

April 2023

Various Issues Concerning Law of the Sea and Maritime Law in Relation to Offshore Wind Power Generation in Japan's Exclusive Economic Zone

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I. Introduction

Offshore wind power generation, which is expected to play a significant role towards renewable energy becoming a mainstream power source, is an important part of Japan's plan for realizing its carbon neutral targets by 2050.

Recently, efforts have been made toward expanding the introduction of offshore wind power generation in Japan's territorial waters and inland waters in accordance with the Act on Promoting the Utilization of Sea Areas for the Development of Marine Renewable Energy Power Generation Facilities (Act No. 89 of 2018; the "Renewable Energy Sea Area Utilization Act")¹ and other relevant

¹ For an outline of the Renewable Energy Sea Area Utilization Act, please refer to our newsletter in June 2021 "[Outline and Conditions of Public Tender Procedures Concerning Renewable Energy Sea Area Utilization Act \(in Japanese\)](#)". For the details of the procedures for public tender and the guidelines for public tender of exclusive occupancy and use pursuant to the said Act, please refer to our newsletter in February 2023 "[Offshore Wind Power -](#)

laws. For example, since December 22, 2022, the large-scale commercial operation of offshore wind power plants was launched for the first time in Japan at the Ports of Akita and Noshiro, which are in Japan's territorial waters. Nowadays, since the development of offshore wind power generation in Japan's exclusive economic zone (EEZ) has become more feasible, the need for improving the environment in line with such development has become ever greater.

In this newsletter, we will discuss the legal issues which are required to be taken into consideration in developing offshore wind power generation in Japan's EEZ, focusing in particular on the major points at issue relating to law of the sea and maritime law.

II. From the Perspective of the Law of the Sea

1. Relationship with United Nations Convention on the Law of the Sea

Upon considering the legal issues concerning offshore wind power generation in Japan's territorial waters and its EEZ, the most significant question is whether or not it is necessary to take issues of international law into consideration. In connection with this point, with respect to offshore wind power generation in Japan's EEZ, the National Ocean Policy Secretariat, Cabinet Office held a review meeting on the various issues of international law focused on maintaining consistency with the United Nations Convention on the Law of the Sea (UNCLOS). A summary of this discussion was released on January 31, 2023². The major points addressed at the review meeting were (i) the position of offshore wind power plants under international law, (ii) the scope of sovereign rights and jurisdictions, (iii) the establishment of safety zones, (iv) reasonable consideration that must be taken vis-à-vis the rights of other countries, (v) environmental impact assessments (EIAs), and (vi) the necessity of prior notifications to related countries. The followings are an outline of some of these issues.

(1) Details of sovereign rights and position of offshore wind power plants under international law

In the first place, there is a question of whether it is permitted to construct offshore wind power plants in an EEZ. Article 56, Paragraph 1, a. of UNCLOS provides that coastal states should hold "sovereign rights ... with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents, and winds". This means that restrictions on production of energy from the water, currents, and winds fall within the scope of the sovereign rights of coastal states, and offshore wind power generation in the EEZ is considered to be included in these rights.

Nonetheless, the concept of a sovereign right is a compromise concept which acknowledges, in the EEZ which is an area of the high seas, an authority equivalent to the sovereignty that coastal

[Changes in the Public Tender Procedures \(Second Round\) \(in Japanese\)](#)".

² "Holding of Review Meeting on Various Issues under International Law Relating to Offshore Wind Power Generation in the Exclusive Economic Zone (in Japanese)"

https://www8.cao.go.jp/ocean/policies/energy/yojo_kentoukai.html

states have in their territorial waters under international agreements. Thus, there is a possibility that parts of a nation's sovereignty may be restricted as a function of the international agreements that it has entered into (Issue (ii) at the review meeting). Indeed, Article 58 of UNCLOS provides for the rights and duties of other states in any given EEZ.

However, such rights accorded to other states do not result in any specific restrictions on coastal states with respect to offshore wind power generation, which is an activity that is principally conducted for an economic purpose. Article 60 of UNCLOS instead acknowledges that coastal states have exclusive rights including jurisdiction with regard to customs, fiscal issues, health, safety and immigration issues, and laws and regulations with respect to artificial islands and "installations and structures" for economic purposes (Paragraph 2 of Article 60). Thus, as long as their domestic laws provide the necessary procedures, coastal states are considered to be permitted, as part of exercising of their sovereign rights and jurisdiction inherent in their EEZ, to allow activities and occupancy and use, etc. for the exploration and development of offshore wind power generation businesses, to make supervisory dispositions, collect reports, and to conduct on-site inspections at each stage of construction, operation, and removal of such businesses.

In this connection, whether offshore wind power plants can be called "installations and structures" under UNCLOS, or should be considered as a type of a vessel, becomes an issue (Issue (i) at the review meeting). As stated below, although some offshore wind power plants are considered to be "special vessels" under domestic safety regulations, UNCLOS does not define the terms "vessels" or "installations and structures". Nonetheless, since vessels are generally considered to be structures used for navigation on water³, the review meeting reached a conclusion that it is appropriate to position offshore wind power plants as "installations and structures" under UNCLOS since they are fixed at a specified location, and their principal purpose of activities is an economic purpose (and are not intended for marine navigation).

(2) Freedom to lay submarine cables and "due regards" to the rights of coastal states

While Article 58, Paragraph 1 of UNCLOS provides that all countries have the freedom to lay submarine cables and submarine pipelines in the EEZ, Paragraph 3 of the said Article provides that "due regards" should be paid to coastal states. In addition, as a provision on continental shelves, Article 79, Paragraph 5 of UNCLOS provides that countries that lay submarine cables or pipelines must have "due regard" to cables or pipelines already in position, and that the possibility of repairing existing cables or pipelines shall not be prejudiced.

In this connection, what actions can be considered as paying "due regard" becomes an issue (Issue (iv) at the review meeting). As one of the examples of such acts, the review meeting pointed out that measures to keep some distance of separation between submarine power transmission cables and submarine communication cables should be taken to prevent cables from abrading each other, and that the public should be informed of the location information of offshore wind power plants in the EEZ in an appropriate manner. These observations will serve as guidelines for

³ For example, the 1972 Convention on the International Regulations for Preventing Collisions at Sea (COLREG) defines "vessels" as "water craft, including non-displacement vessels, WIG craft and seaplanes, used or capable of being used as a means of transportation on water" (Rule 3).

Japan and relevant entities in the future.

(3) The necessity of implementing environmental impact assessment

Article 206 of UNCLOS provides that every country must assess the potential effects on the maritime environment that their activities will have (Environmental Impact Assessments, or EIAs) and must publish the results of their assessments or provide such reports to the competent international organizations if there are sufficient reasonable grounds for believing that the planned activities within the jurisdiction of, or under the management of, one's own country which fall under said Article are likely to pollute the maritime environment or cause material and adverse change in the marine environment.

However, upon deciding to carry out an EIA, each country has the discretion to decide whether there are reasonable grounds or not (Issue (v) at the review meeting). With regard to this issue, it is difficult to make judgments as to what circumstances constitute reasonable grounds since this criterion allows some leeway. It would be necessary to discuss the measures in the future based on future discussions among members of the international community and on future state actions.

2. Relationship with domestic laws

Next, we will have a look at some of the issues concerning domestic laws concerned with these matters. Article 3, Paragraph 1, Item 1 of the Act on Exclusive Economic Zones and Continental Shelves (Act No. 74 of 1996; the "Act on the EEZ and Continental Shelves") provides that domestic laws apply to the "exploration, development, preservation, and management of natural resources, installation, construction, operation and utilization of artificial islands, facilities and structures, protection and conservation of the marine environment, and scientific research on the oceans".

As related domestic laws, we have already referred to the Renewable Energy Sea Area Utilization Act. Said Act is expected to apply in "the territorial and inland waters of Japan" (Article 2, Paragraph 5 of the said Act) and thus it is not expected to apply in the EEZ. Furthermore, while said Act has a number of provisions in which local governments (relevant prefectural governors) play an important role, it is difficult to specify the local governments which have an interest in any given sea areas within the EEZ. Since the Environmental Impact Assessment Act (Act No. 81 of 1997) and the Electricity Business Act (Act No. 170 of 1964), which govern EIA of offshore wind power generation business in the territorial waters, also have provisions on the involvement of the concerned prefectures and municipalities, this similarly becomes an issue also in the case where these acts apply to the EEZ.

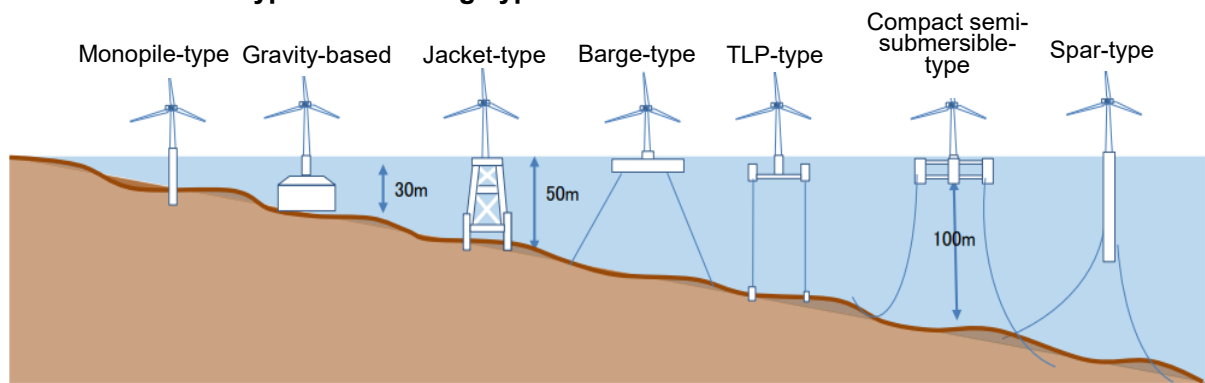
Article 3, Paragraph 3 of the Act on the EEZ and Continental Shelves provides that, "To the extent considered reasonably necessary in consideration of the fact that the water area to which such laws and regulations apply is outside the Japanese territory, and other special circumstances in such water area, the particulars necessary for organizing or making adjustments to the application of such laws and regulations may be specified by Cabinet Order". Thus, also taking into consideration the above circumstances, such provisions would be separately necessary, and it is expected that discussions will proceed in the future.

III. From the Perspective of Maritime Law

1. Relationship with Ship Safety Act and Vessels Act

The power generation facilities used for offshore wind power generation are largely categorized into bottom-mounted types and floating types. The understanding is that barge-types, TLP-types, compact semi-submersible-types, and spar-types which belong to floating types fall under the so-called “special vessel” category, and that the Ship Safety Act accordingly applies to these (Article 2, Paragraph 1 of Ship Safety Act, Article 1, Paragraph 4 of Ordinance for Enforcement of the said Act, and the public notice prescribing the vessels with special structures or equipment provided in Article 1, Paragraph 4 of the said Ordinance). Therefore, offshore wind power plants in the EEZ also need to fulfill the safety standards for “special vessels” under the Ship Safety Act, and to actually undergo classification surveys and ultimately to be issued ship inspection certificates from the government.

[Reference] Comparison between Bottom-mounted Type and Floating Type



	Bottom-mounted Type			Floating Type			
	Monopile-type	Gravity-based	Jacket-type	Barge-type	TLP-type	Compact semi-submersible-type	Spar-type
Advantages	<ul style="list-style-type: none"> •The construction cost is low. •Maintenance of the ocean floor is unnecessary in principle. 	<ul style="list-style-type: none"> •Not much work for maintenance and inspection is required. 	<ul style="list-style-type: none"> •Capable of matching comparatively deep waters •It is not necessary to drive in piles upon construction. 	<ul style="list-style-type: none"> •The structure is simple and can be built at low cost. •The construction upon installment is simple. 	<ul style="list-style-type: none"> •The area occupied due to moorage is small. •The vertical vibration of the floating body is restrained. 	<ul style="list-style-type: none"> •Can be assembled in port and harbor facilities. •Oscillation of the floating body is small. 	<ul style="list-style-type: none"> •The structure is simple and the plant is easy to manufacture. •The cost is expected to be low due to its structure.
Disadvantages	<ul style="list-style-type: none"> •The ground needs to be thick. •Pollution occurs upon installment. 	<ul style="list-style-type: none"> •Maintenance of the ocean floor is necessary. •The degree of difficulty of construction is high. 	<ul style="list-style-type: none"> •The structure is complicated and is costly. •Does not suit soft ground. 	<ul style="list-style-type: none"> •Oscillation of the floating body in stormy weather is great. It requires safety verification. 	<ul style="list-style-type: none"> •The cost of the mooring system is high. 	<ul style="list-style-type: none"> •The structure is complicated, and is costly. •From the perspective of construction efficiency and cost, the issue of downsizing is yet to be solved. 	<ul style="list-style-type: none"> •Cannot be installed in shallow water areas. •Difficult to install due to the depth of water required for construction.

[Source] “Regarding Policy on Offshore Wind Power (in Japanese)” prepared by Agency for Natural Resources and Energy <https://www8.cao.go.jp/ocean/policies/energy/pdf/shiryoku2.pdf>

On the other hand, offshore wind power plant is not treated as the subject of registrations under the Vessels Act, and in that sense, its position is different from that of ordinary vessels. Although there is no clear definition of the term “vessels” under the Vessels Act, vessels are considered in general to have three elements, namely, buoyance, loading capability, and mobility. With respect to this last element, it is understood that a floating type offshore wind power plant does not fall under a vessel under the Vessels Act since it is fixed to the ocean floor by mooring cables and does not have mobility among the three elements.

The Ministry of Land, Infrastructure, Transport and Tourism’s Maritime Bureau has, for the purpose of ensuring the safety of the floating type of offshore wind power plants, established technical standards that specify requirements for structures and facilities pursuant to the Ship Safety Act and has also established a safety guideline to advance reasonable and efficient safety designs⁴. Considering the fact that further expansion into the EEZ is anticipated and floating types of offshore wind power plants⁵ are expected to increase in the future, the focus of attention is currently on whether such standards will be updated.

2. Relationship with the three maritime traffic laws

While maritime traffic rules in Japan are provided for in three maritime traffic laws, namely, the Act on Preventing Collisions at Sea, the Maritime Traffic Safety Act, and the Act on Port Regulations, none of these apply to the EEZ, which is outside territorial waters (as stated above, under the Act on the EEZ and Continental Shelves, the effect of domestic laws extends to the activities for exploration and development, but does not extend to vessels that are merely navigating in the EEZ). Nonetheless, it is likely that the existence of offshore wind power plants will affect the vessels navigating near such plants and the radars situated around such plants. Thus, it is expected that some form of regulation will be required and that this will take into consideration regimes put in place by other countries⁶.

With regard to this point, and based on the provisions of Article 60 of UNCLOS, which provides for facilities and structures in EEZs, in Japan, the Act on the Establishment of Safety Zones Pertaining

⁴ The Ministry of Land, Infrastructure, Transport and Tourism “Regarding Promotion of Diffusion of Floating Type Offshore Wind Power Plants – Establishment of Technical Standards for Securing Safety (in Japanese)” https://www.mlit.go.jp/maritime/maritime_fr6_000006.html

⁵ In Japan (in its territorial waters), currently, in the offshore wind power generation business conducted off the coast of Goto city, Nagasaki prefecture, the construction of a floating type offshore wind power plant is in process with the target of starting operations in January 2024.

⁶ Especially regarding the effect on radars, see “Effect of Wind Power Plants on the Operations of the Japan Self-Defense Forces and the United States Forces Japan and Request to Those Concerned with Wind Power Generation (in Japanese)” by the Ministry of Defense, the Japan Self-Defense Forces. <https://www.mod.go.jp/j/approach/chouwa/windpower/>

to Structures at Sea, etc. (Act No. 34 of 2007) has been enacted. Said Act prescribes that it is allowed to establish safety zones of up to 500 meters wide in order to ensure the safety of marine structures and the safe navigation of vessels in the surrounding sea areas of such marine structures (Article 3). In the future, if the installment of offshore wind power plants in the EEZ expands, it is expected that discussions on the necessity of the establishment of safety zones, and the scope thereof, will be required (Issue (iii) at the review meeting). If a safety zone is established, it would be necessary to inform the public by giving public notice of the location and range of the safety zone in compliance with the “due notice” requirement pursuant to Article 60, Paragraph 5 of UNCLOS, and by providing a description thereof in hydrographic charts.

3. Relationship with time charter forms

Lastly, apart from legal issues, we briefly refer to time charterparties which are often used in offshore wind power generation. Upon constructing offshore wind power plants, various vessel types will be required, such as research vessels to conduct prior research on the sea area and on the geological features of the installation sites, carrying ships such as heavy lift ships with construction materials used for offshore wind power plants, CTVs that transport workers who install offshore wind power plants, and SEP vessels for the workers who actually conduct the installations. Therefore, procurement of such vessels becomes crucial for popularizing offshore wind power generation. When procuring such vessels in the form of charters, it is often the case that the unified form prepared by [BIMCO \(the Baltic and International Maritime Council\)](#) is used, as with other charterparty agreements. Among such forms it is worth mentioning [SUPPLYTIME](#), which is mainly targeted at large vessels engaged in continuous excavation operations over long periods, [WINDTIME](#), which is mainly targeted at small support vessels such as CTVs, and [ASVTIME](#), which is mainly targeted at vessels supporting the accommodation of workers on the ocean. It is necessary for charterers to use the appropriate form depending on the type of the vessel⁷.

One important characteristic of the forms of time charterparties related to offshore wind power plants is the fact that they all have a provision called “Knock for Knock” which provides that the contracting parties assume damage risks to their own assets and personnel regardless of the cause or source of negligence, and that the parties also assume the risks to claims by third parties against one party arising from the negligence of another party, and that they indemnify the other party from such risks. Such indemnification is in the form of representation not only of the contracting party but also of all the employees and facilities belonging to the contracting party’s “group”. Thus, upon preparing the charterparties, one should keep in mind whether the definitions of Owners’ Group or Charterers’ Group in the definition provisions need to be revised.

IV. Final Remarks

In the above we have briefly overviewed the conventions, laws, and contract forms that may give

⁷ As the forms of *voyage* charterparties used in the construction of offshore wind power plants, there are [Heavyliftvoy](#), [Heavycon](#), and [Projectcon](#).

rise to issues with offshore wind power generation in EEZs from the perspectives of the law of the sea and maritime law. While discussions touching on the many legal issues surrounding ocean use and navigation is inevitable due to the peculiar importance occupied by the question of power generation in this field, there are many other problems that remain to be resolved. Since this is a field that is expected to grow in the future, it will be worth paying close attention to these questions as they evolve, both in Japan and abroad.

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