

Introduction of Japan's Offshore Wind Policy

July 2022

Keisuke MUTO

Energy Efficiency and Renewable Energy Dept.,
Agency for Natural Resources and Energy, METI

1. The 6th Energy Strategic Plan -Points of outlook for energy supply and demand in FY2030-

- The 6th Energy Strategic Plan was approved by the Cabinet in October 2021, raising the percentage of renewable energy to 36-38% by FY2030. The share of wind power is 5% of that total.

		(2019 ⇒ previous energy mix)	Energy mix in FY2030 (ambitious outlook)	
Energy efficiency improvement		(16.55 million kl ⇒ 50.30 million kl)	62 million kl	
Final energy consumption (without energy conservation)		(350 million kl ⇒ 377 million kl)	350 million kl	
Power generation mix Electricity generated: 1,065 TWh ⇒ Approx. 934 TWh	Renewable energy	(18% ⇒ 22-24%)	36-38%	※If progress is made in utilization and implementation of R&D of renewable energy currently underway, 38% or higher will be aimed at. (details of renewable) solar 14~16% wind 5% geothermal 1% hydropower 11% biomass 5%
	Hydrogen/Ammonia	(0% ⇒ 0%)	1%	
	Nuclear	(6% ⇒ 20-22%)	20-22%	
	LNG	(37% ⇒ 27%)	20%	
	Coal	(32% ⇒ 26%)	19%	
	Oil, etc.	(7% ⇒ 3%)	2%	
	(+ non-energy related gases/sinks)			
GHG reduction rate	(14% ⇒ 26%)	Continuing strenuous efforts in its challenge to meet the lofty goal of cutting its emission by 50%		

2. Measures to introduce offshore wind power

- **Japan's Vision for Offshore Wind Power Industry (December 2020)**
 - ✓ Target by Government
 - ◆ Introduction Target ; **10GW by 2030, 30-45GW by 2040**
 - ✓ Targets by Industry
 - ◆ Cost reduction target ; 8-9 yen/kwh by 2030-2035
 - ✓ Supports to build reliable supply chain and R&D
- **Current Status of Offshore Wind Promotion Act (April 2019~)**
 - ✓ Round 1 auctions are finalized(Mitsubishi won 1.7GW)
 - ✓ Many pipelines; 7 promising zones, 10 preparation zones

3. Results of Round1 auctions

- **The results of Round1 auctions were published in December 2021.**

(1) Sea area offshore Noshiro City·Mitane Town·Oga City, Akita Pref.

Selected companies: Mitsubishi etc.(0.48GW)

Supply price: 13.26yen/kWh

(2) Sea area offshore Yurihonjo City (North·South), Akita Pref.

Selected companies: Mitsubishi etc.(0.82GW)

Supply price: 11.99yen/kWh

(3) Sea area offshore Choshi City, Chiba Pref.

Selected companies: Mitsubishi etc.(0.4GW)

Supply price: 16.49yen/kWh

4. Revision of the public tender system based on the results of Round1

•4 main points of the Revision of the public tender system

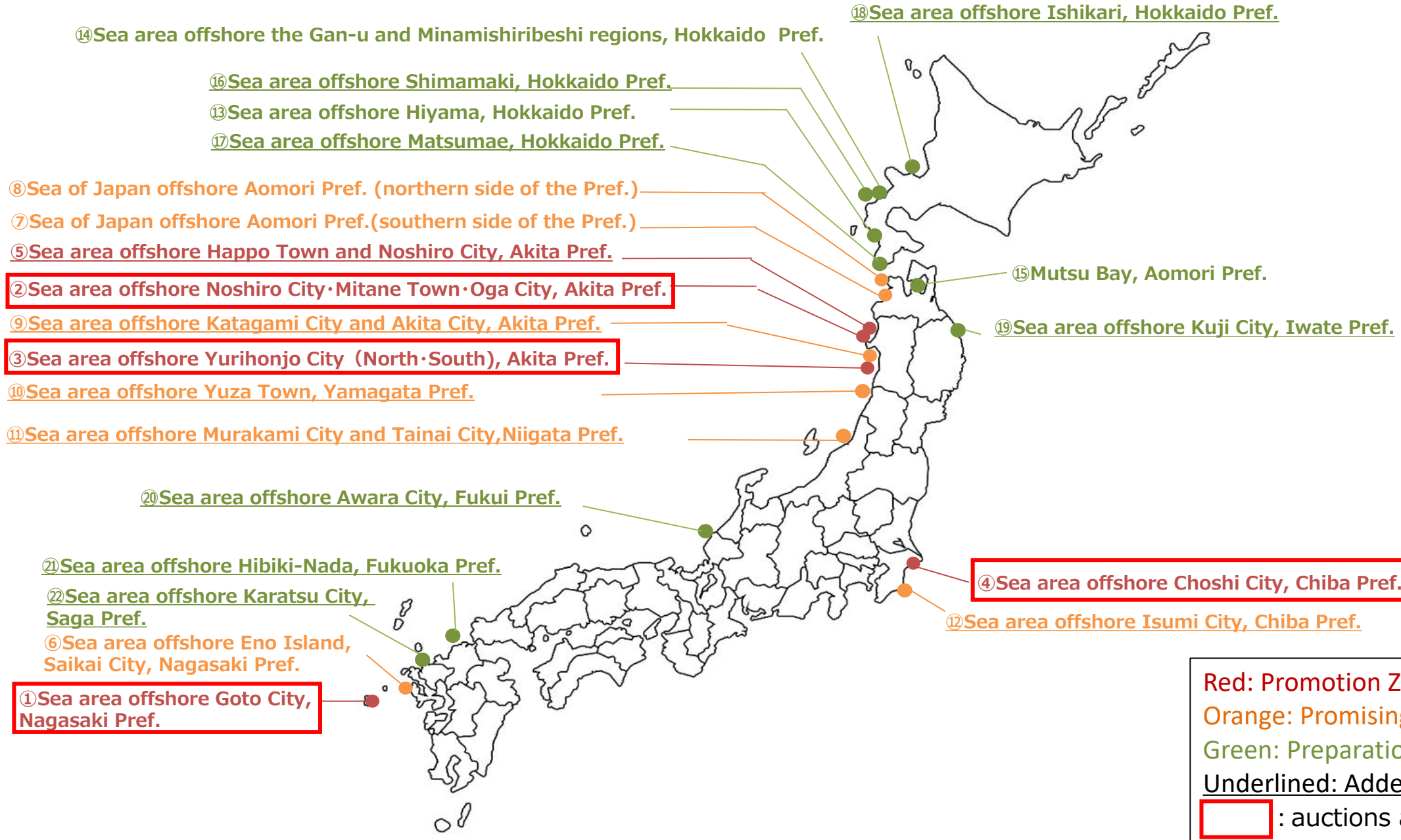
(1) Continue to focus on price points.

(2) Better assess the timing of the start of offshore wind power operations.

(3) Introduce a system that more carefully reflects the opinions of local people.

(4) Consideration of bidding restrictions for simultaneous public bidding for multiple ocean areas.

5. Current Status



6 . Demonstration of Japanese version of Centralized model

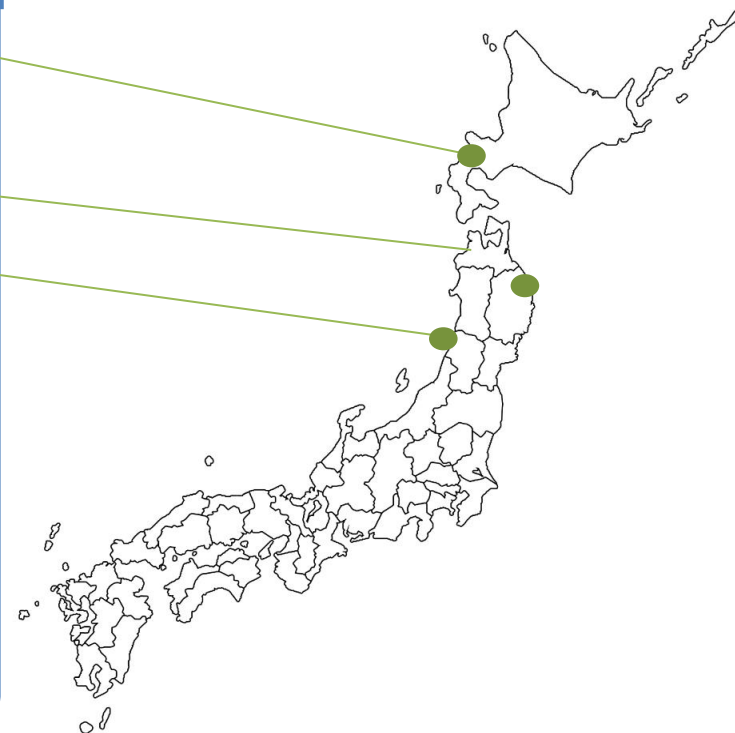
- **GOJ establish more efficient approaches to conducting wind surveys and seafloor/oceanographic surveys necessary in project development by carrying out demonstration projects (~FY 2022) led by GOJ to accelerate project formation.**

✓ Demonstration area

- Sea area offshore the Gan-u and Minamishiribeshi regions, Hokkaido Pref.
- Sea area offshore Hirono Town, Iwate Pref.
- Sea area offshore Sakata City, Yamagata Pref.

✓ Survey Items

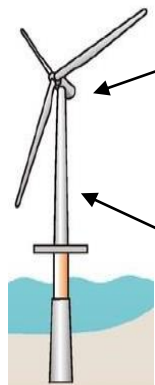
- Wind conditions
- Weather conditions
- Seafloor/Oceanographic survey
- Environmental Impact Assessment
- Fishery Impact Survey



7. Green Innovation Fund

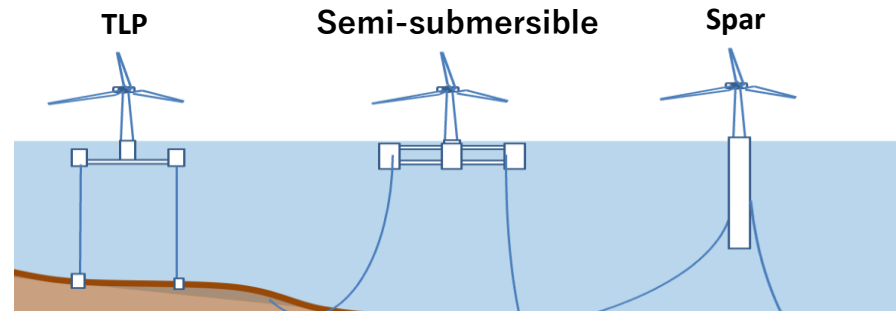
Phase 1: Development of elemental technologies [Budget amount: up to 34.5 billion yen]

① Wind Turbine Technology



- Nacelle internal components
【Daido Metal】: Bearing
【Ishibashi】: Accelerator
【NTN】: Bearing
- Tower
【Komai Haltech】

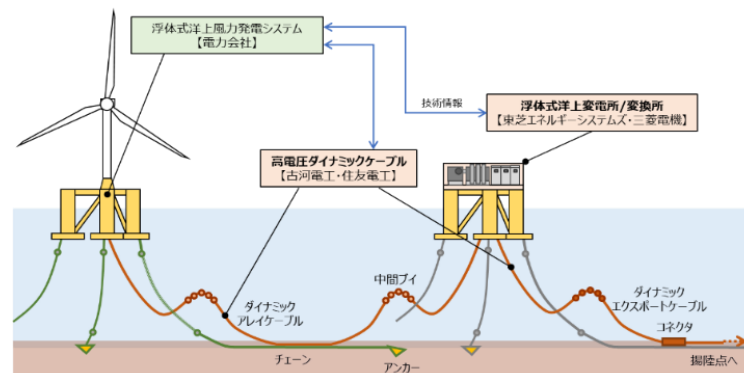
② Manufacturing and Installing Floating Foundations



- ① Modec etc.
- ② Hitachi Zosen etc.
- ③ Japan Marin United etc.
- ④ Tokyo Gas
- ⑤ TEPCO RP etc.
- ⑥ Toda Corporation

③ Wind-Related Electrical System Technology

【TEPCO RP etc.】
Dynamic Cable Offshore Substation



Source :
HP of TEPCO RP

④ Operation and Maintenance Technology

【Kansai Electric Power etc.】
Drone Inspection
【Furukawa Electric etc.】
Cable Laying Vessel (CLV)
【Tokyo Kisen etc.】
Service Operations Vessel (SOV)
【TEPCO RP, Toshiba】 【Hokutaku】 【NTN】 【Toda Corporation】
Digital Platform

Phase 2: Demonstration of floating system [Budget amount: up to 85 billion yen]

Conduct demonstrations of the integrated use of related technologies in the overall system while also utilizing these elemental technologies

Thank you



Ministry of Economy, Trade and Industry