



OSPAR database on offshore wind-farms

2013 UPDATE (revised in 2014)



OSPAR Convention

The Convention for the Protection of the Marine Environment of the North-East Atlantic (the “OSPAR Convention”) was opened for signature at the Ministerial Meeting of the former Oslo and Paris Commissions in Paris on 22 September 1992. The Convention entered into force on 25 March 1998. The Contracting Parties are Belgium, Denmark, the European Union, Finland, France, Germany, Iceland, Ireland, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Convention OSPAR

La Convention pour la protection du milieu marin de l'Atlantique du Nord-Est, dite Convention OSPAR, a été ouverte à la signature à la réunion ministérielle des anciennes Commissions d'Oslo et de Paris, à Paris le 22 septembre 1992. La Convention est entrée en vigueur le 25 mars 1998. Les Parties contractantes sont l'Allemagne, la Belgique, le Danemark, l'Espagne, la Finlande, la France, l'Irlande, l'Islande, le Luxembourg, la Norvège, les Pays-Bas, le Portugal, le Royaume-Uni de Grande Bretagne et d'Irlande du Nord, la Suède, la Suisse et l'Union européenne.

OSPAR Database on Offshore Wind-farms – 2013 Update (revised in 2014)

The use of any renewable energy source makes a significant contribution towards climate protection and towards placing our energy supply on a sustainable ecological footing, thereby helping to conserve the natural balance. Nevertheless, the utilisation of renewable sources of energy can also have an adverse impact on the environment and our natural resources. Since 2001, OSPAR and its Biodiversity Committee (BDC) have been noting that the offshore wind energy sector has been rapidly expanding in the OSPAR maritime area.

In order to better understand the situation and to help authorities to manage potential conflicting objectives and the expanding use of these offshore installations in an ecologically sustainable way, OSPAR agreed on a programme of work on the environmental impact of offshore wind-farms.

As part of this programme of work on wind-farms, OSPAR has produced the OSPAR Database on Offshore Wind-farms, which constitutes an inventory of all planned (under application), authorised, refused, operational, out of service and decommissioned wind-farms installations under the jurisdiction of the OSPAR Contracting Parties.

The OSPAR Database on Offshore Wind-farms provides to the public information, for each offshore installation, regarding (1) its name, (2) location, (3) distance from the coast, (4) number of wind turbines, (5) current status, (6) capacity in MW, (7) foundations type, (8) water depth, (9) height, (10) environmental impact information and (11) additional remarks. In order to better understand the terminology used, the Explanatory Notes at Annex 1 describe the terms used and the way in which Contracting Parties should report their data by adhering to this terminology.

The database is completed with the maps of locations of wind-farms in the OSPAR Maritime Area. The maps also reflect wind-farms at the application stage in order to ensure the transparency of current authorisation processes in Contracting Parties. The maps are at Annex 2.

Finally, the database is adopted annually by Environmental Impact of Human Activities Committee (EIHA), and published on the OSPAR website (www.ospar.org).

ID No	Country	Name	Distance from coast kn	Operator	No of wind turbines	Current Status	Capacity in MW	Foundation type	Water depth m	Height m	EIA	Remarks
Be01	Belgium	C-power	27	C-power	54	operational	300	gravity-based (first 6), jacket (rest)	10-25	130	yes	Project layout in 2 blocks, Six 5 MW turbines operational from 2008 and thirty 6 MW turbines operational from 2012. Installation of remainder of eighteen 6 MW windturbines foreseen in spring 2013. Park to be fully operational by summer 2013.
Be02	Belgium	Northwind	37	Colruytgroups-Aspiravi Offshore	72	authorised	216	monopile	16-38	130	yes	Foundation and turbine type not decided yet. Area concession granted in June 2006. (old name: Eldepasco). Start installation in april 2013, to be fully operational by spring 2014
Be03	Belgium	Belwind	46	Belwind nv, Ecocem	110	operational	330	monopile (first 55), jacket (test-turbine)	25-50	126	yes	55 turbines of Phase I installed in 2010. Operational from end 2010. September 2013: installation Alstom Haliade 6MW
Be04	Belgium	Rentel	31	Rent-a-port, Electrawinds, Aspiravi, Power-at-Sea, DEME	47-78	authorised	289-468	monopile/jacket/gravity-based/suction caisson	22-28	130	yes	Foundation type not decided yet. Area concession granted in June 2009. Environmental permit granted on 8/2/2013.
Be05	Belgium	Norther	22,5	Air Energy, Eneco, Otary nv	47-100	authorised	258-470	monopile/jacket/gravity-based	13-22	150	yes	Foundation type not decided yet. Area concession granted in October 2009. Environmental permit granted 18 January 2012. Revision permit granted on 28/3/2013.
Be06	Belgium	Seastar	41	Power@Sea Electrawinds	41	authorised	246	monopile/tripod/other	20-25	150	no	Foundation type not decided yet. Area concession granted in June 2012. Environmental permit procedure ongoing.
Be07	Belgium	Mermaid	50	Electrabel (GDF Suez), Otary nv	75	authorised	450	monopile/tripod/other	25-50	150	no	Foundation type not decided yet, Area concession granted in July 2012. Environmental permit procedure not started yet. In addition, wave energy converters will be installed among the wind turbines: these high-tech buoys which generate energy from waves wi
De001	Germany	alpha ventus	45	Stiftung Offshore Windenergie	12	operational	60	monopile / jacket	25-50	150	yes	(old name: Borkum West)
De002	Germany	DanTysk	50	Vattenfall Europe Windkraftwerke GmbH c/o Dan Tysk Offshore Wind GmbH (Vattenfall Europe Windkraft GmbH)	80	operational	400	monopile	10-25/25-50	130	yes	
De003	Germany	Borkum Riffgrund West	40	Borkum Riffgrund West 1 GmbH (Dong Energy und Blitz H11-207 GmbH)	80	authorised	280	monopile, tripod/tripile, jacket, gravity-based, other	25-50	120	yes	
De004	Germany	Borkum Riffgrund 1	34	Borkum Riffgrund I Offshore Windpark A/S GmbH&Co oHG	77	operational	230	monopile	10-25/25-50	115	yes	
De005	Germany	Amrumbank West	35	Amrumbank West GmbH	80	authorised	400	monopile, tripod/tripile, jacket, gravity-based, other	10-25	130	yes	
De006	Germany	Nordsee Ost	30	Essent Wind Nordsee Ost Planungs- und Betriebsgesellschaft mbH; Ein Unternehmen der RWE (RWE Innogy Windpower Hannover GmbH)	80	operational	400	jacket	10-25	140	yes	(old name: Amrumbank)
De008	Germany	Butendiek	34	wpd nordsee offshore GmbH	80	authorised	240	monopile	10-25	130	yes	
De009	Germany	GlobalTech I	100	Global Tech I Offshore Wind GmbH (wetrete Offshore Windenergy GmbH)	80	operational	360	tripod	25-50	150	yes	
De010	Germany	OWP Delta Nordsee 4	40	Offshore Windpark Delta Nordsee GmbH	47	authorised	235	monopile, tripod/tripile, jacket, gravity-based, other	25-50	130	yes	(old name: ENOVA Offshore North Sea Windpower)
De011	Germany	EnBW Hohe See	90	EnBW Nordsee Offshore GmbH	80	authorised	360	monopile, tripod/tripile, jacket, gravity-based, other	25-50	110	yes	(old name: Hochsee Windpark Nordsee)
De012	Germany	Sandbank	100	Sandbank Power GmbH & Co. KG	96	authorised	480	monopile, tripod/tripile, jacket, gravity-based, other	25-50	100	yes	
De013	Germany	Gode Wind 01	45	Gode Wind I GmbH (Dong Energy)	77	authorised	385	monopile	25-50	125	yes	
De014	Germany	Ventotec Nord 1	130	GICON GmbH	80	application	150	monopile, tripod/tripile, jacket, gravity-based, other	25-50	80	no	EIA required
De015	Germany	Ventotec Nord 2	112	GICON GmbH	80	application	150	monopile, tripod/tripile, jacket, gravity-based, other	25-50	80	no	EIA required
De017	Germany	EnBW He Dreiht	85	EnBW Nordsee Offshore GmbH	80	authorised	360	monopile, tripod/tripile, jacket, gravity-based, other	25-50	110	yes	(old name: Hochsee Windpark He dreiht)
De018	Germany	Nordergrunde	11	Energiekontor GmbH	25	authorised	125	monopile, tripod/tripile, jacket, gravity-based, other	0-10/10-25	150	yes	
De019	Germany	Riffgat	14,5	Offshore Windpark Riffgat GmbH & Co. KG (ENOVA Offshore Projektentwicklungs-GmbH & Co.KG)	44	operational	220	monopile, tripod/tripile, jacket, gravity-based, other	10-25	180	yes	
De020	Germany	H2-20	200	GEO	80	application	400	other	25-50	150	no	Hydrogen production, Planned start of construction in 2020. EIA required
De021	Germany	BARD Offshore 1	87	Bard Engineering GmbH	80	operational	400	tripile	25-50	110	yes	
De022	Germany	Deutsche Bucht	87	British Wind Energy GmbH (Eolic Power GmbH)	42	authorised	210	tripile	25-50	110	yes	
De023	Germany	Austerngrund	87	Austerngrund GmbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	110	no	EIA required
De024	Germany	MEG Offshore I	45	Nordsee Offshore MEG I GmbH	80	authorised	400	tripod	25-50	150	yes	
De025	Germany	Trianel Windpark Borkum Phase 1	40	Trianel Windkraftwerk Borkum II GmbH & Co. KG (Trianel Windkraftwerk Borkum GmbH & Co. KG)	40	operational	200	tripod	10-25/25-50	150	yes	
De025a	Germany	Trianel Windpark Borkum Phase 2	40	Trianel Windkraftwerk Borkum II GmbH & Co. KG (Trianel Windkraftwerk Borkum GmbH & Co. KG)	40	authorised	200	tripod	10-25/25-50	150	yes	Area 1

De026	Germany	Nordsee One	40	Nordsee One GmbH	54	authorised	270	monopile, tripod/tripile, jacket, gravity-based, other	25-50	150	yes	(old name: Enova 3, NorthSea Windpower III)
De027	Germany	OWP Delta Nordsee 5	40	Offshore-Windpark Delta Nordsee GmbH (OWP Delta Nordsee GmbH)	33	authorised	165	monopile, tripod/tripile, jacket, gravity-based, other	25-50	160	yes	(old name: Enova 2)
De028	Germany	Borkum Riffgrund 2	26	PNE2 Riff II GmbH	96	authorised	480	monopile	25-50	150	yes	Area 1
De029	Germany	OWP West	58	Northern Energy OWP West GmbH (Norderland Projekt / Northern Energy Unternehmensgruppe)	42	application	480	monopile, tripod/tripile, jacket, gravity-based, other	25-50	150	yes	
De030	Germany	Borkum Riffgrund West II	52	Energiekontor AG	43	application	163	monopile, tripod/tripile, jacket, gravity-based, other	25-50	160	yes	
De031	Germany	Kaskasi II	35	RWE Innogy Kaskasi GmbH	34	application	170	monopile, tripod/tripile, jacket, gravity-based, other	25-50	130	no	EIA required, (old name: Hochsee Testfeld Helgoland)
De032	Germany	Gode Wind 02	38	Gode Wind II GmbH (Donq Energy)	42	authorised	210	monopile	25-50	150	yes	Was divided, part of old area Gode Wind II
De033	Germany	Sandbank extension	90	Sandbank Power Extension GmbH & Co, KG	40	application	200	monopile, tripod/tripile, jacket, gravity-based, other	25-50	100	yes	Area 1
De034	Germany	Veja Mate	89	BARD Holding GmbH	80	authorised	400	tripile	25-50	110	yes	
De035	Germany	Kaskasi I	23	RWE Innogy Kaskasi GmbH	40	application	320	monopile, tripod/tripile, jacket, gravity-based, other	10-25	160	no	EIA required
De036	Germany	Meerwind Sued/Ost	22	Wind MW GmbH	40	operational	200	monopile, tripod/tripile, jacket, gravity-based, other	10-25/25-50	110	yes	
De037	Germany	Albatros	105	Northern Energy OWP Albatros GmbH (Norderland Projekt / Northern Energy Unternehmensgruppe; LCO Nature GmbH)	79	authorised	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	165	yes	
De038	Germany	Kaikas	88	Eos Offshore Kaikas GmbH	88	authorised	528	monopile, tripod/tripile, jacket, gravity-based, other	25-50	153	yes	
De039	Germany	Notos	88	EOS Offshore Notos GmbH	50	application	300	monopile, tripod/tripile, jacket, gravity-based, other	25-50	153	yes	
De040	Germany	Aiolos	88	Eos Offshore Aiolos GmbH	310	application	1550	monopile, tripod/tripile, jacket, gravity-based, other	25-50	153	yes	2 parts
De041	Germany	Sea Wind I	90	Northern Energy SeaWind I GmbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	150	yes	
De042	Germany	Sea Wind II	90	Northern Energy SeaWind II GmbH	60	application	300	monopile, tripod/tripile, jacket, gravity-based, other	25-50	150	no	EIA required
De043	Germany	Sea Storm I	110	Northern Energy SeaStorm I GmbH (Northern Energy SeaStorm I GmbH & Co.KG)	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	150	no	EIA required
De044	Germany	He dreht II	110	EnBW Nordsee Offshore GmbH (EOS Offshore AG)	28	application	168	monopile, tripod/tripile, jacket, gravity-based, other	25-50	153	no	EIA required
De045	Germany	Diamant	113	BARD Holding GmbH	160	application	800	monopile, tripod/tripile, jacket, gravity-based, other	25-50	151	no	EIA required
De046	Germany	Bernstein	108	BARD Holding GmbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	151	no	EIA required
De047	Germany	Citrin	111	BARD Holding GmbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	151	no	EIA required
De048	Germany	Aquamarin	83	BARD Holding GmbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	151	no	EIA required
De049	Germany	SeaWind IV	110	Northern Energy SeaWind IV GmbH	78	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	150	no	EIA required
De050	Germany	GAIA II	100	Northern Energy GAIA II GmbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	150	no	EIA required
De051	Germany	GAIA III	90	Northern Energy GAIA III GmbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	150	no	EIA required
De052	Germany	GAIA IV	90	Northern Energy GAIA IV GmbH	68	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	150	no	EIA required
De053	Germany	Skua	85	OWP Skua GmbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	165	no	EIA required
De054	Germany	Horizont II	125	Germany Mainstream Renewable Power Developments GmbH	76	application	380	monopile, tripod/tripile, jacket, gravity-based, other	25-50	165	yes	(old name: Horizont Ost)
De055	Germany	Nordpassage	75	Vattenfall Europe New Energy GmbH	80	application	480	monopile, tripod/tripile, jacket, gravity-based, other	10-25/25-50	160	no	EIA required
De056	Germany	Horizont III	121	Germany Mainstream Renewable Power Developments GmbH	71	application	355	monopile, tripod/tripile, jacket, gravity-based, other	25-50	165	yes	(old name: Horizont Ost)
De057	Germany	Horizont I	131	Germany Mainstream Renewable Power Developments GmbH	65	application	325	monopile, tripod/tripile, jacket, gravity-based, other	25-50	165	yes	(old name: Horizont)
De058	Germany	GlobalTech II	70	Northern Energy GlobalTech II GmbH	76	application	380	monopile, tripod/tripile, jacket, gravity-based, other	25-50	150	yes	
De060	Germany	OWP GAIA I Nord	145	Northern Energy GAIA I GmbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	150	no	EIA required (old name: GAIA I)
De061	Germany	SeaStorm II	110	Northern Energy SeaStorm II, GmbH	38	application	190	monopile, tripod/tripile, jacket, gravity-based, other	25-50	150	no	EIA required
De062	Germany	SeaWind III	110	Northern Energy SeaWind III GmbH	57	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	150	no	EIA required
De063	Germany	Bight Power I	74	FC Windenergy GmbH (SSE Renewables Germany GmbH)	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De064	Germany	Bight Power II	74	FC Windenergy GmbH (SSE Renewables Germany GmbH)	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required

De065	Germany	AreaC I	66	FC Windenergy GmbH (SSE Renewables Germany GmbH)	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De066	Germany	AreaC II	66	FC Windenergy GmbH (SSE Renewables Germany GmbH)	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De067	Germany	AreaC III	66	FC Windenergy GmbH (SSE Renewables Germany GmbH)	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De068	Germany	Euklas	143	BARD Holding GmbH	160	application	1040	monopile, tripod/tripile, jacket, gravity-based, other	25-50	151	no	EIA required
De069	Germany	Witte Bank	120	Projekt Oekovest GmbH	118	application	590	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De070	Germany	HTOP 1	205	Hochtief Offshore Development Eins GmbH	81	application	486	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De071	Germany	HTOP 2	158	Hochtief Offshore Development Zwei GmbH	85	application	486	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De072	Germany	HTOP 3	190	Hochtief Offshore Development Drei GmbH	84	application	504	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De073	Germany	HTOP 4	190	Hochtief Offshore Development Vier GmbH	95	application	570	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De074	Germany	Gode Wind III	34	PNE Wind AG (Plambeck Neue Energien AG)	15	application	75	monopile, tripod/tripile, jacket, gravity-based, other	25-50	150	no	EIA required
De075	Germany	EnWB He dreiht (Complementary applica	85	EnBW Nordsee Offshore GmbH	39	authorised	195	monopile, tripod/tripile, jacket, gravity-based, other	25-50	110	yes	
De076	Germany	Nemo	190	PNE Wind Nemo GmbH (PNE Wind AG)	136	application	680	monopile, tripod/tripile, jacket, gravity-based, other	25-50	158	no	EIA required (old name: Jules Verne I)
De077	Germany	Jules Verne	170	PNE Wind Jules Verne GmbH (PNE Wind AG)	160	application	800	monopile, tripod/tripile, jacket, gravity-based, other	25-50	158	no	EIA required, (old name: Jules Verne II)
De078	Germany	Gannet	80	OWP GANNET GmbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	165	no	EIA required
De079	Germany	Seagull	80	OWP SEAGULL GmbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	165	no	EIA required
De080	Germany	Petrel	80	OWP PETREL GmbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	165	no	EIA required
De081	Germany	Heron	80	OWP HERON GmbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	165	no	EIA required
De082	Germany	Nautilus	170	PNE Wind Nautilus GmbH (PNE WIND AG)	81	application	567	monopile, tripod/tripile, jacket, gravity-based, other	25-50	158	no	EIA required
De083	Germany	OWP GAIA V Nord	160	Northern Energy GAIA V GmbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	160	no	EIA required
De085	Germany	NEPTUN I	170	NEPTUN ENERGY Projektgesellschaft mbH	225	application	1125	monopile, tripod/tripile, jacket, gravity-based, other	25-50	200	no	EIA required
De086	Germany	ENOVA Offshore NSWP 8	200	ENOVA Energieanlagen GmbH	82	application	410	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De087	Germany	ENOVA Offshore NSWP 9	180	ENOVA Energieanlagen GmbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De088	Germany	ENOVA Offshore NSWP 10	190	ENOVA Energieanlagen GmbH	92	application	460	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De089	Germany	ENOVA Offshore NSWP 11	200	ENOVA Energieanlagen GmbH	84	application	420	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De090	Germany	Innogy Nordsee 2	40	Nordsee One GmbH	48	authorised	240	monopile, tripod/tripile, jacket, gravity-based, other	25-50	150	yes	(old name: Enova 3, NorthSea Windpower III)
De091	Germany	Innogy Nordsee 3	40	Nordsee One GmbH	60	authorised	300	monopile, tripod/tripile, jacket, gravity-based, other	25-50	150	yes	
De092	Germany	Demonstrationsprojekt Albatros 1	105	Windkraft FIT GmbH	10	authorised	50	gravity-based	25-50	165	no	EIA required
De093	Germany	NEPTUN II	161	NEPTUN ENERGY Projektgesellschaft mbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	200	no	EIA required
De094	Germany	NEPTUN III	156	NEPTUN ENERGY Projektgesellschaft mbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	200	no	EIA required
De095	Germany	Prowind 1	152	PROffshore Wind International GmbH	63	application	240	monopile, tripod/tripile, jacket, gravity-based, other	25-50	222	no	EIA required
De096	Germany	STRIBOG I	101	NEPTUN ENERGY Projektgesellschaft mbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	200	no	EIA required
De097	Germany	STRIBOG II	96	NEPTUN ENERGY Projektgesellschaft mbH	80	application	400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	200	no	EIA required
De098	Germany	Horizont IV	117	Germany Mainstream Renewable Power Developments GmbH	51	application	255	monopile, tripod/tripile, jacket, gravity-based, other	25-50	165	no	EIA required
De099	Germany	ENOVA Offshore NSWP 12	180	ENOVA Energieanlagen GmbH	82	application	410	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De100	Germany	ENOVA Offshore NSWP 13	173	ENOVA Energieanlagen GmbH	84	application	420	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De101	Germany	ENOVA Offshore NSWP 14	171	ENOVA Energieanlagen GmbH	66	application	330	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De102	Germany	ENOVA Offshore NSWP 15	167	ENOVA Energieanlagen GmbH	75	application	375	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De103	Germany	Nord-Ost-Passat I	230	Tiefbau GmbH Unterweser	60	application	600	monopile, tripod/tripile, jacket, gravity-based, other	25-50	225	no	EIA required

De104	Germany	Nord-Ost-Passat II	237	Tiefbau GmbH Unterweser	60	application	600	monopile, tripod/tripile, jacket, gravity-based, other	25-50	225	no	EIA required
De105	Germany	Nord-Ost-Passat III	234	Tiefbau GmbH Unterweser	80	application	800	monopile, tripod/tripile, jacket, gravity-based, other	25-50	225	no	EIA required
De106	Germany	OWP Poseidon	114	OWP Poseidon GmbH I.G.	76	application	532	monopile, tripod/tripile, jacket, gravity-based, other	25-50	150	no	EIA required
De107	Germany	OWP Neptun	115	OWP Neptun GmbH I.G.	78	application	546	monopile, tripod/tripile, jacket, gravity-based, other	25-50	150	no	EIA required
De108	Germany	OWP Nordschillgrund	155	Iberdrola Renewables Deutschland GmbH	550	application	4400	monopile, tripod/tripile, jacket, gravity-based, other	25-50	183	no	EIA required
De109	Germany	Prowind 2	155	PROffshore Wind International GmbH	63	application	315	monopile, tripod/tripile, jacket, gravity-based, other	25-50	222	no	EIA required
De110	Germany	Prowind 3	157	PROffshore Wind International GmbH	63	application	315	monopile, tripod/tripile, jacket, gravity-based, other	25-50	222	no	EIA required
De111	Germany	HTOP 5	177	Hochtief Offshore Deutschland Fuenf GmbH (old: PNE Wind Nautilus II GmbH)	80	application	560	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De112	Germany	HTOD 6	192	ENOVA Energieanlagen GmbH	63	application	315	monopile, tripod/tripile, jacket, gravity-based, other	25-50	163	no	EIA required
De113	Germany	Concordia 1	171	KNK Concordia GmbH	80	application	560	monopile, tripod/tripile, jacket, gravity-based, other	25-50	200	no	EIA required
De114	Germany	Concordia 2	160	KNK Concordia GmbH	80	application	560	monopile, tripod/tripile, jacket, gravity-based, other	25-50	200	no	EIA required
De115	Germany	Gode Wind 04	34	Gode Wind II GmbH (Dong Energy)	42	authorised	210	monopile	25-50	150	yes	Part of old area Gode Wind II
DK02	Denmark	Horns Rev	14	Vattenfall + Dong Energy	80	operational	160	monopile	0-15	110	yes	
DK03	Denmark	Frederikshavn	1	Dong Energy	3	operational	7.6	monopile	0-5	123	yes	Wind mills on a line
DK04	Denmark	Roeland	1	Vindenergi Aps	8	operational	17	monopile	0-5	120	yes	Wind mills on a line
DK05	Denmark	Horns Rev 2	30	Dong Energy	91	operational	209	monopile	9-17	132	yes	Wind mills in curved polygon
DK13	Denmark	Frederikshavn Test Site	4	Dong Energy	6	authorised	36	various types	11-21	200	yes	Wind mills on a line
DK14	Denmark	Anholt	20	Dong Energy	111	operational	400	monopiles	15-19	142	yes	Windmills in curved polygon
ES01	Spain	HIPR Wind	3,5	European consortium and EVE	1	application	1,5	floating	75-90	98,5	no	Research project to creating and testing at the megawatt scale novel, cost effective approaches to floating offshore wind turbines
FR01	France	Cote d'Albatre	7	Enertrag	21	authorised, but court case in process	105	tripod	25	160	yes	
IE01	Ireland	Arklow Bank	10	Arklow Energy subleased from Sure Partners	200	operational	520	monopile	5-30	125	yes	Currently 7 x 3,6 MW turbines are in place. It is intended that the final output will be 520MW with all turbines with the area specified.
IE02	Ireland	Codling Bank	13	Codling Wind Park Ltd	220	authorised	1100		5-20	160	yes	Phased development over the period 2009 to 2016. Foreshore Lease granted (copy available at http://www.dcmnr.gov.ie/NR/rdonlyres/665CD3AA-C74D-4FBE-9329-70186FC44F3E/0/MS538LForeshoreLease.pdf)
IE03	Ireland	Oriel Wind Farm	7	Oriel Wind Farm Ltd	55	application	330		15-30	160	yes	Formal application submitted with EIS
IE04	Ireland	Sceirde Rocks	5	Fuinneamh Sceirde Teoranta	20	application	100		5-35	140	yes	Formal application submitted with EIS
NL01	Netherlands	Prinses Amaliapark	23	Eneco (new operator)	60	operational	120	monopile	10-25	97	yes	coordinates in WGS 84. (old name: Q7 WP)
NL02	Netherlands	Offshore Windpark Egmond aan Zee	11	Noordzeewind	36	operational	108	monopile	10-25	112	yes	coordinates in WGS 84. (old name: Near Shore Windpark (demonstration park))
NL03	Netherlands	Beaufort	24	NUON (was WEOM)	100	authorised	300	monopile	20-28	115	yes	coordinates in WGS 84. (old name: Katwijk)
NL04	Netherlands	Scheveningen Buiten	30	Scheveningen Buiten BV	70	authorised	210	monopile	19-30	165	yes	coordinates in WGS 84.
NL05	Netherlands	Q4-WP	24	Q4 BV	40	authorised	120	monopile	0-25	109	yes	coordinates in WGS 84.
NL06	Netherlands	West Rijn	40	West Rijn Wind Farm BV	72	authorised	260	monopile	19-21	130	yes	coordinates in WGS 84.
NL07	Netherlands	Breeveertien II	65	Breeveertien II Wind Farm BV	79	authorised	285	monopile	19-25	130	yes	coordinates in WGS 84.
NL08	Netherlands	Brown Ridge Oost	74	Brown Ridge Oost BV	94	authorised	282	monopile	30	142	yes	coordinates in WGS 84
NL09	Netherlands	Den Helder I	63	Den Helder Windfarm BV	78	authorised	468	monopile	23	160	yes	Coordinates in WGS 84.
NL10	Netherlands	Buitengaats	56	Buitengaats (was: Bard Engineering GmbH)	60	authorised	300	monopile	29-33	150	yes	coordinates in WGS 84. (old name: BARD Offshore NL1)
NL11	Netherlands	Clearcamp	56	Clearcamp (was: Eolic Power GmbH)	55	authorised	275	tripile	29-33	150	yes	coordinates in WGS 84. (old name: EP Offshore NL 1)
NL12	Netherlands	ZeeEnergie	56	ZeeEnergie (was: Global Wind Support GmbH)	60	authorised	300	monopile	29-33	150	yes	coordinates in WGS 84. (old name: GWS Offshore NL1)
NL13	Netherlands	Tromp Binnen	75	RWE	59	authorised	295	gravity-based	20-33	152	yes	coordinates in WGS 84.
NL14	Netherlands	Luchterduinen	24	Eneco WP Q10	43	authorised	133	monopile	0-25	136,8	yes	coordinates in WGS 84.
NL15	Netherlands	Q4 West	26	Eneco Wind B.V. (was: Q4-West B.V.)	70	application	210	monopile	0-25	136,8	yes	coordinates in WGS 84.
NL16	Netherlands	Borssele	0		0					0		
NL17	Netherlands	IJmuiden	0		0					0		
NO01	Norway	Karmoy	0	StatOilHydro ASA	1	authorised				0		
NO02	Norway	Havsul I	6	Havgul AS	78	authorised	350	other	5-35	160	yes	The turbine's specific information is based upon the most likely turbines to be used
NO13	Norway	Siragrunnen	1	Siragrunnen AS	40	application	200	gravitation (concrete)	15-40	150	yes	
SE1	Sweden	Stora Middelgrund	35	Universal Wind	110	authorised	800		0-30	200	yes	Near the Danish border
SE2	Sweden	Risholmen - Arendal	1	Goteborg Energi	3	refused	9	concrete	0-12	150	yes	turbines located in water refused, will be located on land instead
SE3	Sweden	Lovstaviken	0	Falkenberg Energi	5	operational	11,5	monopile/gravity	0-10	110	yes	Wind-farm consisting of 5 wind turbines of which 4 are located on land

SE4	Sweden	Skottarevet	7,5	Favonius	30	refused	180		10-25	0	yes	refused by Court of Appeal
SE5	Sweden	Kattegatt offshore	8	Favonius AB	50	application	300		20-31	190	yes	
SE6	Sweden	Vindplats Goteborg	1	Goteborg Energi AB	15	application	54-90		0-15	190	yes	
UK01	UK	Barrow	7	DONG/Centrica	30	operational	90	monopile	10-25	125	yes	operational since 2006,
UK02	UK	Beatrice 1	22	Scottish and Southern Energy	2	operational	10	Jacket/tripod	45	88	yes	operational since 2007
UK04	UK	Blyth 1	1	Blyth Offshore Wind Ltd	2	operational	4	drilled monopile	0-10	91	yes	Operational since 2000
UK05	UK	Atlantic Array	16,5	RWE	240	application	1200		25-60	220	yes	
UK06	UK	Burbo Bank	7	Dong Energy	25	operational	90	monopile	2-8	130	yes	
UK07	UK	Burbo extension	7	DONG Energy	75	application	234	monopile/jacket/gravity base/suction caisson	6-13	125	yes	Number of turbines yet to be decided,
UK13	UK	Dogger Bank	125	SSE & RWE		application	9000		18-63	0	yes	No. of foundation/foundation type not decided
UK15	UK	Dudgeon	32	Dudgeon Offshore Wind Limited	168	authorised	560	monopile/tripod/suction caisson	18	190	yes	Applied for a variation to red line boundary (SEI)
UK16	UK	East Anglia ONE	56	Scottish power renewables/Vattenfall	325	application	1200	tripod/gravity base	35	200	yes	No. of foundation/foundation type not decided
UK17	UK	Firth of Forth	25	SSE Renewables & Fluor		application	3465		31-71	200	yes	No. of foundation/foundation type not decided
UK18	UK	Galloper A	27	SSE & RWE	50	authorised	204	monopile/gravity based/tripod	20-50	195	yes	
UK19	UK	Galloper B	27	SSE & RWE	45	authorised	150	monopile/gravity based/tripod	20-50	195	yes	
UK20	UK	Galloper C	27	SSE & RWE	45	authorised	150	monopile/gravity based/tripod	20-50	195	yes	
UK21	UK	Greater Gabbard - The Galloper	25	Scottish & Southern/RWE Npower Renewables	140	authorised	504	monopile/gravity based	20-50	170	yes	under construction, (Inner Gabbard & galloper)
UK22	UK	Gunfleet Sands 1	7	Dong Energy	30	operational	108	monopile	0-15	129	yes	operational since 2010
UK23	UK	Gunfleet Sands 2	9	DONG Energy	18	operational	65	monopile	7-24	129	yes	operational since 2010
UK26	UK	Gwynn y Mor	13	RWE Npower Renewables	160	authorised	576	monopile/multipile	12-28	150	yes	under construction
UK27	UK	Hornsea	31	Mainstream renewable power		application	4000		30-70	0	yes	No. of foundation/foundation type not decided
UK28	UK	Humber Gateway	8	E-on	73	authorised	219	monopile/gravity based	15	136	yes	under construction
UK29	UK	Inner Dowsing	5	Centrica	27	operational	97	monopile	0-10	134	yes	operational since 2009
UK31	UK	Irish Sea	15	Centrica/DONG Energy		application	4185		40	0	yes	No. of foundation/foundation type not decided
UK32	UK	Kentish Flats	10	Vattenfall	30	operational	90	monopile	0-10	140	yes	operational since 2005,
UK33	UK	Kentish Flats Extension	8	Vattenfall Wind Power Ltd	17	authorised	51	monopile	3-5	145	yes	
UK34a	UK	LID6 1	6	Centrica Renewable Energy Limited	6	authorised	22	monopile	10-20	150	yes	Part of Lincs,
UK34b	UK	LID6 2	6	Centrica Renewable Energy Limited	6	authorised	22	monopile	10-20	150	yes	Part of Lincs,
UK35	UK	Lincs	8	Centrica	75	operational	270	monopile	10-15	170	yes	operational since 2013
UK36	UK	London Array	21	DONG Energy / E.On Renewables / Masdar	341	operational	1000	monopile/gravity based	0-25	140	yes	operational since 2013
UK37	UK	Lynn	5	Centrica	27	operational	97	monopile	0-10	134	yes	operational since 2009
UK38	UK	Moray Firth	22	EDPR & REPSOL	339	application	1300	jacket/gravity based	37-57	204	yes	
UK39	UK	North Hoyle	8	RWE Npower Renewables	30	operational	60	monopile	7-11	130	yes	operational since 2003
UK40	UK	Ormonde	10	Vattenfall	30	operational	150	monopile	10-25	130	yes	operational since 2012
UK41	UK	Race Bank	27	Centrica Renewable Energy Limited	116	authorised	580	monopile/gravity base/jacket	4-22	180	yes	under construction
UK42	UK	Rampion	19	EON	195	application	700	monopile/tripod/jacket/gravity base/suction caisson	19-50	210	yes	
UK43	UK	Rhyl Flats	8	RWE Npower Renewables	25	operational	90	monopile	0-10	134	yes	
UK44a	UK	Robin Rigg (E) SOL	8,8	E.ON Climate & Renewables UK Robin Rigg East Ltd	60	operational	180	monopile	0-10	125	yes	operational since 2010
UK44b	UK	Robin Rigg (W) OERL	8,8	E.ON Climate & Renewables UK Robin Rigg West Ltd	60	operational	180	monopile	0-10	125	yes	operational since 2010
UK46	UK	Scroby Sands	2	E.on UK Renewables	30	operational	60	monopile	0-10	108	yes	operational since 2004
UK47	UK	Sherringham Shoal	17	Scira Offshore Energy	88	operational	315	monopile	15-22	172	yes	operational since 2012
UK48	UK	Teesside	2	EDF	27	operational	62	drilled monopile	10-25	126	yes	operational since 2013
UK49	UK	Thanet	12	Vattenfall	100	operational	300	monopile/gravity based	20-25	115	yes	operational since 2010
UK50	UK	Triton Knoll	33	RWE Npower Renewables	333	authorised	1200	monopile/tripod/gravity base/suction caisson	15	220	yes	
UK51	UK	Walney	15	DONG Energy & SSE Renewables	102	operational	367	monopile	18-30	150	yes	operational since 2012
UK52	UK	Walney Extension	19	DONG Energy	207	application	750	monopile/gravity based/jacket	20-35	222	yes	Number of turbines yet to be decided, 80-207
UK53	UK	Navitus Bay	21	ENECO	333	application	1200	monopile/gravity based	46	205	yes	Number of turbines yet to be decided,
UK54	UK	West of Duddon Sands	14	Scottish Power/DONG Energy	139	authorised	389	monopile/tripod/gravity base/suction caisson	18-23	183	yes	under construction
UK55	UK	Westermost Rough	9	Dong Energy	80	authorised	245	monopile/gravity based	10-20	172	yes	
UK56	UK	Osters Bank 1	0			application				0		
UK57	UK	Osters Bank 2	0			application				0		
UK58	UK	Osters Bank 3	0			application				0		
UK59	UK	Osters Bank 4	0			application				0		
UK60	UK	Argyll Array	4,2	Scottishpower Renewables (UK) Ltd	180-500	application	500-1800		10-55	0		
UK61	UK	Islay	13,7	Islay Offshore Winds Limited	138	application	690		23-60	0		
UK62	UK	Methil	1,4	2-B Energy	2	authorised	12	Grounded jacket	8,9-13,6	0		
UK63	UK	Inch Cape	15,16	Seaenergy Renewables Inch Cape Limited	180	application	905			0		
UK64	UK	Nearnt na Gaoithe	15,4	Nearnt Na Gaoithe Offshore Wind Limited		application				0		
UK65	UK	SeaGreen Bravo Offshore Wind Farm	38,5	SeaGreen Bravo Wind Energy Limited	75	application	525		31-71	0		
UK66	UK	Aberdeen	1,2	Aberdeen Offshore Wind Farm Ltd	11	authorised	84			0		
UK67	UK	Buchan Deep Demonstration Site	22,2	Statoil Wind Limited	3-5	application	12-20	Spar floater	100-120	0		
UK68	UK	SeaGreen Alpha Offshore Wind Farm	27,9	SeaGreen Alpha Wind Energy Limited	75	application	525		31-71	0		
UK69	UK	Beatrice	13,5	Beatrice Offshore Windfarm Limited	142-277	application	1000		41-50	0		
UK70	UK	Eastern Development Area	22,26	Moray Offshore Renewables Ltd	63-100	application	1500		37-50	0		
UK71	UK	Beatrice Demonstrator Site	23,2	Talisman Energy Ltd	2	operational	10	Grounded jacket	45	0		

Annex 1: Explanatory Notes to the Reporting Format for the OSPAR Database on Offshore Wind-farms

When filling in the reporting format, Contracting Parties are kindly requested to adhere to the following terminology:

1. The column “**Name**” should reflect the name (or other identifier) of an offshore wind farm or a wind turbine in case of a single installation under the jurisdiction of the Contracting Party concerned, as used by the competent national authority. In case a name changes, the old name should also be given (in brackets) for easy reference.

Note: The term “wind turbine” is used to describe each separate structure that carries rotors or equivalent equipment to capture wind energy. It includes the whole structure from the foundation to the top of the rotor or equivalent equipment. The term “wind farm” is used for a group of individual wind turbines, the area of which is treated as a single unit for regulatory purposes.

2. The column “**Location**” should be completed by providing in a clockwise order separately the decimal degrees of longitude and latitude of each corner point describing the polygon that defines the area of the wind farm. Longitude and latitude should be provided as decimal degrees such as 55.25667°. If the information on longitude and latitude are available in a different format such as 55°15'24” N or 55°15.4' N, they can be converted to the required format as follows:

Original format:	Conversion			Required format:
	Degrees unchanged	Minutes divided by 60 and rounded to 5 decimals	Seconds divided by 3600 and rounded to 5 decimals	rounded to 5 decimals
55°15'24” N	55 + 0.25	15/60= 0.25	24/3600= 0.00667	= 55.25667° N
55°15.4' N	55 + 0.25667	15.4/60= 0.25667		= 55.25667° N

Contracting Parties should make use of the World Geodetic System 1984 (WGS84). The WGS84 coordinates should be given without any projection (e.g. without projection UTM).

Note: This information enables the creation of GIS maps which reflect the total area covered by the wind farm(s) reported. The maps will allow an easy assessment whether the location(s) of a wind farm(s) may be in conflict with other local issues such as bird migration routes, spawning grounds – provided the information on such issues is also available in form of GIS descriptions.

3. The column “**Distance to coast**” should give the shortest distance in km between the nearest coast and the wind turbine (or a point of the area polygon of a wind farm) closest to the coast.

Note: This information may be important for assessing the impact on landscape and bird migration.

4. The column “**No of wind turbines**” refers to the number of windturbines in the wind-farm.

5. In completing the column “**Current status**”, the terms used should be limited to the following regulatory phases:

“*application*” – cases where development rights or a formal application for permission to construct or operate has been filed but a decision is still pending;

“*authorised*” – cases where permission to construct or operate has been given, but operations have not started;

“*refused*” – cases where a formal application for permission to construct or operate has been dismissed.

“*operational*” – cases where at least one windturbine in the windfarm is operating; “operating” (and related words) should be understood to be a level of activity where some energy is supplied from the wind-farm to land;

“*out of service*” – cases where operation of all the windturbines in the wind-farm has temporarily ceased;

“*decommissioned*” – cases where all operations in the windfarm have permanently ceased.

Any associated detail should be provided in the column “**Remarks**” e.g. dates of expected authorisation, dates of expected operation, reasons for not being in service, planned reuse or future removal of the wind farm.

6. The column “**Capacity**” refers to the maximum possible operational output of the wind-farm or the wind turbine (if it is regulated on its own) in MW when working at full capacity.

Note: There may be a case in future to create a further heading for the actual annual average output in MWh, in order to estimate the scale of the actual activity, and to allow estimating the potential impact on marine biodiversity (e.g. vibration, noise).

7. In the column “**Foundation type**”, the descriptions should be limited to:

monopile,

tripod/tripile,

jacket

gravity-based,

pre-existing structure (this includes any re-used oil and gas installations),

other (this includes floating structures)

Any further details should be given in the column “**Remarks**”.

8. In the column “**Water depth**”, the depth of the water at the site should be described broadly in one of the following five ranges:

less than 10 m,

10 to 25 m,

25 to 50 m,

50 to 100 m

over 100 m.

9. In the column “**Height**”, the highest point reached by a rotor blade during its rotation should be indicated in metres above mean sea level. If any other part of the structure is higher, its height should then

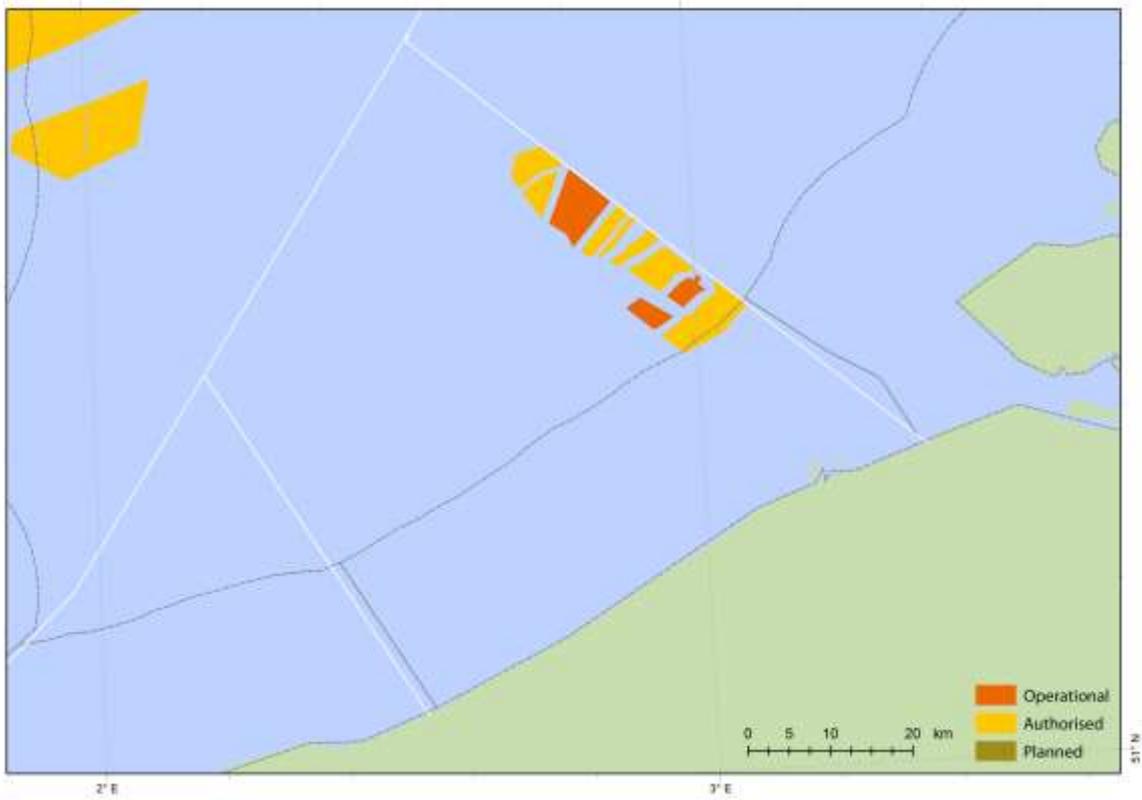
be the one given. If it is not possible to indicate the exact height, e.g. if the state of the approval procedure does not yet allow for it, a range reflecting possible heights should be given.

10. In the column “**EIA**”, Contracting Parties should answer “yes” or “no” as to whether an Environmental Impact Assessment has been carried out.

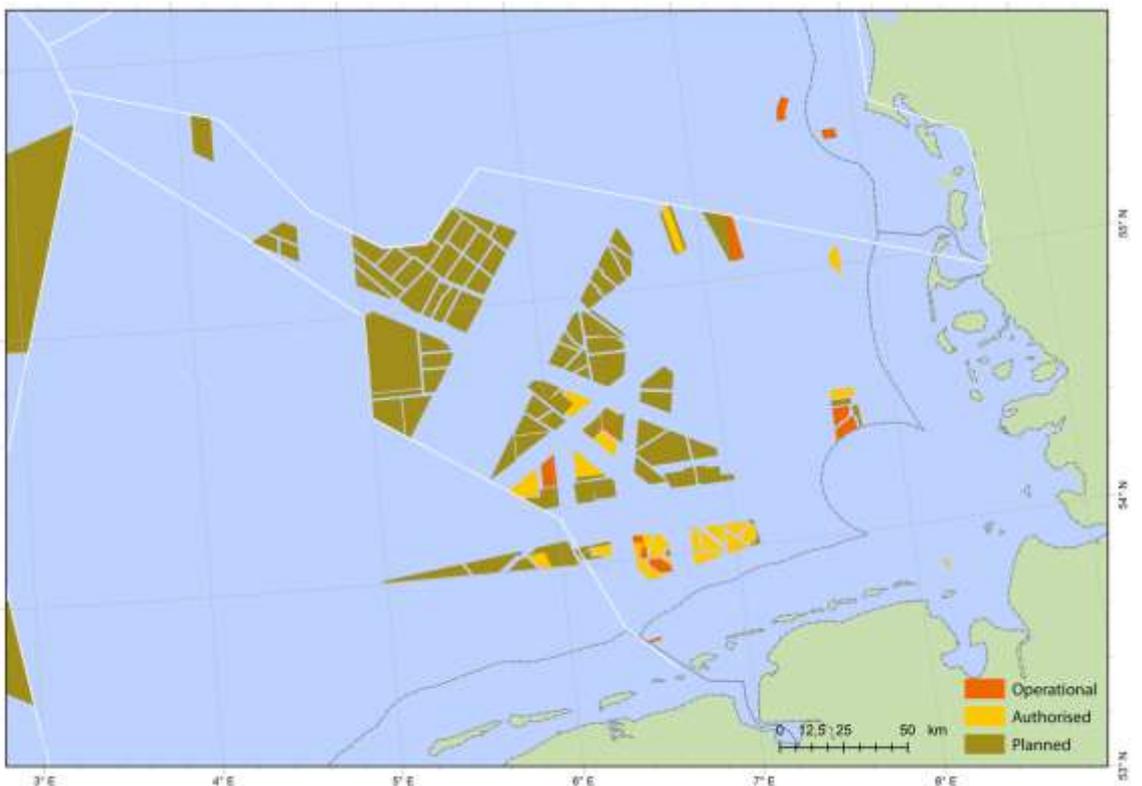
In addition to the above terminology requirements, Contracting Parties filling in the Reporting Format are requested to highlight any amendments or new entries to the database that have been made since their last annual report (e.g. by marking them yellow). This would, in particular, make it easier to handle the large number of co-ordinates required to prepare the wind farm maps.

Annex 2: Maps

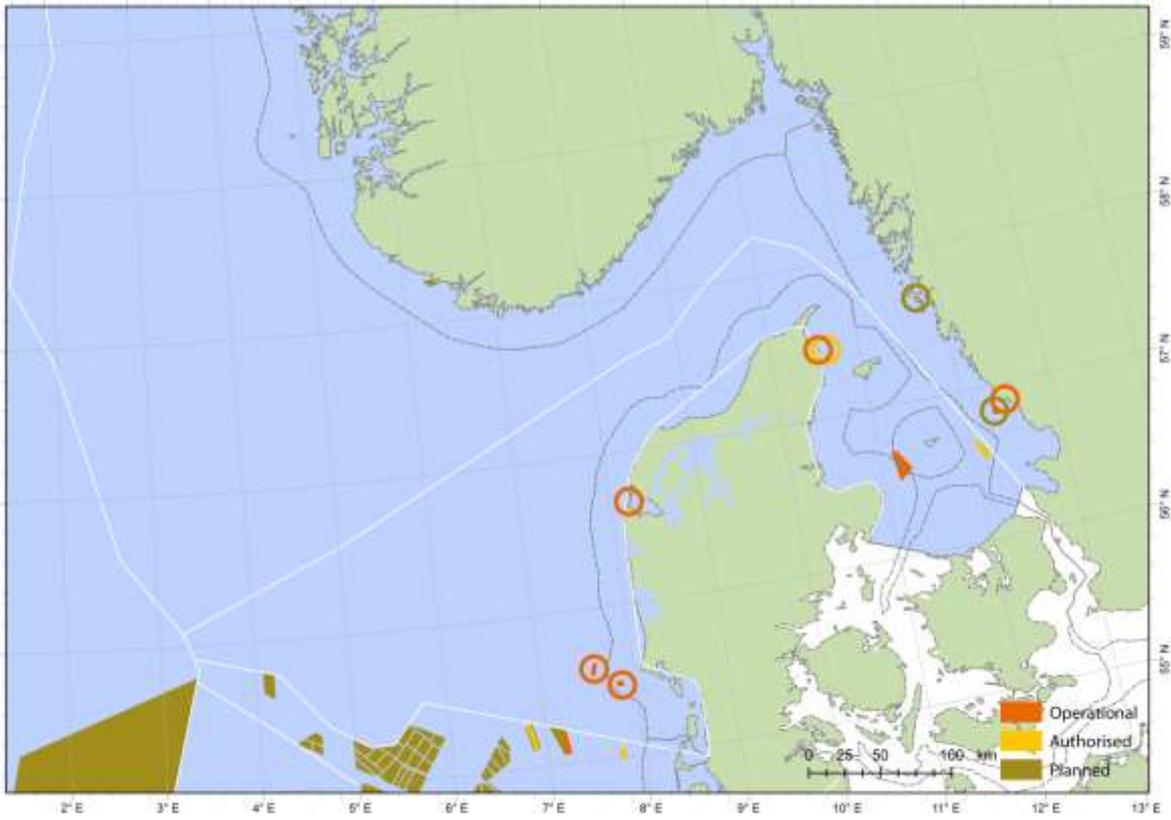
Belgium:



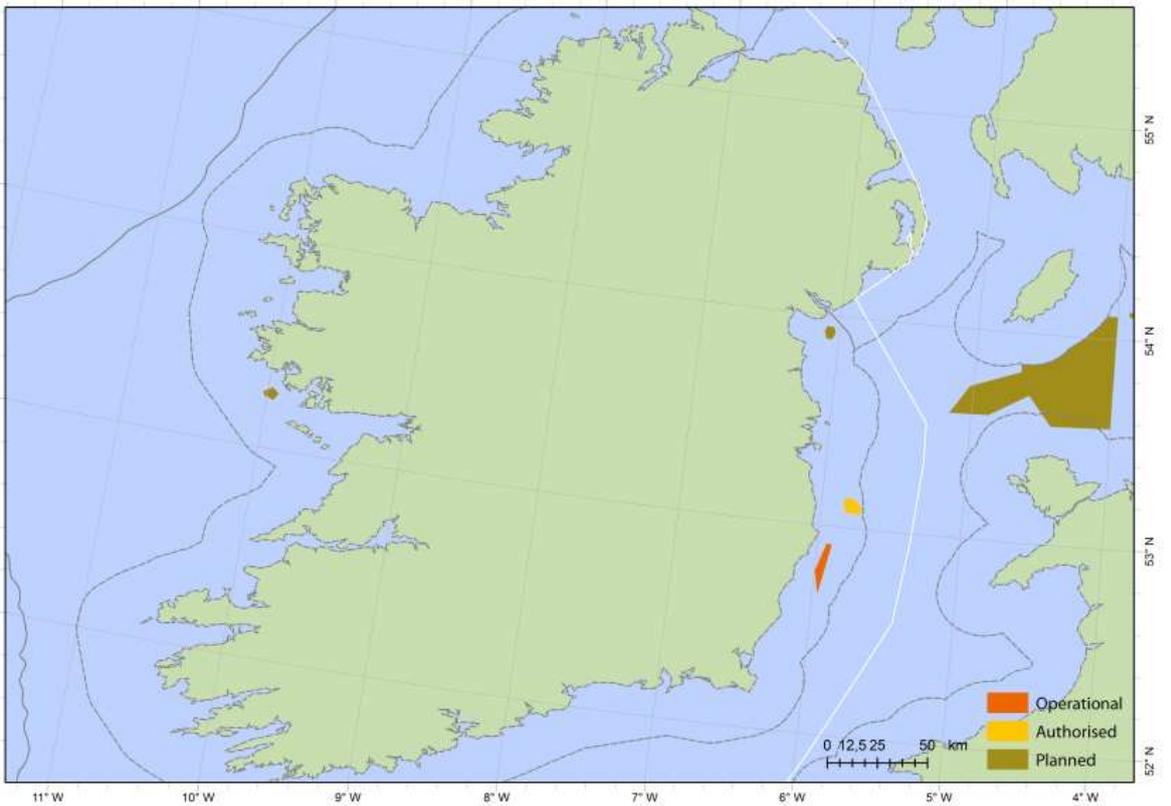
Germany:



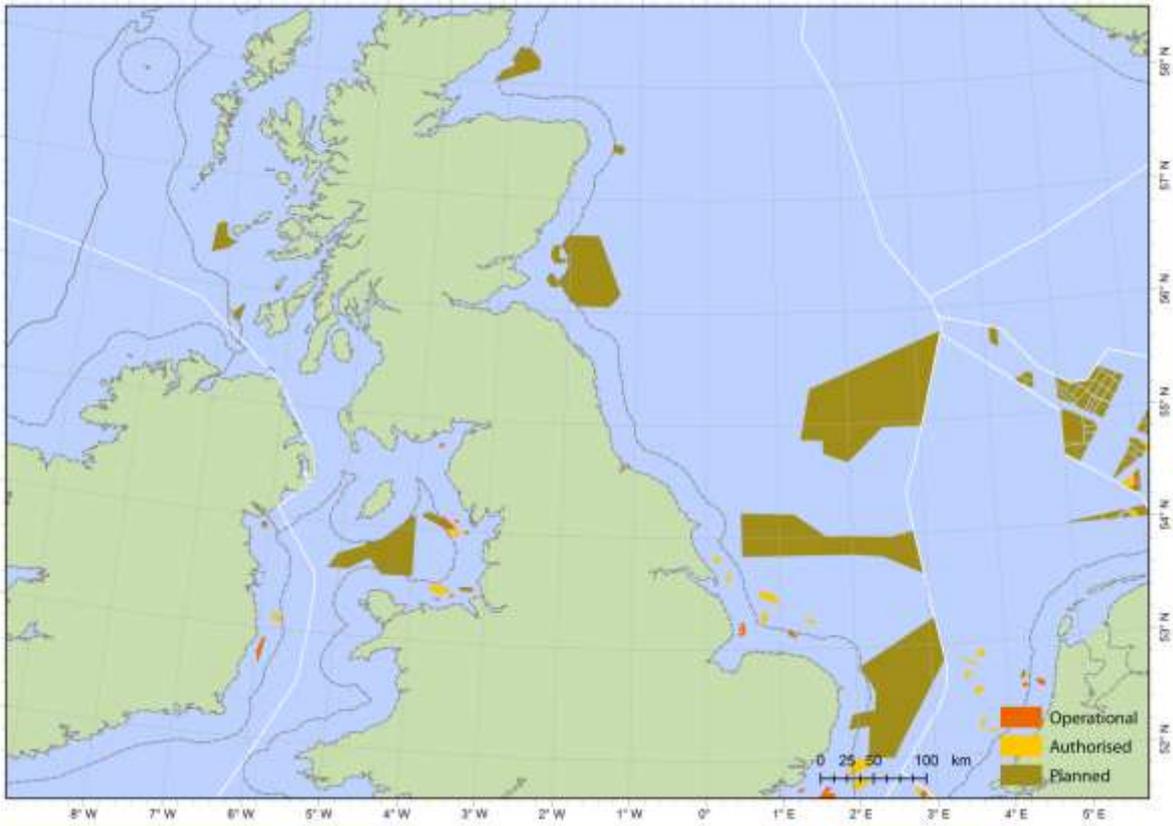
Denmark and Sweden:



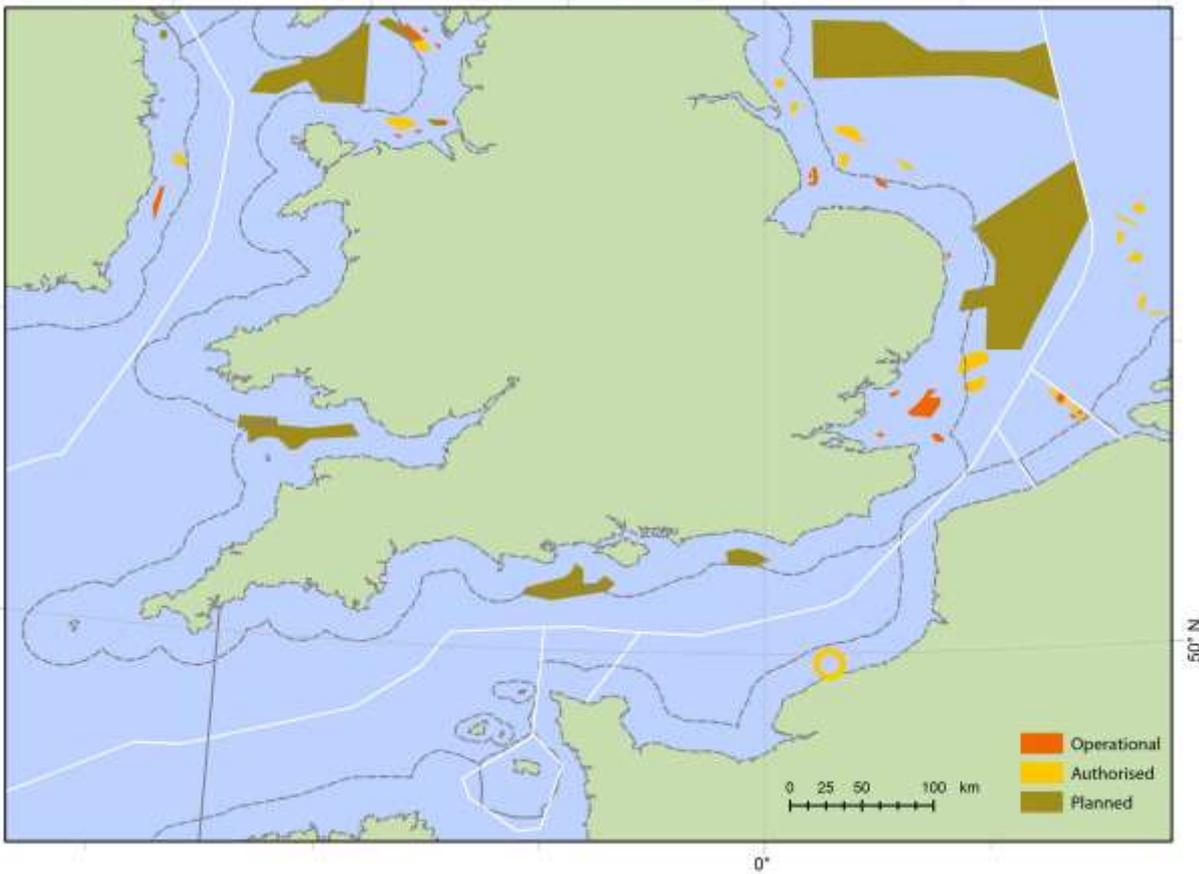
Ireland:



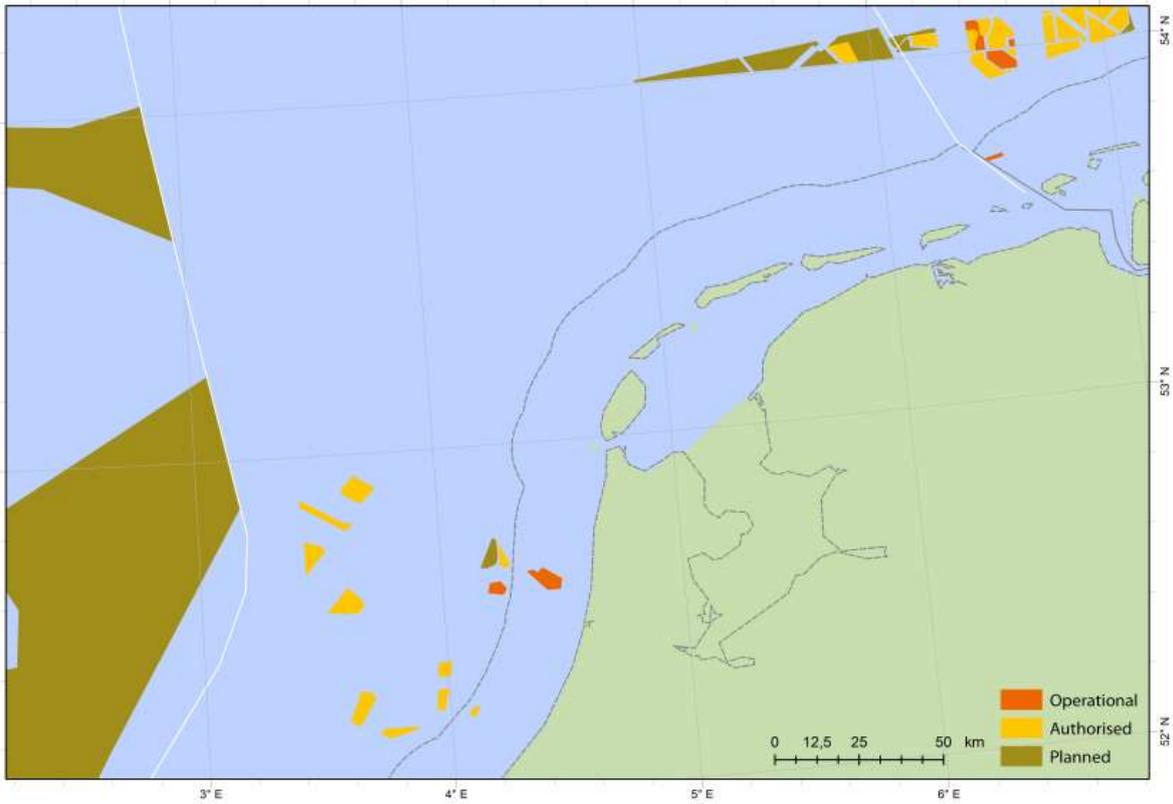
United Kingdom:



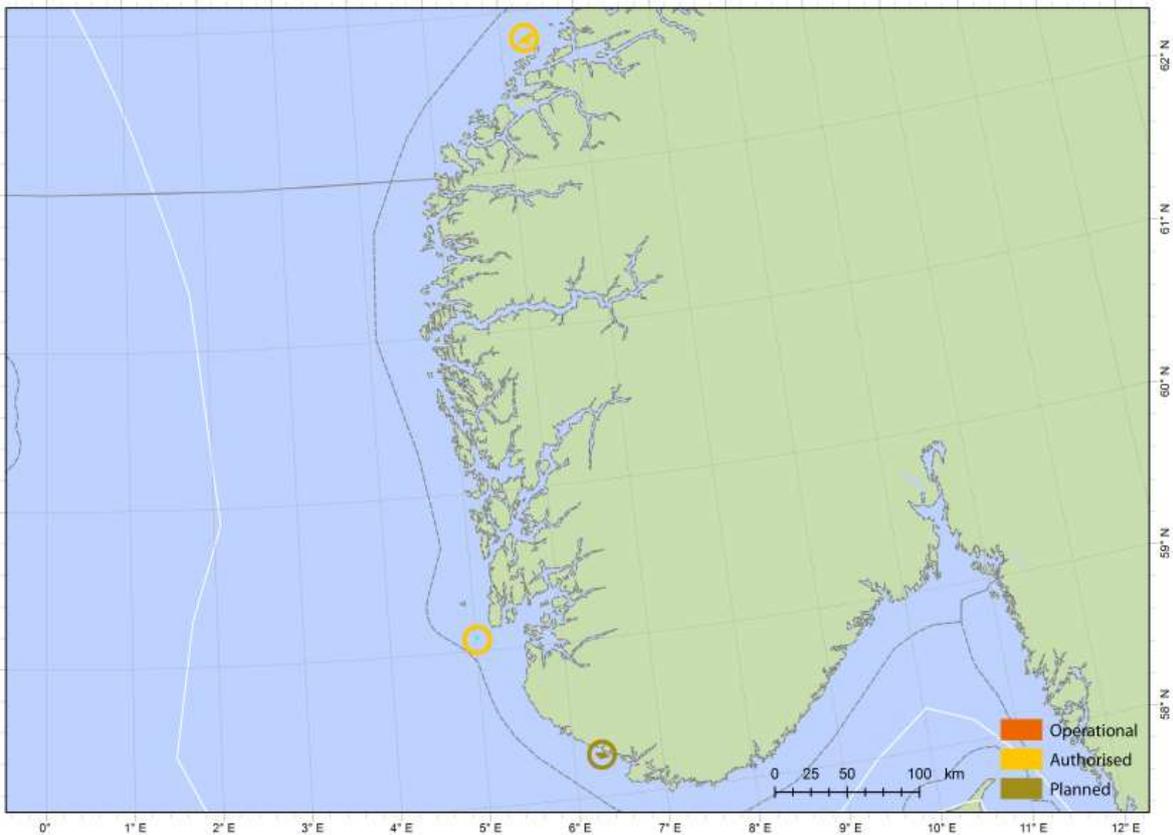
United Kingdom (cont'd) and France:



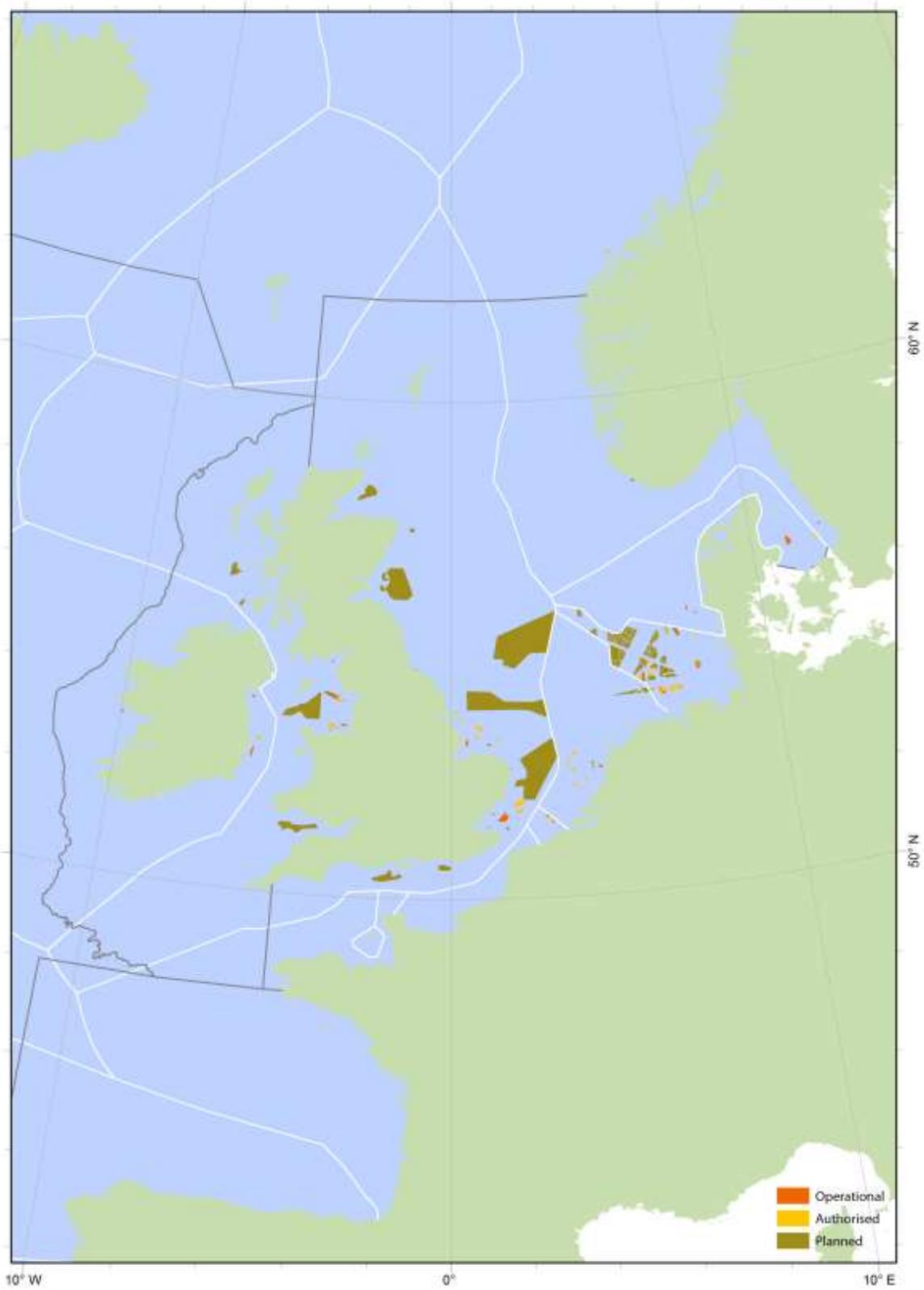
The Netherlands:



Norway:



OVERVIEW





Victoria House
37-63 Southampton Row
London WC1B 4DA
United Kingdom

t: +44 (0)20 7430 5200
f: +44 (0)20 7430 5225
e: secretariat@ospar.org
www.ospar.org

**OSPAR's vision is of a clean, healthy and biologically diverse
North-East Atlantic used sustainably**

ISBN 978-1-909159-60-0
Publication Number: 627/2014

© OSPAR Commission, 2014. Permission may be granted by the publishers for the report to be wholly or partly reproduced in publications provided that the source of the extract is clearly indicated.

© Commission OSPAR, 2014. La reproduction de tout ou partie de ce rapport dans une publication peut être autorisée par l'Editeur, sous réserve que l'origine de l'extrait soit clairement mentionnée.