Japan's experience of renewable energy deployment as a climate change policy

Masaki Suzuki
Director General
Global Environment Bureau
Ministry of the Environment, Japan

Joint Japan-IRENA Workshop on May 26, 2012

Contents

- Recent discussion on energy and environment
- Renewable energy (RE) introduction potential in Japan
- Feed-in tariff from July 2012
- Floating offshore wind turbine demonstration project

Discussion for the future energy and environmental policy

- In spring: options for the energy and environmental strategy in terms of nuclear power policy, energy mix and climate change will be prepared
- In summer: through national debate, the innovative energy and environmental strategy will be determined

- In this regard, the Central Environment Council has discussed the options concerning climate change, integrally with ones concerning energy mix

Discussion points on climate change policy after 2013

1. Eyeing the long-term goal shared in the world

- Hold the increase of global average temperature below 2°C
- Achieve the goal of 50% reduction of global emission and 80% reduction of emission in developed countries by 2050
- Set out new targets towards 2020 and 2030 with no preconditions

2. Indicating explicit direction of aiming at realization of low carbon society which leads the world and takes future in advance

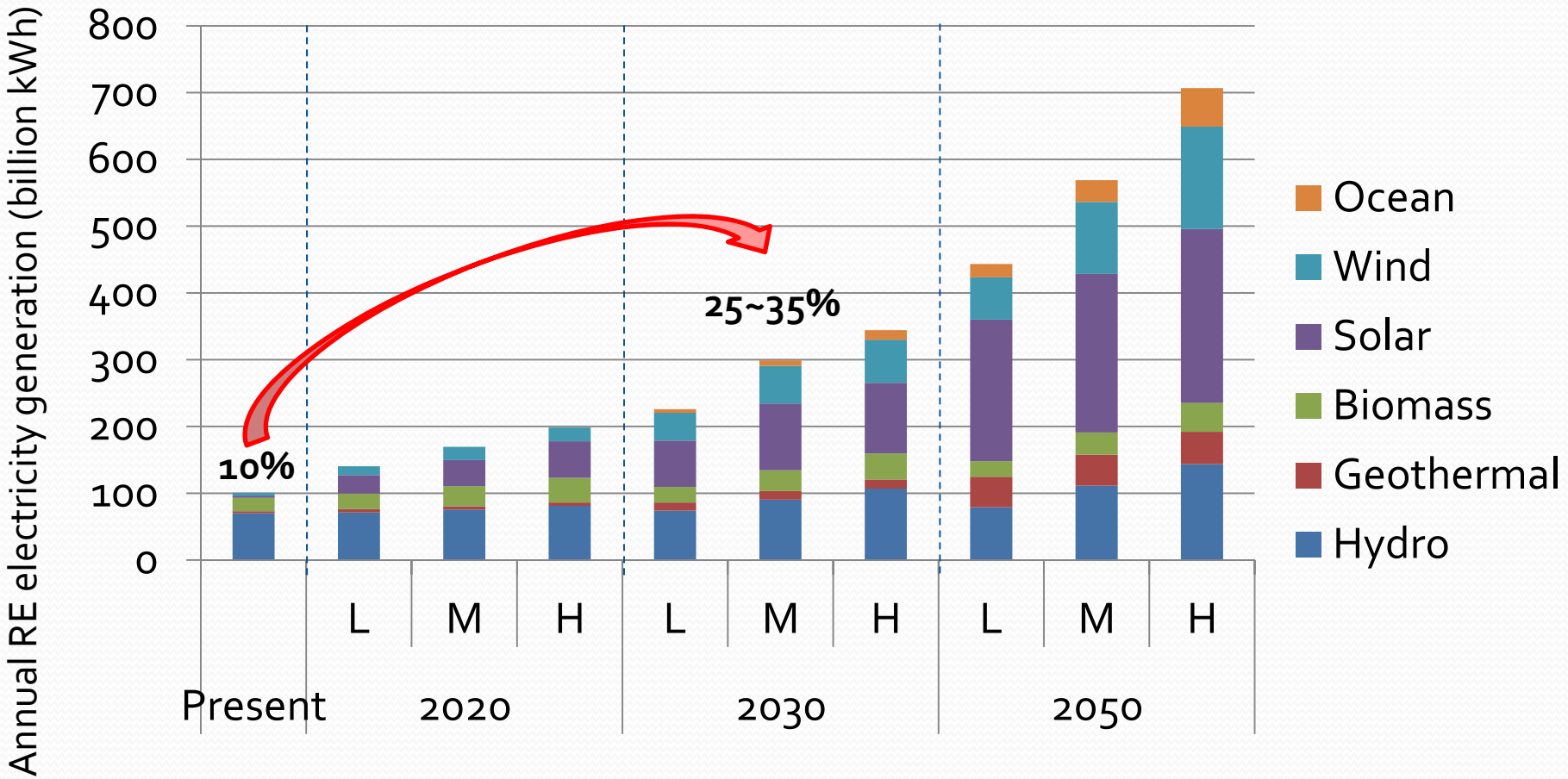
- The world's highest energy-saving technology unsurpassed by others
- Improve renewable energy up to the world's best standards
- Contribute to the global emission reduction by these technologies

3. Showing necessary measures for realization of low carbon society which leads the world and takes future in advance

- Show measures which support global warming countermeasures

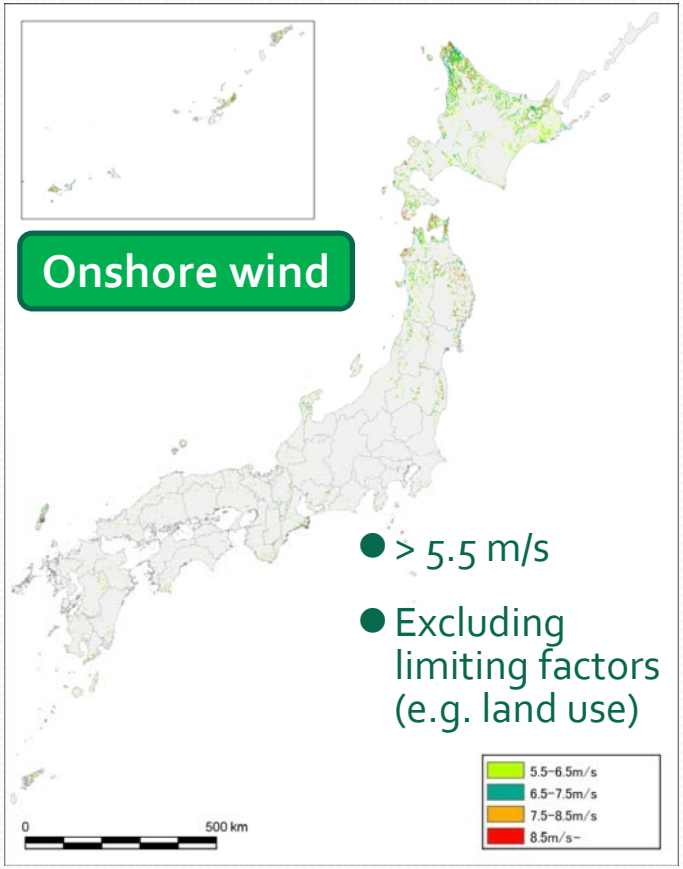
→ Realization of World's Leading "Green Growth Country"

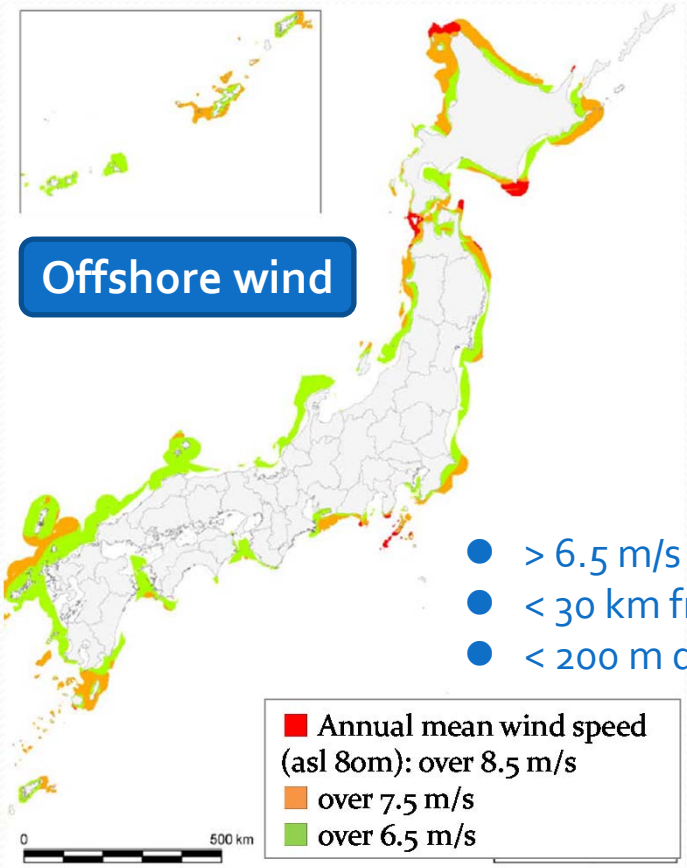
Provisional calculation of RE introduction in electricity



L = low, M = middle, H = high : Intensity of measures and efforts

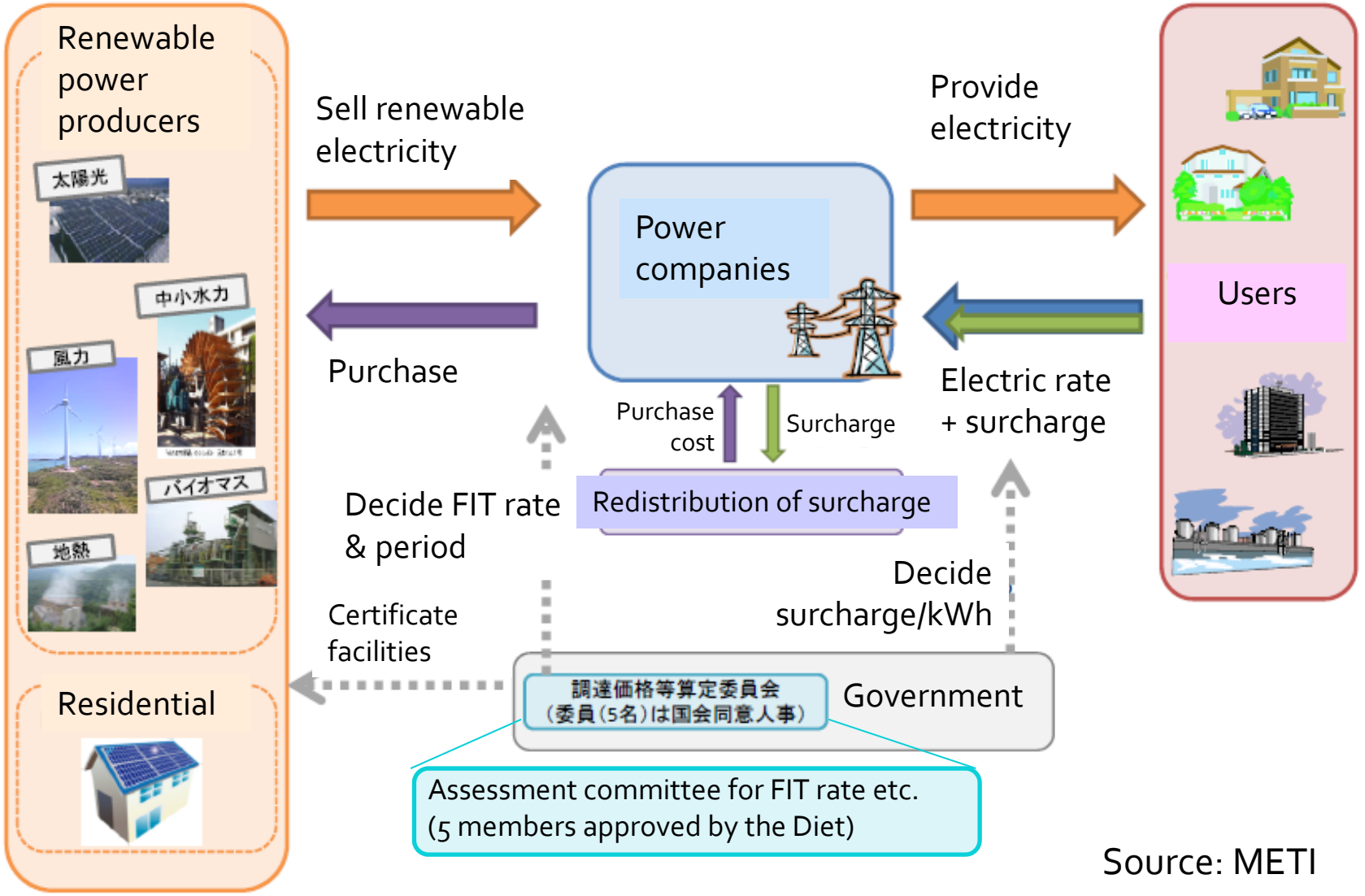
Large RE introduction potential in Japan





Onshore	283 million kW
Offshore, fixed (< 50 m depth)	299 million kW
Offshore, floating (> 50 m depth)	1,273 million kW

Feed-in Tariff (FIT) from July 2012



Source: METI

Draft feed-in tariff rate and period proposed by the Assessment Committee on FIT Rate and Period

Source	Capacity or Category	Rate, tax incl. (JPY per kWh)	Period (year)
PV	≥ 10 kW	42.00 yen	20
	< 10 kW	42.00 yen	10
Wind	≥ 20 kW	23.10 yen	20
	< 20 kW	57.75 yen	
Geothermal	≥ 15000 kW	27.30 yen	15
	< 15000 kW	42.00 yen	
Hydropower	1000 - 30000 kW	25.20 yen	20
	200 - 1000 kW	30.45 yen	
	< 200 kW	35.70 yen	
Biomass	Biogas	40.95 yen	20
	Lumber, unused	33.60 yen	
	Lumber, general	25.20 yen	
	Waste biomass	17.85 yen	
	Lumber, recycled	13.65 yen	

(1 USD ≈ 80 JPY)

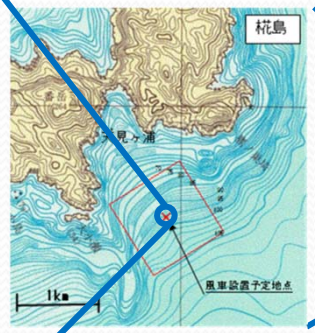
Floating offshore wind turbine demonstration project

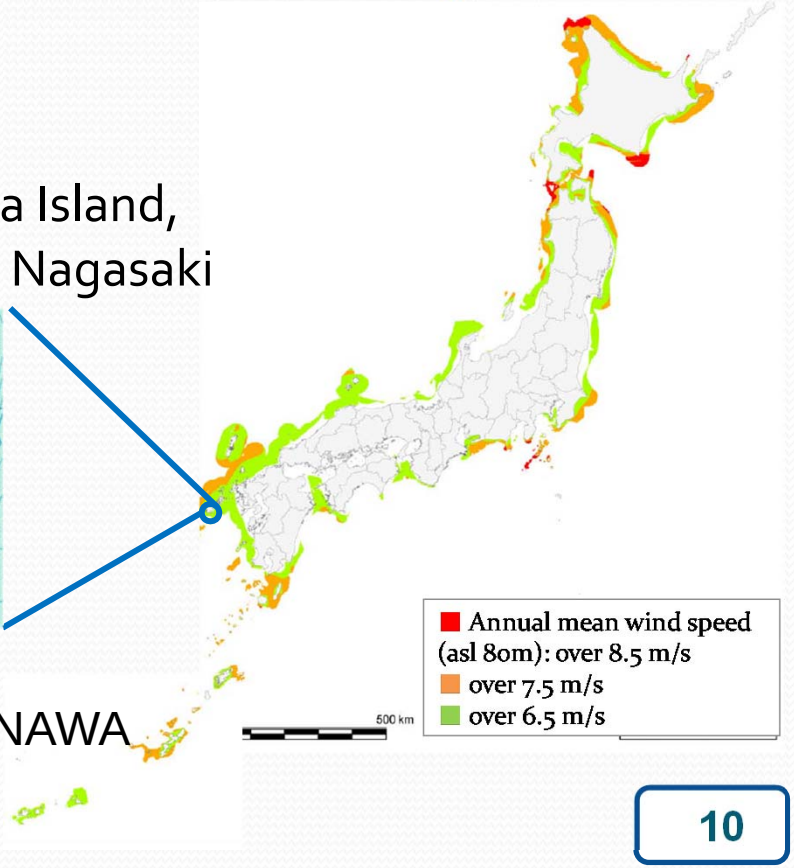
- Background:
  - Japan has 6th largest sea space (as EEZ), thus large potential for offshore wind
  - Japanese sea generally has steep seabed → suitable for floating platform (depth > 50m)
- Objective: demonstrating the first full-scale (2MW) floating offshore wind turbine in Japan
- Duration: FY2010-2015
- Location: Kabashima Island, Goto City, Nagasaki

Project work plan

- A **small-scale 100kW turbine** will be <u>installed next week and operational in this summer</u>
- A **full-scale 2MW turbine** will be <u>operational in summer 2013</u>

Kabashima Island,
Goto City, Nagasaki





OKINAWA

Thank you for your attention