OSPAR COMMISSION

Protecting and conserving the North-East Atlantic and its resources

OSPAR Database of Offshore Renewable Energy Developments: 2016 Status Report

Environmental Impact of Human Activities Series

2016

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 of Offshore Renewable Energy Developments: 2016 Status Report

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 has been noting that the offshore renewables 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 renewable energy developments.

As part of this programme of work on offshore renewables, OSPAR has produced the OSPAR Database on Offshore renewable energy developments (known as the 'Offshore windfarm database' until 2014), which constitutes an inventory of all planned (under application), authorised, refused, operational, out of service and decommissioned installations under the jurisdiction of the OSPAR Contracting Parties.

The OSPAR Database on Offshore Renewable Energy Developments provides to the public information, for each offshore installation, regarding (1) its name, (2) location, (3) distance from the coast, (4) device type, (5) number of devices, (6) current status, (7) capacity, (8) foundations type, (9) water depth, (10) height, (11) environmental impact information and (12) 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 includes Shapefiles of locations of installationsin the OSPAR Maritime Area. These also reflect installations at the application stage in order to ensure the transparency of current authorisation processes in Contracting Parties.

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

- wind turbine
- wave (floating)
- wave (coastal infrastructure)
- tidal stream (turbines)
- tidal stream (hydrofoils)
- tidal stream (screws)
- tidal stream (kites)
- tidal flow (barrage)
- tidal flow (lagoon)
- other

Annex 1: Explanatory Notes to the Reporting Format for the OSPAR Database on Offshore Renewable Energy Developments

Agreement 2015-2[1]
(Source: EIHA 15/10/1, Annex 9)

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

2. "**ID No**" is formed of the ISO 2 letter country code under the jurisdiction of the Contracting Party concerned, and an incremental number with three significant figures, using padding zeroes where applicable, e.g. BE001. Additional, singular characters e.g. 'a' or 'b' can be used as a suffix to differentiate between smaller parts forming a larger area;
3. "**Country**" is the name of the Contracting Party which has jurisdiction of the development;
4. "**Name**" reflects the name (or other identifier) of an offshore renewable energy development or a device 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;.
5. The columns "**Latitude**" and "**Longitude**" are completed by providing, separately, the decimal degrees of longitude and latitude of each vertex describing the polygon that defines the area of the offshore renewable energy development. Longitude and latitude are to 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 are to be converted prior to submission, to the required format as follows:

Original format:	**Conversion**				**Required format:**
	Degrees unchanged	Minutes divided by 60	Seconds divided by 3600		
55°15'24'' N		15/60=	24/3600=		
	55	***+ 0.25***	***+ 0.00667***	***=***	***55.25667° N***
55°15.4' N		15.4/60=			
	55	***+ 0.25667***		***=***	***55.25667° N***

Contracting Parties are to use the World Geodetic System 1984 (WGS84). The WGS84 co-ordinates should be given without any projection (e.g. without projection UTM).

Note: This information enables the creation of GIS maps that reflect the total area covered by the devices reported. The GIS files will allow an easy assessment whether the location(s) of a offshore renewable energy development(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.

[1] Replaces Agreement 2011-02

6. "**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 an offshore renewable energy development) closest to the coast.

7. "**Device Type**" the options are limited to the following descriptions:

   - wind turbine
   - wave (floating)
   - wave (coastal infrastructure)
   - tidal stream (turbines)
   - tidal stream (hydrofoils)
   - tidal stream (screws)
   - tidal stream (kites)
   - tidal flow (barrage)
   - tidal flow (lagoon)
   - other

   Note: "other" should be defined in "R**emarks"**;

8. **"No of devices**" refers to the number of devices in the development;

9. "**Current status**", the terms used are limited to the following regulatory phases:

   - *"designated"* – a site or area which has been formally identified for development but no application has been submitted;
   - "*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 wind turbine 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 wind turbines 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 offshore renewable energy development.

10. "**Capacity**" refers to the maximum possible operational output of the development or device (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).

11. "**Foundation/anchor type",** the descriptions are limited to the following, compound versions can be created if separated by "/" e.g."monopile/tripod/tripile":

    - *monopile,*
    - *tripod/tripile,*
    - *jacket*
    - *gravity-based,*
    - *anchor*
    - *pre-existing structure* (this includes any re-used oil and gas installations),
    - *other* (this includes floating structures)

This is not applicable for Wave (Coastal Infrastructure) and Tidal Flow (Barrages and Lagoons) and any further details should be given in the column **"Remarks".**

12. "**Water depth",** the depth of the water at the site should be described broadly in one of the following five ranges:

    - *0-10*;
    - *10-25*;
    - *25-50*;
    - *50-100;*
    - *100-*

13. "**Height"**, the highest point reached by a rotor blade of a wind turbine 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.

14. "**EIA**", Contracting Parties should answer "yes" or "no" as to whether an Environmental Impact Assessment has been carried out.

15. "**Remarks**" should be completed using the guidance above; any additional information should be entered here.

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 offshore renewable energy development maps

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

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