Status of renewable energies in the world and Japan

20th, Sep, 2017

Institute for Sustainable Energy Policies

Tokyo, Japan



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

Trend of Solar, Wind and Nuclear power capacity



Trend of wind capacity in the world



Trend of Solar capacity in TOP5 countries



Trends of Solar PV in Japan and Germany



- Expanded introduction of Solar PV in Japan and Germany
- Since 2013, trend of additional capacity is dramatically changed in Japan and Germany.



Source data: IRENA data

Graph: ISEP

Share of Power Generation in Japan (2016)

- Share of Renewable Energy reaches almost 15% of power generation in Japan
- VRE share is over 5% of annual power generation in 2016



Monthly share of renewable energy power generation in Japan

• VRE share rised up to over 7% in May, 2016



Source: Estimated by ISEP using METI data

Trend of share of renewable energy in Japan



Source: Estimated by ISEP using METI data

Demand and Supply during a day (4th May, 2016) in Japan



Source: ISEP using each utility data

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 14.5% in FY2015.



Power Generation in Japan(FY1990 - 2015)

Trends of Renewable Power Generation in Japan



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Energy Transition after Fukushima Accident(3.11) in Japan



Source: ISEP "Renewables 2016 Japan Status Report"

Trends of Renewable Energy Capacity in Japan

Trends of Renewable Energy Capacity in Japan(excluding large hydro): 44G(FY2015)



Source: Renewables Japan Status Report (ISEP)

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Trends of Wind power capacity in Japan

- After FY2011, annual installed capacity keeps very low level because of several regulation.
- Pipeline of environmental assessment is over 7GW including certified wind capacity is over 2GW



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Sustainable Zone: Indicator for Sustainability of region in Japan

Energy Sustainable Zone (SZ) is an indicator to identify areas where local production of renewable energy exceeds local consumption of energy by residential and service sector.

Estimated by ISEP and Kurasaka Lab. Chiba Univ.



Prefectures

Source: Sustainable Zone Study Group http://www.sustainable-zone.org

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Renewables 2016 Japan Status Report, Summary

Status report that summarizes trend and various data relating to renewable energy policies centering around Japan

Published in October, 2016

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Renewables 2016 Japan Status Report , Summary



Institute for Sustainable Energy Policies http://www.isep.or.jp/en/ Introduction "Towards the Age of Energy Democracy" Status and Trends of renewable energy in Japan Renewable Energy Policies in Japan The FIT Program: Current State and Issues Topic1: The trend to aim for 100% renewable regions Topic2: Renewable energy and getting social agreement Topic3: Coming to grips with community power Topic4:Production of food and renewable energy in agriculture



Introduction of Institute for Sustainable Energy Policies





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