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**Recommendations on
Accelerating the Offshore Wind Power in Japan
To Create a Fair and Transparent Competitive Environment**

August 2022

Renewable Energy Institute

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In preparing these recommendations, we have received many invaluable suggestions from experts in related fields. We hereby express our sincere gratitude to them.

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About Renewable Energy Institute

Renewable Energy Institute is a non-profit think tank which aims to build a sustainable, prosperous society based on renewable energy. It was established in August 2011, in the aftermath of the TEPCO's Fukushima Daiichi Nuclear Power Plant accident, by its founder Mr. Son Masayoshi, Chairman & CEO of SoftBank Corp., with his own resources.

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*The websites cited in the report were last accessed on May 28, 2022.

Introduction

In 2022, energy policies around the world are undergoing a review. Many countries are accelerating the transition from conventional energy-dependent regimes to energy systems rooted in renewables and energy efficiency. Governments are quickly pivoting from national security in the age of fossil fuels to national security in a new era of renewables. A significant driver of this transformation has been the tremendous cost reduction of renewables over the last decades, along with innovations in digital, power transmission, and storage technologies. Renewable energy is not only energy independence but also energy that facilitates the transition to a new economy that responds to the climate crisis and people's health and security.

Offshore wind power is the energy technology currently drawing the most attention. European countries have successfully announced large-scale offshore wind expansion in order to weather the energy crisis they are facing. And for Japan, surrounded by the sea, offshore wind power is an essential source of energy to support the country.

In Japan, slowly, the introduction of offshore wind has begun. In May 2021, the first developer was selected off the coast of Goto City, Nagasaki Prefecture. And in December, developers were chosen for large-scale projects totaling 1.67 GW in promotion zones in Akita and Chiba prefectures (Round 1). The winning bids, ranging from 11.99 to 16.49 JPY/kWh, were well below the upper price cap (29 JPY/kWh) and may have brought Japan all the way closer to the price target set by the government and industry of 8–9JPY/kWh by the early 2030s (*Vision for Offshore Wind Power Industry (Phase 1)*).

At the same time, however, some pointed out the need for improvements in the current tendering system. These included the need to reduce the burden on developers in terms of regional coordination and grid security and to create a competitive environment, as well as the need to clarify the timing of the start of the operation, which was unclear in Round 1. In response to these comments, the government moved up the timing for bidding system revisions, extended the Round 2 public tender deadline, and is now reforming the system. The impact of the rapid cost reductions achieved by Round 1 was significant.

On the other hand, globally, approximately 21 GW of offshore wind power was installed in 2021, 17 GW in China. Global offshore wind capacity at the end of 2020 was around 34 GW, so half of that amount was installed independently in just one year. There is also continued activity in the U.S., Taiwan, Korea, and Vietnam.

As mentioned above, the energy crisis is dramatically accelerating the expansion of offshore wind power. Germany raised its 2030 installation target from 20 GW to 30 GW. The UK has announced to increase its current 11 GW installation five-fold to 50GW by 2030, carrying out various reforms to halve the development period.

These rapid changes have raised concerns that Japan now lags significantly behind. The global offshore wind industry has already complained that the Japanese market is small, slow and complicated. For Japan, which must build its offshore wind industry from the ground up, to harness the momentum of this global market expansion, it needs to quickly establish the market conditions that allow for diverse players, both overseas and domestic, to be actively involved.

This recommendation paper summarizes the measures needed to ensure fair competition and create a stable, transparent business environment, focusing primarily on issues related to the zone designation system and project developer selection system. The recommendations stem from discussions with offshore wind power developers in various positions.

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Recommendations

I. State-led offshore wind development—introduction of an internationally comparable “centralized system”

- (1) The national government should lead and implement grid security, local coordination, and primary site investigations and clarify when these activities are to be implemented
- (2) Preliminary site investigations (wind conditions, meteorological and hydrographic conditions, seabed condition, environmental impact, fisheries)
 - Start preliminary site investigations by the national government as early as possible in all sea areas where the surveys have been agreed upon,
 - Ensure that the data from preliminary site investigations are of the quality that project developers can use for planning purposes without the need to collect additional information,
 - Data from preliminary site investigations should be made publicly available and shared free of charge,
 - Clarify that the preliminary site investigation by the national government will be implemented from fiscal 2023 (from April 2023),
 - Introduce a system to compensate survey costs to project developers under certain conditions, such as providing survey results to the state if developers have conducted site investigations in the designated sea areas ahead of others.
- (3) Promote efficient and reliable grid formation under the state leadership
 - Immediately start using the national grid securing scheme,
 - Early grid development by the general electricity transmission and distribution utilities should be positioned as an evaluation item in the revenue-cap system,
 - Establish hub substations and switching stations near the landing point as part of push-based grid reinforcement,
 - Allow for efficiency improvements in grid planning taken over by the selected project developer,
 - Establish a system for transferring long-distance onshore transmission lines constructed by power generators to general transmission and distribution companies.
- (4) Start discussions and research studies on coexistence with local communities and fisheries at an early stage
 - The national government should identify issues related to coexistence with local communities and fisheries, and promptly initiate discussions to clarify the roles of the national and local governments,
 - Establish guidelines and guidance on how developers, fishery operators, the national government, and local governments can work together and solve problems,
 - Include offshore wind farm sites in the areas eligible for the Power Supply Location Measures Grant,
 - The government should immediately launch a basic fishery survey, accumulate and publish the data.
- (5) Further strengthen state initiatives
 - Expand the role of the state to include infrastructure development and coordination of use (grids, ports),
 - Unify contact points for procedures across many ministries and agencies and strengthen the system,
 - Enhance the provision of accurate information on offshore wind power.

II. Creation of environment enabling fair competition and stable projects—improvement of procedures for selecting developers

- (1) The national government should conduct preliminary site investigations sufficient for the planning of project developers and make the data publicly available,
- (2) The details of the evaluation results should be made public,
- (3) In public tenders from Round 2 onwards, the state should specify the start-up date of operations,
- (4) A pre-qualification (PQ) system should be introduced in the new system (the “Japanese Centralized System”).

III. Necessity of roadmap formulation

- (1) Establish a new ambitious 2030 target, such as commencing operations for 10 GW by 2030, and a roadmap that clearly defines when projects should start operating,
- (2) Continue dialogue and cooperation between the state and industry through the Public-Private Council and establish a concrete promotion system up to 2030.

I. State-led offshore wind development—introduction of an internationally comparable “centralized system”

1. Current status of offshore wind development

In Japan, offshore wind power developers are forming projects by conducting various activities at the preliminary and initial stages of development. The activities include negotiating with local communities and fishermen and performing studies on wind conditions, seabed conditions, environmental impact, and other aspects. In areas with solid project potential, plans are concentrated, so multiple developers come to these areas and conduct activities locally. This results in studies being performed redundantly. The current situation lacks transparency and is a major burden on developers, local communities, and administrative bodies. From a cost perspective, it has also been criticized as highly inefficient. Because of this, for projects offshore of Yuza Town, Yamagata Prefecture, administrative points of contact have been consolidated into a single organization, and measures have been taken to prevent individual developers from contacting residents and fishermen directly and to lighten the load by having developers conduct wind measurement campaigns and environmental impact studies jointly. However, this is an example of the local government and developers taking the initiative; the national government has set no rules.

By contrast, in other countries, a “centralized system” of procedures for development is used for offshore wind and large-scale solar PV projects. It has a track record of laying a competitive foundation and dramatically lowering costs. The centralized system consists of three essential parts. In setting a long-term goal, the national government 1) coordinates with local stakeholders and designates zones for offshore development, 2) compiles information necessary for development in advance, including wind conditions, seabed conditions, environmental impact, and infrastructure development, and 3) completes the grid connection and permitting processes before conducting public tenders. Such procedures ensure transparency and fairness, and with all developers submitting bids at the same starting line, they can focus on project development and compete on prices, improving project efficiency and creating conditions that lead to lower costs.

2. “Japanese Centralized System” and its issues

Japan is getting set to implement the so-called “Japanese Centralized System,” referring to the overseas leading experiences.

Under this system, the national government, or a designated body equivalent to it, will conduct the studies undertaken redundantly in the initial stage and manage the data from them. The Ministry of Economy, Trade and Industry (METI) has begun demonstration projects in three sea areas to establish study methods and other aspects. The Ministry of the Environment (MOE) is also conducting demonstration projects on information platform development and environmental protection methods such as adaptive management. Regarding trunk transmission lines, separate considerations are given to the Power Grid Establishment Master Plan (“Grid Master Plan”) based on the deployment potential of renewable energy, and for local grids as well, the policy is moving in the direction of having general electricity transmission and distribution utilities bear the costs under certain conditions. In 2021, the grid securing scheme by the national government’s initiative was released through a government council¹. Further, the Public-Private Council on Enhancement of Industrial Competitiveness for Offshore Wind Power Generation (the “Public-Private Council”), established jointly by the government and industry, has set a lofty medium-term goal of forming projects of 30–45 GW by 2040².

¹ METI, Advisory Committee for Natural Resources and Energy, Committee on Energy Efficiency and Renewable Energy, Electricity and Gas Industry Committee, Subcommittee on Mass Introduction of Renewable Energy and Next-Generation Electricity Networks, Interim Report (4th) (October 22, 2021), p. 89. https://www.meti.go.jp/shingikai/enecho/denryoku_gas/saisei_kano/pdf/20211022001_01.pdf

² Public-Private Council on Enhancement of Industrial Competitiveness for Offshore Wind Power Generation, *Vision for Offshore Wind Power Industry (Phase 1)* (December 15, 2020). https://www.enecho.meti.go.jp/category/saving_and_new/saiene/yojo_furyoku/dl/vision/vision_first.pdf

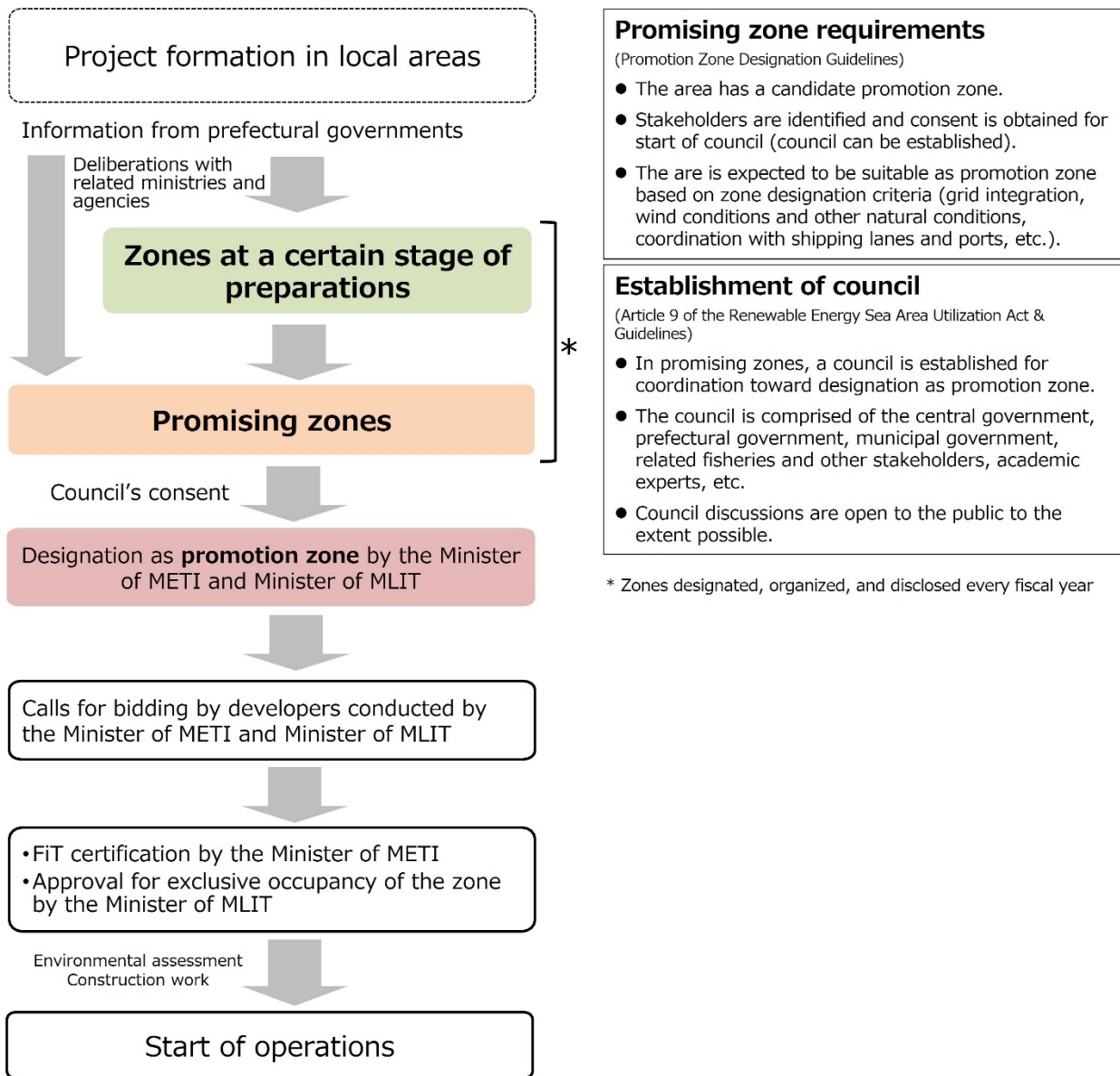
This makes it seem that, though labelled as the “Japanese” version, the core elements of the centralized systems in other countries are being conducted. However, developers with good knowledge of overseas projects say that the “Japanese Centralized System” is not an accurate centralized system. This is mostly, they say, because the current Japanese scheme limits the national government’s role in data collection and provision and does not include coordination of sea area usage with stakeholders, especially with local communities and fisheries. They also point out that it is not clearly indicated who is responsible for ensuring grid connection. These are the areas where most developers feel the most burdensome procedures and need clear rules established by the State.

(1) Need for government participation at the initial stage of development

Based on the procedures laid out in the Act on Promoting the Utilization of Sea Areas for the Development of Marine Renewable Energy Power Generation Facilities (“Renewable Energy Sea Area Utilization Act”), when a project has begun to be formed in a region (the stage at which a project plan has emerged), a “zone at a certain stage of preparations” (“preparatory zone”) is designated based on information provided by the prefectural government. Among these zones, areas that are candidates for “promotion zones” for public tenders and for which stakeholders can be identified are announced as “promising zones.” There are also cases of areas skipping the preparatory zone designation and being directly specified as a promising zone when local consensus is formed quickly, and other conditions are met. When an area is selected as a promising zone, a council is established and convened with the national and prefectural governments, stakeholders, and academic experts, and local consensus-building takes place. These councils are the venue for discussions on matters such as the impact on the fishing industry, compensation, and community benefit fund for local revitalization that are associated with detailed studies and development (see the chart on page 6 for details).

However, in reality, even though the information is supposed to be provided by prefectural governments, in almost all cases, project developers go to the local areas, and work actively with the local governments so that they can announce their candidacy. Under the current sequence of procedures, the formal process only begins when a project is formed in the local area and stakeholders (particularly fishery operators) are identified. In other words, the lion’s share of the local coordination process has been completed by the time the council is established. Its initial stage, which is the highest hurdle, is left entirely to project developers. Local coordination is precisely where the national government’s participation is needed.

Process of zone designation and calls for bidding by developers under the Renewable Energy Sea Area Utilization Act



Note: MLIT: Ministry of Land, Infrastructure, Transport and Tourism

Source: Created by REI based on METI (2022)³

(2) Need for government role in coordinating coexistence with local communities and the fisheries

Although the national government chairs the council, in actuality, project developers conduct activities ahead of time in the local area, work to build trust, then the government holds a number of council meetings while relying on this foundation. Even under the “Japanese Centralized System,” the role of the State in connection with harmonious coexistence with local communities and the fisheries has not been clearly defined.

³ METI, “On Offshore Wind Power Policy,” Councilors’ Meeting of the Headquarters for Ocean Policy (62nd) (February 2, 2022), Document 4-1 <https://www.kantei.go.jp/jp/singi/kaiyou/sanyo/dai62/shiryoku4-1.pdf>

Project developers work for harmony with the fisheries in line with local characteristics, but the ad hoc nature of their activities increases the burden of coordination with local communities and fishermen, and the lack of dependable indicators and objective data has caused a lack of transparency in discussions and prolonged the process overall. The actual situation of the fishing industry and fishing rights differs in each area, so it is essential that the situation be grasped through communication not only with the local fisheries cooperative but also with individual fishermen. However, these efforts are not being made in every area. One reason is that there is a limit to the ad-hoc situation where each private project developer independently conducts studies on local fishing industry conditions.

Additionally problematic is that, based on current procedures, even after the national government selects the project developer, coordination must still be conducted between the developer and fishermen to receive approval for exclusive occupancy of the sea area. According to the *Guidelines for Public Tender for Occupancy* (Agency for Natural Resources and Energy of METI; Ports and Harbours Bureau of the Ministry of Land, Infrastructure, Transport and Tourism (MLIT); June 2019), for the selected developer to obtain approval for exclusive occupancy, consent for it must be obtained from related fishery operators who are members of the council, after the selection is made⁴. This means that, even after being selected for the project, the developer is still exposed to the risk that the local community will not consent to it. Fishery operators have also raised criticisms of current procedures. According to them, the fisheries cooperative is uncertain about how the council is involved in occupancy approval, specifically, whether it must automatically give consent to exclusive occupancy of the sea area by the selected developer when the council reaches an agreement.⁵

(3) Unclear role of the national government in ensuring grid connection

Currently, because of the time required for local grid development by the local general electricity transmission and distribution utility⁶, the developer must take the initiative in laying long-distance power lines onshore, primarily underground, to speed up the start of operations. This burden increase costs significantly for developers. Also, in areas with strong potential for offshore wind, laying multiple long-distance power lines will burden the local community and environment, increasing social costs.

In discussions on the government's Grid Master Plan, long-distance high-voltage DC submarine transmission lines are being considered. However, there has been no concrete discussions on onshore grid enhancements with a view to large-scale deployment of offshore wind. In addition, under the revenue-cap system to be introduced in fiscal 2023, the incentive for push-type enhancements for mass deployment of offshore wind is limited to the reputational benefits that would come with increasing deployment of renewables, and no strong incentives have been established for expediting grid enhancements.

There have been discussions on the State providing grid information related to promotion zones and conducting pre-studies "when conditions other than securing grid connection are met for designation as a promising zone." However, the promising zone designation itself is currently highly dependent on the pre-selection activities of project developers. Based on this current situation, the role of the national government would still be limited to providing information for projects that have already been established. Moreover, the start date of the national grid securing scheme, being considered for adoption under the "Japanese Centralized System", is unclear. It is currently impossible to predict whether project developers will have to take the initiative to handle grid connections themselves.

⁴ Refer to p. 13 of the guidelines. https://www.enecho.meti.go.jp/category/saving_and_new/saiene/yojo_furyoku/dl/legal/operation.pdf

⁵ Refer to comments made by the Fisheries Cooperative Association of Akita (managing director) at the first council meeting (January 25, 2022) for offshore Oga City, Katagami City, and Akita City, Akita Prefecture.

⁶ In interviews conducted by REI, developers said it can take 10 to 15 years for a general utility to lay the lines.

(4) The transition date and zones covered are not clearly indicated

Another issue is the lack of clarity regarding when the transition to the “Japanese Centralized System” will occur and the range of the zones it will cover. Site condition surveys such as wind measurement campaigns will take at least two years. Supposing demonstration projects continue through 2022 and investigations begin the following year in 2023 for the actual application of the system, the transition to the “Japanese Centralized System” will presumably be from 2025 at the soonest. However, thus far, there has been no clear statement on the date the system will go into effect.

Equally problematic is that no clear announcement has been made regarding what zones will be covered under the system. According to METI, the zones covered are to be selected with priority on preparatory zones⁷, but selection standards have not been made clear, so developers cannot make predictions about project development going forward. It is difficult for developers to continue with development without knowing whether projects currently under development will be switched over to the system or what the conditions are for it.

In fact, demonstration projects currently being conducted to establish the “Japanese Centralized System” have been selected from among sea areas in which project developers are not currently involved. If the system is only applied to sea areas where developers have not begun to conduct activities, its policy effects to reduce social costs will be limited.

3. Proposal—Introduction of an internationally comparable “centralized system”

(1) The national government should lead and implement grid security, local coordination, and preliminary site investigation and clarify when these activities are to be implemented.

For development by project developers to proceed smoothly, the timing of the changeover to the centralized system (new system) needs to be clarified, and an environment needs to be created that enables developers to conduct development with predictability. The transition should be undertaken as early as possible, and the system should be implemented starting, at the latest, with the call for bidding by developers scheduled for fiscal 2025 (from April 2025).

Also, regarding the bidding process during the transition period before the new system's introduction, many issues will remain, including the transparency of information and fairness of the competitive environment. In this regard, discussions should begin as soon as possible to clarify how to ensure fairness during the transition period and after the new system starts⁸.

⁷ Statement of Takahiro Ishii, Director, Wind Energy Policy Office, New and Renewable Energy Division, Energy Efficiency and Renewable Energy Department, Agency for Natural Resources and Energy (ANRE), METI on the Task Force for Comprehensive Review of Laws and Regulations for Renewable Energy and Other Resources (20th; meeting held March 31, 2022). Summary of proceedings, p. 36. <https://www8.cao.go.jp/kisei-kaikaku/kisei/conference/energy/20220331/gijiroku0331.pdf>

⁸ In Germany, a right of subrogation system was instituted as a temporary measure for advanced developers whose development rights were invalidated by the country's transition to a centralized system (when certain conditions are met, developers that had been developing applicable sea areas in advanced can obtain development rights instead of the winning bidder even if they did not win the bid. Offshore Wind Energy Act (WindSeeG 2017), Section 39-43.)

(2) Preliminary site investigations (wind conditions, meteorological and hydrographic conditions, seabed conditions, environmental impact, fisheries)

- Start preliminary site investigations by the national government as early as possible in all sea areas where the surveys have been agreed upon:

In selecting sea areas to acquire consent for investigations to be conducted, decisions should be made based on offshore wind potential and the wishes of project developers.

- Ensure that the data from preliminary site investigations should be of the quality that project developers can use for project purposes without the need to gather additional information:

Investigation data provided by the national government must be of the quality that allows it to be used directly for planning by project developers. Specifically, the data should be of the quality that makes it possible for project developers to use in power plant planning and in site suitability assessments conducted during project certification processes by third-party certification bodies⁹.

- Data from preliminary site investigations should be made publicly available and shared free of charge:

Data collected through preliminary site investigations have public value, so it should also be used in fields outside offshore wind project development. For example, information related to environmental impact assessments should be utilized in environmental protection, and there is strong local interest in doing this. Studies related to the fisheries can also be used in fishing industry studies outside the zone from the standpoint of regional promotion and because the ocean is connected. Except for certain types of information related to resource and environmental protection and national security, such data should be actively shared and publicly disclosed and should be utilized in local dialogues as well as technology development. Also, currently, MOE provides data to project developers free of charge, but a charge is required to obtain data from METI and MLIT. Given the public value of such data, it should be disclosed free of charge¹⁰.

- Clarify that the preliminary site investigations by the national government will be implemented from fiscal 2023 (from April 2023):

The timing of the system change should be made clear, and the predictability of project development should be clearly indicated to project developers.

- Introduce a system to compensate survey costs to project developers under certain conditions, such as providing the study results to the State if developers have conducted site investigations in the designated sea areas ahead of others:

As project developers have already begun studies in advance in many sea areas, it would be inefficient for the government to conduct redundant studies in the same sea areas. Accordingly, a system could be created in which the results of surveys already being conducted are managed and shared by the State, and, at the same time, a program could be designed that would compensate project developers cooperating in providing study results, with consideration given to the investment made by them¹¹.

⁹ In the Netherlands, the government provides data that has been independently certified as being usable for designing future offshore wind power plants. One example: DNV-GL, *Certification Report Site Conditions Assessment* (October 7, 2019). https://offshorewind.rvo.nl/file/download/e5c02721-a051-4a14-a0ba-8d74fd5b633a/1571391040hkn_20191018_dnv%20gl_certification%20report%20site%20conditions%20rvo-f.pdf

¹⁰ If the data quality is adequately assured, the approach used in Denmark might also be considered. In the Danish system, the selected project developer bears the cost of investigations while the data are disclosed and shared in public. In this case, the amount would be indicated in bidding procedures.

¹¹ Germany switched over to the centralized system with revisions made in 2017, and at that time it established a program for compensating advanced project developers for the cost of investment in preliminary investigation; this can serve as a reference (Offshore Wind Energy Act (WindSeeG 2017), Section 10a, etc.).

(3) Promote efficient and reliable grid formation under the State leadership

- Immediately start using the national grid securing scheme:

In utilizing the grid securing scheme by the national government's initiative, natural conditions data; the power source census conducted by the Organization for Cross-regional Coordination of Transmission Operators (OCCTO); and other such data resources should be used. Also, dialogue and interviews should be conducted with project developers to specify the areas where grid coordination is necessary. In addition, through dialogue under this scheme between the national government and general electricity transmission and distribution utilities, the timing for completion of new grid enhancements needs to be clarified, and the dates should be used in roadmap formulation and revision as well as in procedures for designating promotion zones and selecting project developers.

- Early grid development by the general electricity transmission and distribution utilities should be clearly positioned as an evaluation item in the revenue-cap system:

Evaluation metrics should be clarified, including creation and early realization of grid enhancement plans for deployment of offshore wind and other renewables and the amounts of renewables deployed.

- Establish hub substations and switching stations near the landing point as part of push-based reinforcements:

In areas with major offshore wind potential and where multiple offshore wind power plants are expected to be connected to the grid, cost-benefit analysis should be conducted, comparisons made to laying multiple power lines, and the burden on local communities taken into account. Efficient grid formation with low social costs should be considered based on this¹².

- Allow for efficiency improvements in grid planning taken over by the selected project developer:

When the selected project developer takes over a grid plan assured through the Solicitation process for the generator interconnection and the Collective review process (the former and the present grid connection processes stipulated by the OCCTO's rules), there are cases in which it would be inefficient to implement the grid plan as is, for example, to differences between the plan of the developer that secured grid connection and the plan of the developer that was selected. Accordingly, when the selected developer presents an efficient plan, changing the grid plan that was taken over should be possible.

- Establish a system for transferring long-distance onshore transmission lines constructed by power generators to general electricity transmission and distribution companies:

Compared to electricity generation utilities, it is much more efficient for general electricity transmission and distribution utilities to operate and maintain long-distance transmission lines. When push-type local grid enhancements are delayed and the electricity generation utility has no choice but to lay onshore long-distance transmission lines itself, the lines should be transferred to the general electricity transmission and distribution utility after they are built¹³.

¹² The U.K. is working to reduce maintenance costs and environmental impact by reassessing transmission lines to land built thus far by offshore wind power developers and having electricity transmission utilities build, consolidate, and organize offshore substations and large capacity transmission lines. National Grid ESO, *Offshore Coordination Phase 1 Final Report* (December 2020). <https://www.nationalgrideso.com/news/final-phase-1-report-our-offshore-coordination-project>

¹³ The U.K. has a system by which the portion of submarine transmission lines built by the offshore wind developer is sold to another utility and operated and maintained by that utility (offshore transmission owner (OFTO)). The government selects the OFTO via a tender process. Ofgem website, "Offshore Electricity Transmission (OFTO)". <https://www.ofgem.gov.uk/energy-policy-and-regulation/policy-and-regulatory-programmes/offshore-electricity-transmission-ofto>

(4) Start discussions and research studies on coexistence with local communities and the fisheries at early stage¹⁴

- The national government should identify issues related to coexistence with local communities and fisheries and promptly initiate discussions to clarify the roles of the national and local governments:

Under government policy, when offshore wind projects are conducted, which are large-scale by nature, it is necessary to consider not only sea areas but also land areas regarding the impact on local communities and the fisheries and how the project can coexist harmoniously with them. Through discussions, there needs to be a process for identifying the positive and negative impacts for stakeholders and society overall and for deciding where, when, and how much to deploy, or whether to not do so¹⁵. The national government needs to spearhead this process and take responsibility for it.

Coordination with fishermen, which are preexisting sea area users, needs to be based on specific local conditions, including fishing rights, actual fishing boat operations, and promotion measures for the fishing industry and local community. The entity that knows the local situation best is the local government, which includes the prefectural government.

The national government should organize the issues at each stage—planning, survey, construction, operations, etc.—, quickly verify the roles required of the national government, prefectural government, and municipalities for each issue and strengthen measures for them. Also, the national government should continue developing critical systems in tandem and provide personnel and financial support for the initiatives of prefectural and municipal governments. Among the procedures for selecting project developers, a mechanism has been established for finding out the views of the prefectural governor, but criticisms have also been voiced on the lack of communication between the prefectural governor and municipalities. Coordination needs to be strengthened between the national, prefectural, and municipal governments.

- Establish guidelines and guidance on how developers, fishery operators, the national government, and local governments can work together and solve problems:

In discussions aimed at creating guidelines and guidance, a framework should be presented that allows project developers and local communities to share appropriate information and participate in talks with a certain degree of predictability. Indicating the policies and points of view that serve as a reference for initiatives related to local contributions could help various initiatives discussed to be transparent and fair. Such policies would include: specifying people in charge of communication for each stakeholder category and for clarifying the information-sharing process; various approaches to local contribution measures; and methods for calculating compensation if the fishing industry is impacted.

- Include offshore wind farm sites in the areas eligible for the Power Supply Location Measures Grant:

The government should also consider supporting local contribution measures by including local areas where offshore wind farm sites are located within the scope of grants provided to local communities located in close proximity to specific power sources (nuclear, hydro, and geothermal).

¹⁴ More detailed proposals are made in REI's *Proposals for the Coexistence of Offshore Wind with Local Communities and the Fishing Industry* (July 2022). https://www.renewable-ei.org/pdfdownload/activities/REI_OSW_local_acceptance.pdf

¹⁵ In other countries, marine spatial planning is being conducted. The purpose of this process is to coordinate with marine stakeholders with reference to responding to the climate crisis and protecting the environment, which are policy goals of the government, among other matters, and make possible new uses (establishment of offshore wind power plants, identification of sea areas for protection, etc.). In addition to a plan that covers the entire country created with the participation of all related ministries and agencies, plans for each local area are also being moved forward with the participation of local stakeholders in discussions from the initial stage of the planning.

- The government should immediately launch a basic fishery survey, and accumulate and publish the data:

Fishery operators are concerned not only about the impact of deploying offshore wind power but also for the future of fisheries as an industry in light of the worsening climate crisis and the problem of fish scarcity, among other issues. Basic fishery surveys are indispensable not only for verifying the impact of offshore wind projects but also for considering the current state of the industry and promoting it. It can also be served to ensure that stakeholder discussions are objective and highly transparent. In order to analyze the potential impacts of offshore wind projects, data needs to be accumulated prior to the construction of the wind turbines. In this sense, surveys should start right away in certain areas of preparatory zones.

(5) Further strengthen State initiatives

- Expand the role of the State to include infrastructure development and coordination of use (grids, ports):

The national government's role needs to be clearly defined not only for the items subject to the "Japanese Centralized System" and the items discussed up to this point but also for coordination of infrastructure development and use, including ports.

- Unify contact points for procedures across many ministries and agencies and strengthen the system:

Offshore wind projects require approval procedures and coordination across multiple ministries and agencies, including METI (tender process, electricity businesses, coordination grants under the Act on Special Measures Concerning Procurement of Electricity from Renewable Energy Sources by Electricity Utilities), MLIT (tender process, approval for exclusive occupancy of sea areas, seabed investigation), MOE (environmental impact studies, etc.), and the Fisheries Agency (fishery related). This causes harmful effects of organizational siloing on project developers and local communities. Following in the footsteps of the Netherlands (Enterprise Agency), Denmark (Energy Agency) and Germany (Federal Maritime and Hydrographic Agency), efforts need to be made to rationalize and streamline procedures by unifying contact points in one organization (one-stop-shop model), and which areas of the government have which roles and responsibilities need to be clarified from the point of view of project developers, local communities, and other stakeholders. The systems by which the State fulfills its roles must also be strengthened.

- Enhance the provision of accurate information on offshore wind power:

To increase local understanding of offshore wind, accurate information must be conveyed on information related to offshore wind itself and the importance of decarbonization policy and the energy transition. Such activities, which have thus far been conducted by many project developers through dialogue with local communities, need to be enhanced by having them led by the national government in coordination with local governments.

II. Creation of environment enabling fair competition and stable projects— improvement of procedures for selecting developers

1. Current state of bidding for offshore wind projects

The national government extended the call for bids in Round 2 (offshore Happo Town and Noshiro City, Akita Prefecture), which had been scheduled to end in June 2022, and is now revising procedures based on a review of the results from Round 1.

2. Issues in developer selection procedures

Current procedures for selecting project developers have the following sorts of issues.

(1) Insufficient primary data provided for the tender process

In calls for bidding by developers, information on wind conditions, meteorological and hydrographic conditions, seabed conditions, and the like must be provided at the level needed for planning power plants to enable all bidders to submit their bids based on equivalent considerations. These are also basic information used in assessments of project feasibility of the selection phase. However, in Round 1, this information was not collected or provided adequately.

(2) Inadequate disclosure of evaluation process and results

The information that was disclosed on the results of bid evaluations was not adequate and was lacking in transparency. Initially, only the total score on project feasibility was released, which dissatisfied project developers. It is not clear what matters were considered in the evaluations. The names of the independent committee members that performed the evaluations were not even disclosed.

(3) Unclear evaluation metrics

The current evaluation items include many qualitative ones, and the evaluation's scope and metrics are unclear.

(4) The difficulty of balancing price against project feasibility is not incorporated into the evaluation.

In project development, the operations start date needs to be as early as possible, and a domestic supply chain needs to be actively built. But no domestic supply chain has yet been made, and increasing the domestic sourcing ratio raises costs, so there is a tradeoff with prices. The factors that need to be considered for bidding are complexly intertwined, so it is difficult to strike a balance between evaluations of individual items and the overall evaluation; a more convincing explanation of the evaluation process is needed.

3. Proposal—Make the selection process agreeable for future project developers and local communities

(1) The national government should conduct preliminary site investigations sufficient for the planning of project developers and make the data publicly available:

Data from the preliminary site investigations by the national government needs to be provided at the level at which they can be used for site suitability assessments when independent certification bodies conduct project certification. This would allow project developers to create plans using their respective technologies and expertise based on the same primary data, making project development conditions fairer and more transparent. Further, using a standard set of data in project feasibility evaluations conducted in the tender process can be expected to result in unbiased evaluations.

(2) The details of the evaluation results should be made public:

Project feasibility evaluation results should be divided into individual items, and the information should be disclosed. Also, a summary of the evaluation results should be released along with the things considered in the evaluations and their respective results. Releasing this information would ensure the fairness of the assessments. In addition, for project developers, this would allow them to understand the evaluation metrics and utilize this information in future bids. It would also help companies considering entering the offshore wind industry to consider the business, which is essential from the standpoint of fostering the growth of the industry domestically.

In Round 1, item-by-item evaluation scores were disclosed¹⁶ later through discussion at the Working Group on Promoting Offshore Wind Power Generation¹⁷, and a direction has been set for explaining a summary of the selected plan¹⁸. But another step should be taken, and an overview of the evaluation should also be disclosed, as is done in the private finance initiative (PFI) tender process¹⁹.

In order to promote transparency in the evaluation procedure, the names of the members of the third-party committee that conducted the project evaluation should be made public.

(3) In public tenders in Round 2 onwards, the State should specify the start-up date of operation:

The national government must formulate a roadmap to provide predictability to project developers and stimulate investment and industry activities for supply chain establishment. The State then needs to require operators to submit business plans with less than a start-up year of operation to achieve its policy objectives. Furthermore, the government should indicate a start-up date of operation within its guidelines for public tender of exclusive occupancy based on the roadmap, while not penalizing developers in connection with grid and port use, which are outside factors unrelated to a developer's capabilities.

¹⁶ ANRE, METI and Ports and Harbours Bureau, MLIT, "Summary of Project Developer Selection for Offshore Noshiro City, Mitane Town, and Oga City, Akita Prefecture; Offshore Yurihonjo City, Akita Prefecture; and Offshore Choshi City, Chiba Prefecture," Working Group on Promoting Offshore Wind Power Generation (11th) (March 22, 2022), Document 1, p.7 and following.
https://www.meti.go.jp/shingikai/enecho/denryoku_gas/saisei_kano/yojo_furyoku/pdf/011_01_00.pdf

¹⁷ Joint meeting of the Working Group on Promoting Offshore Wind Power Generation, Subcommittee on Mass Introduction of Renewable Energy and Next-Generation Electricity Networks, Committee on Energy Efficiency and Renewable Energy, Advisory Committee for Natural Resources and Energy and the Subcommittee for Promoting Offshore Wind Power Generation, METI, Environment Committee of the Harbor Committee, Transport Policies Council, MLIT. Hereinafter, the "Working Group on Promoting Offshore Wind Power Generation."

¹⁸ METI and MLIT, "On the Approach Used for Evaluating Project Developers for Selection Based on the Renewable Energy Sea Area Utilization Act," Working Group on Promoting Offshore Wind Power Generation (12th) (May 23, 2022), Document 1, p. 28.
https://www.meti.go.jp/shingikai/enecho/denryoku_gas/saisei_kano/yojo_furyoku/pdf/012_01_00.pdf

¹⁹ MLIT Website, "On Public Release of Objective Evaluation Results, etc. Related to First Refusal Rights for Specified Operations at Fukuoka Airport, etc.," (July 18, 2020). Results are released around two months after the selection is made.
https://www.mlit.go.jp/report/press/kouku05_hh_000107.html

Under the new bidding rules currently being considered by the national government, a system has been proposed to give high evaluations to developers commencing operations as early as possible. Starting operations earlier is an important issue but is interconnected with cost reductions and supply chain development. Under such circumstances, it is inappropriate to have bidders compete on how early their plants will be up and running. Instead, the government should clear the starting deadline, and project developers should create their project plans in line with it. This is what would promote transparent competition and ensure project predictability.

(4) Pre-qualification (PQ) system should be introduced in the new system (the “Japanese Centralized System”):

The national government should introduce the Pre-qualification (PQ) system, in which project developers are evaluated based on their ability to execute the project as a qualification for bidding, which is now part of the project feasibility evaluation. This framework would enable bidding to be conducted based only on indicators that can be evaluated quantitatively. In evaluating project execution ability, project experience and finances—some quantifiable indicators—could be the minimum requirements. Further, from the standpoint of the stable supply of electricity and the development and strengthening of the competitiveness of a domestic supply chain, which are government-level policies, it would also be worth thinking to request prospective bidders to submit a separate supply chain plan and verify the domestic sourcing ratio.

The government council is considering limiting the number of zones the same developer is allowed to win when public tenders are conducted simultaneously for multiple zones²⁰. However, such a system would lead to artificially capping the scale of projects planned by each developer, and, with scale merits needed to reduce costs, would also harm incentives to project developers to engage in projects and reduce costs. Particularly at this current initial stage of offshore wind deployment, the amount is limited and the impact of this could easily be significant, so it would possibly encourage collusion. What needs to be done now to promote greater numbers of developers is expanding the market and establishing an environment for fair competition; at present, limiting the number of zones that can be won should be approached with caution.

²⁰ Supra note 16, METI and MLIT, “On the Approach Used for Evaluating Project Developers for Selection Based on the Renewable Energy Sea Area Utilization Act,” pp. 26, 27. https://www.meti.go.jp/shingikai/enecho/denyoku_gas/saisei_kano/yojo_furyoku/pdf/011_01_00.pdf

III. Necessity of roadmap formulation

1. Market prospects and revisions

In its *Vision for Offshore Wind Power Industry (Phase 1)* from December 2020, the national government set the targets of forming projects of more than 1 GW each year until 2030 and projects of 10 GW by 2030 and 30–45 GW by 2040. Furthermore, in its *6th Strategic Energy Plan* created in 2021, the government set an “ambitious” deployment target of 5.7 GW by 2030. However, this target is not high compared to other countries, and specific deployment policies have not been presented.

2. Issue—Lack of clarity in offshore wind deployment pipeline

As of May 2022, there are 17 zones designated as either preparatory zones or promising zones, but it is unknown when any will be designated as promotion zones. Also, the specific actions taken by the national government for grid enhancement are unclear, and it is impossible to predict how fast the market will expand. The bidding deadline for the promotion zone offshore Happo Town and Noshiro City, Akita Prefecture, which had been scheduled for the summer of 2022, has been pushed back to revise bidding rules, and is expected to be at the end of 2022 or in 2023. Reducing the market predictability impacts not only project developers and suppliers but also the market predictions of investors. It particularly erodes to a large extent the willingness of overseas investors to invest in the Japanese market.

Also, based on the results of Round 1 selections, the expected operations start date is between 2028 and 2030. Considering the amount of time, it will take for developers selected in the previous round to execute their projects, it is hard to see how the 2030 target of 5.7 GW will be achieved if it is left to chance. As mentioned above, many countries are focusing on continuing to expand offshore wind, and Japan, too, in the future, will have to raise this target further, firmly achieve energy security through renewables and, given the urgent nature of the climate crisis, carry out the energy transition as quickly as possible. The target should therefore be adjusted with a view to starting operations for around 10 GW by 2030²¹.

3. Proposal—Create a plan for raising investment and project predictability

(1) Establish a new ambitious 2030 target, such as commencing operations for 10 GW by 2030, and a roadmap that clearly defines when projects should start operating:

The predictability of the Japanese market needs to be improved, and a market that is appealing to both overseas and domestic investors and project developers needs to be created. Formulating a roadmap would make it possible to identify bottlenecks in need of resolution and allows for concrete actions to be taken to achieve deployment targets. The national government should raise its target and work backwards to create a roadmap. To this end, making the second version of the *Vision for Offshore Wind Power Industry* would be effective.

²¹ The U.K. raised offshore wind capacity from 11 GW to 50 GW by 2030, a nearly fivefold increase, and plans to carry out various reforms to shorten the development period by half. The British Energy Security Strategy, the UK Government, April 2022.
<https://www.gov.uk/government/publications/british-energy-security-strategy/british-energy-security-strategy#renewables>

(2) Continue dialogue and cooperation between the state and industry through the Public-Private Council and establish a concrete promotion system up to 2030:

To achieve the target, the national government should accelerate port, grid, and other infrastructure enhancements and technology and human resources development. Compared with the U.S. and Europe, in Japan, where there is no large-scale oil and gas industry, there is an overwhelming shortage of people in offshore construction and maintenance. In the initial stage, when the industry is not sufficiently developed, it is essential to have a strategy of fostering the industry domestically while drawing on overseas resources to overcome bottlenecks in personnel, technologies, ships, and other resources. The national government should continue talking with developers here and overseas and create a promotion system and plan up to the critical year of 2030 while utilizing various temporary measures. To this end, it should recommence discussions on the Public-Private Council and quickly engage in concrete action.

**Recommendations on Accelerating the Offshore Wind Power in Japan
To Create a Fair and Transparent Competitive Environment**

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