

Translation

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Nederwiek Wind Farm Zone, Site I-A

Draft Wind Farm Site Decision – Regulations

III Regulations

Regulation 1 Definition of terms

In this Decision, the following terms are defined as indicated below:

- *acoustic deterrent device*: a device with which harbour porpoises are driven away by means of a sound signal;
- *axis height*: the height of the rotor axle, to which the rotor blades of the wind turbine are attached, in relation to mean sea level (MSL);
- *cut-in wind speed*: the lowest wind speed at which the wind turbine delivers energy;
- *cybersecurity*: all security measures taken to prevent damage due to a disruption, failure or exploitation of an information system or computer;
- *dB re 1µPa²s*: unit for SEL_{ss};
- *third party (called in by the permit holder)*: a legal entity other than the permit holder capable of operating the wind farm;
- *threshold value*: a value for bird density of 500 birds at rotor height per kilometre per hour as determined by the Minister of Climate Policy and Green Growth in consultation with the State Secretary for Agriculture, Fisheries, Food Security and Nature;
- *sound level*: the aggregated source level over the frequency bands, expressed in decibels;
- *installed capacity*: the maximum electrical output, also known as 'rated power', to which a wind turbine is designed to be able to be used for the production of renewable electricity under normal conditions, as can also be established by independent certifying parties;
- *piling*: the placing of a foundation involving noise emissions with a pulse-like or continuous/even character;
- *piling plan*: the plan mentioned in Regulation 4(2)(c);
- *piling report*: the report mentioned in Regulation 4(2)(g);
- *migration period (spring - birds)*: bird migration in the period between 15 February through to 31 May;
- *migration period (autumn - birds)*: bird migration in the period 15 August through to 30 November;
- *MIVSP*: Maritime Information Service Point;
- *MSL (Mean Sea Level)*: the average level of the sea (the surface of the sea), if all variations that result from the tides are averaged out;
- *night*: period between sunset and sunrise;
- *national security*: national security as referred to in Article 1 of the Investments, Mergers and Acquisitions Security Screening Act (Wet veiligheidsstoets investeringen, fusies en overnames, Vifo).
- *normal conditions*: the average meteorological conditions occurring in a particular area during the period of one year;
- *operational control*: the actual determination and day-to-day regulation of the performance of the wind farm with respect to the ability to influence at least a cumulative nominal capacity of 100 MW of the wind farm.
- *rotor diameter*: the diameter the wind turbine blades cover (the imaginary circle that is drawn by the rotor blades of the wind turbine);
- *swept area*: the surface area of the imaginary circle that is drawn by the rotor blades of the wind turbine;
- *SEL_{ss}*: Sound Exposure Level (single strike);
- *start of construction*: the moment the first part of the wind farm is installed;
- *tip highest level*: the axis height plus half of the rotor diameter;
- *tip lowest level*: the axis height minus half of the rotor diameter;
- *UXO survey*: survey into the presence of unexploded ordnance in the seabed;
- *permit holder*: the holder of a permit under Section 12 of the Offshore Wind Energy Act.

Regulation 2 Boundaries of wind farm

1. The wind farm will be situated within the contours of the following coordinates:

Coordinates according EPSG 25831		
Point No.	Easting	Northing
WFZ_1	511262,1	5861912,4
S_01	506885,9	5887224,2
S_02	507440,3	5886786,6
S_03	508019,5	5886382,2
S_04	508620,0	5886013,3
S_05	508680,2	5885978,9
S_06	509227,5	5885686,9
S_07	509789,2	5885423,4
S_08	510604,5	5885101,0
S_09	511441,2	5884838,8
S_10	512199,2	5884657,3
S_11	512967,3	5884525,3
S_12	513839,6	5884436,5
S_13	514716,0	5884411,3
S_14	515418,5	5884437,2
S_15	516072,5	5884498,5
S_16	516975,1	5884642,8
S_17	517864,2	5884855,2
S_18	518400,1	5885018,4
S_19	518927,8	5885206,4
S_20	519558,9	5885468,6
WFZ_6	517977,8	5880125,3
WFZ_7	513135,7	5865490,3

The map showing the location of Site I-A is included in the appendix to this regulation Section IV of this Decision.

2. The route of the grid connection of Site I-A with the TenneT platform Nederwiek 1 is bounded by the points in the table below, which are also indicated on the map included in Section IV of this Decision as an appendix to this regulation.

Coordinates according EPSG 25831		
Point No.	Easting	Northing
TOS_01	515860,7	5883116,9
CEZ_01	515878,6	5883084,9
CEZ_02	515853,7	5882986,4
CEZ_03	515889,2	5882877,3
TEZ_11	516027,4	5882645,5
TEZ_12	515928,6	5882621,6
TEZ_13	515802,4	5882620,3
TEZ_14	515647,6	5882664,7
TEZ_15	515514,9	5882755,8

TEZ_16	515418,1	5882884,4
TEZ_17	515367,2	5883037,1
TEZ_18	515367,4	5883198,0
CEZ_04	515381,3	5883258,8

3. No wind turbines will be installed in the zone reserved for the Nederwiek 1 offshore grid and the approach and departure route for helicopter traffic to and from the TenneT platform. This zone is bounded by the points in the table below, which are also indicated on the map included in Section IV of this Decision as an appendix to this regulation.

Coordinates according EPSG 25831		
Point No.	Easting	Northing
TEZ_01	518343,8	5881362,2
TEZ_02	518348,5	5881554,2
TEZ_03	518357,7	5881665,6
TEZ_04	518325,5	5881772,7
TEZ_05	518256,4	5881860,5
TEZ_06	517303,6	5882168,5
TEZ_07	516686,5	5882351,1
TEZ_08	516542,6	5882230,4
TEZ_09	516363,2	5882128,2
TEZ_10	516167,8	5882061,3
TEZ_11	516027,4	5882645,5
TEZ_12	515928,6	5882621,6
TEZ_13	515802,4	5882620,3
TEZ_14	515647,6	5882664,7
TEZ_15	515514,9	5882755,8
TEZ_16	515418,1	5882884,4
TEZ_17	515367,2	5883037,1
TEZ_18	515367,4	5883198,0
TEZ_19	515418,7	5883350,6
TEZ_20	510938,9	5890112,5
TEZ_21	511439,1	5890443,9
S_14	515418,5	5884437,2
S_15	516072,5	5884498,5
TEZ_22	516039,2	5884223,2
TEZ_23	516264,7	5884172,3
TEZ_24	516478,6	5884072,9
TEZ_25	516666,4	5883930,2
TEZ_26	516819,4	5883750,7
TEZ_27	516930,7	5883542,7
TEZ_28	516996,5	5883306,4
TEZ_29	517563,0	5883141,1
TEZ_30	518520,6	5882851,3
TEZ_31	518763,2	5882779,5

4. No wind turbines will be installed in the maintenance zones of pipelines and cables. These zones are bounded by the points in the table below, which are also indicated on the map included in Section IV of this Decision as an appendix to this regulation.

Coordinates according EPSG 25831		
Point No.	Easting	Northing
WFZ_1	511262,1	5861912,4
S_01	506885,9	5887224,2
S_02	507440,3	5886786,6
S_03	508019,5	5886382,2
S_04	508620,0	5886013,3
MZ_029	508697,3	5885507,0
MZ_030	508808,7	5884784,6
MZ_031	508866,3	5884419,5
MZ_032	508918,1	5884110,8
MZ_033	508927,4	5884048,9
MZ_034	508941,5	5884444,2
S_05	508680,2	5885978,9
S_06	509227,5	5885686,9
S_07	509789,2	5885423,4
MZ_039	509941,9	5884510,8
MZ_040	509915,9	5883707,7
MZ_041	509910,4	5883553,0
MZ_042	510050,3	5883188,7
MZ_043	510235,5	5882706,2
MZ_044	510606,6	5881740,0
MZ_045	510632,7	5881644,5
MZ_046	510639,6	5881545,7
MZ_047	510581,1	5879593,2
MZ_048	511280,9	5877800,4
MZ_049	511310,1	5877689,3
MZ_050	511313,2	5877574,5
MZ_051	511302,5	5877454,4
MZ_052	511253,1	5875628,0
MZ_053	511932,9	5872614,8
MZ_054	511944,8	5872487,1
MZ_055	511922,0	5871722,3
MZ_056	512625,8	5869922,4
MZ_057	512652,6	5869826,0
MZ_058	512659,9	5869725,6
MZ_059	512631,5	5868756,5
MZ_060	513064,3	5866273,3
MZ_061	513429,4	5866377,8
WFZ_7	513135,7	5865490,3
MZ_062	512379,3	5864045,8
MZ_063	512389,1	5864097,6
MZ_064	512377,0	5864162,8

MZ_065	512355,3	5864367,4
MZ_066	512257,0	5865002,2
MZ_067	511944,7	5864912,9
MZ_068	511991,7	5864595,1
MZ_069	512115,4	5863818,6
MZ_070	512217,9	5863902,2
MZ_071	512344,0	5863978,3
Gap		
MZ_072	511789,0	5865908,5
MZ_073	511566,4	5867343,3
MZ_074	511453,9	5868040,0
MZ_075	511334,9	5868814,6
MZ_076	510989,0	5871003,9
MZ_077	510966,8	5871126,4
MZ_078	510931,2	5871384,4
MZ_079	510880,2	5871718,2
MZ_080	510681,6	5872965,2
MZ_081	510594,2	5873548,3
MZ_082	510479,3	5874254,4
MZ_083	510383,6	5874877,2
MZ_084	510350,7	5875083,7
MZ_085	510943,2	5872457,7
MZ_086	510919,3	5871631,6
MZ_087	510925,1	5871558,8
MZ_088	510947,2	5871470,2
MZ_089	511657,3	5869653,1
MZ_090	511631,5	5868684,7
MZ_091	512097,4	5865996,7
Gap		
MZ_092	510254,9	5875711,6
MZ_093	509966,6	5877540,1
MZ_094	509889,1	5878030,9
MZ_095	509791,3	5878517,7
MZ_096	509698,4	5879083,6
MZ_097	509694,5	5879114,4
MZ_098	510306,7	5877546,0
MZ_099	510303,3	5877496,8
Gap		
MZ_100	509587,4	5879820,1
MZ_101	509370,3	5881229,6
MZ_102	509253,5	5881928,8
MZ_103	509198,1	5882303,2
MZ_104	509116,4	5882831,0

MZ_105	509210,5	5882586,1
MZ_106	509395,7	5882103,7
MZ_107	509637,0	5881475,3
MZ_108	513474,4	5866513,8
MZ_109	513477,4	5866638,9
MZ_110	513501,4	5866786,2
MZ_111	515496,9	5875062,4
MZ_112	516392,3	5878531,1
MZ_113	516862,3	5880512,1
MZ_114	517665,3	5883525,1
S_17	517864,2	5884855,2
S_18	518400,1	5885018,4
S_19	518927,8	5885206,4
MZ_118	518647,7	5883340,9
MZ_119	517836,2	5880284,6
MZ_120	517364,9	5878300,8
MZ_121	517335,5	5878183,9

5. The rotor blades of the wind turbines must remain within the contours cited in paragraph one and completely outside the route for the grid connection referred to in the second paragraph, the zone for the offshore grid and the approach and departure route referred to in the third paragraph, and the maintenance zones of pipelines and cables mentioned in the fourth paragraph.
6. No wind turbines will be installed in the area reserved for navigation passages and within a distance of 150 metres of its boundary. This reserved zone is bounded by the points in the table below, which are also indicated on the map included in Section IV of this Decision as an appendix to this regulation.

Coordinates according EPSG 25831		
Point No.	Easting	Northing
P_1	508170,6	5879793,7
P_2	508006,4	5880743,5
P_3	517961,7	5880757,6
P_4	517872,7	5879807,5

7. No inter-array cables can be laid in the zone reserved for either the route for the grid connection of Site I-B or the construction and maintenance of the TenneT platform. This zone is bounded by the points in the table below, which are also indicated on the map included in Section IV of this Decision as an appendix to this regulation.

Coordinates according EPSG 25831		
Point No.	Easting	Northing
TOS_01	515860,7	5883116,9
CEZ_04	515381,3	5883258,8
TEZ_19	515418,7	5883350,6
S_13	514716,0	5884411,3
S_14	515418,5	5884437,2

S_15	516072,5	5884498,5
TEZ_22	516039,2	5884223,2
TEZ_23	516264,7	5884172,3
TEZ_24	516478,6	5884072,9
TEZ_25	516666,4	5883930,2
TEZ_26	516819,4	5883750,7
TEZ_27	516930,7	5883542,7
TEZ_28	516996,5	5883306,4
TEZ_07	516686,5	5882351,1
TEZ_11	516027,4	5882645,5
CEZ_03	515889,2	5882877,3
CEZ_02	515853,7	5882986,4
CEZ_01	515878,6	5883084,9

Regulation 3 Bandwidth of the wind farm

1. The wind farm consists of wind turbines, foundations, scour protection and cabling up to the connection point.
2. The maximum number of wind turbines to be installed is 76.
3. Three-bladed wind turbines with a rated capacity of at least 15 MW per wind turbine are to be installed in the wind farm.
4. The minimum distance permitted between the wind turbines is four times the rotor diameter.
5. The minimum tip lowest level permitted is 25 metres above MSL.
6. The maximum tip highest level permitted is 304.8 metres above MSL.
7. The maximum total swept area permitted is 3,509,788 m².
8. Turbines will be connected to the TenneT platform Nederwiek 1. Without prejudice to other regulations, the maximum capacity that can be connected from a technical point of view is 1.15 GW.
9. The foundations permitted for the wind turbines are:
 - monopile;
 - tripod;
 - jacket;
 - gravity-based;
 - suction bucket.

Contrary to the foregoing, the permit holder may use a type of foundation not mentioned in this paragraph. In that case, an expert in the field must provide proof in the foundation piling plan that the environmental effects of the plan, particularly with regard to underwater life, are not more negative than those determined in the environmental impact assessment (EIA) for the investigated bandwidth.
10. Coatings of underwater structures contain as few environmentally harmful substances as reasonably possible.
11. The permit holder must take measures to prevent the dispersal of plastic particles from rotor blades insofar as is reasonably possible.
12. Sacrificial anodes will be used as little as reasonably possible as cathodic protection of steel constructions. If use of sacrificial anodes cannot be completely avoided, they must consist of alloys of aluminium or magnesium. The alloys may contain minimal amounts (<4% by weight) of other metals.
13. The permit holder must report to the Minister of Climate Policy and Green Growth on the composition and quantity of the coatings referred to in paragraph 10 and – insofar as applicable – the galvanic anodes referred to in paragraph 12 as well as the measures referred to in the paragraph 11. This must be done at least four weeks prior to the start of construction of the wind farm.
14. No more than 2,771,000 m² of the seabed will be disturbed during the construction of the wind farm.

15. No later than four weeks prior to the start of construction of the wind farm, the permit holder will submit a plan to the Minister of Climate Policy and Green Growth detailing how the provisions of paragraph 14 will be met and they will implement the work in accordance with the plan. .

Regulation 4 Mitigating measures

1. Measures to reduce disturbance and prevent physical effects on harbour porpoises and seals.
 - a) Piling operations will start with low piling energy and extended intervals between strokes. The duration and power of the low piling energy must be such that harbour porpoises and seals have the opportunity to swim to a safe location. The piling plan should provide details outlining the duration and power of the low piling energy along with supporting evidence of effectiveness.
 - b) Where an installation technique other than pile driving is used in the construction of the wind farm, the permit holder will use one or more acoustic deterrent devices set to the frequencies relevant for harbour porpoises for a period of half an hour before the start of the work, as well as during the first five minutes of the work. This procedure is repeated if the operations are interrupted for an hour or more. In its piling plan, the permit holder will justify the types of deterrent devices it plans to use, including supporting evidence of their proven effectiveness.
 - c) The permit holder may deviate from the provisions in subparagraph b of this paragraph in the event that the devices referred to in that subparagraph produce more noise at the relevant frequencies than the installation technique to be used, or an expert in the field justifies in the piling plan that the measure as such does not contribute to the prevention of permanent effects on the hearing of harbour porpoises.
 - d) The permit holder must make every effort to minimise the disturbance to harbour porpoises and seals during the construction and removal of the wind farm as much as is reasonably possible and ensure that underwater noise takes place in as short a continuous period as possible.
2. Measures to reduce disturbance and prevent physical effects on harbour porpoises and seals during construction of the wind farm.
 - a) The underwater sound level as a result of impulse noise during construction of the wind farm must not exceed 164 dB re 1 $\mu\text{Pa}^2\text{s}$ SEL_{ss} (750 metres from the noise source), except in accordance with the stipulations in subparagraph e of this paragraph.
 - b) The number of porpoise disturbance days due to construction activities must not exceed 57,125.
 - c) The permit holder is required to prepare a piling plan to be submitted to the Minister of Climate Policy and Green Growth, no later than four weeks before the start of construction. The piling plan must include at least:
 - a description of the installation process;
 - a communication plan;
 - a noise forecast;
 - a description of the mitigation measures to be taken;
 - a description of the design and technical specifications of noise measurements.
 - d) If a technique that does not cause impulse noise is (partly) used for the installation of turbine foundations, the piling plan will include a calculation of the number of days harbour porpoise disturbance days, prepared by an expert in the field, demonstrating compliance with subparagraph b of this paragraph.
 - e) The piling plan allows the permit holder to deviate from the sound emission standard referred to in subparagraph a of this paragraph, for activities conducted for testing and research purposes that are in compliance with applicable legislation and regulations and for which compelling reasons of overriding public interest exist. This deviation must be limited to levels strictly necessary for the purposes of the test and applies to three foundations at most for a maximum of 25 minutes per foundation. The permit holder must explain the reason for the deviation in the piling plan. This substantiation must contain the following as a minimum:
 - the benefits and necessity of the deviation;

- a description of the technique and resources required;
 - the anticipated noise level, for what lengths of time the sound emission standard is expected to be exceeded in the different phases of the pile-driving process;
 - a calculation of the total number of harbour porpoise disturbance days by an expert in the field, demonstrating compliance with subparagraph b of this paragraph;
 - a description of the measures taken to limit noise levels as much as possible;
 - the method for monitoring and processing research results;
 - the period within which the results will be submitted to the Minister of Climate Policy and Green Growth.
- f) The permit holder will perform the construction work in accordance with the piling plan.
- g) During the foundation work, the sound level must be continuously measured by the permit holder. These measurements must take place at two, directly opposite, positions that are 750 metres from the foundation. The sound measurements for each foundation must be submitted to the Minister of Climate Policy and Green Growth in a foundation report within 48 hours after the foundation has been installed. In addition, after completion of all foundation work, the permit holder must submit the measurement data to the Minister of Infrastructure and Water Management for international reporting obligations. Each foundation report must contain at least:
- foundation ID, location, length and diameter of the foundation;
 - the maximum quantity of energy;
 - a description of the mitigation measures used to minimise noise levels;
 - start and end time of the installation of the foundation;
 - start and end time of the use of an acoustic deterrent device (where applicable);
 - start and end time of the measures used to reduce noise levels;
 - the results of the sound measurements.
- h) If, in the case of pile driving, successive sound measurements show the underwater noise level during the foundation work does not exceed the sound emission standard stated in subparagraph a of this paragraph, the permit holder may ask the Minister of Climate Policy and Green Growth to allow the frequency of sound measurements to be reduced.

3. Measures to limit bird collision victims at rotor height during mass migration periods.

- a) During migration periods, the permit holder will reduce the number of rotations per minute per wind turbine to fewer than two at night when the threshold value is exceeded, as indicated by the Minister of Climate Policy and Green Growth.
- b) The permit holder is obliged to cooperate, without financial compensation, in the placement and installation of equipment on, in or to turbines designated by the Minister of Climate Policy and Green Growth for the implementation of the measure referred to in subparagraph a of this paragraph. This includes the provision of mounting structures to the designated turbines. An agreement will be concluded with the permit holder for the placement and installation of the equipment.
- c) The permit holder is obliged, without financial compensation, to provide access for the management and maintenance of the equipment referred to in subparagraph b of this paragraph. An agreement will be concluded with the permit holder for the management and maintenance of the equipment.
- d) Each year, no later than 1 February and 1 August, the permit holder will report to the Minister of Climate Policy and Green Growth explaining how subparagraph a of this paragraph was implemented in the preceding six months.

4. Measures to limit collision victims among bats at rotor height during autumn migration periods.

- a) At night, during the periods indicated in the table below, the cut-in wind speed at axis height of the wind turbines will be adjusted as shown.

Day number	Cut-in speed [m/s]	Day number	Cut-in speed [m/s]
226-228	4.7	265-267	5.5
229-231	4.8	268-270	5.5
232-234	5.0	271-273	5.4

Day number	Cut-in speed [m/s]	Day number	Cut-in speed [m/s]
235-237	5.2	274-276	5.3
238-240	5.3	277-279	5.1
241-243	5.4	280-282	5.0
244-246	5.5	283-285	4.9
247-249	5.5	286-288	4.7
250-252	5.6	289-291	4.4
253-255	5.6	292-294	4.2
256-258	5.6	295-297	4.0
259-261	5.6	298-300	3.8
262-264	5.6	301-303	3.6

- b) At a wind speed lower than the adjusted cut-in wind speed, as referred to in subparagraph a of this paragraph, the permit holder will reduce the number of rotations per minute per wind turbine to less than one at night, as referred to in subparagraph a of this paragraph.
 - c) Measurements of wind speed and calculations of sunset and sunrise will be conducted per wind turbine, with time intervals (for measurements) of not more than twenty minutes, with the most recent time interval measurement determining the application of the measures referred to in subparagraphs a and b of this paragraph.
 - d) After the last period referred to in subparagraph a of this paragraph, and no later than 1 December, the permit holder will report to the Minister of Climate Policy and Green Growth on how subparagraphs a, b and c of this paragraph have been implemented.
5. Measures to prevent nitrogen deposition in Natura 2000 areas.
- a) During construction, operations and removal work, nitrogen depositions in nitrogen-sensitive Natura 2000 areas must be prevented.
 - b) In an action plan, the permit holder will indicate which work and vessels will be deployed for construction and operations activities of the wind farm. By means of an attached calculation, based on a calculation model for the construction phase prescribed in or pursuant to the Environment and Planning Act, and an attached calculation based on the aforementioned calculation model for the operations phase, the permit holder will demonstrate that nitrogen deposition in the nitrogen-sensitive Natura 2000 areas resulting from the deployment of work and vessels in line with the action plan for these separate phases does not exceed 0.00 mol N/ha/year.
 - c) In an action plan, the permit holder will indicate which work and vessels will be deployed for removal (decommissioning) of the wind farm. By means of an attached calculation for the removal phase, based on a calculation model prescribed in or pursuant to the Environment and Planning Act, the permit holder will demonstrate that nitrogen deposition in the nitrogen-sensitive Natura 2000 areas resulting from the deployment of work and vessels in line with the action plan for this phase does not exceed 0.00 mol N/ha/year.
 - d) The permit holder will submit the action plan referred to in subparagraph b of this paragraph to the Minister of Climate Policy and Green Growth, no later than four weeks before the start of construction of the wind farm.
 - e) The permit holder will submit the action plan referred to in subparagraph c of this paragraph to the Minister of Climate Policy and Green Growth, no later than four weeks before the start of removal of the wind farm.
 - f) The permit holder will perform the work in accordance with the plans drawn up in subparagraphs b and c of this paragraph.
6. Measures to limit disturbance to seals and birds by shipping traffic.
- a) When transporting by ship to and from the site, the permit holder must take into account the presence of seals in sandbanks and designated resting areas, as well as the presence of bird concentrations. The measures laid down in the Voordelta Management Plan, the Deltawateren Management Plan, the Waddenzee Management Plan and the Noordzeekustzone Management Plan will be observed. The measures are included in the appendix to this paragraph in Section IV of this Decision.

- b) Subparagraph a of this paragraph will cease to apply to one or more of the areas referred to in that subparagraph if and when, for the area in question, an irrevocable management plan includes transport by ship to and from the site referred to in subparagraph a of this paragraph as an action in accordance with the management plan.
- c) The permit holder must not allow discharges (including legally permitted discharges) from ships in Natura 2000 areas.
- d) The permit holder will use existing shipping routes as much as possible and minimise shipping movements in Natura 2000 areas. If a Natura 2000 area cannot reasonably be avoided, it must be crossed in as short a time as possible and as far as possible from natural values for which conservation objectives apply in the area.

7. Measures to increase the suitable habitat for species native to the North Sea.

- a) If stones, rocks or other materials are used to prevent scour around the foundations of the wind turbines, then for at least 40% of the wind turbines the scour protection must be designed in such a way that no movement of the materials will occur in storm conditions with a return period of one year.
- b) The scour protection referred to in subparagraph a of this paragraph must contain at least two crevices or cavities per square metre of surface area that are at least 10 cm and at most 30 cm in diameter and at least 20 cm and at most 50 cm deep. The design of the scour protection must minimise sedimentation in the cavities.
- c) Without prejudice to the provisions in subparagraph a of this paragraph, the obligation referred to in subparagraph b of this paragraph can alternatively be fulfilled by installing six artificial structures per wind turbine onto or into the scour protection referred to in subparagraph a of this paragraph. These structures must be placed on top of the scour protection in a stable manner or be partly or fully embedded in the scour protection and be situated outside the area of turbulence created by the wind turbine pile in the dominant direction of the current. The design of the scour protection must minimise sedimentation in the cavities.
- d) For the artificial structures referred to in subparagraph c of this paragraph, the following structures or combinations of structures are permitted:
 - Pipes, either completely cylindrical or with a hexagonal exterior and a cylindrical interior, with both a length and diameter of at least 100 cm. One of the pipe ends must always be accessible and a pipe must be equipped with a minimum of four holes at the top, measuring at least 15 cm and no more than 30 cm per metre, to guarantee water exchange.
 - spherical or cubic structures with an internal diameter of at least 100 cm and accessible through at least six and at most 15 openings with a diameter varying between 15 and 50 cm;
 - other structures that contain at least six separate cavities with the following dimensions: diameter of at least 10 cm and at most 30 cm and depth of at least 20 cm and at most 50 cm.
- e) Without prejudice to the provisions of subparagraphs a and c of this paragraph, other artificial structures or combinations of structures not included in subparagraph d of this paragraph can also be installed. The dimensions of cavities and openings and the number of openings in these structures must be such that the structures offer habitats for the target species in a manner similar to the structures specified in subparagraph d. Furthermore, the permit holder must also organise a site-specific monitoring programme to examine the effects of the measures.
- f) The permit holder will prepare an action plan for the measures to be taken referred to in subparagraphs a through e and will submit this plan to the Minister of Climate Policy and Green Growth no later than four weeks before the start of construction.
- g) The work must be performed in accordance with the plan referred to in subparagraph f of this paragraph.

8. Measures to protect archaeology and cultural history.

- a) The permit holder will not conduct any seabed-disturbing activities within a radius of 100 metres of potentially archaeologically valuable objects and the buried ferrous objects, the coordinates of which are listed in the appendix to this paragraph in Section IV of this Decision. Oversail of rotor blades is permitted.

- b) Deviation from subparagraph a of this paragraph may be permitted if it is not reasonably possible to avoid the performance of seabed-disturbing activities within a radius of 100 metres from the potentially archaeologically valuable objects referred to in subparagraph a of this paragraph, and a detailed exploratory underwater field survey (Inventariserend Veldonderzoek, IVO) into the possible presence of archaeological monuments has been conducted beforehand for these sites. This survey must be performed in accordance with the prevailing Dutch Archaeology Quality Standard Aquatic Soils.
 - c) Deviation from subparagraph a of this paragraph may be permitted if it is not reasonably possible to avoid the performance of seabed-disturbing activities within a radius of 100 metres from the buried ferrous objects referred to in subparagraph a of this paragraph, and the UXO survey is archaeologically supervised on site. This survey must be performed in accordance with the prevailing Dutch Archaeology Quality Standard Aquatic Soils.
 - d) The results of the surveys referred to in subparagraphs b and c of this paragraph must be submitted to the Minister of Climate Policy and Green Growth no later than six months before the start of the construction of the wind farm.
 - e) Depending on the conclusions of the surveys referred to in subparagraphs b and c of this paragraph:
 - the work can proceed without any changes;
 - a follow-up study will be required;
 - physical measures must be taken to protect archaeological sites;
 - sites are to be excluded permanently from interference, taking into account a buffer zone; or
 - the work must be supervised archaeologically.
 - f) The permit holder will formulate a plan that specifies how the requirements stemming from this paragraph and from Sections 5.10 of the Heritage Act (Erfgoedwet) and 7.37 of the Environmental Activities Decree (*Besluit activiteiten leefomgeving, Bal*) will be implemented, and will submit this plan to the Minister of Climate Policy and Green Growth no later than three months prior to the start of construction.
 - g) The work must be performed in accordance with the plan referred to in subparagraph f of this paragraph.
9. Measures to reduce light pollution and to promote the safety of seafarers and aviation.
- a) Aeronautical obstruction lights on the highest fixed point on all wind turbines must be steady-burning (non-flashing) red lights.
 - b) All wind turbines will be equipped with nautical identification markings on panels indirectly illuminated by a low-intensity light source. The identification markings must be positioned on the turbine at intervals of 120 degrees. The identification codes must be clearly legible from a position 3 metres above MSL and at least 150 metres from the wind turbine.
 - c) Without prejudice to the provisions in subparagraphs a and b of this paragraph, and contrary to Section 7.40(2) of the Environmental Activities Decree, the permit holder will formulate the notification referred to in Section 7.34(2)(d) of the Environmental Activities Decree in accordance with the information sheet 'Designation offshore wind turbines and offshore wind farms in relation to aviation safety' and the IALA guideline G1162.
 - d) In the notification referred to in Section 7.34(2)(d) of the Environmental Activities Decree, the permit holder will also take into account the requirements stemming from safety investigations in the context of helicopter flights to and from the TenneT platform.
 - e) On the instructions of the Minister of Climate Policy and Green Growth or the Coastguard, the turbines will be illuminated in the event of a rescue operation in or in the immediate vicinity of the wind farm.
 - f) The work must be performed in accordance with the notification referred to in subparagraph c of this paragraph.
 - g) The permit holder will submit the coordinates of all intended turbine positions and tip height(s) to the Minister of Infrastructure and Water Management no later than four months prior to the installation of the first turbine.
10. Measure to promote safety when working on cables, pipelines and boreholes.

- a) During work on cables (other than inter-array cables), pipelines and boreholes, on the instructions of the Minister of Climate Policy and Green Growth, the number of rotations per minute per wind turbine for the wind turbines within a radius of 1,000 metres from the work site must be reduced to less than two.

11. Measures to protect boreholes.

- a) The permit holder will not conduct any seabed-disturbing activities within a radius of 100 metres of the borehole sites listed in the appendix to this paragraph in Section IV of this Decision. Oversail of rotor blades is permitted.
- b) Deviation from subparagraph a of this paragraph may be permitted if it is not reasonably possible to avoid the performance of seabed-disturbing activities within a radius of 100 metres from a borehole, and it has been demonstrated beforehand by further investigation and with the consent of the borehole operator that no safety risks can occur.
- c) The results of the surveys referred to in subparagraph b must be submitted to the Minister of Climate Policy and Green Growth no later than three months prior to the start of the construction of the wind farm.

Regulation 5 Data gathering, monitoring and evaluation

1. The obligation to cooperate with regard to research and the installation, management and maintenance of equipment and sensors in the wind farm on behalf of the Government.
 - a) Without prejudice to the provisions in Regulation 4(3)(b), the permit holder is required, without financial consideration, to cooperate with the design, installation, management and maintenance of sensors and equipment in the wind farm by or on behalf of the Government, in the context of performing public duties in the following aspects:
 - digital connectivity,
 - ecology, hydrological/meteorological information,
 - maritime security,
 - shipping and aviation safety.
 - b) The obligations referred to in subparagraph a of this paragraph may include:
 - provision of an MIVSP installation point in the wind turbine (inside) for equipment, including network equipment for fibre optic communication to the TenneT platform,
 - provision of a safely accessible attachment point for sensors and equipment to the wind turbine (outside),
 - provision of an attachment point for sensors and equipment to the wind turbine foundation and erosion protection,
 - laying of cables between the equipment in the wind turbine and sensors and equipment on the wind turbine,
 - supply of power for the sensors and the equipment in and on the wind turbine,
 - provision of optic fibre infrastructure from wind turbines to the TenneT platform,
 - patching of the optic fibre infrastructure to the MIVSP facility.
 - c) Without prejudice to the provisions in Regulation 4(3)(c), the permit holder is required, without financial consideration, whether or not with vessels supplied by the permit holder, to cooperate with granting timely access to all parts of the wind farm to persons performing tasks and activities on behalf of Government in the context of the aspects referred to in subparagraph a of this paragraph and related research activities.
2. After installing the inter-array cables, the permit holder will, at the request of the Minister of Climate Policy and Green Growth, share inter-array cable data that could provide insight into the field intensities of cables and thus the impact on fish, benthic animals and marine mammals. This data includes, but is not limited to:
 - cable type;
 - material used;
 - burial depth;

- design of the cable;
- array cable layout (as built);
- lay length of the cable;
- (a bandwidth) of the actual amount of current transported through the cable.

Regulation 6 Permit

The permit referred to in Section 12 of the Offshore Wind Energy Act will be issued for a period of 40 years.

Regulation 7 Security strategy

1. The entity that operationally manages the wind farm, namely the permit holder or a third party commissioned by the permit holder, is established in the EU.
2. The permit holder must submit a strategy with cybersecurity, national security and physical resilience components to the Minister of Climate Policy and Green Growth no later than six months prior to start of the construction of the wind farm. The strategy will cover both the construction and operational phases and will specify which risks are managed and which are placed beyond the scope.
3. The strategy referred to in the second paragraph contains the following:
 - a) The most important security risks based on a review of:
 - the continuity and integrity of the management of the wind farm (hereinafter: interests);
 - the threats against which the interests must be protected, including threats originating from state actors;
 - the extent to which the interests to be protected are resistant to the threats, also known as 'resilience'.
 - b) The measures to be taken to achieve and maintain the resilience at an appropriate level during the entire operating period.
 - c) A description of the high-level architecture of the entire IT/OT environment.
 - d) A description of the physical security and how applicable laws and regulations and sectoral guidelines in this field are met, at least, in any case, the Critical Entities Resilience (CER) Directive.
 - e) A description of at least the following subjects based on the ISO/IEC27001 or IEC62443 standard(s):
 - Design of the Information Security function within the organisation, including the way in which this is checked.
 - Requirements for personnel such as screening, knowledge and skills.
 - A description of the management processes in relation to cybersecurity with:
 - asset management,
 - risk management,
 - vulnerability management,
 - incident detection, response and recovery,
 - business continuity management,
 - identity and access management in the physical and cyber domain,
 - backup and restore,
 - exercise structure with realistic scenarios.
 - Risks in the supply chain (supply chain risk management);
 - The way in which applicable legislation and regulations and sectoral guidelines in the field of cybersecurity are met, in any case the Network and Information Security (NIS2) Directive, the network code on cybersecurity for cross-border electricity flows and the Cyber Resilience Act;
 - A description of experience and the approach to receiving and sharing security information and knowledge.
4. Every five years, the permit holder must submit an up-to-date version of the strategy as referred to in the second paragraph to the Minister of Climate Policy and Green Growth.

Regulation 8 Removal

The permit holder will remove the wind farm no later than two years after operations have ceased and within the term of the permit.

Regulation 9 Financial security

1. At the latest, when the Netherlands Enterprise Agency (Rijksdienst voor Ondernemend Nederland, RVO) receives proof that Guarantees of Origin have been issued for the supplied electricity, the permit holder will provide the State with a bank guarantee in the amount of €120,000 per MW installed in respect of the costs for removal of the wind farm.
2. The permit holder will annually increase the amount referred to in the first paragraph by 2 percent as a result of indexation for a period of 12 years after the bank guarantee for the removal of the wind farm is issued.
3. After operating for a period of 12 years, 24 years of operation and one year before the date of removal, the Minister of Climate Policy and Green Growth will redetermine both the amount referred to in the first paragraph and its indexation.