

# **The Current Situation of Japan's Offshore Wind Policy**

**Agency for Natural Resources and Energy**

# Commitment to Carbon Neutrality by 2050 in Japan

- In his policy speech on October 26, 2020, former Prime Minister Suga **declared that Japan aims to become carbon neutral (a concept meaning net zero greenhouse gas emissions and absorption) by 2050.**
- To achieve carbon neutrality, it is important to address the energy sector, which emits 85% of greenhouse gases (including methane, CFCs, etc., other than CO<sub>2</sub>) and 93% of CO<sub>2</sub>.
- The Sixth Basic Energy Plan, formulated in October 2021, lays out a **path toward carbon neutrality in 2050, particularly in the energy sector, and** the policies that **need to be addressed.**

## Excerpt: Prime Minister's Policy Speech on October 26

### “Realization of a Green Society”

Japan aims to achieve **zero greenhouse gas emissions and a carbon-neutral, decarbonized society by 2050.**

In order to fundamentally change our policy on coal-fired power generation, Japan will ensure a stable energy supply by thoroughly implementing energy conservation and promoting the introduction of **renewable energy and nuclear power generation that prioritizes safety.**

## Excerpts: METI Minister's press conference on October 26

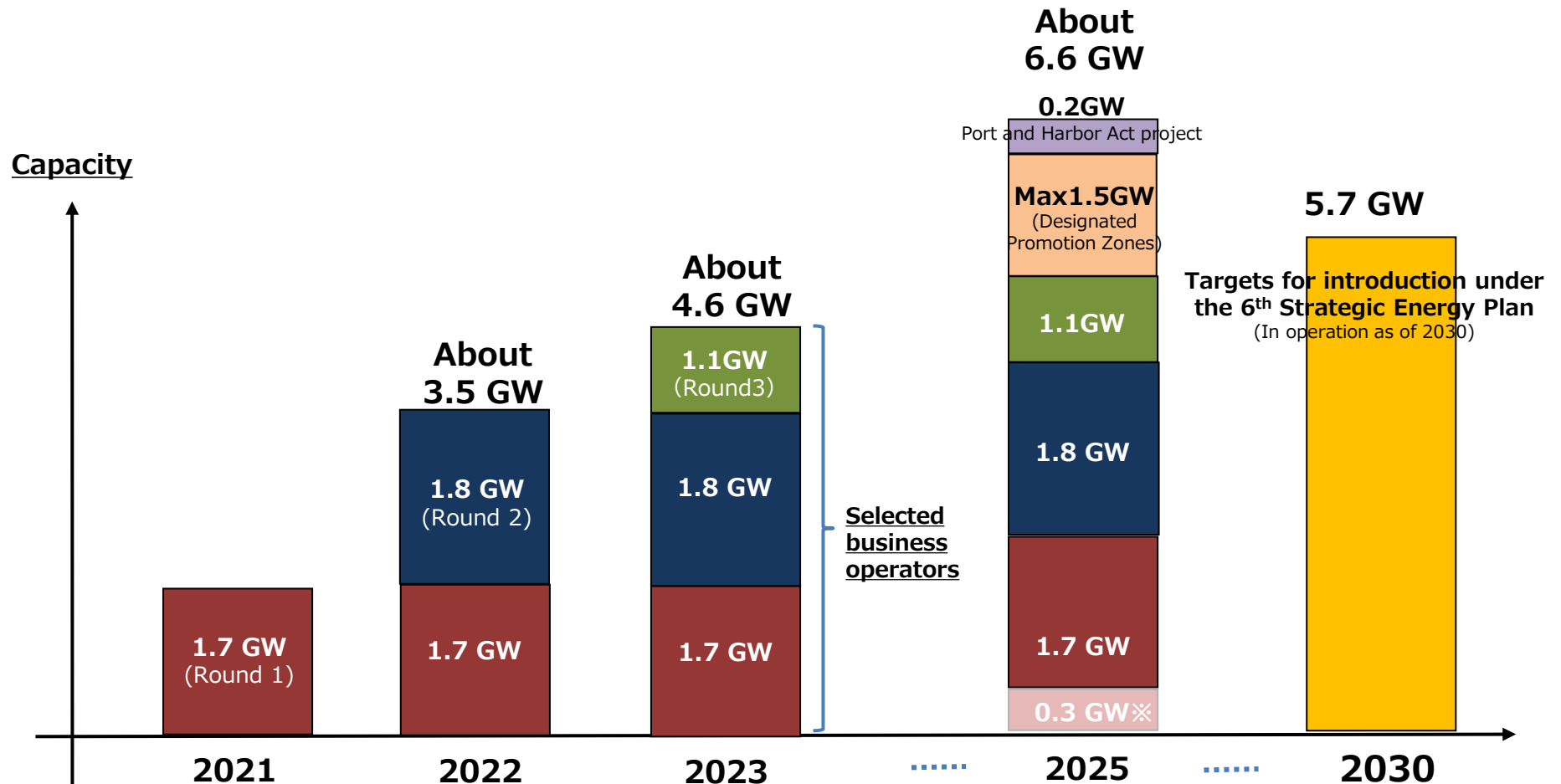
**Efforts in the energy sector, which accounts for more than 80% of greenhouse gas emissions,** are important for achieving carbon neutrality.

In a carbon-neutral society, in order to meet increasing demand for electricity, Japan will make maximum use of available energy sources such as **renewable energy and nuclear power,** while also pursuing new options such as **hydrogen.**

# Image of Project Formation to Achieve Goals

## Offshore Wind Project Formation Targets

2030: 10 GW / 2040: 30-45 GW



Note: The installed capacity and other details are provided based on the Offshore Wind Promotion Act, the Port and Harbor Act, and other relevant laws.

\*The installed capacity for the introduction amount is described based on the operational capacity of facilities that are already in operation under the Port and Harbor Act and other relevant laws.

# 7th Basic Energy Plan

## Renewable Energy

- Based on the premise of S+3E, the relevant ministries and agencies will work together to strengthen policies **to promote the maximum introduction of renewable energy** while **promoting regional coexistence and reducing the burden on citizens**.
- The spread of domestically produced renewable electricity and improvement of technological self-sufficiency will contribute **to strengthening Japan's industrial competitiveness** and will **advance the development and social implementation of next-generation renewable energy technologies**.
- Challenges in introducing renewable energy:  
① coexistence with the local community, ② limiting the burden on citizens, ③ dealing with output fluctuations, ④ accelerating innovation and establish a supply chain, and ⑤ dealing with used solar panels.
- Actions to resolve challenges  
① strengthening of business discipline, ② utilization of the FIP and bidding system, ③ development of inter-regional interconnection lines and introduction of storage batteries, etc., ④ perovskite solar cells, floating offshore wind, expanding geothermal power through drilling surveys and one-stop certification, accelerating the implementation of next-generation geothermal power, promoting small-scale hydroelectric power led by local governments, and ⑤ establishment of a system for disposal and recycling.
- Make renewable energy a power source by working to minimize integration costs such as **grid development and adjustment** and **making it a long-term, stable power source**.

# Electricity Demand and Power Supply Composition

	FY2013 (Actual)	FY2022 (Actual)	FY2040 (Forecast)
<b>Power demand</b>	<b>0.99</b> trillion kWh	<b>0.90</b> trillion kWh	About <b>0.9–1.1</b> trillion kWh
Industry	0.36 trillion kWh	0.32 trillion kWh	About 0.38–0.41 trillion kWh
Business	0.32 trillion kWh	0.31 trillion kWh	About 0.29–0.30 trillion kWh
Family	0.29 trillion kWh	0.26 trillion kWh	About 0.23–0.26 trillion kWh
Transportation	0.02 trillion kWh	0.02 trillion kWh	About 0.04–0.10 trillion kWh
<b>Generated power</b>	<b>1.08</b> trillion kWh	<b>1.00</b> trillion kWh	About <b>1.1 to 1.2</b> trillion kWh
Renewable	10.9%	21.8%	About 40–50%.
Solar	1.2%	9.2%	About 23–29%
Wind	0.5%	0.9%	About 4–8%
Hydraulic	7.3%	7.7%	About 8–10%
Geothermal	0.2%	0.3%	About 1–2%
Biomass	1.6%	3.7%	About 5–6%
Nuclear	0.9%	5.6%	About 20%
Thermal	88.3%	72.6%	About 30–40%

# Significance of Introducing Offshore Wind Power

- Offshore wind power generation is expected to be a trump card toward making renewable energy the main source of power, due to (1) its potential for expanded introduction, (2) being a cost-competitive power source, and (3) economic ripple effects.
- At the same time, there are the following issues: (1) coexistence with the fishing industry is essential for the introduction of wind turbines; (2) other countries are delaying or withdrawing from projects due to recent inflation; and (3) while high economic benefits are expected, there are no manufacturers of large wind turbines in Japan.
- It is necessary to promote efforts related to offshore wind power from the perspectives of both energy policy and industrial policy.

## (1) Possibility of expanding introduction

- Introduction is expanding around the world, especially in Europe.
- Although the topography and wind conditions in Japan, which is surrounded by the sea, are different from those around the North Sea, the introduction of the new technology is expected to expand in the future.

## (2) Cost-competitive power supply

- In Europe, which is ahead of other countries, cost reductions have progressed, including cases of successful bids below 10 yen/kWh and market prices (with zero subsidies), mainly in the shallow North Sea.

## (3) Economic ripple effects

- Offshore wind power generation facilities have a large number of components (tens of thousands) and involve large-scale projects, which have a large ripple effect on related industries and contribute to regional revitalization.

# Flow of Zone Designation and Public Solicitation of Business Operators Based on the Offshore Wind Promotion Act

Designate, organize, and publicize zones each fiscal year

Start of operations

Construction  
environmental impact assessment

- METI gives approval via the Renewable Energy Special Measures Law
- MLIT gives permission for exclusive use of an area

Conduct public solicitation of businesses

METI and MLIT designate promising zones

The council gives consent

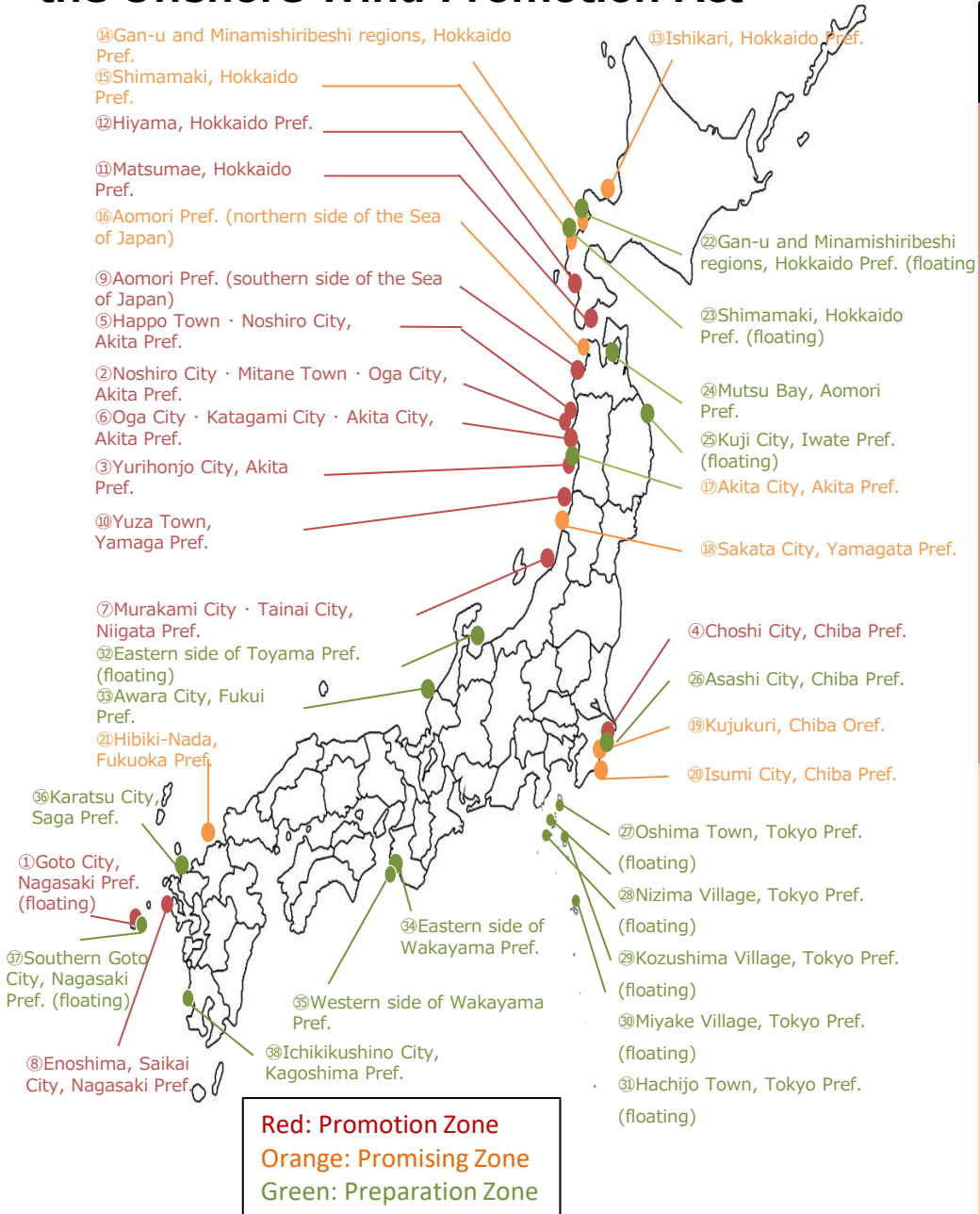
Promising zones

Preparation zones

Consultation with relevant ministries and agencies  
Prefectures provide information

Deal formation in each region

# Status of Project Formation Based on the Offshore Wind Promotion Act



# Designation and arrangement status of promotion areas and promising areas (As of October 2025)

Area name (off the coast of)		Unit: 10,000 kW
<b>Promotion Zones</b>	① Goto City (Nagasaki Pref.) (floating)	1.7
	② Noshiro City, Mitane Town, and Oga City (Akita Pref.)	41.5
	③ Yurihonjo City (north and south) (Akita Pref.)	73.0
	④ Choshi City (Chiba Pref.)	37.0
	⑤ Happo Town and Noshiro City (Akita Pref.)	37.5
	⑥ Oga City, Katagami City, and Akita City (Akita Pref.)	31.5
	⑦ Murakami City and Tainai City (Niigata Pref.)	68.4
	⑧ Enoshima, Saikai City (Nagasaki Pref.)	42
	⑨ Aomori Pref. (southern part of the Sea of Japan)	61.5
	⑩ Yuza Town (Yamagata Pref.)	45.0
<b>Promising Zones</b>	⑪ Matsumae, Hokkaido Pref.	25-32
	⑫ Hiyama, Hokkaido Pref.	91-114
	⑬ Ishikari (Hokkaido Pref.)	91-114
	⑭ Gan-u and Minamishiribeshi regions (Hokkaido Pref.)	56-71
	⑮ Shimamaki (Hokkaido Pref.)	44-56
	⑯ Aomori Pref. (northern part of the Sea of Japan)	30
	⑰ Akita City (Akita Pref.)	37
	⑱ Sakata City (Yamagata Pref.)	50
	⑲ Kujyukuri (Chiba Pref.)	40
	⑳ Isumi City (Chiba Pref.)	41
	㉑ Hibikinada (Fukuoka Pref.)	48

Business operator selected

# Basic Concept of the Current System Consideration

- Offshore wind power is expected to contribute to the supply of inexpensive energy and is a trump card for making renewable energy a major source of power worldwide.  
Japan will actively promote its introduction through the Renewable Energy Offshore Utilization Act and other measures.
- Offshore wind power generation investments are large-scale and have long project periods, so from the perspective of bankability, it is important to promote project structuring that can deal with the risk of cost fluctuations.  
Globally, there have been cases of projects being suspended or withdrawn due to tight supply chains and rising costs caused by inflation.
- To ensure that renewable energy becomes the main power source in Japan, we will make sure that investments in offshore wind power are completed with a focus on cost reduction and speed while encouraging business structures that are resilient to cost fluctuations.
- We will strengthen discipline and improve the circumstances to increase the certainty of project implementation in a manner that is neutral to the burden on the public.

## Key Point :

### **I. An ideal system to ensure both speedy implementation and schedule certainty**

- ① Establishment of operation start-up dates for both speedy and reliable project implementation, ② give priority to evaluation of countermeasures against risk scenarios that contribute to reliable project implementation, ③ review of the deposit system to deter withdrawal and delay, and ④ approach to zero premium level

### **II. Risk sharing associated with cost fluctuations**

Introduction of a price adjustment scheme to ensure the completion of power source investments

### **III. Approach to the flexibility of business plans**

Organize plan change requirements for major products

### **IV. Price evaluation points**

How price evaluation should be done to balance strong business composition and competition among operators

### **V. Fundamentalization of site investigation by the central method**

How site surveys should be conducted to ensure completion of the project

# Policy for Implementation of Floating Offshore Wind

- Japan will steadily introduce implantable offshore wind power in accordance with the Renewable Energy Sea Area Utilization Law and other relevant laws.

With regard to floating offshore wind, will work on the following four points in order to strengthen Japan's industrial competitiveness and realize an early implementation.

## 1. Project Formation

- Early enactment of the revised Renewable Energy Sea Area Utilization Bill
- To accelerate the formation of offshore wind projects, including EEZ projects, JOGMEC will strengthen its system for central surveys, etc.
- Developed a strategy that incl. targets for implementation, and will create an attractive market that will attract further investment from Japan and abroad
- Will achieve coexistence and co-prosperity with local communities and fisheries

## 2. R&D, Demonstration

- In order for Japan to lead the global market in the field of floating offshore wind, industry, academia, and government in Japan will work closely together to establish technologies for cost reduction and mass production
- Will conduct R&D and demonstrations, as well as promote discussions on standards and international standards

## 3. Supply Chain Construction

- Fixed Bottom: Adoption of subsidies and a selection method that emphasizes evaluation of stable power supply
- Floating: Capital investment using GX supply chain subsidies with a view to transport overseas

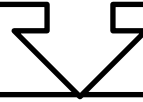
## 4. Human Resources

- Will establish human resource development centers in local regions
- Will develop human resources through collaboration between educational and research institutions and industry

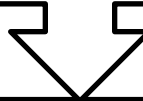
# The Bill for Promoting Offshore Wind Power in the EEZ

Establishing a system to permit business operators to install marine renewable energy power generation facilities in the exclusive economic zone of Japan

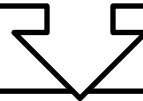
(i) The Minister of Economy, Trade and Industry will designate solicitation zones for the installation of marine renewable energy power generation facilities



(ii) The Minister of Economy, Trade and Industry and the Minister of Land, Infrastructure, Transport and Tourism will grant provisional status to business operators that intend to install such facilities in such zones



(iii) The two ministers will establish a council consisting of members such as business operators to which provisional status has been granted, stakeholders, and other entities



(iv) The two ministers will issue permission to the business operators to which provisional status has been granted to install such facilities if the business operators satisfy certain criteria, including consistency with particulars on which the council has reached a consensus

**Note that in principle the installation of power generation equipment related to offshore wind power, etc., in the EEZ is prohibited, and installation permission will not be granted in areas other than the solicitation zones.**

# Japan's Exclusive Economic Zone (EEZ)

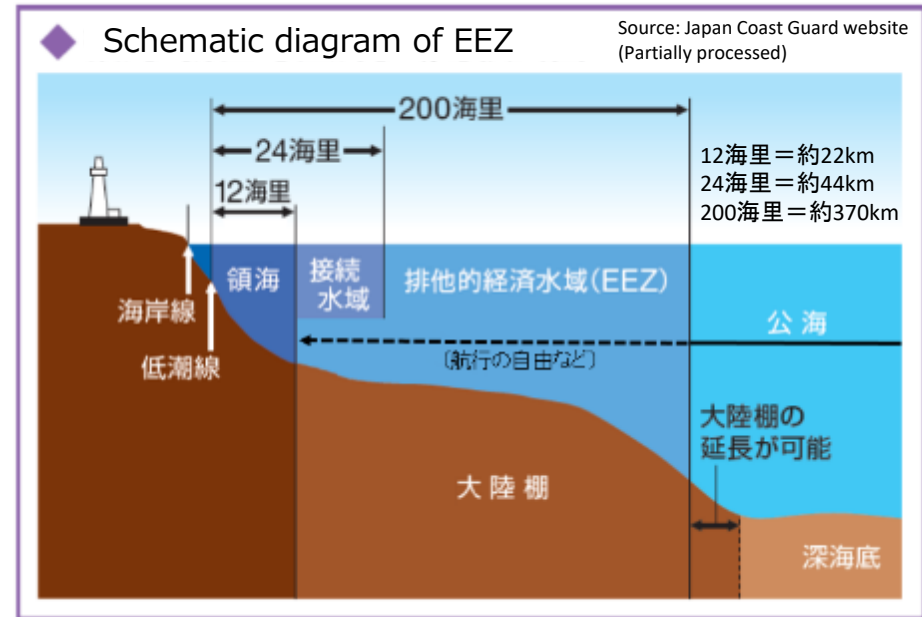
- An EEZ is a water area established within 200 nautical miles from the baseline of the territorial sea. (1 nautical mile is 1,852 meters; 200 nautical miles is approximately 370 km)
- Japan's EEZ: approximately 4.47 million square kilometers, the sixth largest in the world

## ○ Exclusive economic zone area:

approx. 4.05 million km<sup>2</sup>

-About 11 times the land area of the country (about 380,000 km<sup>2</sup>)

Together with its territorial waters (about 430,000 km<sup>2</sup>), it is the 6th largest in the world



# Offshore Wind Industry Vision (2nd Edition) – Summary

## Background and Significance

- Based on the "Renewable Energy Sea Area Utilization Act" and the 1st Offshore Wind Vision, Japan has advanced bottom-fixed offshore wind. With rising power demand and global energy transition, Japan will maximize renewables for stable supply and decarbonization, per the "7th Energy Plan" and "GX2040 Vision."
- Offshore wind is vital for cost reduction and regional growth, but Japan lags Europe in market expansion and large turbine industry development.
- By 2050, Asia will be the largest market. **Japan's new law now allows EEZ installations, accelerating floating wind. Japan has strong shipbuilding, materials, and marine engineering, and can lead turbine industry and floater mass production.**
- With inflation and tougher business conditions, Japan will improve the environment, **speed up technology and cost reduction, attract investment and advanced technology, and strengthen industrial competitiveness, using its EEZ potential and global collaboration.**

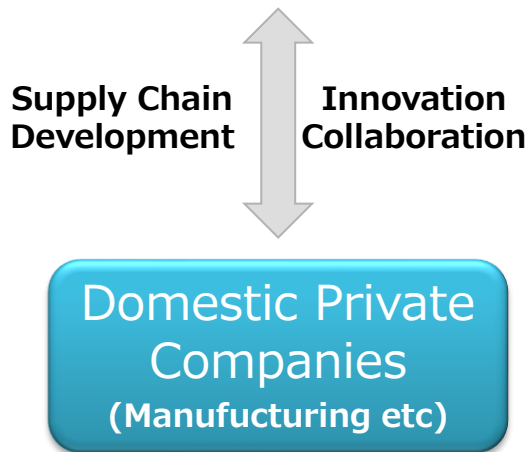
● Government Initiatives ◆ Industry Initiatives ★ Public-Private Collaboration

Future Vision	Guidelines	Current Action	Future Directions for Initiatives	Mid-term Goal
Energy Policy  Industrial Policy	Addressing Global Inflation & Creation of Attractive Domestic Market	<p><b>(Inflation Measures)</b></p> <ul style="list-style-type: none"> <li>- Improve environment for large-scale investment, e.g., increased deposits and price adjustment schemes.</li> </ul> <p><b>(Creating Attractive Domestic Market)</b></p> <ul style="list-style-type: none"> <li>- Develop ~1GW/year (total ~6.1GW) mainly bottom-fixed projects, 23 promising/preparation areas.</li> <li>- JOGMEC central survey in territorial waters, start of grid access scheme.</li> <li>- Amend law to allow EEZ installation permits and government-led marine/environmental surveys.</li> </ul>	<p><b><u>I Coping with Inflation</u></b></p> <ul style="list-style-type: none"> <li>● Review system design further, ensuring fairness in public bidding.</li> <li>◆ Revise bottom-fixed cost target (8–9 yen/kWh by 2035) considering inflation; set floating wind cost target considering inflation and different weather/ocean conditions.</li> </ul> <p><b><u>II Creating Attractive Domestic Market</u></b></p> <ul style="list-style-type: none"> <li>● Set early targets for large-scale floating projects in territorial waters, in addition to 2040 floating wind targets, to promote investment.</li> <li>● <b>Expand JOGMEC central survey to EEZ to accelerate project formation.</b></li> </ul>	<ul style="list-style-type: none"> <li>● <b>Form over 15GW of floating offshore wind projects by 2040 [Government]</b></li> <li>● Form large-scale floating offshore wind projects by FY2029 [Government]</li> <li>◆ Early revision of bottom-fixed wind cost targets [Industry]</li> </ul>
	Strengthening Industrial and Technological Base	<p><b>(Domestic Industrial Base)</b></p> <ul style="list-style-type: none"> <li>- 60% domestic procurement target by 2040 achieved in some projects (excluding turbines).</li> <li>- Base port designation and development; revised Port Act for smoother use.</li> <li>- SEP vessels built by private sector.</li> <li>- Promoting demand forecasting and vessel securing.</li> <li>- GX funds support equipment investment (e.g., floating foundations).</li> <li>- Human resource development: ECOWIND, technical colleges, operator training, local government education.</li> </ul> <p><b>(Technological Base)</b></p> <ul style="list-style-type: none"> <li>- GI Fund supports low-cost, mass-production floating wind demo for 2030; FLOWRA develops common platforms.</li> <li>- FLOWCON develops construction and O&amp;M tech for large-scale floating wind.</li> </ul>	<p><b><u>III Domestic Industrial Base</u></b></p> <ul style="list-style-type: none"> <li>◆ Increase domestic procurement targets for <b>domestic production of nacelles/blades</b>.</li> <li>★ <b>Promote turbine localization</b> (collaboration, R&amp;D, investment).</li> <li>★ <b>Build regional supply chains</b> (e.g., Hokkaido, Kyushu), support equipment investment, ensure proper project formation.</li> <li>★ <b>Develop ports/infrastructure for floating wind construction and O&amp;M.</b></li> <li>★ <b>Secure vessels</b> via public-private cooperation, based on demand forecasts.</li> <li>★ Set HR targets, promote regional revitalization plans with industry-academia-government collaboration.</li> </ul> <p><b><u>IV Technological Base</u></b></p> <ul style="list-style-type: none"> <li>★ Advance industry and academia-government collaboration, promote R&amp;D roadmap, including floating wind demo and turbine localization.</li> <li>★ <b>Develop technology verification environments for turbines/floaters.</b></li> <li>★ Advance offshore construction and O&amp;M technology.</li> </ul>	<ul style="list-style-type: none"> <li>◆ <b>Achieve over 65% domestic procurement by 2040 [Industry]</b></li> <li>◆ <b>Train/secure about 40,000 offshore wind personnel by 2040 [Industry]</b></li> <li>★ Secure large-scale floating wind construction &amp; O&amp;M capacity for 2040 project targets [Public-Private]</li> </ul>
	Expansion into Global Markets	<p><b>(Manufacturing Base for Asia-Pacific)</b></p> <ul style="list-style-type: none"> <li>- Strengthen corporate collaboration and supply chain by partnering with offshore wind leaders like UK and Denmark.</li> </ul> <p><b>(Leadership in Standardization)</b></p> <ul style="list-style-type: none"> <li>- Collaborate with UK, Denmark, Norway via FLOWRA to enhance technology and standardize common issues.</li> </ul>	<p><b><u>V Asia-Pacific Manufacturing Base</u></b></p> <ul style="list-style-type: none"> <li>● <b>Promote domestic manufacturing bases and global suppliers through public-private partnerships with global turbine makers.</b></li> <li>★ Set overseas expansion targets for power producers and floating foundation manufacturers.</li> </ul> <p><b><u>VI Leadership in Standardization</u></b></p> <ul style="list-style-type: none"> <li>◆ Set overseas collaboration targets for technology and market expansion with Europe and Asia-Pacific.</li> <li>◆ Lead standardization discussions, leveraging Japan's automation, digitalization, and mass production strengths, with industry-academia and international cooperation.</li> </ul>	<ul style="list-style-type: none"> <li>★ <b>Involve Japanese power producers in 30GW of overseas projects by 2040 [Public-Private]</b></li> <li>◆ Collaborate with 10 countries/regions in Europe and Asia-Pacific by 2030 [Industry]</li> </ul>

# Collaboration with Global Turbine Manufacturers

- In offshore wind and energy, METI has launched a public-private partnership framework with major global turbine manufacturers. Memorandums of cooperation have also been signed between global turbine makers and Japanese companies.
- Through this framework, METI will further promote corporate collaboration and discuss supply chain development, aiming for medium- to long-term domestic manufacturing bases.

## Image of Collaboration

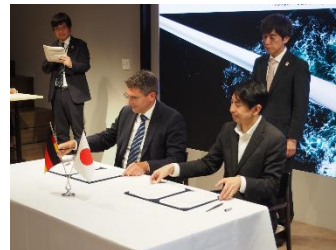


### Vestas (MoC signed on 2025/7/30)



- Signatories:
  - Mr. Kobayashi (Director General, ANRE, METI)
  - Mr. Patel Purvin (Asia Pacific President, Vestas)
- \* Witnessed by Matsuo (Vice-Minister for International Affairs, METI)
- Discussed continuous and stable wind power deployment and investment in domestic turbine manufacturing bases.
- Also, Nippon Steel signed an MoU to promote cooperation on tower steel supply for Europe, Asia, and Japan markets.

### Siemens Gamesa (MoC signed on 2025/6/24)



- Signatories:
  - Mr. Ito (Director General, ANRE, METI)
  - Mr. Mark (Head of Offshore Wind, Siemens Gamesa)
- ※ Witnessed by Matsuo (Vice-Minister for International Affairs, METI)
- Discussing promoting Japanese companies' participation in Siemens Gamesa's turbine supply chain, and strategies for long-term investment in key turbine components in Japan.
- Additionally, TDK signed an MoU with Siemens Gamesa for global supply of magnets.

# MOC between METI and Vestas Regarding the Establishment of Domestic Manufacturing Footprint (March 9, 2026)

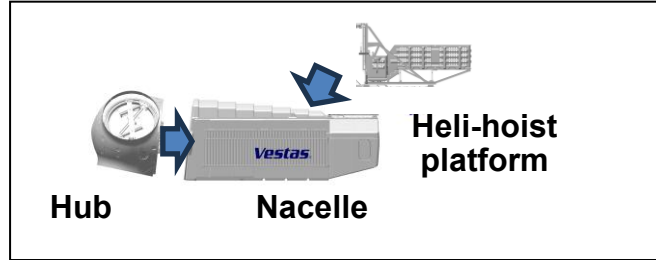
- On the premise of expanding the offshore wind market, Vestas will collaborate to establish a manufacturing base for Final Nacelle Assembly in Japan by the end of FY2029. In this case, METI has agreed to provide maximum support for this initiative. Furthermore, Vestas will develop a roadmap toward establishing a Full Nacelle Assembly Footprint by FY2039, on the condition that stable and continuous order volumes are secured.
- The establishment of wind turbine manufacturing footprint plays an essential role in revitalizing the wind turbine industry (Electrical components, Gearboxes, Magnets, Bearings, Carbon fiber and other components) and contributes to long-term cost reductions. It also supports Japan's efforts to secure stable decarbonized power generation technologies.

## Vestas Manufacturing Roadmap

\* Nacelle is a core assembly that integrates the key components responsible for converting blade rotation into electricity

**By FY2029 Final Nacelle\* Assembly**  
 ※Securing a stable domestic supply and the progress of individual projects are prerequisites.

**By FY2039 Full Nacelle\* Assembly**  
 ※Securing a stable and continuous order volumes is prerequisites.



**Final Nacelle Assembly**



**Full Nacelle Assembly**

\*\*Aiming for full nacelle production by sourcing both major components and small parts. Details to be discussed.



## MOC Signing Ceremony between METI and Vestas (March 9, 2026)

Witnessed by Kenji Yamada, State Minister of METI and H.E. Jarl Frijs-Madsen, Ambassador of Denmark to Japan

- In addition,
- MOU signing ceremony – Vestas with Nippon express (logistics, construction, and O&M) and DENZAI (construction and heavy equipment engineering services).
  - Participation from municipalities such as Muroran City, Akita City, Kitakyushu City, etc.)

# Green Innovation Fund Projects

## -Projects to Achieve Lower Costs for Offshore Wind Power -

< Green Innovation Fund Projects [Budget amount: up to 21billion yen] >

**Phase 1:**  
**Development of elemental technologies**  
 [Budget amount: up to 6.8 billion yen]  
 < 2021 to 2030 >

**Phase 2:**  
**Demonstration of a floating system**  
 [Budget amount: up to 14.2billion yen]  
 < 2024 to 2032 >

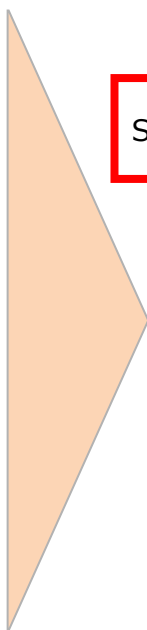
① Wind Turbine Technology

② Manufacturing and Installing Floating Foundations

③ Wind-Related Electrical System Technology

④ Operation and Maintenance Technology

⑤ Common R&D  
 (Towards further advancement)



Southern side of Akita Pref.



Tahara City and Toyohashi City  
 (Aichi Pref.)

Implementing companies
<b>Marubeni Offshore Wind Development</b> Tohoku Electric Power Japan Marine United JFE Engineering
<b>C•Tech</b> Kanadebia Kajima Mitsui O.S.K. Lines

**Demonstration in deep water (over 500m)**

Manufacturing and construction of floating structures, mooring, anchors, electrical systems, O&M, durability verification, and the establishment of standards for guidelines, etc.

**Demonstration in Harsh Marine Environments**

Design, manufacturing, construction, power generation, O&M, durability verification, and the establishment of standards for guidelines, etc., in response to high wave heights, steep slopes, rocky seabeds, and other challenging conditions.

# FLOWRA (Floating Offshore Wind Technology Research Association)

FLOWRA was established in February 2024 with the approval of the Minister of Economy, Trade and Industry, aiming to contribute to the realization of large-scale commercialization of floating offshore wind power, a carbon neutral society, and the creation of domestic industry through the development of **common basic technologies to reduce the cost and risk of floating offshore wind power**, including collaboration with overseas organizations.

### <FLOWRA>

### <Domestic Partners>

Resource: Shutterstock

### <Foreign Alliance>

Etc.

### <National Research Institute >

### <Academia>

### <Certification>

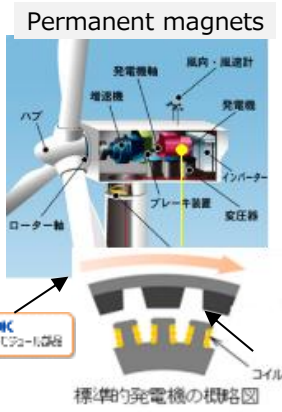
# For Reference: Precedents for an Offshore Wind Supply Chain

## Turbine (Nacelles, etc.)

Toshiba and GE announced a partnership in the field of offshore wind turbines in May 2021.  
Wind turbine nacelles will be manufactured and assembled at Toshiba Keihin Works and will be shared for the first and second round of projects.  
TDK's permanent magnets will be used in the wind turbine generator.



GE Nacelle



STDK マグネットの納入

## Installation (SEP)

Shimizu Corporation's Blue Wind, one of the world's largest SEP vessels, is used in Ishikari Bay New Port and overseas projects.



Turbine installation by SEP

## Foundation (Jacket)

Projects in Ishikari Bay New Port (GPI) and Kitakyushu Port (Kyuden Mirai, etc.) adopted Nittetsu Engineering's jacket foundation structure.



Ishikari New Port

## Foundation (Monopile)

JFE Engineering Corporations' monopile plant in Kasaoka City, Okayama Prefecture  
Capacity: **50 units**  
Local employment: **400 People**  
Considering shipping overseas



Monopile FAB yard

## O&M (Human Resource Development)

NYK opened an Akita branch in 2022 to develop human resources for local workers and opened a training center for specialized workers in April 2024.



Ship handling simulator

# Human Resource Development Support Project for Offshore Wind Power

- Support for curriculum development and the construction of training facilities will be provided from FY2022 for the development of human resources (650 million yen in FY2023 and 750 million yen in FY2024 including non-offshore wind power)
- From April 2024, training facilities by supported businesses opened in various locations.



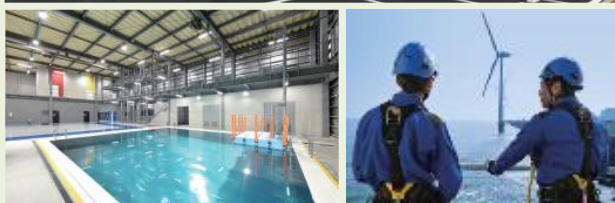
**NYK**



## Wind and Sea School Akita

- (Oga, Akita)
- Utilizes existing facilities such as the large deep-water pool at Akita Prefectural Oga Marine High School.
  - Provides basic safety training and simulator training, aiming to produce 1,000 graduates per year.
  - The facility will be open to nearby students, and various events are planned.

Source: from each company's website



**Wind Power Group**

## Wind Power Training Center

- (Kamisu City, Ibaraki Prefecture)
- KASHIMA OFFSHORE WIND FARM opened a training center which features a swimming pool and an elevated workstation.
  - This is a GWO-certified facility offering a training program in accordance with the Basic Safety Training module. Aims to produce 1,000 trainees per year.



**GiraffeWork**

## GiraffeWork Training Center

- (Kawasaki City, Kanagawa Prefecture)
- This is a training center offering educational programs in partnership with Maersk Training (Denmark).
  - It is a GWO-certified facility offering a training program in accordance with the Basic Safety Training module.

# Positioning of OWP and Business Environment Development for Project Completion

- Since June this year, this joint council has discussed additional measures to improve the business environment to ensure the successful completion of power generation investments in offshore wind projects. As a result, the principle of renewing sea-area occupancy permits under certain conditions (see Section V below) has been established.
- Meanwhile, the withdrawal of Round 1 projects has highlighted the current early-stage status of offshore wind in Japan and, from the perspective of establishing a sustainable industrial base and achieving cost reductions, the importance of completing Round 2 and Round 3 projects has become even more evident.
- Based on these points, we intend to proceed with the following business environment improvement measures:
  - For Sections I–III, we would like to move forward according to the policy outlined in this document and request your confirmation.
  - For Sections IV–VII, we will introduce measures already organized in this joint council or discussed in other committees.

## 【Business Environment Improvement Measures】

I . Participation in Long-Term Decarbonized Power Auctions

II . Retroactive Application of Price Adjustment Scheme up to the Start of Public Offering

III . Flexible Response to Changes in Public Offering Occupancy Plans

IV . Establishment of a Mechanism to Promote Flexible Use of Base Ports

V . Principle of Renewing Sea-Area Occupancy Permits under Certain Conditions

VI . Development of an Environment for Proper Valuation of Renewable Energy

VII . Support to Promote Investment in Decarbonized Power Sources

Limited to Round 2 and 3 project operators

Will also include selected operators in future public offerings

Excerpt from Materials 2, 39th Offshore Wind Promotion WG / Subcommittee (Nov. 19, 2025)

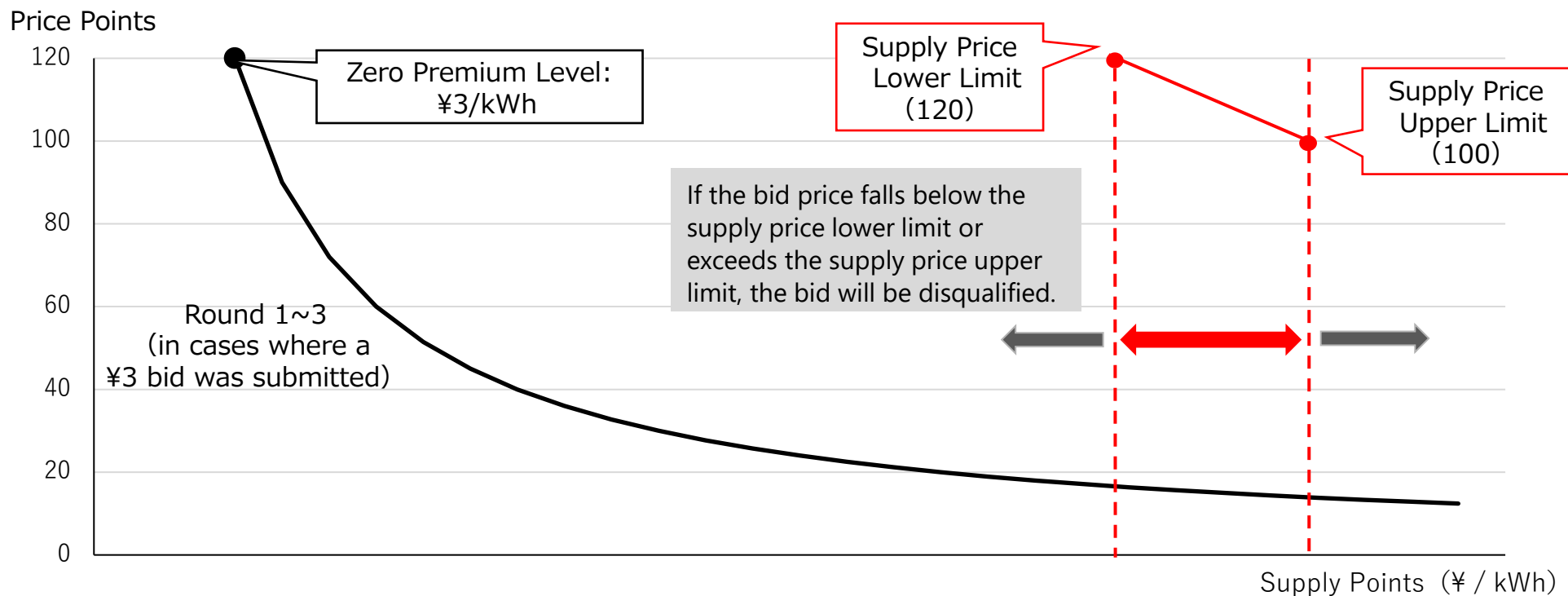
- Until now, under the Act on Promoting Utilization of Sea Areas for Renewable Energy, public tenders have been held three times (Rounds 1–3) to select the most suitable operators for long-term, stable, and efficient offshore wind project implementation. **The tender framework has been revised each time, considering the prevailing business environment.**
- For example, **in Round 2**, revisions included **introducing speed evaluation** based on policy goals such as the energy mix and **increasing the weighting for “stable power supply”** in response to its growing importance in energy policy. Round 3 followed a similar tender system.
- Recently, after a project **withdrawal from Round 1**, a factor analysis was carried out in this joint meeting. This **revealed challenges in the offshore wind business environment that were not apparent during the implementation of Rounds 1–3.**
- Based on this, and **to ensure successful offshore wind introduction in Japan’s early stage while continuing to emphasize cost reduction**, it is proposed that the future tender system be revised under the following policy to **highly evaluate plans that can realistically be completed:**

- I. Review of the weighting for project feasibility evaluation points
- II. More detailed scoring of project feasibility
- III. Lowering the weighting for speed and ensuring schedule flexibility
- IV. Designing price points to ensure bids at appropriate supply prices
- V. Application of restrictions on winning bids
- VI. Establishing rules for cases where the selected operator withdraws

## IV. Designing Price Points for Bids at Appropriate Supply Prices (Details)

- Specifically, respecting the Procurement Price Calculation Committee's opinion, **set a supply price ceiling and a lower limit that incorporates realistic operator innovations**. As with bids above the ceiling, **bids below the lower limit will be disqualified**.
- Based on the expectation that, as Japan's offshore wind industry and long-term PPA market mature, measures such as extending operational periods will enable further reductions in generation costs and secure PPA partners, **these limits will be adjusted in each tender guideline according to the business environment at that time**.
- For price points, full points- (120) will be awarded for bids at the lower limit. **Points for bids at the ceiling will also be determined according to prevailing conditions**; for example, **in the current early stage, 100 points will be awarded**.

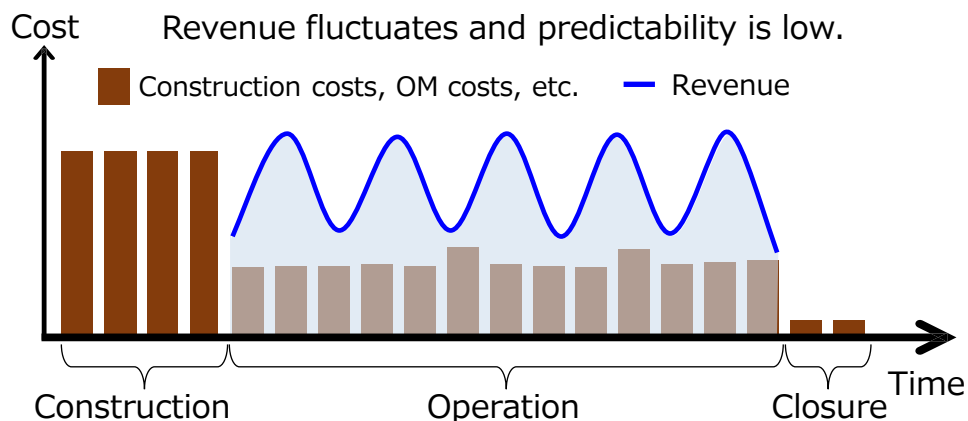
*Note: Differences in feasibility scoring—speed (10) + advanced criteria (55) = 65—can outweigh the maximum 20-point price difference, making project viability a stronger determinant than price alone.*



# Overview of Long-Term Decarbonized Power Source Auction

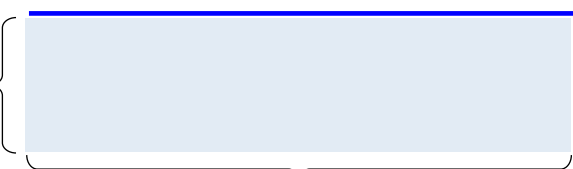
- To promote new investments in decarbonized power sources, an auction system targeting new investments in decarbonized power sources (“Long-Term Decarbonized Power Source Auction”) will start in FY23. Note: Power sources subject to the FIT/FIP are excluded.
- Specifically, auctions will be conducted for power sources meeting decarbonization criteria. Selected sources, capacity-based fixed revenue will be guaranteed for 20 years, enabling recovery of large initial investments and improving predictability of long-term revenue.

## 〈Challenge in Power Source Investment〉



## 〈Factors Needed for Investment Decisions〉

① Want to secure the level of revenue at the time of investment decision

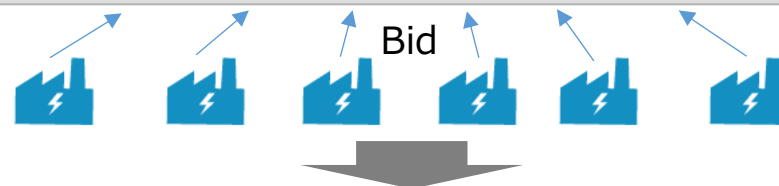


② Want to secure long-term revenue at the time of investment decision

## 〈Image of the System〉

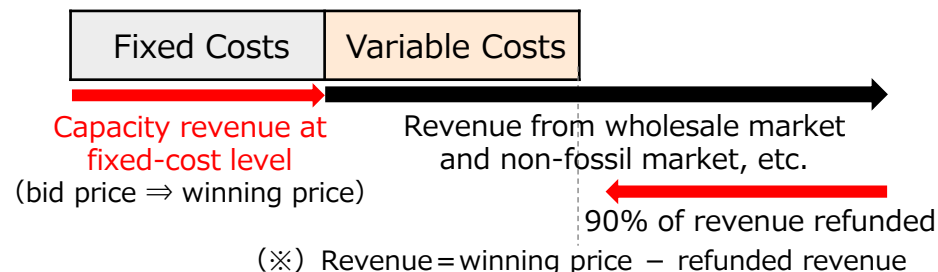
### Wide-area Organization

Conduct auctions targeting new investments in decarbonized power sources and determine the winning power sources and bid prices.

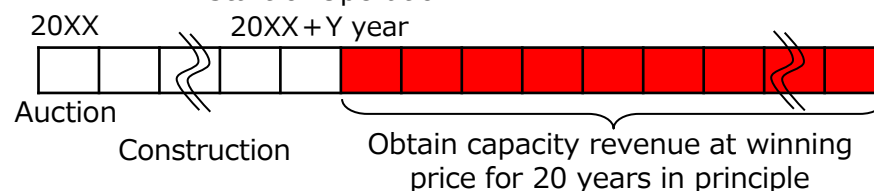


## 〈Revenue of the Winning Power Source〉

① Revenue level



② Revenue Start of Operation



# I . Review of Allocation of Project Feasibility Evaluation Points

Based on analysis of R1 project withdrawals, domestic supply chain development is insufficient, and design and procurement of components require time. In addition, the concentration of special components has increased surrounding risks. Under these circumstances, there is a possibility that projects with high feasibility may not be selected. Therefore, we propose revising the allocation of evaluation points for project feasibility: reduce the weight for “business execution capability” from 20 points to 10 points.

Furthermore, for items related to project execution, increase the weight for “power supply stability” from 20 points to 25 points to reflect the importance of supply chain development and stable power supply.

		Round 2&3		Round 4 & beyond			
Project Feasibility Evaluation Points (120)	Business Execution Capability (80)	Speed of Project Implementation	<u>20</u>	Speed of Project Implementation	<u>10</u>	Business Execution Capability (80)	Project Feasibility Evaluation Points (120)
		Fundamental Aspects of Project Plan ○ Project Implementation Structure and Track Record (6) ○ Financial & Revenue/Expenditure Plan (14)	20	Fundamental Aspects of Project Plan ○ Project Implementation Structure and Track Record (6) ○ Financial & Revenue/Expenditure Plan (14)	20		
		Execution Aspects of Project Plan ○ Business plan up to the start of operation (16) (Schedule, layout, equipment structure, construction plan, work process) ○ Business plan after the start of operation (4) (Maintenance and management, decommissioning)	<u>20</u>	Execution Aspects of Project Plan ○ Business plan up to the start of operation (20) (Schedule, layout, equipment structure, construction plan, work process) ○ Business plan after the start of operation (5) (Maintenance and management, decommissioning)	<u>25</u>		
		Stable Power Supply	<u>20</u>	Stable Power Supply & Supply Chain development	<u>25</u>		
	Regional Coordination & Ripple Effects (40)	Coordination Ability with Relevant Government Authorities	10	Coordination Ability with Relevant Government Authorities	10	Regional Coordination & Ripple Effects (40)	
		Coordination and Coexistence with Surrounding Shipping Routes and Fisheries	10	Coordination and Coexistence with Surrounding Shipping Routes and Fisheries	10		
		Economic Ripple Effects on Local Communities	10	Economic Ripple Effects on Local Communities	10		
		Economic Ripple Effects Nationwide	10	Economic Ripple Effects Nationwide	10		

# Thank you

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*Ministry of Economy, Trade and Industry*