RENEWABLE ENERGY POLICY IN JAPAN

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Renewable energy has been growing worldwide mainly because of the rapid reduction of the power generation costs. In the case of our country, the feed-in-tariff (FIT) regime for renewable energy was introduced in July 2012, and since then, the cumulative installed capacity of renewables has reached 2.7 times larger than the before; in particular, the installed capacity of solar PVs has reached ~39 GW by the end of March 2017. Thus, the FIT regime has worked greatly for the launch and expansion of renewable energy in Japan.

On the other hand, such a rapid growth of renewables has posed various issues and challenges. For example, there are a large amount of solar projects uncommissioned, safety issues due to the immature design/construction of facilities, concerns regarding the increasing burden to Japanese consumers in the form of a renewable energy levy (total ~2.7 trillion yen in 2017), and the necessity of the electricity system reform to accept the increasing volume of renewable energy.

In order to address these challenges, the FIT Act was amended in May 2016 and the new FIT regime has started in April 2017. Under the amended FIT regime, a new authorization system, which approves new facilities but project/business plans, has been applied to prevent the uncommissioned PV projects and to ensure the long-term business feasibility. In addition, a bidding system has been introduced for solar projects with a capacity larger than 2 MW to promote the expansion of renewables in a more cost-effective manner. A change of the obliged FIT power purchaser from retailers to transmission/distribution system operators was also included, all of which are necessary to achieve the goal of Japan’s energy mix at 2030 by maximizing the deployment of renewable energy and minimizing the financial burden to the general public.

### Summary of FIT Reform

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<td>(to solve uncommissioned PV projects*)</td>
<td>Requires</td>
<td>Establishes the mid &amp; long term price targets to improve foreseeability.</td>
<td>Determines 3 years FIT tariffs for wind, geothermal, biomass, small &amp; mid scale of hydro to secure longer foreseeability.</td>
<td>Changes the obliged FIT power purchaser from retailers to TSO/DSO to enable cross-regional coordination.</td>
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<td>*Includes the procedure to check the project feasibility (eg. Requirement for a grid connection contract).</td>
<td>Reinforces maintenance &amp; inspection during the project,</td>
<td>Introduces tendering system for larger scale PV.</td>
<td>Enables an administrative order to improve &amp; rescission of accreditation for violations.</td>
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<td>Applies for previously accredited projects (transitional measures for commissioned projects).</td>
<td>Compliance of removal &amp; disposal after the project.</td>
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340 thousand projects of 2012-2013 not commissioned (30%) |

Discussions on future policies to prepare for massive deployment of renewable energy have also been started. In addition to further enhancement of cost competitiveness, viable models to use renewables without the FIT regime (such as self-consumption, virtual power plants, etc.) will be required. Challenges on grid constraints (flexible use of existing grids and/or grid reinforcement) and operating reserves (such as large-scale electric storage system) are also needs to be tackled. Our efforts will continue to lead renewable energy to the main power source in Japan.