

APEC EGNRET 53, Seoul, Republic of Korea

RE updates-Japan

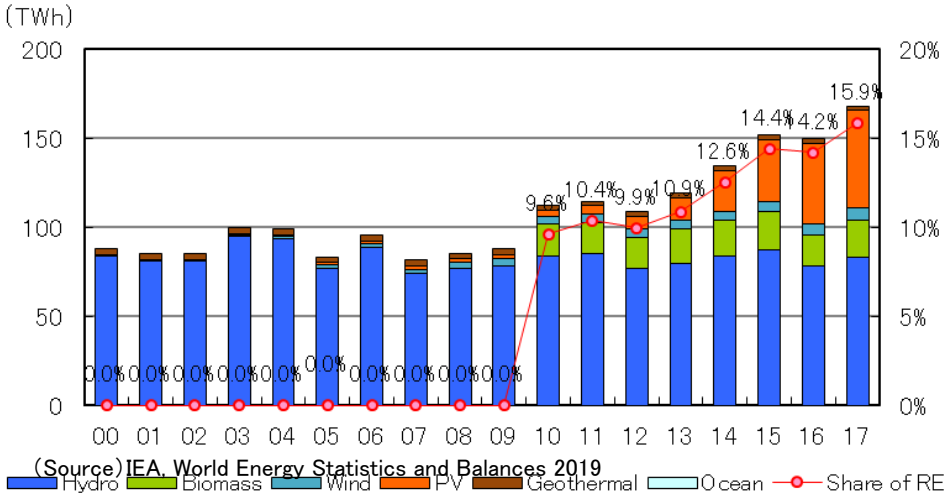
October 23rd, 2019

Takao Ikeda
The Institute of Energy Economics, Japan
(IEEJ)



Current status of Renewable Energy Share in Japan

RE Share in Electricity

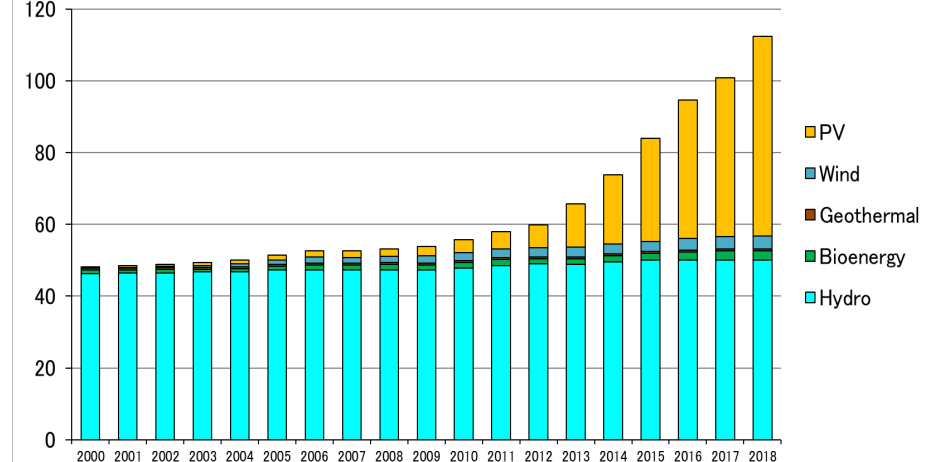


RE Heating/Cooling in 2017(10¹⁰kcal)

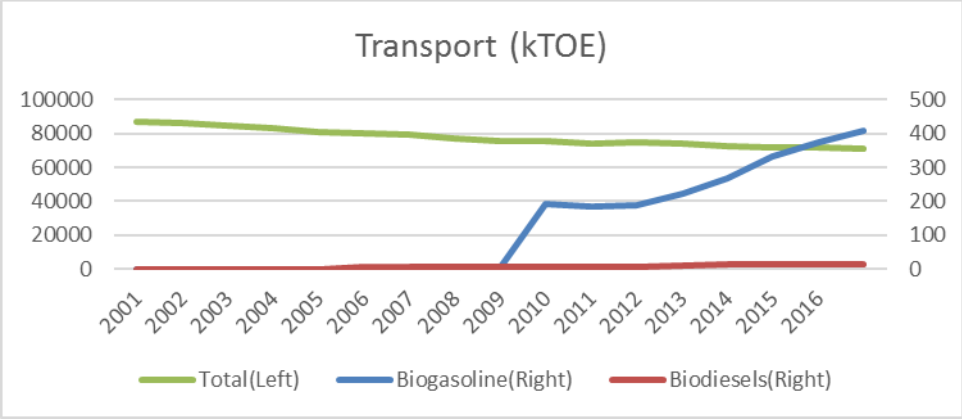
Solar Heat	231
Geothermal(Direct Use)	647
Waste to Energy	1,760

(Source) EDMC, IEEJ

RE Capacity in Electricity (TTL Power Capacity 300GW)



Transport (kTOE)



Renewable Energy Target in Japan

➤ 5th Energy Master Plan (2018)

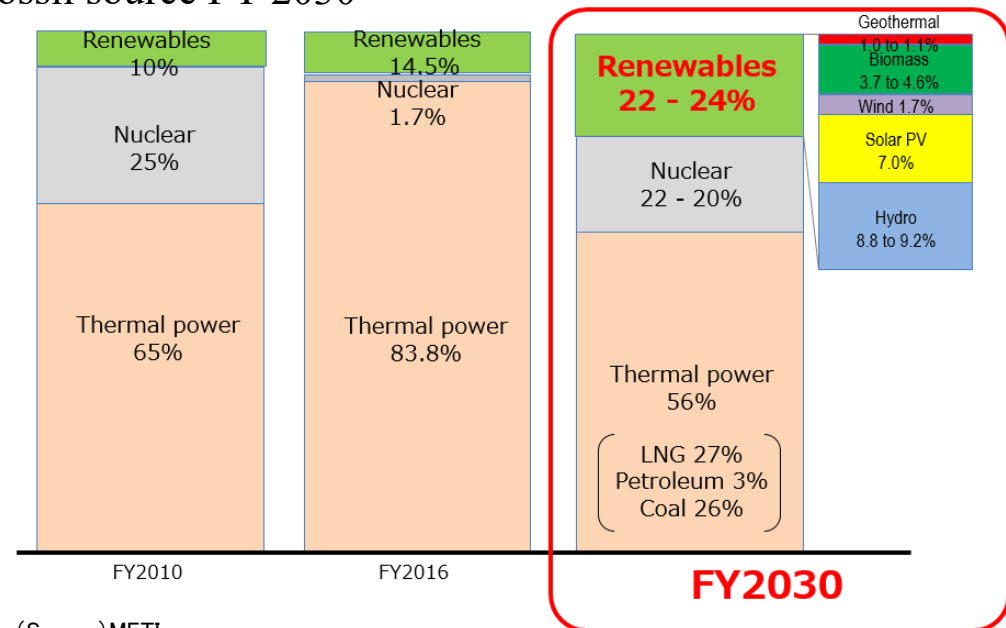
- 22-24% Renewable Energy in Electricity Mix (20-22% Nuclear) in 2030
- Target is not changed from previous version

➤ Law regarding Advanced Energy Supply Structures (2010 Nov)

- Law regarding promote the effective utilization of raw materials of fossil energy and use of non-fossil energy sources (Law regarding Advanced Energy Supply Structures) was passed in July 2009.

Related ministerial order including ethanol introduction target was in effect in November 2010

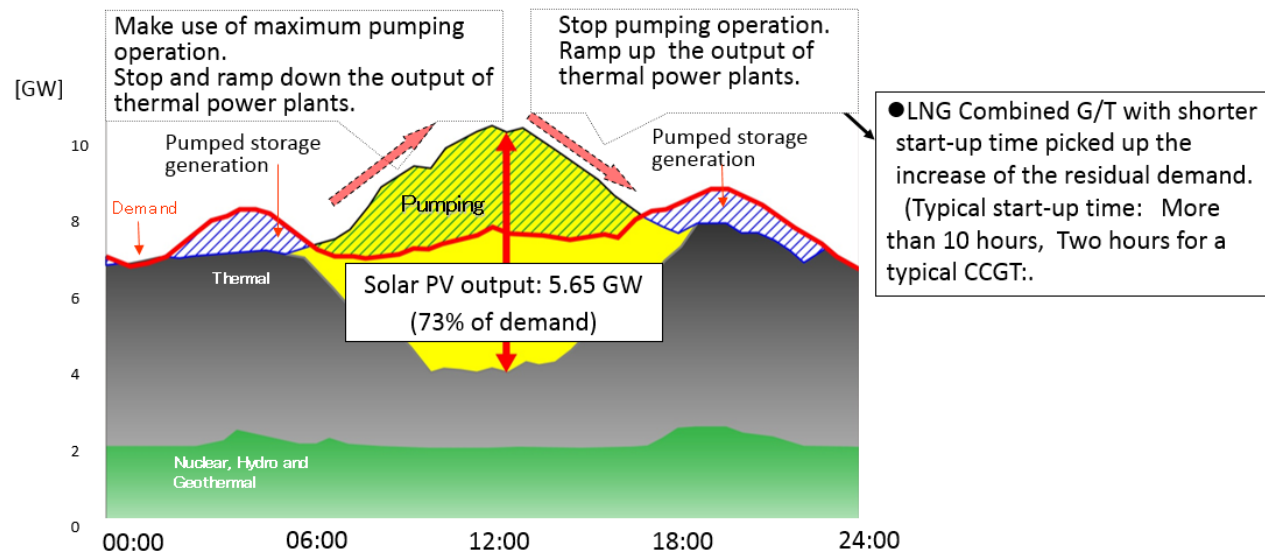
- Mandate of biofuel usage from FY 2011 to FY 2017 and extended to FY2022
- Mandate of 44% of electricity from non-fossil source FY 2030



(Source) METI

Main Issues for promoting Renewable Energy

- Cost Reduction
- After FIT (some rooftop PV FIT will finish the contract from 2019)
- Limitation of T&D grid
(RE potential is different from current T&D system location)
- Output fluctuation from Variable Renewables
- Solar PV accounts for 95% in newly installed capacity under FIT
(Need diversification to increase other renewables)



Policy for Promoting Renewable Energy

- Law regarding Advanced Energy Supply Structures (2010 Nov)
(Mandate non-fossil fuel and non-fossil electricity)
- FIT is key policy for promoting Renewable Energy after 2012
*Consideration of new promotion policy after FIT is started
- Auction system for large PV is started from 2017 which is expanded to Biomass from 2018. (For Cost Reduction)
*Auction for Large PV is currently over 0.5MW (Over 2.0MW previously)
- New private RE transmission company/Japanese version of Connect & Manage (T&D limitation)
- “Act on Promotion of Utilization of Sea Areas for the Development of Marine Renewable Energy Generation Facilities” passed in November 2018 (For increase offshore wind)

Thank you for your attention!