

DOCKETED

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METI

Ministry of Economy, Trade and Industry

Japan's offshore wind policy

Oct.1, 2019

Takuya Yamazaki

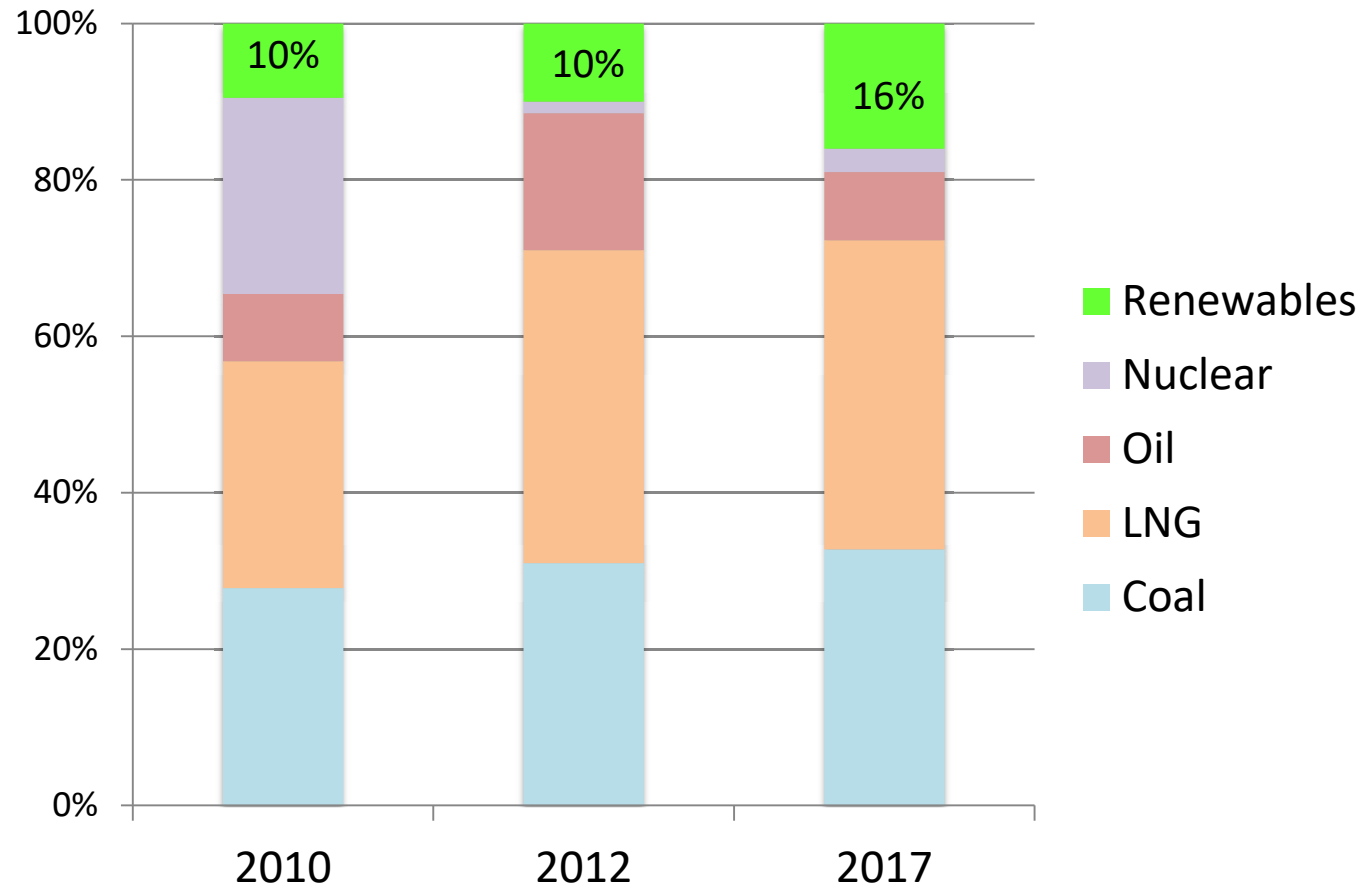
Principal Director,

Energy Efficiency and Renewable Energy Department,
Agency for Natural Resources and Energy (ANRE)

Big Policy Changes After 3.11: FIT to Renewables

FIT was introduced in 2012 and power generated by renewables has rapidly increased.

Power generation ratio (%)

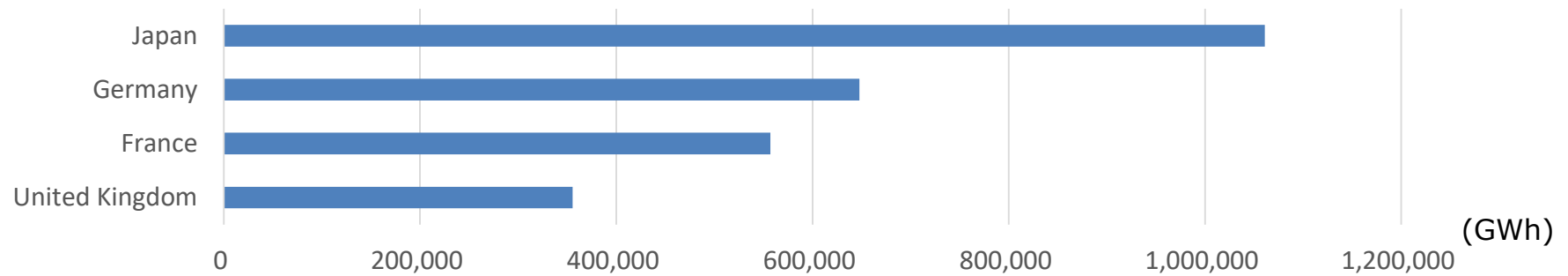


FIT (¥)		
	2012	2019
Solar Non-residential	40	14
Wind Onshore	22	19
Geo > 15MW	26	
Biomass wood	24	

RES integration in progress

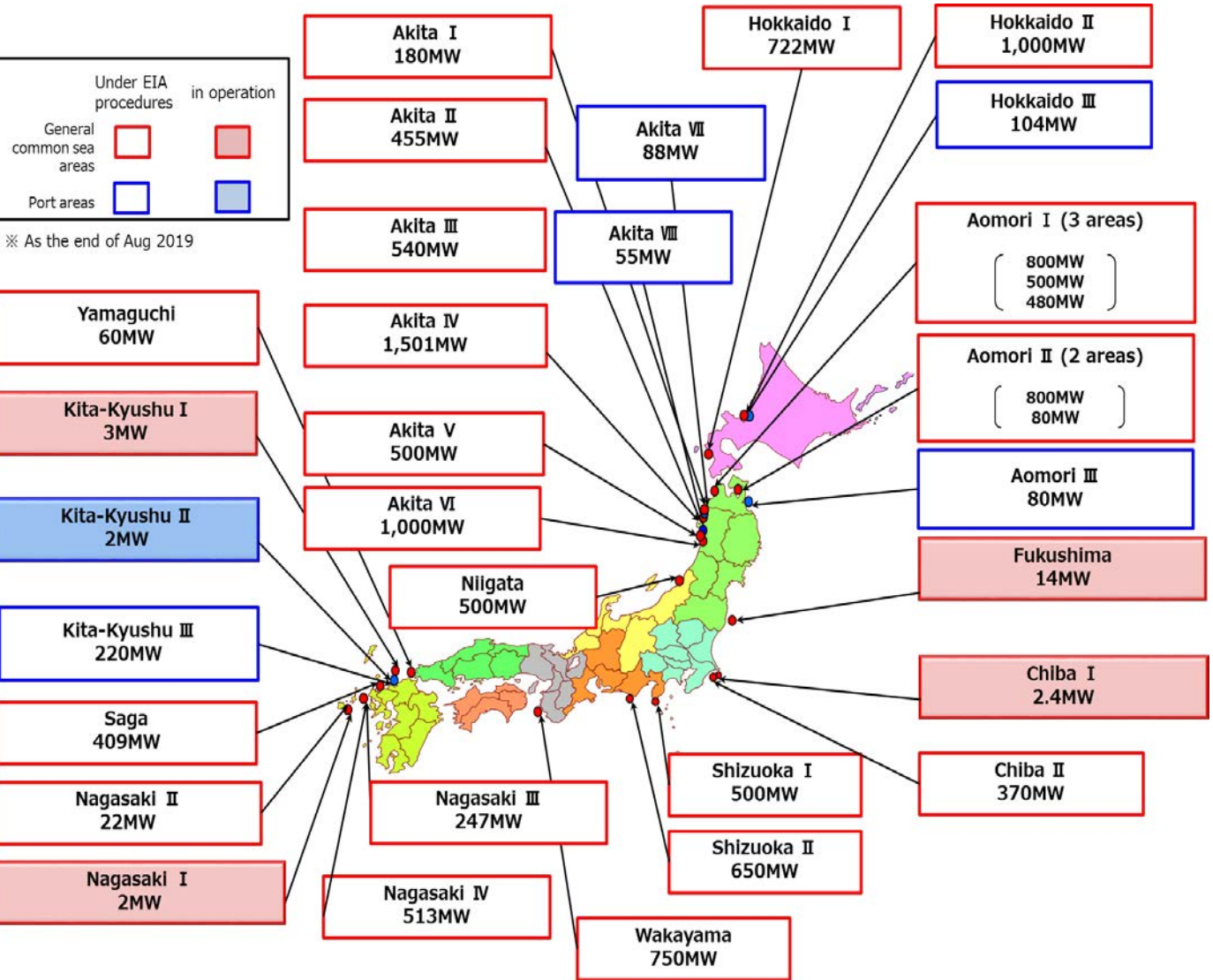
	Before FIT (June 2012)	After FIT [A] (as of March 2019)	Target [B] (FY2030)	Progress [A]/[B]
Geothermal	0.5GW	0.6GW	1.4 - 1.6GW	37%
Biomass	2.3GW	4.0GW	6.0 - 7.3GW	60%
Wind	2.6GW	3.7GW	10GW	37%
Solar PV	5.6GW	50.2GW	64GW	78%
Hydro (middle or small)	9.6GW	9.7GW	10.9 - 11.7GW	86%

<Total Electricity Output in 2017>



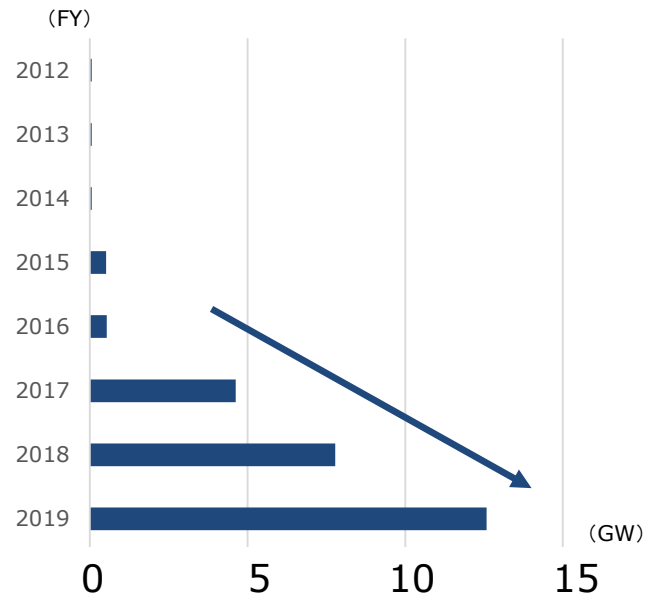
Planning Offshore Wind projects in Japan

The capacity of projects under the environment impact assessment (EIA) procedures is 13GW.



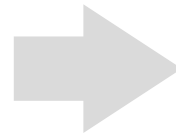
The capacity of projects under EIA procedures

Port areas	0.55 GW
General common sea areas	12.58 GW



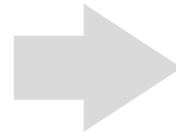
Challenges

Ocean use right



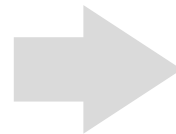
- ✓ Designate promotional zones
- ✓ Select developers by auction
- ✓ Grant 30 years' ocean use right

Consultation with fishermen



- ✓ Establish a consultation body led by the Government

High Cost



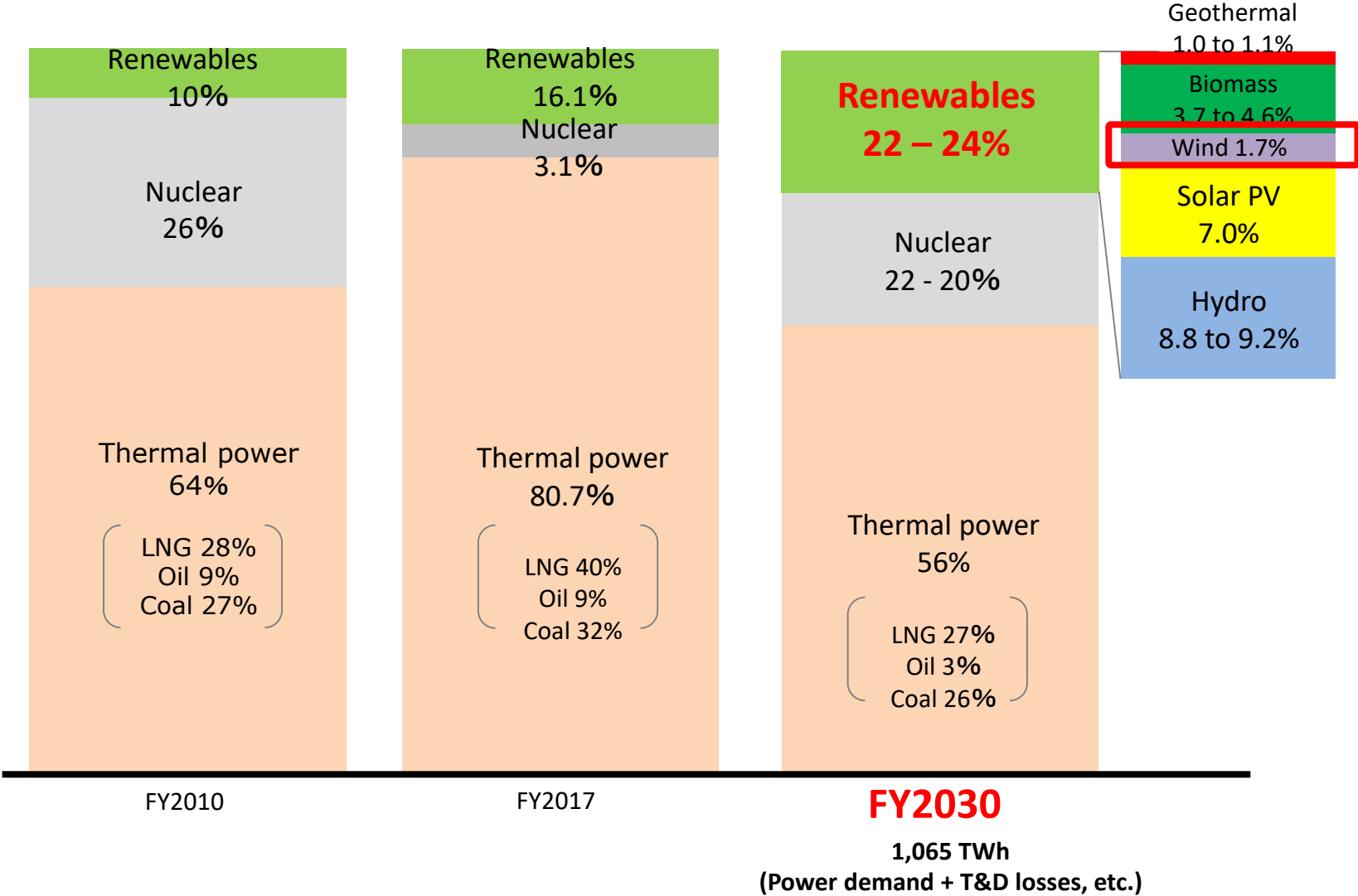
- ✓ Introduce cost-competitive mechanism

Key points of the procedure on OWPA

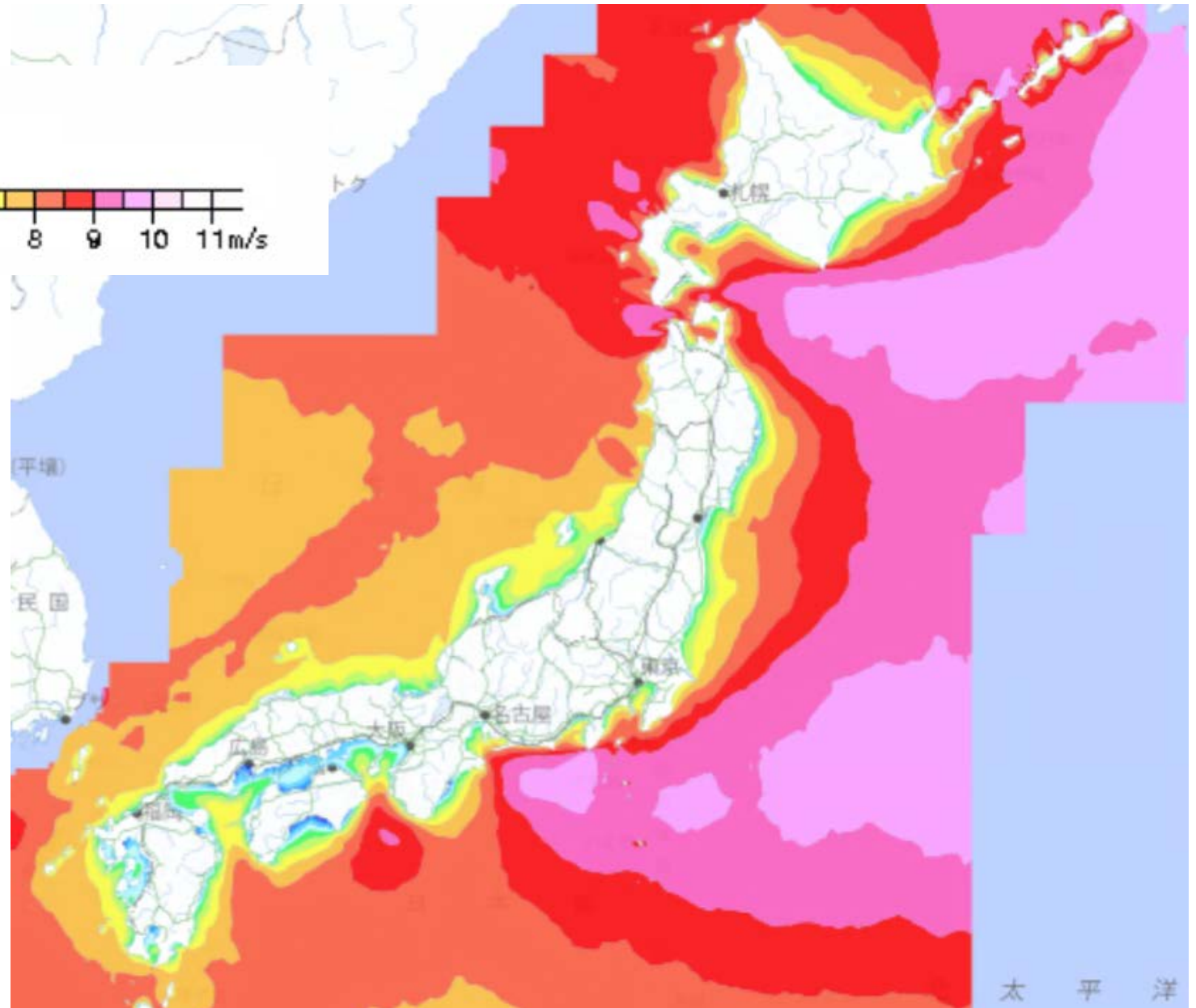
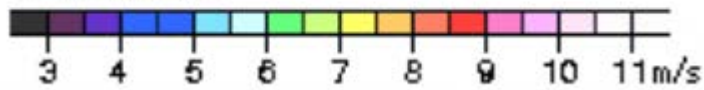
- Designating the promotional zones by the government on year-by-year basis with sustainable development point of view.
 - Approximately 1GW is the target capacity by a year.
 - Approximately 350MW is the target capacity for one zone.
 - The first round of the designation process already started from Apr. 2019, ending until the end of 2019 in the earliest.
 - 10GW target for wind in 2030 is not the limit.
- Auctions starting after designating the promotional zones as soon as possible, closing through the auction process for approximately 12 months.
 - Evaluating developers by both of price and project realization capability with technologically neutral point of view.

Appendix

Generation-mix target in 2030



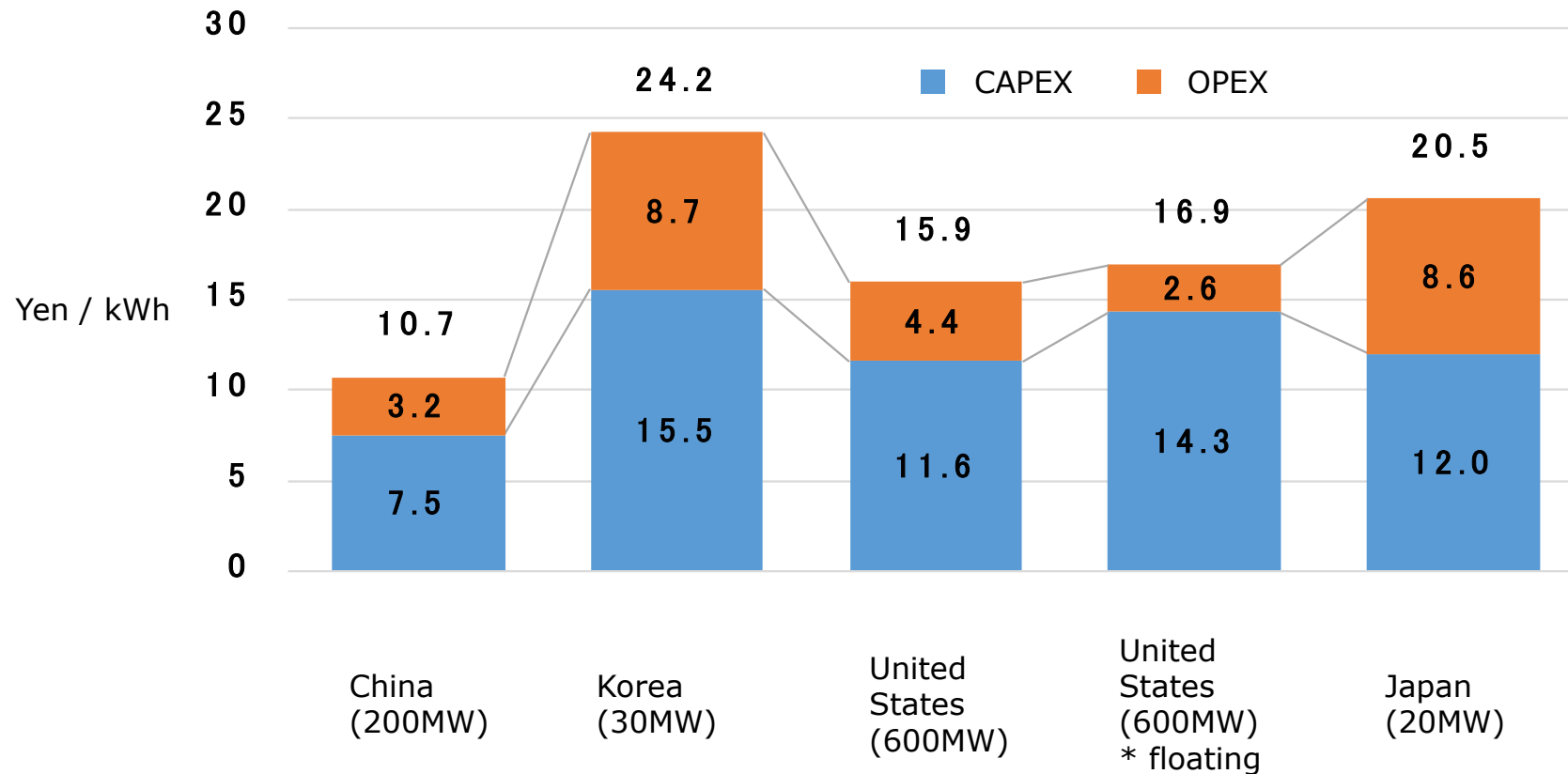
Average Wind Speed



Simulated by New Energy and Industrial Technology Development Organization (NEDO) in Japan.

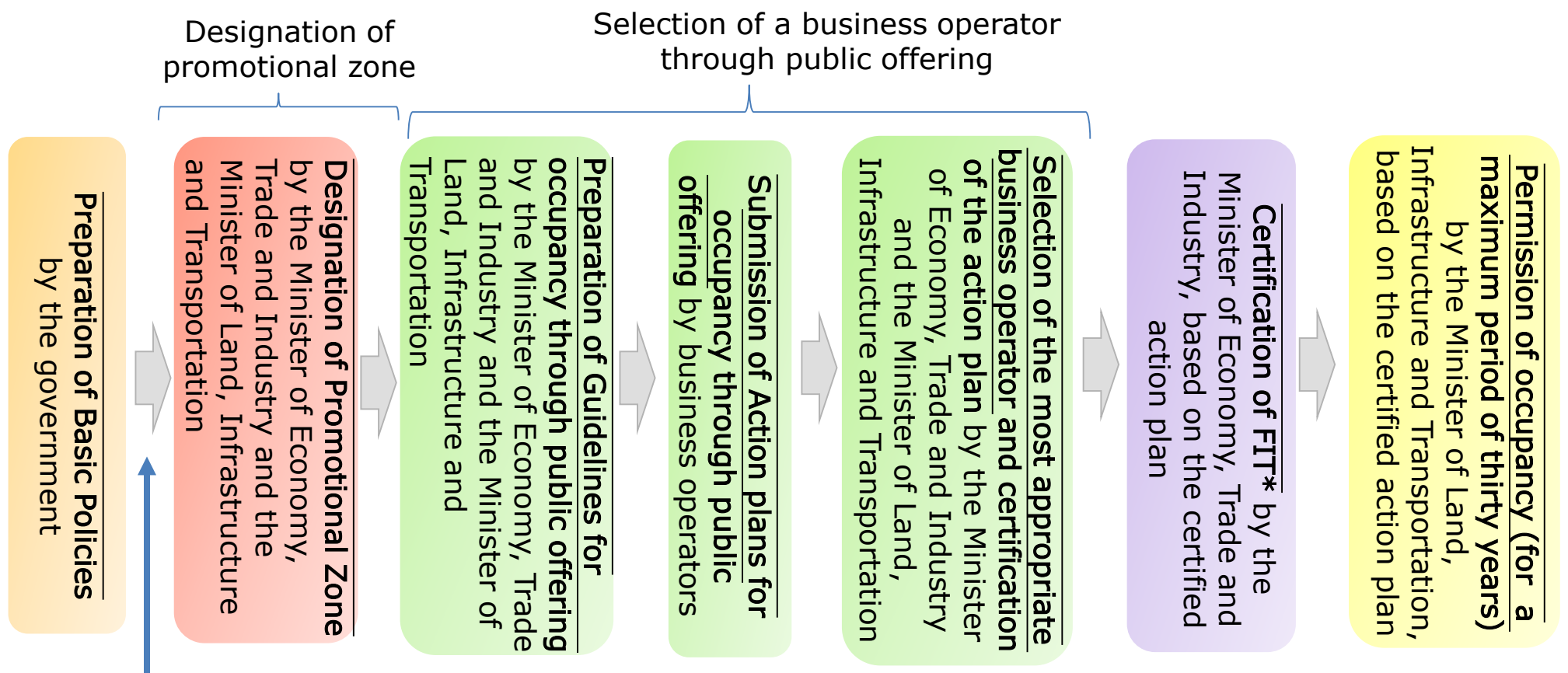
The Costs of offshore wind in Japan

- In Japan, the costs of offshore wind power is around 20 yen per kWh, and the tariff of FIT system is 36 yen per kWh.



* IEEJ, 2019

- The specific procedural flow based on OWPA is as follows.



Investigation of the conditions of zone by the Minister of Economy, Trade and Industry and the Minister of Land, Infrastructure and Transportation

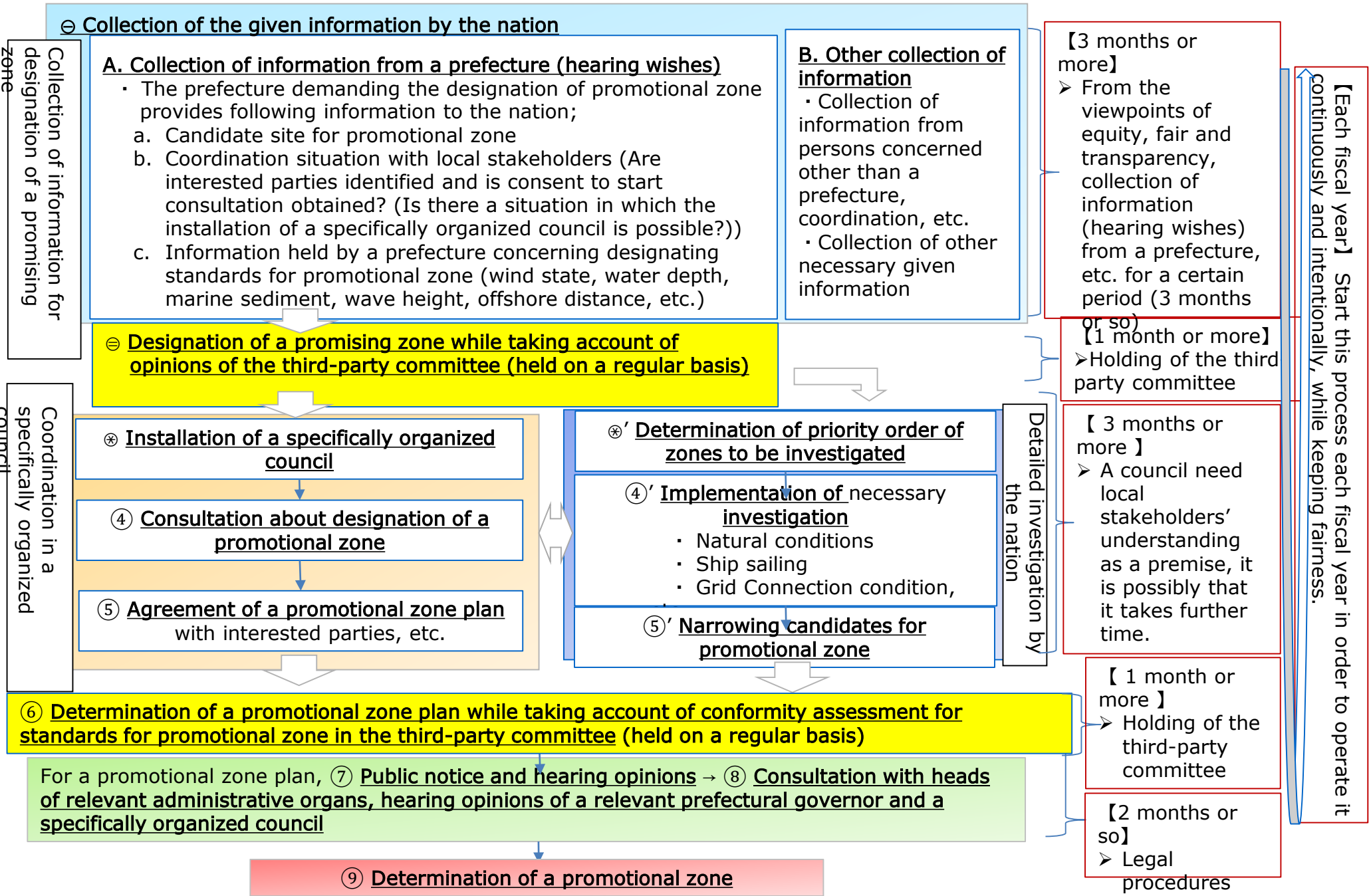
Consultation with the heads of relevant administrative organs such as the Minister of Agriculture, Forestry and Fisheries or the Minister of the Environment

Hearing opinions of a specially organized council in which prior users, etc. are members

Public notice of matters about designation of zone (it is possible for interested parties to submit opinions)

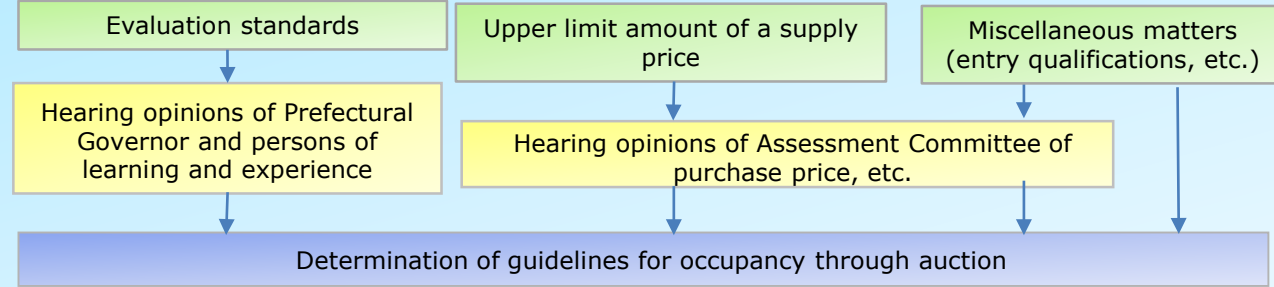
* Certification of the power generation business plan by the Minister of Economy, Trade and Industry under Article 9 of the Act on Special Measures Concerning Procurement of Electricity from Renewable Energy Sources by Electricity Utilities

Outline of designating process for promotional zone



<Designation of promotional zone>

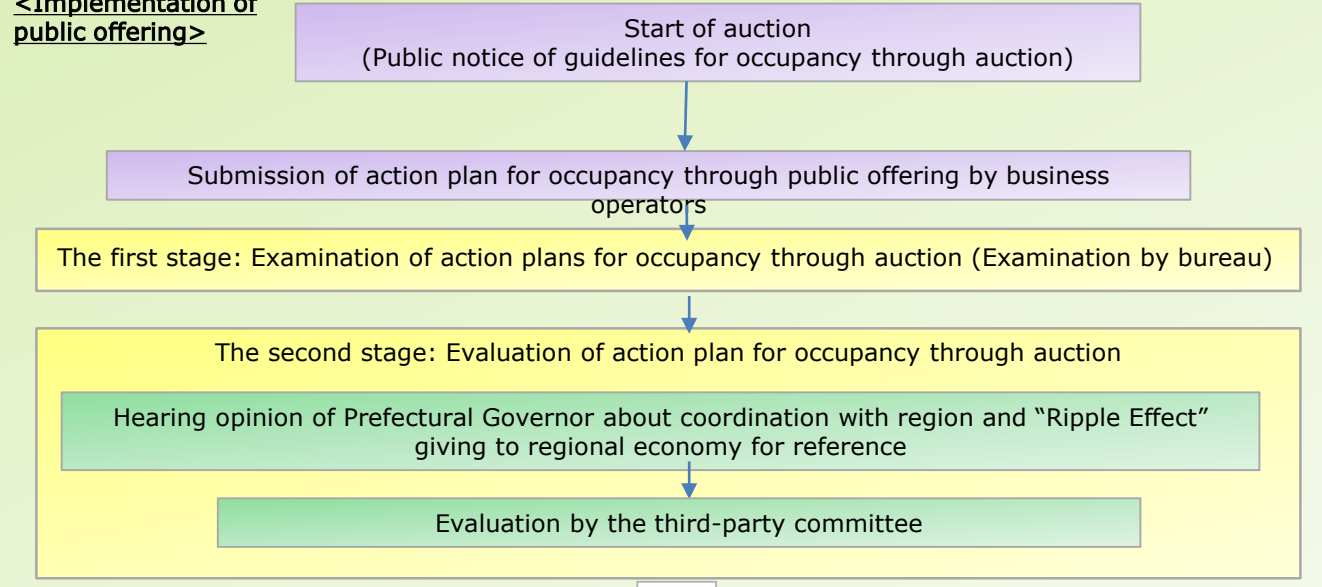
<Preparation of guidelines for occupancy through public offering based on "Guidelines for operating the system for occupancy through public offering (provisional name)" >



Investigation by the nation (Provision of necessary information for public offering)

[2 months or more]
 > Draft of guidelines for occupancy through public offering is prepared taking into consideration of situations at regional level while hearing opinions of Prefectural Governor, etc.

<Implementation of public offering>



[6 months in general]
 > Necessary period for public offering is 6 months in general.

[2 months or more]
 > Necessary period for conformity assessment is 2 months or so.

[3 months or more]
 > Necessary period for evaluation is 3 months or so.

<Selection of a developer>