

# CURRENT STATUS OF RENEWABLE ENERGY IN JAPAN

Japan's feed-in-tariff (FIT) scheme for utilities to purchase electricity from renewable energy sources has made some outstanding achievements since its start more than two years ago. But it is now facing a major turning point, as power utilities have stopped responding to new applications for grid connection from renewable energy producers.

We at Japan for Sustainability (JFS) have continued to post the latest status of renewable energy in Japan through our newsletters and articles. In December 2014, we provided information on the current status and challenges in Japan in our newsletter, titled "Achievements of Japan's FIT Scheme and Challenges for Power System Reform."

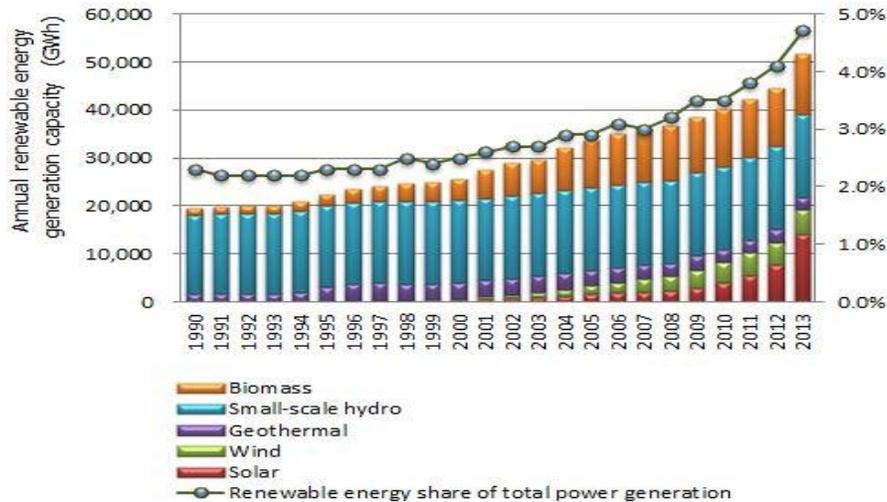
Today, we updated the data on the "Current Status on Renewable Energy in Japan" webpage to fiscal 2013 data, in which we inform you on the current status of domestic renewable energy.

The following table shows estimated domestic energy generation by each renewable source and its percentage share of total power generation\* in Japan, and the graph shows trends in renewable energy generation capacities.

\*Total Power Generation in Japan: renewable energy generation (estimated in the "Renewables Japan Status" report) added to power generation, including major electric power utilities, other electric power producers, and in-house power generation (based on "Energy Data and Modeling Center [EDMC)] data" and the "Statistical Handbook of the Japan Electric Association").

**Estimated power generation, by type and by proportion of total power generation in Japan  
(FY2013)**

| Type of Renewable Energy | Estimated Annual Power Generation Capacity(GWh) | Share of Total (%) |
|--------------------------|---|--------------------|
| Solar photovoltaic (PV)  | <i>13,981</i>                                   | <i>1.27%</i>       |
| Wind                     | <i>5,201</i>                                    | <i>0.47%</i>       |
| Geothermal               | <i>2,596</i>                                    | <i>0.24%</i>       |
| Small-scale hydropower   | <i>17,422</i>                                   | <i>1.58%</i>       |
| Biomass                  | <i>12,524</i>                                   | <i>1.14%</i>       |
| 合計                       | <i>51,724</i>                                   | <i>4.7%</i>        |



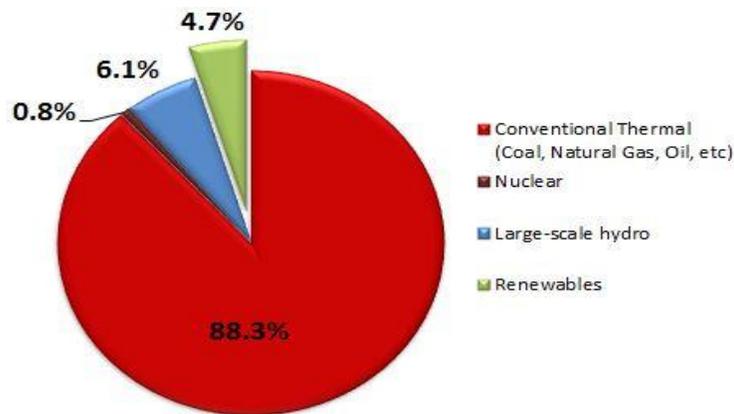
**Trends in annual renewable energy generation**

The above figures were calculated based on the following:

- Photovoltaic: For fiscal 2013, household generated power (50% assumed to be consumed by household) is added to figures from Electric Power Statistics. From fiscal 2012, FIT facilities' startup capacities are used. Until fiscal 2011, the amount was calculated based on a 12% utilization rate of cumulative capacity derived from the Japan Photovoltaic Energy Association's (JPEA) domestic shipments data.
- Wind: From fiscal 2012, figures from the "Statistical Handbook" or Electric Power Statistics were used. From 2003 to 2011, the amount is power supplied under the Renewable Portfolio Standard (RPS). Before 2002, the amount is estimated based on a 20% utilization rate of total capacity.
- Geothermal: From fiscal 2012, figures from the "Statistical Handbook" were used. Before fiscal 2011, actual data from the "Current Status and Trend in Geothermal Power" published by the Thermal and Nuclear Power Engineers Society were used.

- Small-ScaleHydropower: Calculated based on a 61% utilization rate of total capacity of facilities listed in the "Hydropower Stations Database" published by the Japan Electric Power Civil Engineering Association. Included power stations are conduit-type RPS facilities that are either run-of-river type or with a reservoir with maximum generation capacity of up to 10,000 kilowatts.
- Biomass: From fiscal 2012, figures are FIT facility startup capacities. Up to fiscal 2011, calculated based on a 70% utilization rate of total capacity, assuming that 60% of fuel is biomass. Included power stations were RPS facilities with a biomass ratio of about 60 or greater.

The graph below shows overall domestic energy generation in FY2013, by source.



Energy generation, by source (2013)

Source: [http://www.japanfs.org/en/news/archives/news\\_id035258.html](http://www.japanfs.org/en/news/archives/news_id035258.html)