

INFORSE-Europe's Opinion on Offshore Wind Energy

(European Commission's Consultation)

20th June 2008

General opinion about offshore wind energy

In your view, is there a significant potential for the development of offshore wind energy in the EU? (compulsory): **Yes**

Relation to energy policy objectives

In your view, can offshore wind energy help to achieve one or more of the following energy policy objectives?

Combat climate change (compulsory) **Yes**

Increase security of energy supply (compulsory) **Yes**

Increase competitiveness (compulsory)
Yes

Should more be done at EU level to exploit European offshore wind energy resources? (compulsory) **Yes**

3. Key barriers for development of offshore wind energy

Listed below (under different categories) are a number of factors that could be considered as barriers to the exploitation of offshore wind energy resources. Please indicate how significant a barrier you consider these factors to be, and specify additional ones not listed, where appropriate

3.1 Identification of suitable locations for offshore wind farms

In relation to the identification of suitable locations for offshore wind farms, to what extent do you consider the following factors as a barrier or obstacle to the development of offshore wind?

**Availability of information on
wind resources (compulsory)
Less significant**

**Availability of information on
wave exposure, seabed
properties etc. (compulsory)
Less significant**

**Availability of information on
competing uses of the marine
area, such as shipping,
fisheries, military or extraction
activities (compulsory)
significant**

**Availability of information on
designation of nature
conservation areas or other
environmental constraints,
such as presence of important
wildlife habitats or migration
routes (compulsory) significant**

**Availability of information on
existing or planned offshore
infrastructures such as
pipelines, telecommunication
cables and
bridges? (compulsory)
significant**

Availability of information on existing or future capacity of relevant electricity grid infrastructure (offshore and onshore) (compulsory)
significant

Lack of integrated approaches, e.g. spatial planning involving site identification, consenting procedures and grid planning not carried out in parallel. (compulsory)
significant

Other (compulsory)

It is important that there is as clear spatial planning, to make it as clear as possible for off-shore windpower developers to know where it is possible to obtain permissions for their developments

It is equally important that developers are not able to reserve off-shore locations and/or grid capacity for longer periods (e.g. more than 5 years for off-shore locations and 2 years for grid capacity) if they thereby exclude other, serious developers/investors.

Max. 5000 characters

If other barriers/factors in this category are important please explain 
(optional)

Investments in expensive grid infrastructure is often a barrier, and in many cases this barrier can be reduced with establishing of infrastructure for a larger development, where different developers share the same grid connection. Investments by an independent Transmission System Operator (TSO) in such an off-shore connection is an effective way of organising this, sharing costs among developers that do not necessarily make developments at the same time. It also gives better opportunities to involve smaller developers that can have a smaller off-shore grid connection as part of a larger development. The expansion of the number of developers will open the investments for many more investors, resulting in reduced profit requirements for the investors.

To involve smaller developers, fixed feed-in tariffs for off-shore developments can be applied, reflecting the costs of off-shore developments and the costs developers have to pay for the grid connection.

Ideally the TSO can invest in the grid to certain agreed off-shore development areas (dedicated

areas), using the transmission tariff to cover the costs. In exchange developers will have to accept lower prices for the power, reflecting their grid connection costs. Such an arrangement will be without extra costs for the consumers, as the extra transmission fees will be off-set by the lower purchase price. It can even lead to lower costs if it increases competition.

3.2 Consenting procedures

In relation to consenting procedures, to what extent do you consider the following factors to be a barrier or obstacle to the development of offshore wind energy?

Permissions required from different authorities within a country (compulsory)
significant

Permissions required from authorities in different countries (compulsory) **Do not know**

Laws/regulations on the process and/or criteria are not clear or do not exist (compulsory) **significant**

Jurisdiction which is shared, not well defined or disputed (compulsory)
significant

Environmental Impact Assessment requirements (compulsory)
Less significant

Appeals processes from opponents of the project or lack of public acceptance (compulsory)
significant

Other (compulsory)

Exclusion of smaller developers is a barrier. This can e.g. be with a tender procedure that only allows one developer in each dedicated area and/or for each grid connection.

Max. 5000 characters

If other barriers/factors in this category are important please explain (optional)

Problems with grid connection (consent of grid operator) remains a significant barrier in a number of cases

3.3 Grid infrastructure and system integration

In relation to grid infrastructure, to what extent do you consider the following factors to be a barrier or obstacle to the development of offshore wind energy?

The need for and/or construction time of onshore grid reinforcements to assure connectionable integration of offshore wind into the European grid (compulsory)
Less significant

The construction of necessary offshore grid connectors to the wind farms (compulsory)

Less significant

The need for improved interconnections (compulsory)

Not significant

Rules for the sharing of costs for onshore grid reinforcements (compulsory)

Significant

Rules for the sharing of costs for offshore grid connectors (compulsory)

Significant

Rules for gate closure and distribution of balancing costs (compulsory)

Significant

Rules for forecasting of electricity from offshore wind energy (compulsory)

Significant

Difficulty in securing long-term power purchase agreements (compulsory)

Less significant

Other (compulsory) It can be a barrier to obtain grid connection. This problem is often connected with the problem that one large developer monopolises a grid-connection

If other barriers/factors in this category are important please explain (optional)

Problems related to investments in grid connection is often an obstacle. Grid connection to dedicated off-shore sites could be investments by the TSO, just like investments in other transmission grids.

3.4 Technology constraints

In relation to offshore wind technology, to what extent do you consider the following factors to be a barrier or obstacle to the development of offshore wind energy?

Availability of reliable, tested offshore wind turbine technologies (compulsory) **Less significant**

Availability of foundation technologies (compulsory)

Less significant

Availability of reliable offshore connector technologies (compulsory)

Less significant

Insufficient R&D efforts to improve reliability of technology and to improve/reduce cost of technology (compulsory)

Less significant

Lack of transfer of research results to the marketplace (cooperation between research, enterprises and policy) (compulsory)

Less significant

Other (compulsory)

Day-to-day forecast of windpower production is a limitation, in particular when windpower is sold via an electricity exchange, either by windpower owners or by a TSO that manages a feed-in tariff scheme.

Max. 5000 characters

If other barriers/factors in this category are important please explain (optional)

Optimising of regulation of power grid and consumption for large fractions of windpower in the power supply as an intermittent source of electricity should be an area for future increased R&D efforts.

3.5 Financing and economic support

In relation to offshore wind projects, to what extent do you consider the following factors to be a barrier or obstacle to the development of offshore wind energy?

Availability of financing / risk-willing capital (compulsory)

Less significant

Adaptation of national support schemes to the risks and costs related to offshore wind projects (compulsory)

Less significant

Differences in national support regimes applicable to offshore wind energy (compulsory)

Significant

Other (compulsory)

Problems with financing of grid connections (as mentioned above)

Max. 5000 characters

If other barriers/factors in this category are important please explain 
(optional)

3.6 Ranking the categories of barriers

To sum up please try to rank the categories of barriers in terms of how significant each category of barriers is from an overall perspective.

1: most significant, 6: least significant

Identifying suitable locations (optional)

5

Consenting procedures (optional)

3

Grid infrastructure and system integration (optional)

1

Technology constraints (optional)

4

Finance & economic support (optional)

4

Other (optional)

Tender procedures exclude smaller developers

Max. 5000 characters

If other categories of barriers/factors are important please explain (optional)

Unstable electricity payment is a barrier. With the long preparation periods needed for off-shore windpower, a stable system for payment of electricity is necessary for developers, which is not always the case. Systems with feed-in tariffs are the best framework for stable payments.

It is also a barrier that systems often favour certain, large developers.

4. Opinions on measures

If you have ideas for additional action that could or should be taken to promote offshore wind energy state them below, having in mind actions already undertaken or planned (described in the background document). Please be brief and concise and focus on what action should be taken at the EU level.

Max 5000 characters

Identifying suitable locations (optional)

Max. 5000 characters

Consenting processes (optional)

To increase the popular interest in off-shore windpower is proposed to allow more developers in each site, and to make it compulsory for developers to allow people living in the region(s) nearest to the development to buy up to 50% of the capacity on equal terms to other investors. The people should then form one or a few entities, such as a cooperatives, to cooperate with the developers on equal terms.

Max. 5000 characters

Grid infrastructure and system integration (optional)

It is proposed that grids to off-shore windpower are made open for all developers/investors in dedicated areas and that they are made by transmission system operators (TSO) to serve all developers in dedicated sea-areas for off-shore windpower.

Max. 5000 characters

Technology constraints (optional)

Access to finance & economic support (optional)

It is important that economic support is not limited to a small number of large investors, if off-shore windpower is to develop into a large electricity source with moderate costs.

Coherence of relevant EU policies (optional)

Max. 5000 characters

Other (optional)

It is proposed that EU continue to facilitate exchange of information and possible coordination among countries of relevant issues and that these dialogues are opened to all interests, including smaller investors and people living in regions near off-shore windpower developments.