

# Status and Trends of Renewable Energy In Japan

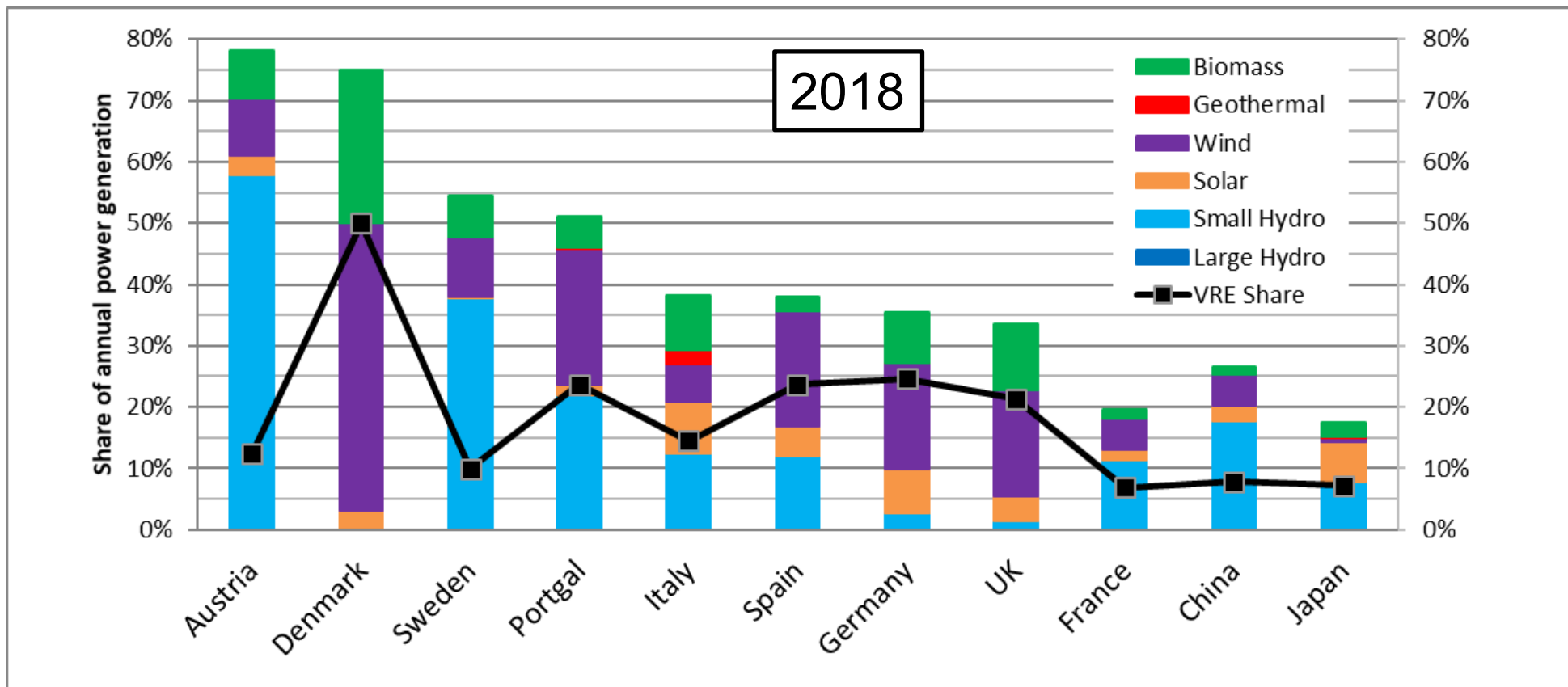
Apr. 5th, 2019

*Institute for Sustainable Energy Policies, Tokyo, Japan*

<http://www.isep.or.jp/en>

# Share comparison of renewable energy power generation

Share of renewable energy power generation in European countries are greater than Japan.

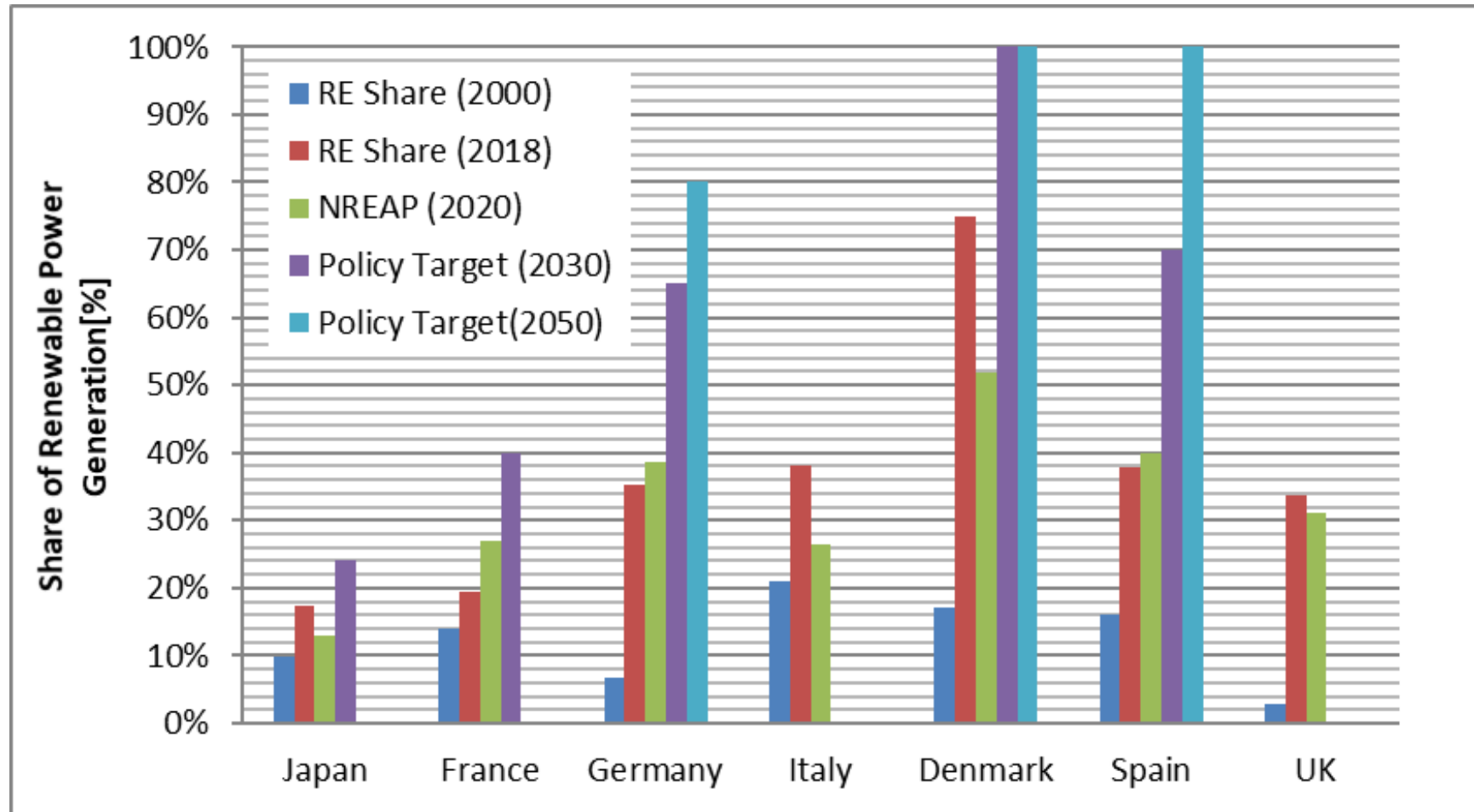


\* VRE(Variable Renewable Energy)

Source: Agora Energiewende “The European Power Sector in 2018”, etc.

# Share trends and Policy target of renewable energy

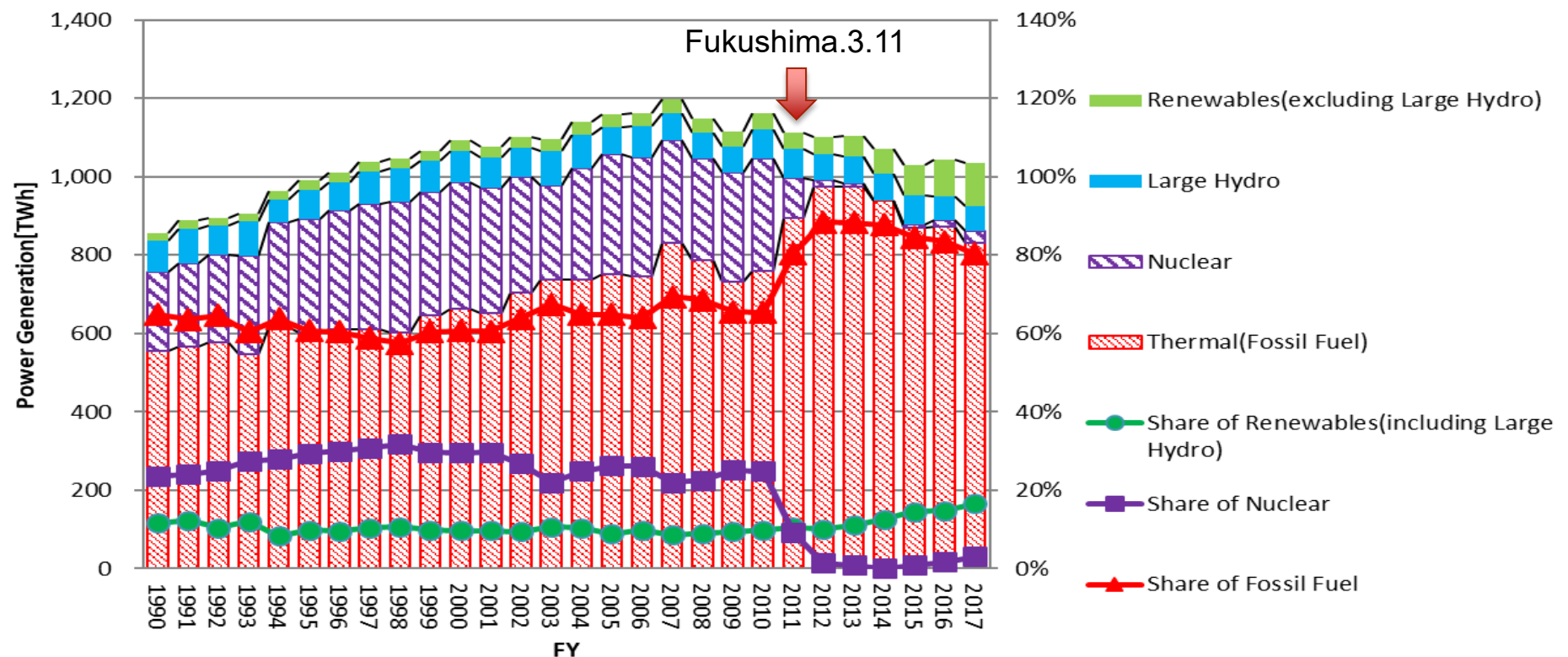
- EU directive causes renewable energy target of 2020 based on NREAP for each country in EU
- 2030 energy mix of renewable energy in Japan is 22 – 24%, which corresponds to recent RE share of EU countries.



# Trends of Power Generation in Japan

- Ratio of renewable energy is 10% which remained unchanged for the past two decades
- Ratio of renewable energy power generation increased to 16.7% in FY2017.

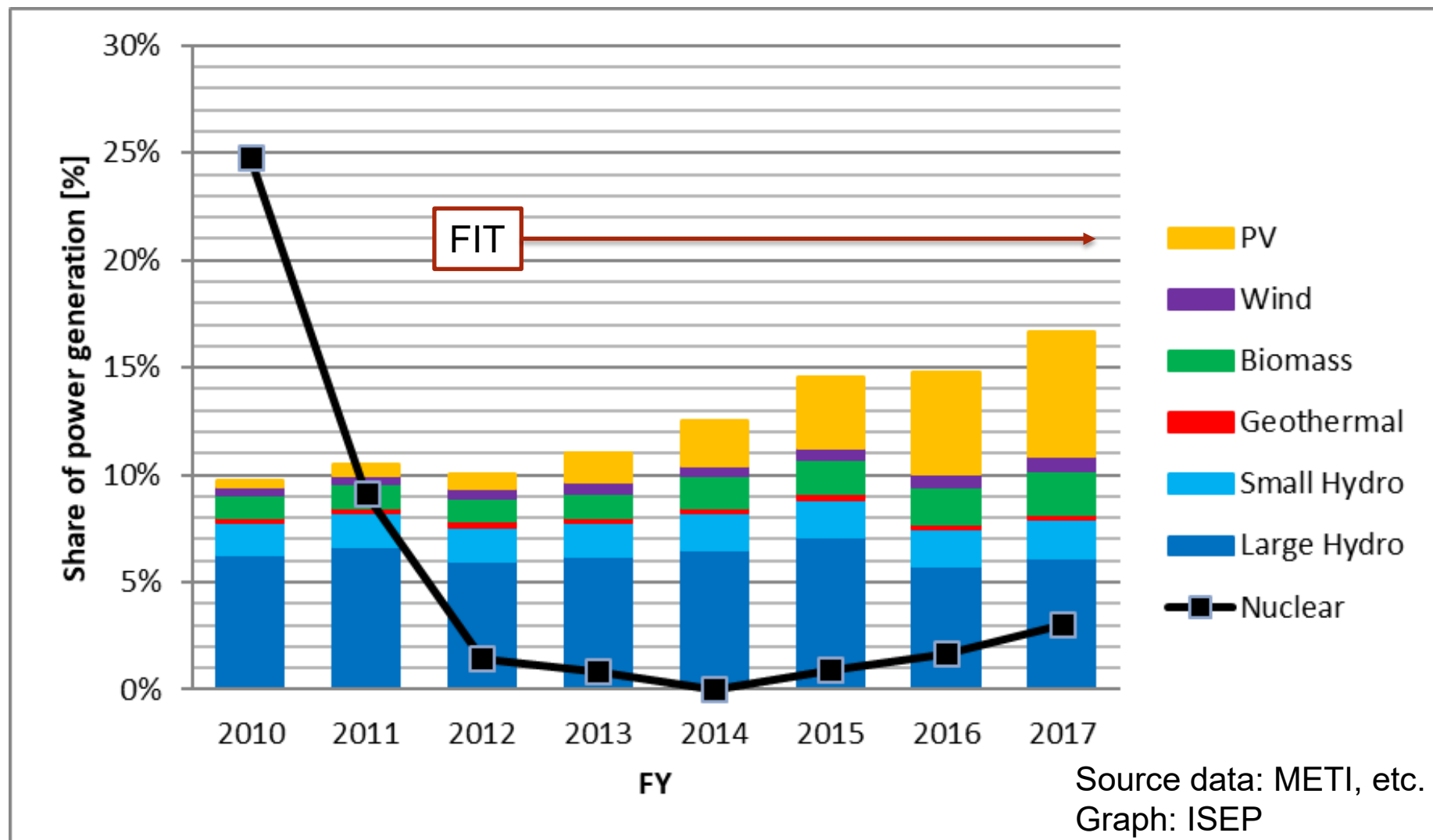
**Power Generation in Japan(FY1990 - 2017)**



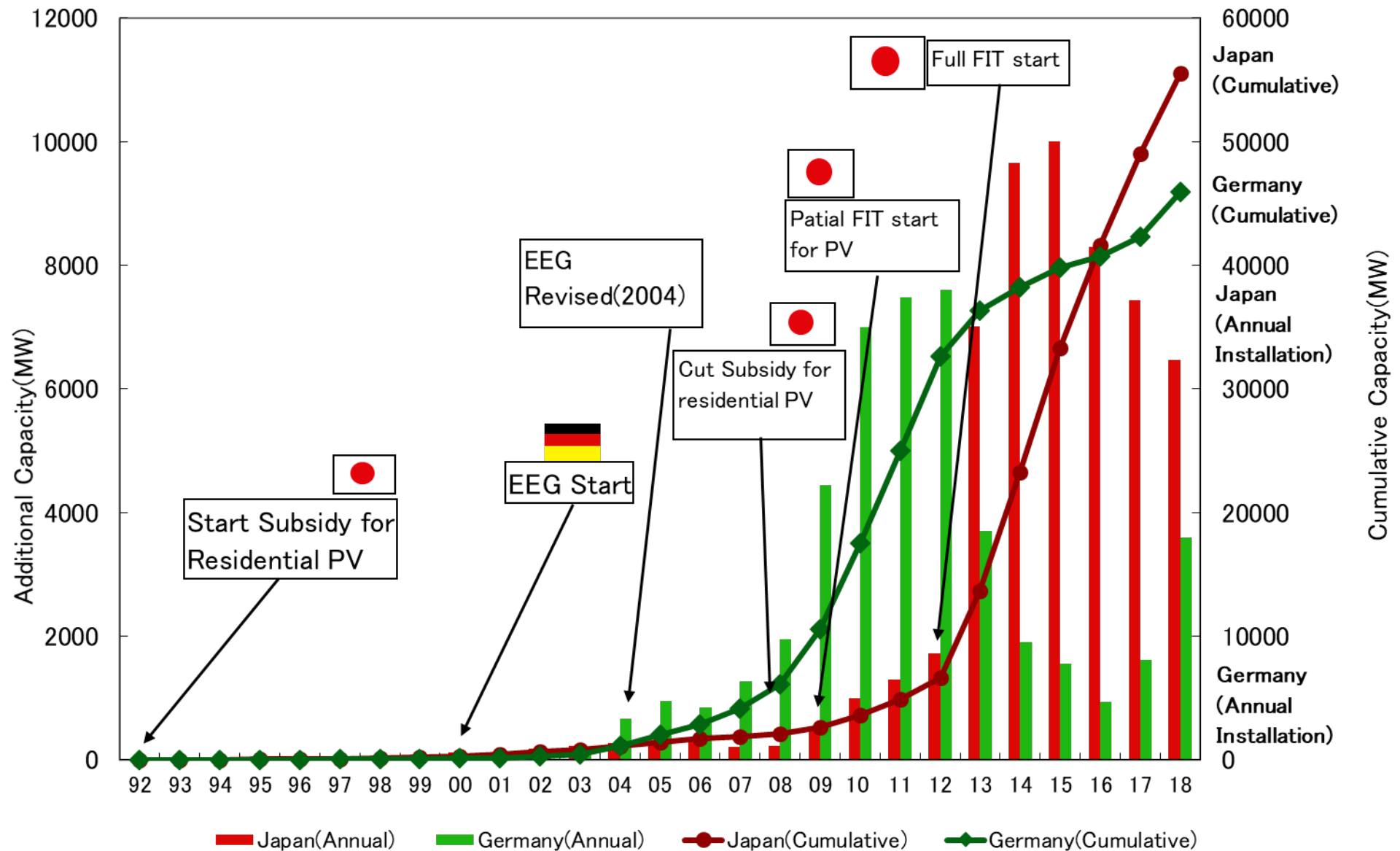
Source data: METI, etc.  
Graph: ISEP

# Trends of Renewable Electricity Supply in Japan

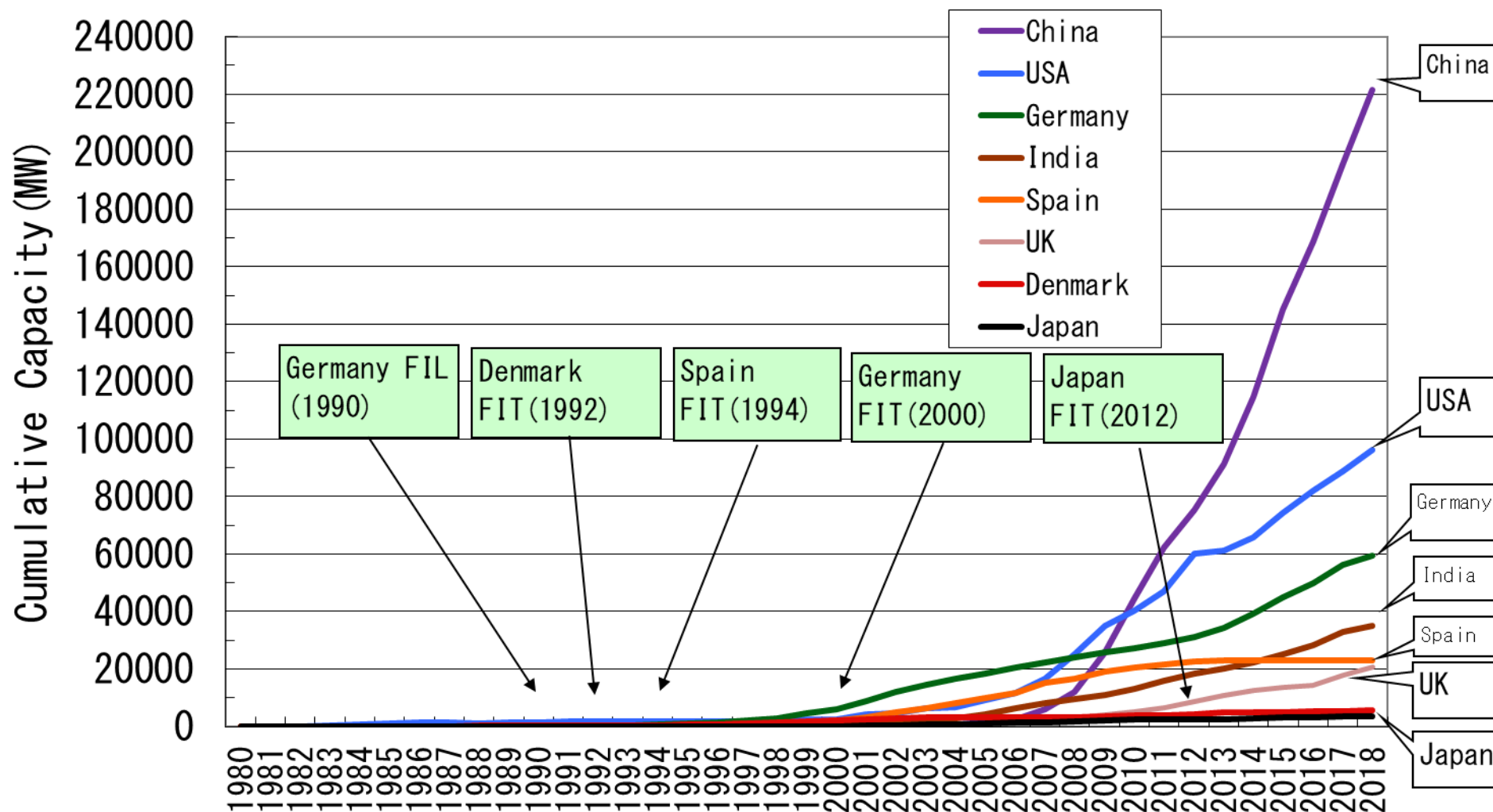
Share of renewable energy power generation increased to 16.7% in FY2017



# Trends of Solar PV installation in Germany and Japan



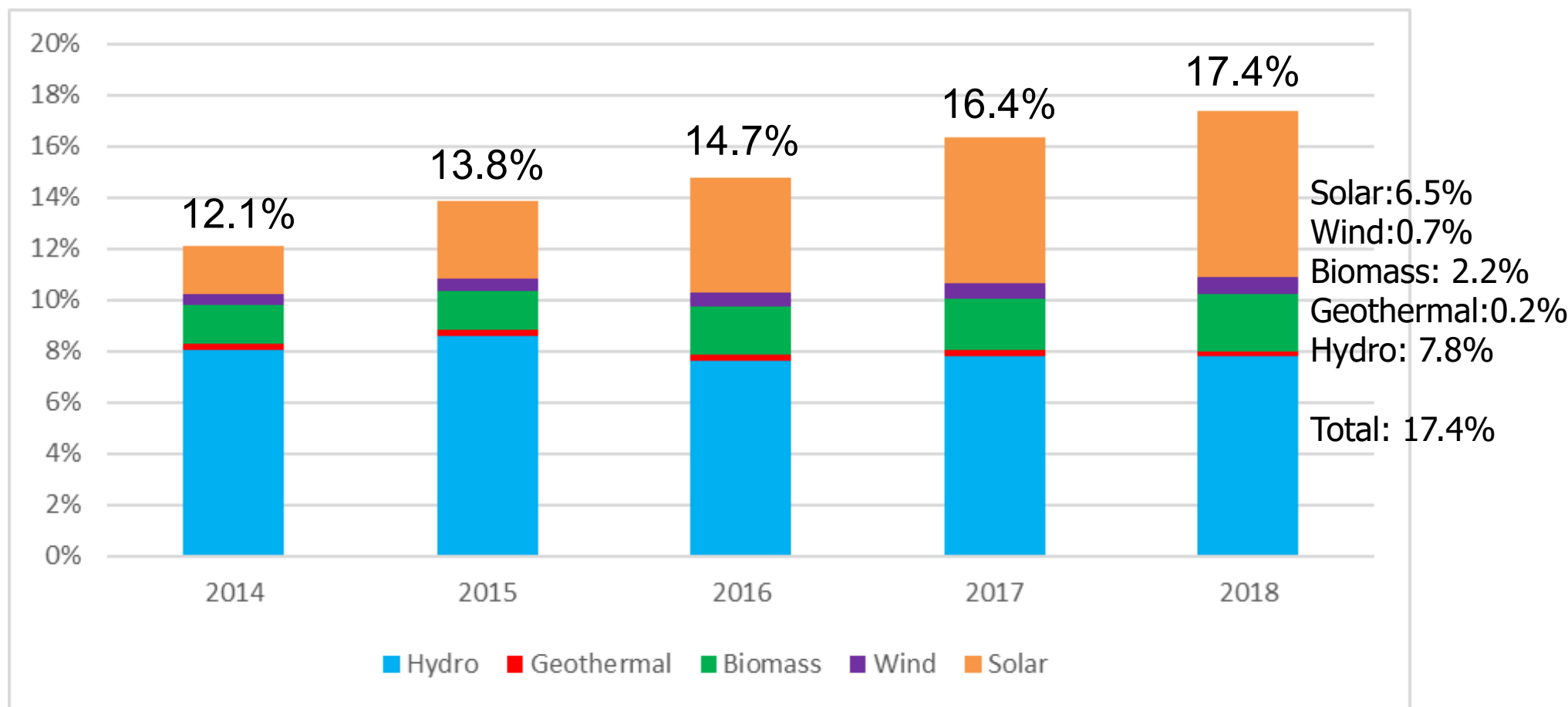
# Trends of Wind Cumulative Capacity



Source data: GWEC and WWEA

# Trends of Renewable Electricity Supply in Japan

- Share of renewable energy power generation increased to 17.4% in 2018
- In 2018, share of solar PV Increased to 6.5%.

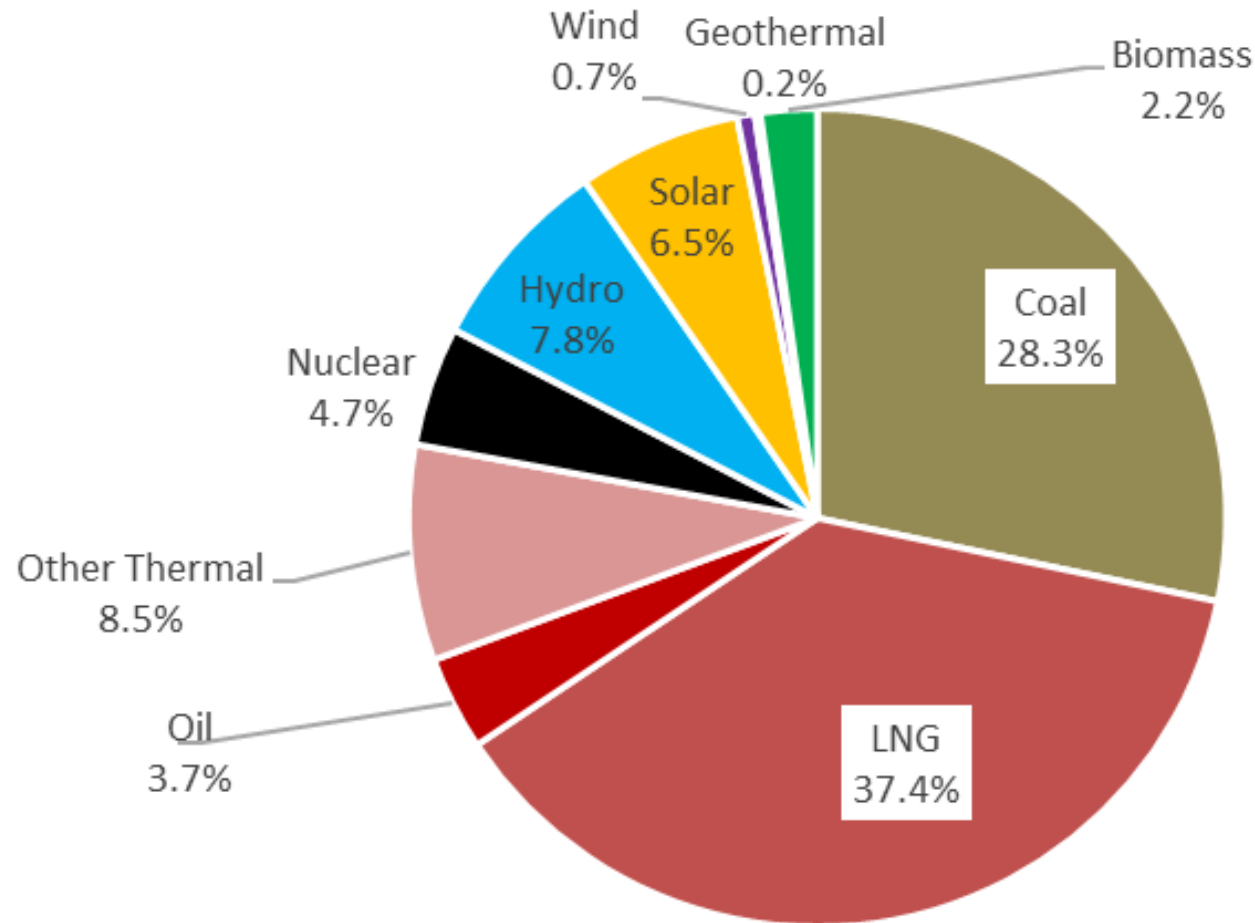


Source: METI, ISEP



# Power mix in Japan (2018)

Share of renewable energy power generation increased to 17.4% in 2018

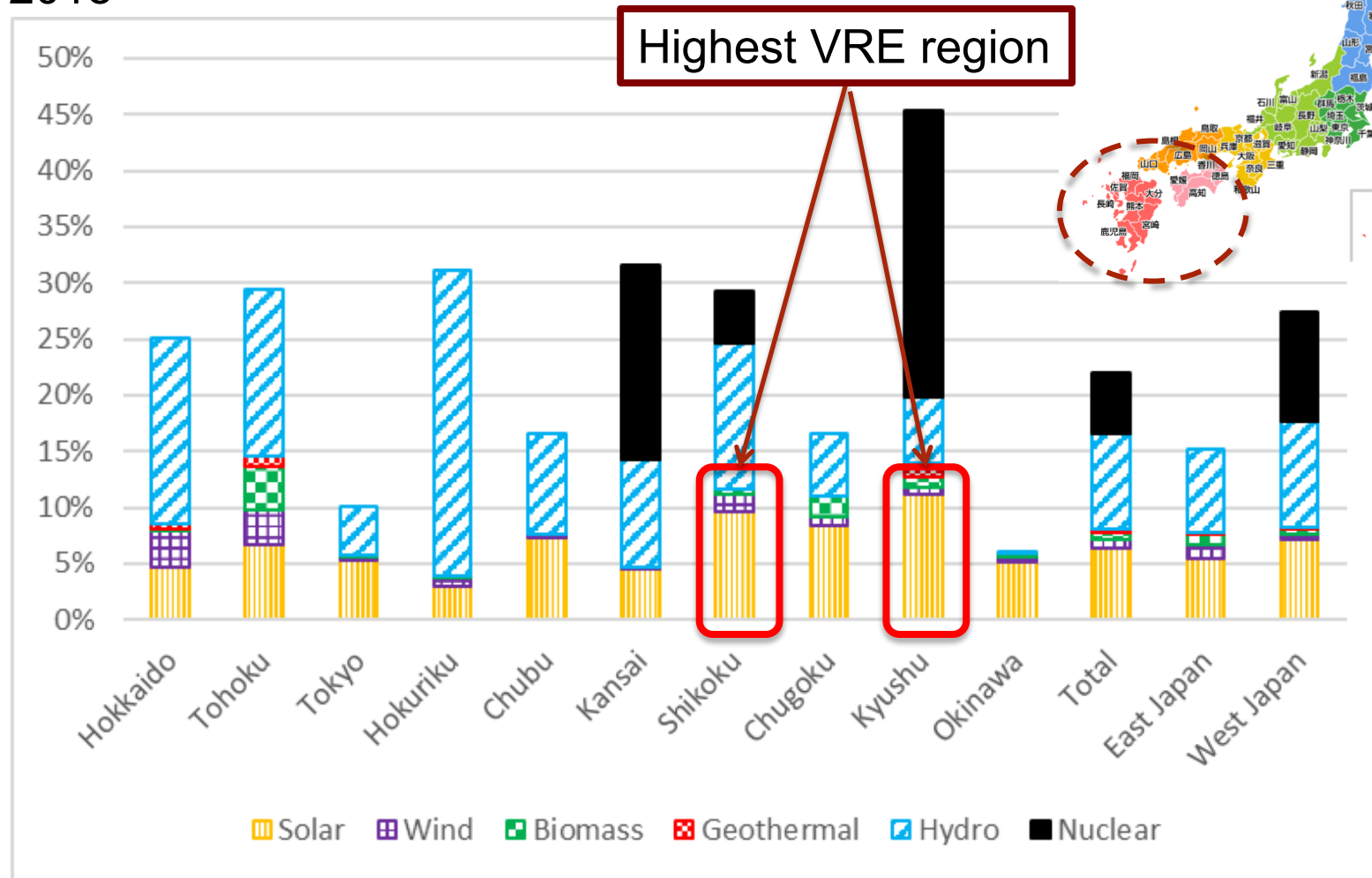


*Source: METI, ISEP*

# Share of renewable electricity and VRE in each area

※VRE: Variable Renewable Energy(PV and Wind)

2018

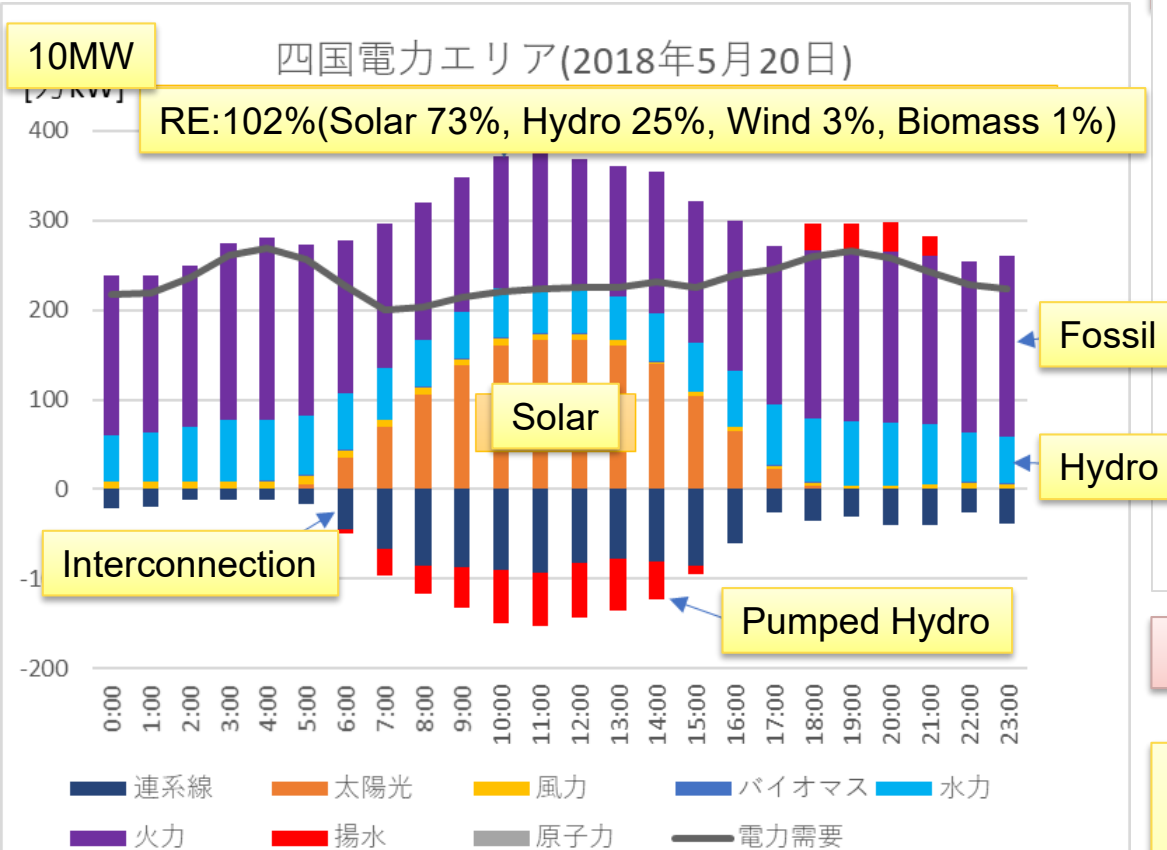


Source: each TSO data

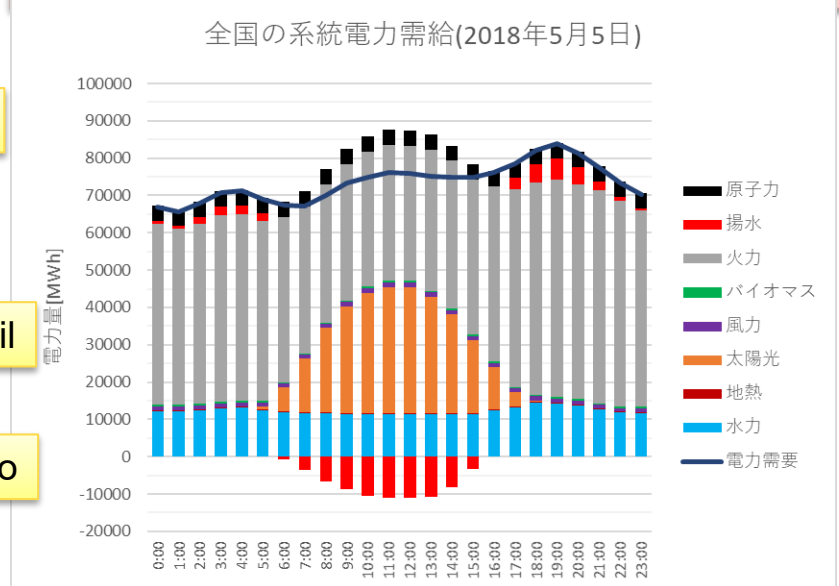
# Supply and demand balance of electricity by TSO

The renewable energy of the Shikoku Electric Power Area  
Up to more than 100% of electricity demand (1 hour value)

Renewable energy throughout Japan is up to  
62% of the grid electricity demand (1 hour value)



May 20<sup>th</sup> 2018 Renewable Daily Share: 52%



May 5<sup>th</sup>, 2018 Renewable Daily Share: 34%

ISEP Energy Chart

Visualization site of electricity ·  
energy supply and demand

<https://isep-energychart.com/en/>

Source: Supply and demand data from each TSO

# Regional Share of Renewable Energy in prefectures of Japan

100 towns and villages “can be”  
over 100% Energy Sustainable Zone  
in FY2017 \*1

Estimated by ISEP and Kurasaka Lab. Chiba Univ.

