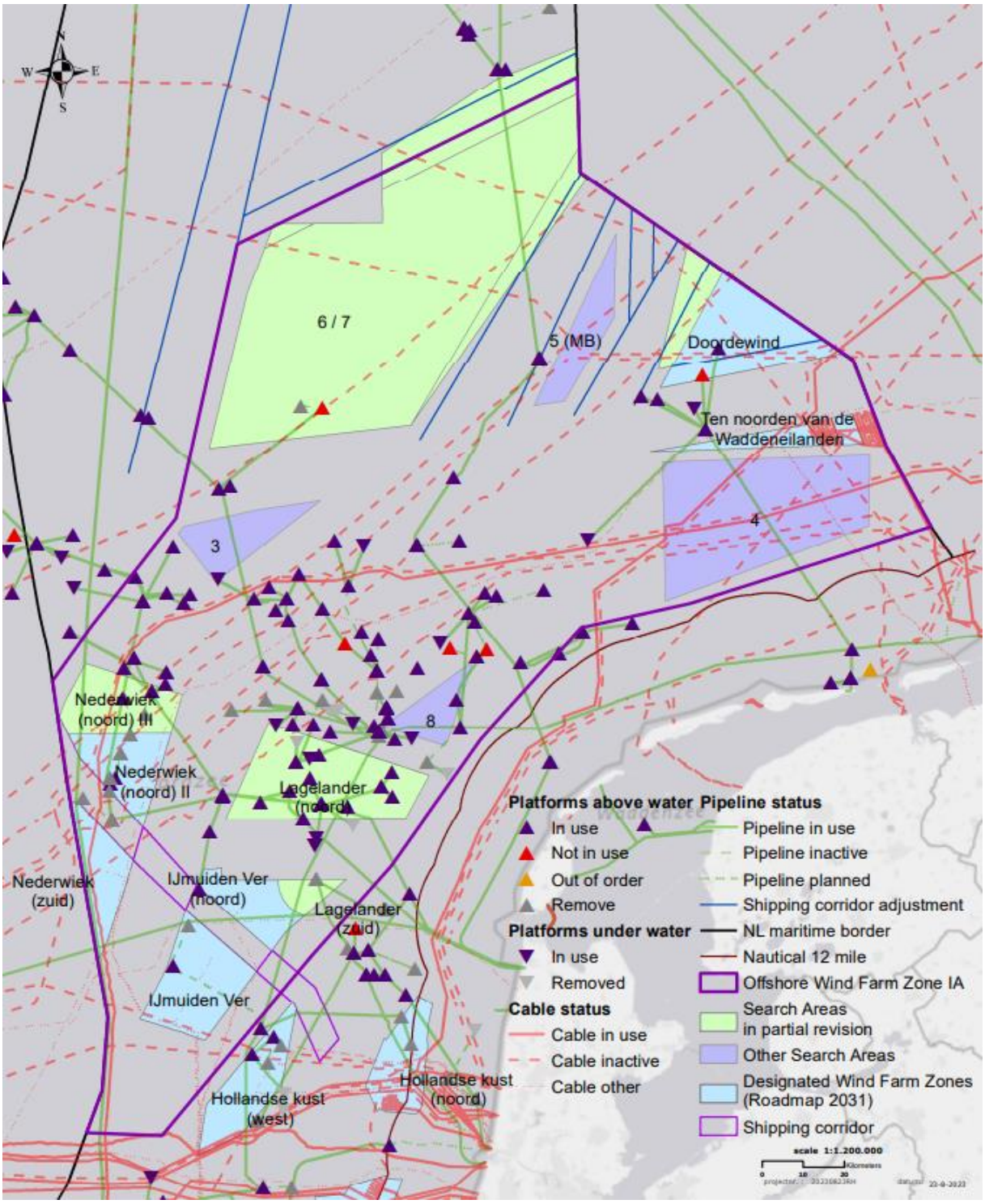

Figure 3: Map of Cables, Pipelines, Platforms within the Investigation Area

Table 4: Characteristics of cables in Search Area 6/7

Name	Operator	Trace	Diameter [in]	Type	Status
KB0047	Eu Networks B.V.	Eemshaven (NL) to England	N/A	Fiber Optic	In-active
KB0070	British Telecom	Scarborough (GB) to Norggeich (DE)	N/A	Fiber Optic	In-active
KB0024	Unknown (UKN)	Weybourne (GB) to Esbjerg (DK)	N/A	UKN	In-active

Table 5: Characteristics of pipelines in Search Area 6/7

Name	Operator	Trace	Diameter [in]	Type	Status
PL0090_PR	Neptune Energy Netherlands B.V.	F3-FB-1P to L2-FA-1	24	Pipe	Active
PL0168_PR	Wintershall Noordzee B.V.	F16-A to NGT (K2)	24	Pipe	Active

Table 6: Characteristics of pipeline in Search Area 3

Name	Operator	Trace	Diameter [in]	Type	Status
PL0142_PR	Noordgastransport B.V.	D15-FA-1 to L10-AC	36	Pipe	Active

3.3 Units

SI units (ISO/IEC 8000) are applicable for any activities carried out in the Search areas.

3.4 Vertical and horizontal datum

The chart datum is Lowest Astronomical Tide (LAT).

All positioning data shall be collected in the European Terrestrial Reference System 1989 (ETRS89) and projected using ETRS89 Transverse Mercator Coordinate Reference System (UTM Zone 31N). The reference for this system is EPSG Projection code 25831 - ETRS89 / UTM zone 31N.

4 Quality requirements

This chapter describes quality requirements including data model and GIS data deliveries. During the process and delivery of the data further information or explanations can be requested at RVO.

As RVO will make this data publicly available, the metadata needs to be in line with the GDPR (AVG) requirements.

4.1 Spatial data

All created data in the study must be delivered by the supplier in GIS format. The supplier must comply with the data requirements set out by RVO and provide an inventory list of the deliverables supplied if the data is delivered in the form of a hard drive or webservice. The inventory should include the project name; the name of the contractor's organisation and the person within the organisation responsible for the data delivery; the survey date (only relevant for offshore campaigns); and overview of the folder structure and a description of the data's contents.

- All the data is required to be delivered in the geodetic system European Terrestrial Reference System 1989 (ETRS89) ETRS89 UTM ZONE 31 N - EPSG code: 25831 http://www.epsg-registry.org/.
- The data should be delivered in one or more of the following formats: Value / Parameter Encoded Raster, TIFF and ESRI Shapefile (*.shp), ESRI File Geodatabase, or Geopackage (*.gpkg) . Should another format be used, this can only be delivered after consulting with RVO.
- Data is preferably collected in a file geodatabase created in ArcGIS Pro or as a Geopackage. In order to prevent backwards compatibility problems, the file geodatabase may not be made in a higher version of ArcGIS Pro than that used by RVO. At time of writing this is ArcGIS Pro 3.3. Please confirm the version of ArcGIS Pro currently in use by WOZ at RVO at the start of the project.
- Both input data and interpreted data along with any relevant GIS packages (*.ppkx/*.mpkx/*.gpkg) are required and should also include any associated reports and charts.
- All GIS data shall be provided with Metadata describing specific details and origin regarding the spatial data. The requirements regarding the metadata are included in Appendix A.

4.2 GIS Metadata requirements

The requirements for GIS metadata which all Contractors shall comply with is shown in Appendix A of this document.

4.3 Document control requirements

The naming of the documents shall be standardized in order to facilitate the document control during the whole project. The following naming code is required for all documents produced within the project:

"[Sa67/Sa367/Sa3]_Date_[GP/GT/QES/GM/Crep/ECO/"other contract type"]_Organization_Name document_Author_Version_Status"

- Sa67: Soil Campaigns for Search Area 6/7 in the Dutch North Sea
- Date: yyyymmdd, e.g. 20260101
- Organization: Name of the organization e.g.
    - "RVO" for all internal and general documents produced by the Netherlands Enterprise Agency (RVO).
    - Consultant or Contractor name (shortened).
- Name document: Make sure the name clearly explains the content, include here the original name if from external party.
- Author: Abbreviation of the author if an internal document. Author shall be removed for final documents.
- Version: Revision number or date, respectively V01 till V0x_D or 20200101_F.
- Status: (D) for draft documents, (F) for signed final and approved documents.

4.4 Standards, formats, templates

All reports will be written in English and include both an English and Dutch management summary.

Contractors provide for each completed study a publishable summary for the Project and Site description. Maximum 2 A4 including some high-resolution pictures or graphs.

All Contractors must use the taxonomy as presented here in the taxonomy list.
[https://offshorewind.rvo.nl/page/view/8cd71467-97cc-47ce-accb-1a6d2a29c661/taxonomy].

All reports must use the terminology as specified in Appendix A: GIS Metadata requirements of the starting points and assumptions. For your convenience this dictionary is also available as XLSX file.

Reports and deliverables will be delivered by Contractors in pdf and original, regular, formats (docx; xlsx; ppt; etc).
Final reports will have a cover according to the corporate identity of the Netherlands Enterprise Agency, with the following text:

- Front:

Offshore wind energy Netherlands
Soil Data for Various Sites within the Dutch Offshore Wind Farm Zones Investigation Area
Name document

- Back:

A colophon with the following content:

The creative commons license 4.0 apply to this material. (including a Creative Commons logo and hyperlink to the relevant Creative Commons website page:
https://creativecommons.org/licenses/by/4.0/)

- The (investigation) (report) was carried out by <<name Contractor>>, commissioned by RVO, an agency of the Ministry of Economic Affairs. Whilst a great deal of care has been taken in compiling the contents of this document and the mentioned investigations, Netherlands Enterprise Agency (RVO) cannot be held liable for any damages resulting from any inaccuracies and/or outdated information.

- Contact

Netherlands Enterprise Agency (RVO)
Graad van Roggenweg 200 | 3531 AH | Utrecht | The Netherlands
P.O. box 8242 | 3503 RE | Utrecht | The Netherlands
www.rvo.nl/ http://english.rvo.nl

- Netherlands Enterprise Agency (RVO) | Date of publication

4.5 Other data

In the case of collected data: primary data must be delivered in regular formats.

Requirements for the Soil metadata can be found in Appendix B: Soil Metadata requirements.

4.6 Storage of data (electronic / hardcopy)

The Netherlands Enterprise Agency will store all reports and other relevant documents for at least five years electronically.

5 Communication

5.1 Confidentiality

All information provided to Contractors/suppliers by the Ministry of Economic Affairs and Climate Policy and/or the Netherlands Enterprise Agency and/or the Ministry of Infrastructure and Water Management and/or Rijkswaterstaat and/or TenneT must be regarded confidential.

All deliverables produced by Contractors/suppliers remain confidential until a deliverable has been made public by the Ministry of Economic Affairs and Climate Policy and/or the Netherlands Enterprise Agency and/or the Ministry of Infrastructure and Water Management and/or Rijkswaterstaat and/or TenneT.

5.2 Accessibility public information

- Site investigations: https://offshorewind.rvo.nl/
- SDE: http://english.rvo.nl/subsidies-programmes/stimulation-sustainable-energy-production-sde
- Wind farm Site Decisions and EIA: https://www.rvo.nl/subsidies-regelingen/bureau-energieprojecten/lopende-projecten
- General Wind at Sea information: https://www.rvo.nl/onderwerpen/windenergie-op-zee
- General Wind at Sea information: https://windopzee.nl/

5.3 Authorities

Wind Farm Site Decision ('Kavelbesluit'):
Ministry of Climate Policy and Green Growth
Ufuk Kilinç
E: u.kilinc@minezk.nl
T: +31 (0)6-31024992

Rijkswaterstaat:
Raoul Syrier
E raoul.syrier@rws.nl
T +31 (0)6 11072554

Site data:
Netherlands Enterprise Agency
Matté Brijder
E matte.brijder@rvo.nl
T + 31 (0)6 27878952

Grid connection ('Transmissiesysteem op zee'):
TenneT TSO BV
Johan Dekkers
E johan.dekkers@tennet.euT +31 (0)6 29360328

Netherlands Coast Guard
T +31 0900 0111

5.4 Media

All media contacts will be coordinated by the Ministry of Economic Affairs and Climate Policy. If a supplier is approached by press representatives than he/she should refer to the spokesman of the Ministry only.

Ministry of Economic Affairs and Climate Policy
Caspar Itz
c.itz@minez.nl
+ 31 610551061

5.5 Email

All emails related to the site investigations must be send in CC to the project mailbox:
VS67@rvo.nl

The subject of an email related to the Various Sites within the Dutch Offshore Wind Farm Zones needs to start with the date and the abbreviation of the Various Sites within the Dutch Offshore Wind Farm Zones so VS67. Then also it needs to be followed by an abbreviation of the type of site survey. E.g. : 20220806 VS67 MC for the Supply of Soil Data for the Various Sites within the Dutch Offshore Wind Farm Zones Investigation Area.

5.6 Emergency Response

In case of an emergency suppliers are obliged to inform the Netherlands Enterprise Agency immediately.

Appendix A: GIS Metadata requirements

Appendix B: Soil Metadata requirements

Appendix C: GIS Maps & Packages

Appendix D: Sample metadata .xml