THE LEGAL REGULATION OF THE WIND POWER INDUSTRY IN THE OFFSHORE ZONE OF NORTHERN EUROPE

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The offshore wind power industry is now one of the promising and investment-worthy types of renewable energy sources used in the electric power generation and supply. The legislative framework of the Russian Federation in this sphere is not yet complete or detailed. In order to develop the legal regulation, it is expedient to study the provisions of the foreign legal regulation of public relations in the field of the construction and operation of offshore facilities for the use of renewable energy sources. The North Sea region is the most developed one from the practical standpoint of planning and implementation of offshore wind power industry projects. In this regard, there exists an independent offshore zone that includes the states of Northern Europe, namely Germany, Great Britain, the Netherlands, Denmark, Belgium, France. The presented article analyzes certain provisions of foreign energy laws, including the laws of Belgium, France, the Netherlands, regulations concerning spatial planning, tenders and competitions for projects of offshore wind power facilities, financial support and subsidies, administrative permits and licenses, grid connection and decommissioning. The results of the analysis can be useful for the rule-making activities, in the further study of foreign energy laws, in the educational process.

Keywords: *energy law, legal regulation in the field of the use of renewable energy sources.*

The offshore wind power industry (offshore meaning located at some distance from the coast) as well as coastal, sea, shelf or water (above water) power plants are now one of the promising and investment-worthy types of renewable energy sources used in the electric power generation.

For example, in 2020, Europe invested EUR 26.3 billion in offshore wind power plants, which makes it possible to finance the capacity of 7.1 GW [1].

Despite the fact that the wind power industry in the Russian Federation has now passed the origination stage, there are about 17 commissioned and operating offshore

wind power plants generating 905 MW within the territory of the state as of 2020, onshore (surface) wind power plants remain a priority.

In addition, there is no comprehensive legislative framework supporting wind power plants in general and the offshore wind power industry in particular.

With that in mind, it seems relevant to study the foreign experience of the legal regulation of the offshore wind power industry.

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This is the reason why it is interesting to study the legislative experience of the mentioned states.

The presented topic includes the study of such aspects of the legal regime of wind turbines as spatial planning, tenders and competitions, obtainment of permits and licenses, subsidizing of operations, grid connection and decommissioning in accordance with the regulatory acts of the Netherlands, Denmark, Belgium, France. Each of these legal regulation areas deserves to be the subject of a separate study. Let us have a glance on some of the indicated legal regulation areas within the framework of this paper.

(1) spatial planning.

Each of the selected states draws up an independent marine territory development plan, determines specific areas for the construction and operation of an offshore wind power plant. Such plan contains measures for the state regulation of aquatic resources, outlines the opportunities for the use of the offshore area for the construction of wind power plants.

For example, in Belgium, the spatial planning and design of offshore wind power plants is an integral part of their high-quality and secure operation, in this regard, there has been adopted the Aquatic Territory Development Plan (Plan de l'Espace Maritime) [2], which defines the zones intended for the development and operation of offshore wind power plants with a total area of up to 240 km² (7 % of the Belgian North Sea), about 170 km² of which are already occupied by the existing projects.

(2) tenders and competitions.

Almost all of the studied states (except for Belgium, where the only possible option to operate an offshore wind power plant is to conclude a concession agreement) have an independent tender system, which includes two procedures: tenders launched at the initiative of the state and "non-competitive" application selection. Such tender system ensures the participation of mid-level companies in the offshore wind power industry along with large energy companies. Moreover, these procedures have a quite clear regulatory framework in each of the states despite their procedural differences.

An important aspect for the mentioned European states is the involvement of the local population and the provision of an opportunity to express public opinion about the construction of offshore wind power plants close to the coastline.

Denmark shows the most promising example offering an "opportunity to purchase" (wind power plant owners are obliged to offer 20 % of the ownership interest) and compensation for the depreciation

of residential real estate caused by the operation of a wind power plant (if such depreciation exceeds 1 % of the real estate value).

The French Energy Code (Code de l'énergie) [3] clearly regulates the tender procedures for offshore wind power plant projects and stipulates the following procedure types:

(1) a classic tender (Articles R311-13 to R311-25). The Minister of Energy draws up a specification, which includes the following information: key data (including the application submission and review deadlines (15 days to 4 months from the tender closing date), geographic region, planned maximum capacity), characteristics of entities entitled to take part in the tender as well as special requirements for the installations (including technical, economic and financial conditions, etc.). The specification is then published on the official website of the Energy Regulation Commission (Commission de régulation de l'énergie) [4], a notice of an invitation to tender is published in the Official Journal of the European Union. The final stage of this tender type is decision making by the Minister of Energy (who can also address the Commission for a dissenting opinion), which is then published;

(2) Order No. 2016-1129 of August 17, 2016 On the Procedure for Holding a Competitive Dialogue on Electric Power Generation Facilities (Décret n° 2016-1129 du 17 août 2016 relatif à la procédure de dialogue concurrentiel pour les installations de production d'électricité) and Articles R311-25-1 to R311-25-15 of the Energy Code define a different tender type, a competitive dialogue aimed at helping the government to select the best offshore wind power industry projects in terms of such aspects as wind power plant location, harbor, foundation type, grid connection (this circumstance is due to the novel character of this wind power plant type). The procedure begins with a consultation document drawn up by the Minister of Energy, which includes information on the subject of the competitive dialogue, the preliminary schedule, the requirements for the technical and financial capabilities of the candidates, the accompanying documentation and the applied assessment for the selection of tender applications at the end of the competitive dialogue. The document under consideration is then published in the Official Journal of the EU. The Commission examines the technical and financial capabilities of the candidates within the established period (not less than one month and not more than two months from the tender closing) and submits a reasonable proposal to the Minister, who appoint the selected the candidates (the procedure can continue if there are less than three candidates). At the end of the procedure under consideration, the Minister of Energy also draws up a specification, which after the approval by the Commission, is provided to candidates for them to submit their proposals. The last stages are carried out as a classic tender.

Both procedures end with grading, the criteria are set in the specifications and include the price, the industrial and social quality of the project, the optimization of land use and the environmental impact; the proposals are then graded.

(3) procedures for the obtainment of permits and licenses.

There exist various permit and license granting procedures, which is undoubtedly

necessary as the activities associated with offshore wind power plants are characterized by the engineering complexity and safety requirements.

The French legislative experience is the most promising in this case; France has developed a Single Environmental Permit, which makes it possible to reduce a whole range of administrative procedures, simplifying the process and saving the time needed to complete it. However, this does not downgrade the value of this procedure; permit obtainment requires the provision of a large number of documents regarding various impacts of activities associated with offshore wind power plants.

Besides, attention should be paid to the technical certification of wind turbines regulated by Danish laws. According to the specification, a turbine manufacturer is responsible for the obtainment of a turbine type or prototype certificate from a certifying company.

(4) subsidizing.

One more reason for the comprehensive and rapid development of offshore wind power industry among other things is the fact that the selected countries have established financial support schemes for energy projects, including

— contracts for price differences in Denmark (calculated by the hour as the difference between the quoted price per kWh and the electric power price in the corresponding region),

— SDE+ subsidy in the Netherlands (offsetting the difference between the renewable energy production costs (the "basic amount") and the prime cost of fossil energy sources (the "adjustment amount"),

— system of green certificates in Belgium,

— premium support scheme in France.

(5) grid connection.

A separate aspect of the operation of an offshore wind power plant is its grid connection, which is usually carried out through agreements with the national network operator of each specific state having its individual characteristics; what should be highlighted is the development of a modular offshore grid (MOG) in Belgium (connecting four offshore wind power plants and the mainland. Compared to direct connection, MOG maximizes the transmission of renewable energy in terms of process continuity using the principle of radial connection to the onshore network) and the construction of offshore platforms by TenneT Dutch transmission system operator within each of the offshore tenders in the Netherlands.

Connection to the network in the Netherlands comprises two stages:

— connecting the offshore network: for each of the offshore tenders, TenneT [5] (the Dutch transmission system operator) builds an offshore platform that connects two wind farms with two 220 kV cables, each with a guaranteed capacity of 350 MW;

— Implementation Agreement (Realisatieovereenkomst) and Connection and Transfer Agreement (Aansluitings- en transportovereenkomst) [6]. Thus, a wind farm operator has to enter into these agreements with TenneT. Pursuant to these agreements, the consequences of delayed or unavailable connection or transmission within the marine environment are addressed in the Electricity Law 1998 (Elektriciteitswet 1998) [7] and the Resolution of the Ministry on Compensation Rules for Offshore Electric Power Networks or Unavailability of the Offshore Network (Besluit schadevergoeding net op zee) [8].

(6) decommissioning.

Each of the selected countries has a certain procedure for the decommissioning of an offshore wind power plant, which stipulates early notification of the supervisory authority of the termination of operation of the wind power plant, obligatory restoration works of the water area in accordance with the terms and conditions set forth in the tender application or permit.

Of course, it is necessary to study the legislative experience of Great Britain and Germany in order to obtain an aggregate picture of the development of offshore wind power plants in the North Sea region.

Nevertheless, an analysis of the legal regulation of public relations associated with offshore wind power plants in the leading foreign countries will make it possible to develop a comprehensive legislative model in the Russian Federation taking into account the foreign experience of the legal regulation and the law enforcement practice. ■

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