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Hollandse Kust (west) Wind Farm Zone

Annex 5 – Section VII
Starting points & Assumptions – Part I General

Colophon

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1 Introduction

This document provides the starting points and assumptions for the Hollandse Kust (west) Wind Farm Zone. The starting points and assumptions are to be used by contractors when executing investigations, studies or likewise, for the development of the Hollandse Kust (west) Wind Farm Zone 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.nl)
- Rijkswaterstaat
- TSO TenneT

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

Please note:

- This is a living document; before use check if you have the latest version available (tbc by your client)
- Your client may have issued a Part 2 with client specific starting points and assumptions

If you have any queries please contact your client.

2 General introduction to the offshore wind energy in the Netherlands

The Netherlands' existing offshore wind farms have a combined capacity of approximately 1,000 MW:

Windfarm	Distance of the coast	Year of commissioning	Turbines	Owner
Offshore Wind Farm Egmond aan Zee (OWEZ)	10-18 km	2008	36 Vestas 3 MW	Noordzeewind (joint venture NUON and Shell)
Prinses Amalia Wind Farm	23 km (12 NM)	2009	60 Vestas 2 MW	Eneco
Luchterduinen	23 km (12 NM)	2015	43 Vestas 3 MW	joint venture Eneco and Mitsubishi Corporation
Gemini	85 km	2017	150 Siemens 4 MW	Northland Power, Siemens, Van Oord and HVC

Currently 2,183 MW is planned:

Windfarm	Distance of the coast	(Expected) start construction	Capacity	Owner
Borssele I and II	23 km (12 NM)	2019	752 MW	Dong Energy Borssele 1 B.V.
Borssele III and IV	23 km (12 NM)	2019	731 MW	Blauwwind II C.V. (a consortium of Shell, Van Oord, Eneco and Diamond Generating Europe)
Hollandse Kust (zuid) I and II	18.5 km (10 NM)	2021	700 MW	Chinook

2.1 The roadmap 2020 – 2023 towards 4,500 MW offshore wind power

In 2013 more than 40 organisations laid the foundations for a robust, future-proof energy and climate policy for the Netherlands by approving the Energy Agreement for Sustainable Growth (Energieakkoord voor Duurzame Groei, September 6th 2013). An important part of this agreement includes scaling up of offshore wind power development. In September 2014 the Minister of Economic Affairs presented a road map to parliament, outlining how the Government plans to achieve its offshore wind goals in accordance with the time line agreed upon in the Energy Agreement.

The road map sets out a schedule of tenders offering 700 MW of development each year in the period 2015 – 2019, under the condition that the cost of offshore wind power will decrease by 40% in 2024, compared to 2014.

The Dutch Government has developed a systematic framework under which offshore wind farm zones are designated. Any location outside these wind farm zones are not eligible to receive a permit. Within the designated wind farm zones the government decides the specific sites where

wind farms can be constructed using a so-called Wind Farm Site Decision ('Kavelbesluit'). This contains conditions for building and operating a wind farm on a specific site. The Dutch Government provides all relevant site data and Dutch transmission system operator TenneT is responsible for grid connection ('transmissiesysteem op zee').

Winners of the site development tenders will be granted a permit to build a wind farm according to the Offshore Wind Energy Act (Wet Windenergie op zee), if necessary a SDE+ grant, and offered a grid connection to the main land. The Ministry provides site data, which can be used for the preparation of bids for these tenders. This system is expected to contribute to cost savings.

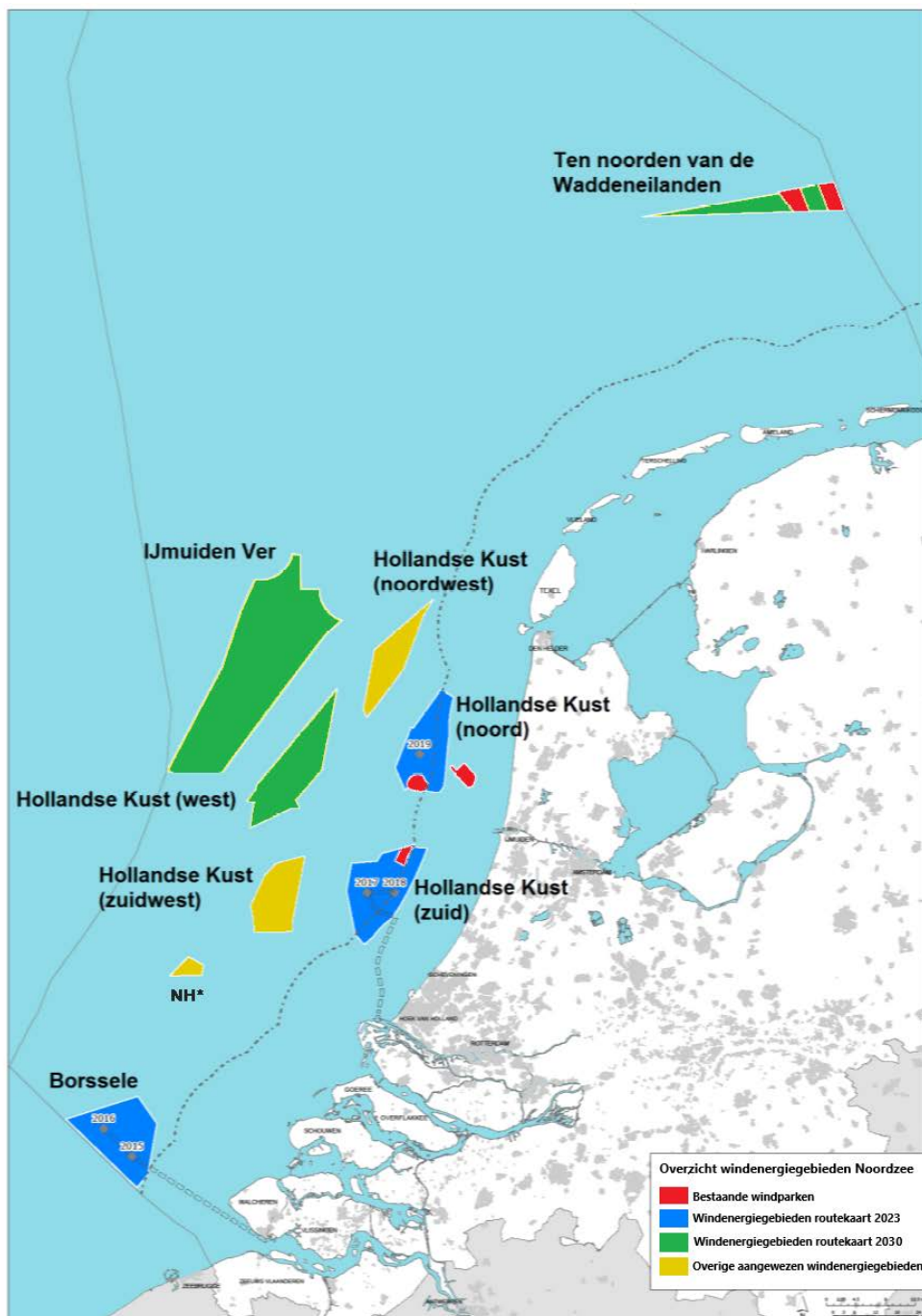
2.2 New Offshore Wind Energy Roadmap Between 2024 and 2030,

The Dutch Government intends to build new wind farms in the North Sea which, together with the other offshore wind farms mentioned in 2.1., will supply enough renewable power to meet 40% of our current electricity consumption. This is according to the 'Offshore Wind Energy Roadmap 2030', in which the Government outlines the plans and designates locations where new wind farms may be built between 2024 and 2030. The Roadmap provides clarity for stakeholders and certainty for wind farm developers. This certainty has previously contributed to a major decrease in the costs of offshore wind energy, so that it is now possible to realise a wind farm without subsidies. The Government will begin issuing tenders for the new wind farms in 2021.

Roadmap 2030 schedule:

Capacity [GW]	Wind Farm Zone	Shortest distance from the coast	Start procedure Wind Farm Site decisions	Year of tender	Year of commissioning
1.4	Hollandse Kust (west)	51 km from Petten	2018	2020/2021	2024 to 2025
0.7	Ten Noorden van de Waddeneilanden	56 km from Schiermonnikoog	2019	2022	2026
Approx. 4.0	IJmuiden Ver	53 km from Den Helder; 80 km from IJmuiden	2020	2023 to 2026	2027 to 2030
Approx. 0.9	To be determined				

A tender to develop the Hollandse Kust (west) Wind Farm Zone is scheduled to open in 2020.



3 General introduction to the Hollandse Kust (west) Wind Farm Zone

The Hollandse Kust (west) Wind Farm Zone (HKWWFZ) is located 18 Nautical Miles off the west coast of the Netherlands.

Telecom cables and a pipe line are crossing the Wind Farm Zone.

Several operational and abandoned cables and pipelines cross the Wind Farm Zone.

Name	Type	Status
PL 0053 (Wintershall)	Pipe	Active
PL 0085 (Wintershall)	Pipe	Active
PL 0109 (Chevron)	Pipe	Active
PL 0148 (Wintershall)	Pipe	Active
PL 0157 (Wintershall)	Pipe	Active
PL0207 (Wintershall)	Pipe	Active
PL 0054 (Wintershall)	Pipe	Inactive
PL 0126 (Wintershall)	Pipe	Inactive
KB 0067 (UK-NL 14)	Telecom cable	Active
KB 0065 (UK-NL 10)	Telecom cable	Inactive
KB0029 (Pangea segment 2)	Telecom cable	Active
KB 0015 (Rembrandt 1)	Telecom cable	Inactive

Table 1 Characteristics of cables and pipelines in the Hollandse Kust (west) Wind Farm Zone

Windenergiegebied Hollandse Kust (west)

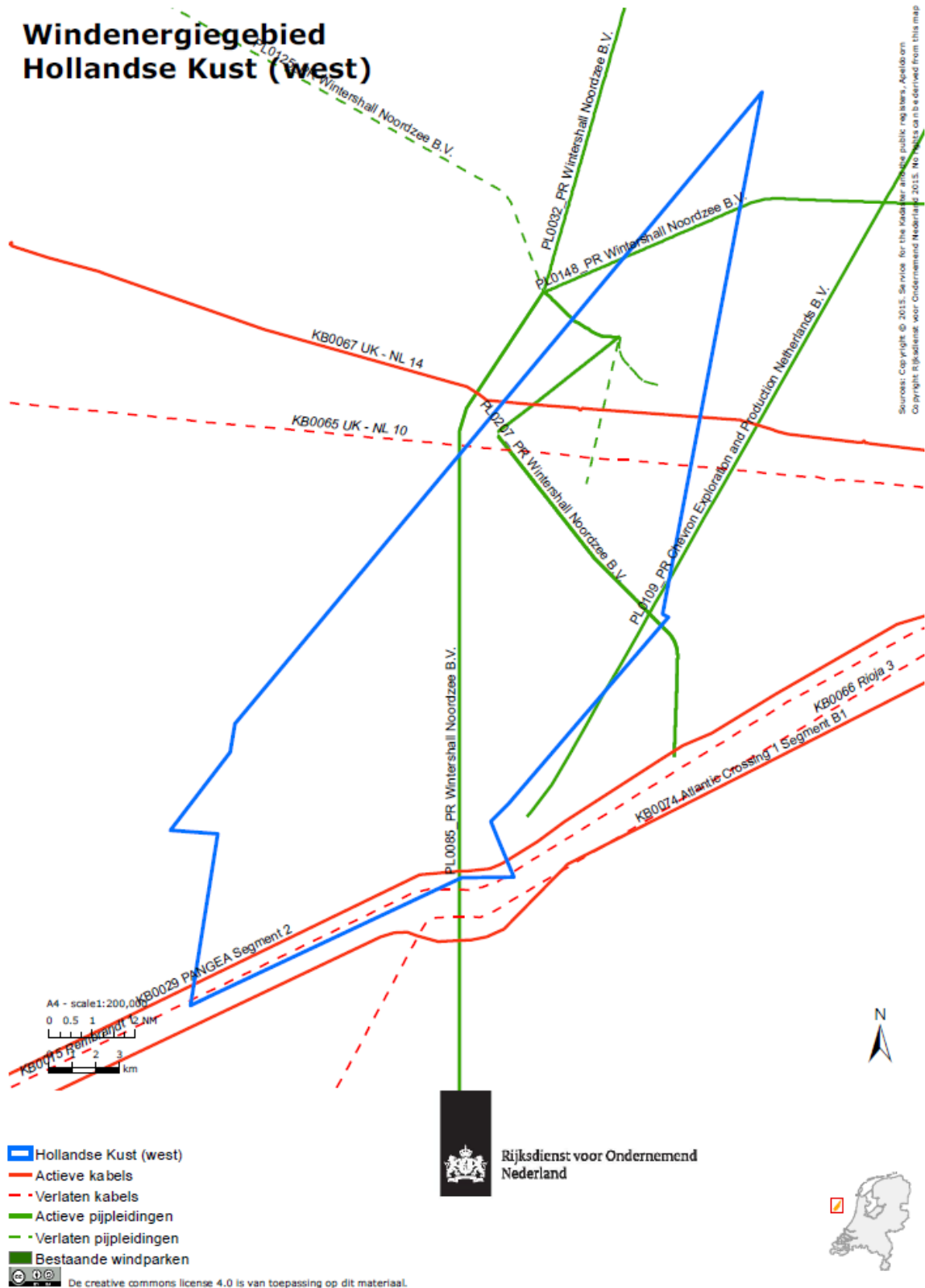


Figure 2: Cables and pipelines in the Hollandse Kust (west) Wind Farm Zone

3.1 Layout & coordinates

The Wind Farm Zone is not yet sub-divided in Wind Farm Sites. Figure 3 shows the lay out of the Wind Farm Zone.

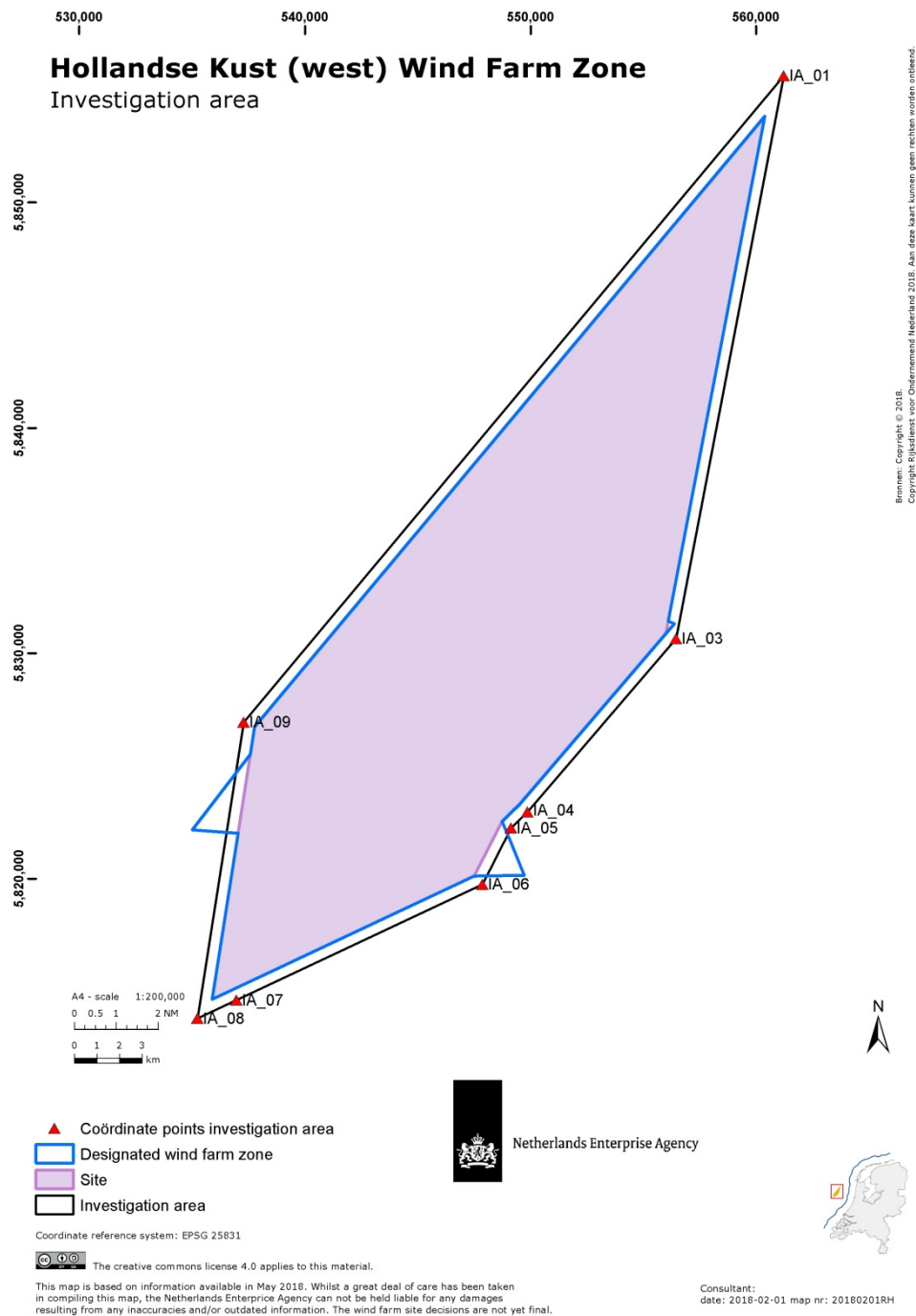


Figure 3: Coordinates of the Hollandse Kust (west) Wind Farm Zone

3.2 Specific characteristics of the Wind Farm Zone

The Hollandse Kust (west) Wind Farm Zone has the following general characteristics, as shown in table 2.

Table 2 Characteristics of the Hollandse Kust (noord) Wind Farm Zone

Characteristics	
Water depth	N/A
Distance from shore	From 18 nautical miles
Total surface area (including maintenance and safety zones within the WFZ)	393 km ²
Overall Wind Turbine Density	N/A

4 Units of measurement and vertical and horizontal datum

4.1 Units

SI units (ISO/IEC 8000) are applicable for any activities carried out at the Wind Farm Zone.

4.2 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).

5 Quality requirements

This chapter describes quality requirements including data model and GIS data deliveries. During the process and delivery of the data you can always contact RVO.nl for further information or explanations.

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

5.1 Spatial data

All created data in the study will be delivered by the supplier in GIS format. The supplier will need to comply with the data requirements set out by RVO and provide an inventory list of the deliverables supplied. The inventory should include project name, name of contractor and responsible person, survey date, product medium (i.e. hard drive, web service, etc.), folder structure and description of data contents.

- The data should be delivered in one of the following formats: ESRI File Geodatabase, TIFF or ESRI Shapefile (.shp). Should another format be used this can only be delivered after consulting with RVO.nl.
- Both raw data and processed data along with any relevant GIS workspaces (MXDs) are required and should also include the associated reports and charts.
- Data preferably in a data model format like the *SeaBed Survey Data Model* (<http://www.iogp.org/bookstore/product/guidelines-for-the-use-of-the-seabed-survey-data-model/>)
- Data described in the IHO S44 standards should be delivered according to that standard: https://www.iho.int/iho_pubs/standard/S-44_5E.pdf
- The geodetic system used for horizontal projections is European Terrestrial Reference System 1989 (ETRS89). EPSG code: 25831 <http://www.epsg-registry.org/>. If another CRS is used the transformation parameters to ETRS89 needs to be included.
- 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 Annex B.

5.2 Taxonomy

All contractors must use the taxonomy as presented in Annex A. The taxonomy is also available as xlsx file.

6 Communication

6.1 Confidentiality

6.1.1 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.

6.1.2 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.

6.2 Accessibility public information

Site investigations: 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>

6.3 Authorities

Wind Farm Site Decision ('Kavelbesluit'):

Ministry of Economic Affairs and Climate Policy

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Rijkswaterstaat

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Site data:

Netherlands Enterprise Agency

Ruud de Bruijne

E ruud.debruijne@rvo.nl

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Grid connection ('Transmissiesysteem op zee'):

TenneT

Johan Dekkers

E johan.dekkers@tennet.eu

T +31 (0)6 29360328

6.4 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

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+ 31 610551061

Annex A. Taxonomy (also as separate xlsx file)

Windenergie op zee	Offshore Wind Energy
30-mei-18	
Nederlands:	English:
de Nederlandse overheid	the Dutch Government
exclusieve economische zone (EEZ)	Exclusive Economic Zone
kabinet	Cabinet
minister/ministerie van Economische Zaken en Klimaat (EZK)	Minister/Ministry of Economic Affairs and Climate Policy
minister/ministerie van Infrastructuur en Waterstaat	Minister/Ministry of Infrastructure and Water Management
Ministerie van Binnenlandse Zaken en Koninkrijksrelaties (BZK)	Ministry of the Interior and Kingdom Relations
Ministerie van Landbouw, Natuur en Voedselkwaliteit	Ministry of Agriculture, Nature and Food Quality
netbeheerder op land	transmission system operator (TSO)
netbeheerder op zee	offshore grid operator
net op zee	offshore grid
Rijk (in samengestelde woorden rijk met een kleine letter)	Government / State
Rijksdienst voor Ondernemend Nederland	Netherlands Enterprise Agency
Rijkswaterstaat Zee en Delta	Rijkswaterstaat Sea and Delta
TenneT	TenneT
routekaart windenergie op zee	Offshore Wind Energy Roadmap
Ørsted Borssele I BV	Ørsted Borssele I BV
Blauwwind II cv	Blauwwind II cv
Two Towers	Two Towers
Chinook	Chinook
Staatscourant	Government Gazette
Termen: windgebied, kavel, perceel, benaming	Terms: wind zone, site, parcel, name
380 kV	380 kV
aanlanding op Maasvlakte Noord	Shore landing at Maasvlakte Noord
Borssele Alpha, Borssele Beta, Hollandse Kust (zuid) Alpha etc.	Borssele Alpha, Borssele Beta, Hollandse Kust (zuid) Alpha
grens windenergiegebied	wind farm zone boundary
Hollandse Kust (noord)	Hollandse Kust (noord)
Hollandse Kust (west)	Hollandse Kust (west)
Hollandse Kust (zuid)	Hollandse Kust (zuid)
kavel	site
kavels I en II	Sites I and II
kavel in windenergiegebied	Wind Farm Site (WFS)

kavel IV in windenergiegebied Hollandse Kust (zuid)	Hollandse Kust (zuid) Wind Farm Site IV in (HKZWFS IV)
kavelbesluit	Wind Farm Site Decision (WFSD)
kWh	kWh
MW	MW
net op zee	offshore grid
net op zee Hollandse Kust (noord)	offshore grid Hollandse Kust (noord)
net op zee Hollandse Kust (zuid)	offshore grid Hollandse Kust (zuid)
perceel (kaveldeel)	parcel
platforms	platforms
Rijksstructuurvisie Windenergie op Zee, Aanvulling gebied Hollandse Kust	National Structural Vision Offshore Wind Energy, Hollandse Kust
Ontwerp-Rijksstructuurvisie (Ontwerp-RSV)	Draft National Structural Vision
Voorkeursalternatief (afkorting: VKA)	preferred alternative
Voorschrift 10, tweede lid (eerst cijfer, nummer van de leden uitschrijven)	Regulation 10
windenergiegebied	Wind Farm Zone (WFZ)
windenergiegebied Borssele	Borssele Wind Farm Zone (BWFZ)
windenergiegebied Borssele V, Innovatiekavel	Borssele Wind Farm Zone V, Innovation Site
windenergiegebied Hollandse Kust (noord)	Hollandse Kust (noord) Wind Farm Zone (HKNWFZ)
windenergiegebied Hollandse Kust (zuid)	Hollandse Kust (zuid) Wind Farm Zone (HKZWFFZ)
windenergiegebied Hollandse Kust (zuidwest)	Hollandse Kust (zuidwest) Wind Farm Zone (HKZWFFZ)
windenergiegebied Hollandse Kust (west)	Hollandse Kust (west) Wind Farm Zone (HKWWFFZ)
windenergiegebied Hollandse Kust (noordwest)	Hollandse Kust (noordwest) Wind Farm Zone (HKNWWFFZ)
Hollandse Kust (West Alpha)	Hollandse Kust (West Alpha)
windenergiegebied IJmuiden Ver	IJmuiden Ver Wind Farm Zone (IJVWFZ)
windenergiegebied Ten noorden van de Waddeneilanden	Ten noorden van de Waddeneilanden Wind Farm Zone (TNWWFFZ)
windpark (op zee)	offshore wind farm
windturbines / windmolens	wind turbines
Termen: juridisch	Terms: Legal
Algemene Maatregel van Bestuur (AMvB)	Government Decree
beroepsprocedure	appeal procedure
besluit	decision
bevoegd gezag	competent authority
concept wet- en regelgeving	bill or draft legal framework
definitief	final
ministeriële regeling (MR)	Ministerial Order
nog niet beschikbaar	not yet available
ontwerpkavelbesluit	draft site decision
onherroepelijk	irrevocable
raamwerk wet- en regelgeving	legal framework
voorbereidingsbesluit	preparatory decision
wet	act

wet- en regelgeving	applicable law
Termen: bestaande wet- en regelgeving, titels	Terms: applicable law, titels
aanwijzen	to designate
aanwijzing / aanwijzingsbesluit	designation
Aansluit- en transportovereenkomst	Connection and Transmission Agreement
Activiteitenbesluit milieubeheer	Environmental Activities Decree
algemene regels	general rules
Algemene uitvoeringsregeling stimulerende duurzame energieproductie (SDE)	General Implementing Regulations for Stimulating Sustainable Energy Production
Algemene wet bestuursrecht (Awb)	General Administrative Law Act
Artikel	Section
Beheerplan Deltawateren	Delta Water Management Plan
Beheerplan Voordelta	Voordelta Management Plan
beleidsbeslissing doorvaart en medegebruik	Shipping Corridor and Joint Use Policy Decision
Beleidsnota Noordzee 2016-2021	North Sea Policy Document
beleidsregel	policy rule
Besluit stimulerende duurzame energieproductie	Stimulation of Sustainable Energy Production Decision
Commissie voor de milieueffectrapportage (daarna Commissie m.e.r. of Cie-m.e.r.)	The Netherlands Commission for Environmental Assessment (NCEA)
concept	draft
concept notitie reikwijdte en detailniveau (concept-NRD)	Draft Memorandum Scope and Level of Detail
Energieakkoord voor duurzame groei (Energieakkoord)	Energy Agreement for Sustainable Development
Erfgoedwet	Cultural Heritage Act
EU-Habitatrichtlijn	European Union Habitats Directive
Flora- en faunawet (Ff-wet)	Dutch Nature Conservation Act
Flora- en faunawetontheffing	Nature Conservation Act exemption
handhaving	enforcement
inpassingsplan	integration plan
Kader Ecologie en Cumulatie (KEC)	Ecology and Cumulation Framework
Kaderrichtlijn Mariene Strategie (KRM)	Maritime Strategy Directive
Kaderwet EZ-subsidies	Economic Affairs Subsidies Framework Act
kavelspecifieke regels	site specific rules
Lid (bij een wetsartikel)	Paragraph
MARIN-veiligheidsstudie	MARIN safety study
MER (mv: MER-en)	Environmental Impact Analysis (EIA)
m.e.r.-procedure	EIA procedure
milieueffectrapport (MER)	EIA report
milieueffectrapportage (m.e.r.)	Environmental Impact Assessment (EIA)
Mijnbouwwet	Mining Act
monitorings- en evaluatieprogramma	environmental monitoring and evaluation programme
Monumentenwet 1988	Monuments and Historic Buildings Act (1988)
Nationaal Waterplan (2009-2015)	National Water Plan (2009-2015)
Nationaal Waterplan (2016-2021)	National Water Plan (2016-2021)

nationaal waterplan	national water plan
Natura 2000-gebied	Natura 2000 area
Natuurbeschermingswet 1998	Nature Conservation Act 1998
natuur- en milieuorganisaties	NGOs
Noordzee Strategie 2030	North Sea Strategy 2030
notitie reikwijdte en detailniveau (NRD)	Memorandum Scope and Level of Detail
notitie reikwijdte en detailniveau milieueffectrapport net op zee Hollandse Kust (zuid)	Memorandum on the Scope and Level of Detail of the Environmental Impact Report for the Hollandse Kust (zuid) Offshore Grid
omgevingswet	Environmental Act
omgevingsvergunning	environmental permit
onderdeel	subparagraph
Ontwerpbeheerplan Noordzeekustzone	Draft Management Plan Noordzeekustzone
Ontwerpbeheerplan Waddenzee	Draft Management Plan Waddenzee
ontwerpbesluit	Draft Decree
ontwikkeldkader windenergie op zee	Development Framework for Offshore Wind Energy
Overlegorgaan Infrastructuur en Milieu (OIM)	Environment Consultative Body
passende beoordeling	appropriate assessment
planMER	Strategic Environmental Assessment (SEA)
privaatrechtelijk	under private law
projectMER	Environmental Impact Assessment (EIA)
publiekrechtelijk	under public law
realisatieovereenkomst	Realisation Agreement
Regeling windenergie op zee 2015	Ministerial Order for Offshore Wind Energy 2015
Regeling windenergie op zee 2016	Ministerial Order for Offshore Wind Energy 2016
Regeling windenergie op zee 2017	Ministerial Order for Offshore Wind Energy 2017
Regeling innovatieve windenergie op zee	Ministerial Order for Innovative Offshore Wind Energy
Routekaart Windenergie op zee	Roadmap Offshore Wind Energy
subsidieaanvrager	grant applicant
Uitvoeringsregeling windenergie op zee	Implementing Regulations for Offshore Wind Energy
vergunning	permit
voorschrift	regulations
Waterbesluit	Water Decree
Waterregeling	Ministerial Order for Water
watervergunning	Water Rights Licence
Waterwet	Water Act
Wet milieubeheer (Wm)	Environmental Management Act
Wet natuurbescherming	Nature Conservation Act
Wet ruimtelijke ordening (Wro)	Spatial Planning Act
Wet windenergie op zee (Wwoz)	Offshore Wind Energy Act
Termen: subsidie en vergunning	Terms: subsidy and permit
18,5-22,2 kilometer uit de kust (10 tot 12 nautische mijl)	18.5 - 22.2 kilometres offshore

12 mijlszone, strook tussen de 10 en 12 nautische mijl	12 nautical mile zone / area between the 10 and 12 nautical mile zones
22,2 kilometer buiten de kust ook vaak gebruikt ipv buiten de 12-mijlszone	22.2 kilometres offshore also often used instead of the 12 nautical mile zone
3 MW turbines	3 MW turbines
(wind)energieopbrengstberekening	(wind) energy yield calculation
aflossingen	redemptions
afschrijvingen	depreciations
bankgarantie	bank guarantee
basisbedrag	base amount (also known as the strike price)
basisenergieprijs	base energy price (also known as the floor price)
begrensd tenderbedrag	price cap
Belgische windparken	Belgian Wind Farms
beschikken	to grant
boete	penalty
correctiebedrag	correction amount
dochteronderneming	subsidiary company
doorvaart	passage
een windpark te bouwen en exploiteren	to build and operate a wind farm
eigen vermogen	equity capital
elektriciteit koopovereenkomst	power purchase agreement
financieringsplan	financing plan
gebundelde aanvraag	combined applications
intentieverklaring	letter of intent
kosten en baten	costs and benefits
medegebruik	co-use
meervoudig ruimtegebruik	multipurpose use of space
moederonderneming	parent company
netto P50-waarde vollasturen	net P50-value of full load hours
nominaal vermogen	nominal capacity
onherroepelijk	irrevocable
onvoorziene kosten	contingency fees
ontheffing	exemption
samenwerkingsverband	collaborative venture
subsidie	subsidy
subsidieaanvraag	application/bids for grants
subsidieontvanger	grant recipient
subsidiebeschikking	(SDE+) grant
tender	call for subsidy tender
tenderbedrag	tender bid price
uitvoeringsovereenkomst	implementation agreement
veiligheidszone	safety zone
voorlopig correctiebedrag	provisional correction amount
voorschotverlening	advance payment
vrijwaring	indemnification
winnaar van een tender	winner of a tender

Ecologische termen	Ecological terms
aalscholver	great cormorant
alk	razorbill
ankerpunt	mooring point
aquacultuur	aquaculture
bijvangst	by-catch
bodemberoerende visserij	sea-bed fishery
boei	buoy
bruinvis	harbour porpoise
drieteenmeeuw	kittiwake
fuut	great crested grebe
grijze zeehond	grey seal
grote mantelmeeuw	greater black-backed gull
grote zeeëend	velvet scooter
hard substraat	stony reef structure
jan-van-gent	gannet
kleine mantelmeeuw	lesser black-backed gull
kokmeeuw	black-headed gull
korf	fish pot
kotter	cutter
overboord gooien	to throw overboard
pot	pot
roodkeelduiker	red-throated diver
sleepnetvisserij	trawling
staand want / staand net	gillnetting / fixed netting
stortsteen	scour protection
visafval	offal
viskooi	fish cage
zeehond	common seal
zeekoet	guillemot
zeewierweek	seaweed farming
zilvermeeuw	herring gull
zwarte zeeëend	common scooter
Technische termen uit contracten, onderzoek, wet- en regelgeving	Technical terms: contracts, studies, applicable law
akoestisch afschrikmiddel	acoustic deterrent device
ashoogte	axis height
bandbreedten	design specifications / bandwidths
beloodsingsgebied	pilotage zone
veiligheidszone kavel in windgebied	wind farm site safety zone
bodemonderzoek	soil investigations
coördinatiepunten	coordinate points

cut-in windspeed	cut-in wind speed
exclusieve economische zone (Nederland)	Exclusive Economic Zone of the Netherlands
exploitant/producent	operator
fundering	foundation
geluidsniveau	sound level
geofysische studie	geophysical study
geotechnisch onderzoek	geotechnical survey
gondel	nacelle
helikopter	helicopter
helikopter (vlieg)routes	helicopter routes
heiplan	piling plan
hernieuwbare elektriciteit	renewable electricity
in aanmerking komen (voor subsidie)	eligible
kabel	cable
kabel naar vaste land (route)	export cable (corridor)
kabels binnen windpark	in field cables / inter array cables
landingsprocedure	approach procedure
luchtruim	airspace
massale vogeltrek	mass bird migration
mast	tower
meter	metre
meter (maat)	metres
monitorings- en evaluatieprogramma	monitoring and evaluation programme
nautische 12-mijls zonegrens vanaf Nederlandse basislijn	nautical 12 mile zone
Noordzee	North Sea
obstakelverlichting	obstruction lights / aircraft warning lights
ondernemer	the company
officiële publicaties	official notices
onderhoudszone	maintenance zone
onderhoudszone telecomkabels België	telecom cable maintenance zone Belgium
onderhoudszone telecomkabels Nederland	telecom cable maintenance zone Netherlands
overslaghaven	marshalling harbour
pijpleidingen	pipelines
pijplijn onderhoudszone	pipeline maintenance zone
platform veiligheidszone	platform safety zone
producent/exploitant	operator
productie installatie	power generation facility
rotorbladen	rotor blades
rotordiameter	rotor diameter
rotoroppervlak	swept area
scheepsdoorgang of scheepvaartcorridor	shipping corridor
SEL	Sound Exposure Level

soft start	soft start
sondeertest	Cone Penetration Test (CPT)
technische projectbeschrijving	technical project description
turbulentie	turbulence
TenneT-platforms op zee	TenneT platforms
territoriale wateren	territorial sea
tiphoogte	tip highest level
tiplaagte	tip lowest level
transact	transact
veiligheidsvoorzieningen	safety provisions
vergunning (alg+incl formele toestemming/ontheffing)	consent
vergunning (concreet, 1 specifieke vergunning)	permit
vergunning verleend	permit granted / awarded
vergunninghouder	permit holder
vliegveiligheid	flight safety
zeeniveau/Lowest Astronomical Tide (LAT)	sea level/Lowest Astronomical Tide (LAT)
zeeniveau/Mean Sea Level (MSL)	sea level/Mean Sea Level (MSL)
zog turbulentie	wake turbulence
zog effecten	wake effects

Annex B. GIS Metadata requirements

All data collected by third parties must be provided with metadata. Data is preferably collected in an ArcGIS file geodatabase (version 10.2 or lower). In this case, metadata is stored within the data in the database. In case of a shapefile, GML or GRID metadata must be provided in pure XML-format. Organisations that use Esri software can use the GeoSticker application to create and edit metadata: <http://www.esri.nl/geosticker>.

Metadata must be compliant with the Dutch standard for metadata ISO 19115 version 1.3.1.¹ More information on the standard can be found here:

<http://www.geonovum.nl/wegwijzer/standaarden/nederlands-metadataprofiel-op-iso-19115-geografie-131>

To validate your metadata a validator is available from the website of Geonovum:

<http://www.geonovum.nl/validator-nederlands-metadataprofiel-op-iso-19115>

Metadata elements with explanation:

Identification

1. File title:

No abbreviations, complete title of the dataset covering the content of the dataset.

2. Status:

According a standard list:

complete; historic archive; no longer relevant; continuous update; planned; update required; in development.

3. Source data date:

- a. Created YYYY-MM-DD
- b. Published YYYY-MM-DD (date of approval by RVO.nl)
- c. Revision YYYY-MM-DD

4. Summary:

Short description of the content of the dataset.

5. Subject / topics:

Define the key topic(s) of the dataset

6. Keywords:

Keywords describing the dataset, e.g.

- Wind Farm Site
- Wind Farm Zone ... (Borssele or Hollandse Kust)
- ...
- ...

7. Revision frequency:

N/A

8. Next revision date:

N/A

9. Purpose of production:

Concise description of the original aim of the dataset

10. Application scale:

¹ There is one major difference between the Dutch metadata standard ISO 19115 version 1.3.1 and the GIS Competence Center metadata requirements: the description of the content of the dataset. A description of all attributes, including - if applicable - all possible values and its measurement is mandatory.

Scale on which the dataset can be used.

11. Limitation for use:

Applications for which the data set is not to be used. I.e. Not to be used for navigation. Not to be used on a scale larger than 1:50.000

12. Legal restrictions (access):

None, data will be published in the public domain

13. Legal restrictions (use):

The creative commons license 4.0 apply to this material. See hyperlink <https://creativecommons.org/licenses/by/4.0/>

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14. Other restrictions:

Other restriction(s) if any.

15. Description complementary document or website:

On the RVO.nl website general information about offshore wind energy can be found as well as links to more detailed information regarding the information of the investigation where this deliverable resulted from.

Quality

16. General origin:

General description of when, how and where the data was created / collected.

17. Accuracy:

Describe accuracy of the dataset.

18. Completeness:

Is the dataset complete? If not, a description of the incompleteness is necessary.

19. Processing of data (if applicable):

If data is processed, description of each step is required i.e. transformation or generalisation

20. Source datasets (if applicable):

Description of used source datasets (if any).

Coverage

21. Geographical coverage:

Geographical coverage of the file e.g. The Netherlands, North Sea.

22. Validity period:

Define start and end date of validity of the dataset.

Content

23. Attribute information:

Description of all attributes, including - if applicable – all possible values and its measurement.

General

24. Contact information:

Contact information of client and/or creator and/or point of contact. At least one contact is mandatory. Name organisation, role organisation (owner, processor, point of contact, administrator, provider, creator), and email address of contact

If website is available, name of contact and role of contact

Client:

Business Name: ...

Contact Person: ...

Address: ...

Telephone: ...

Email

Creator:

Business Name: ...

Contact Person: ...

Address: ...

Telephone: ...

Email: ...

Annex C. Coordinates Hollandse Kust (west) Wind Farm Zone

NR	ETRS_X	ETRS_Y
IA_01	561228,0	5855632,6
IA_03	556460,6	5830656,3
IA_04	549868,2	5822960,7
IA_05	549138,1	5822251,0
IA_06	547864,6	5819746,5
IA_07	536954,7	5814611,0
IA_08	535232,6	5813800,4
IA_09	537288,5	5826952,9