

ROSPECTS OF PV DEPLOYMENT IN JAPAN TOWARDS 2030

Koichi Sugibuchi¹, Risa Kurihara¹, Haruki Yamaya¹, Takashi Ohigashi¹, Izumi Kaizuka¹, Osamu Ikki¹

¹RTS Corporation, Japan

Based on the “Fourth Strategic Energy Plan” approved by the cabinet in 2014, the Ministry of Economy, Trade and Industry (METI) formulated Japan’s “Long-term Energy Supply-demand Outlook.” in July 2015. The national government decided the Energy Mix for FY 2030 desirable for Japan. The Plan strategically shows the direction of energy which Japan should depend on in the future, focusing on key issues such as reduction of power generation cost and greenhouse gas emissions, improvement of energy self-sufficiency ratio and the ratio of baseload power sources. In the energy mix of the Outlook, it is estimated the total power generation amount in FY 2030 will be approximately 1 065 TWh. Under this estimate, target ratios of power sources were set as follows: 22 to 24 % by renewable energy; 20 to 22 % by nuclear power, 26 % by coal; 3 % by oil and 27 % by LNG. Total ratio of fossil fuels amounts to 56 %. The target ratio of PV power generation by 2030 is 7.0 %, corresponding 64GW. As of the end of December 2016, Japanese cumulative installed capacity reached around 42 GW and target capacity (64GW) is assumed to be achieved around 2020 as shown in the figure 1, driven by the FIT program and other policy and measures. This paper describes perspectives of Japanese PV market until 2030 and discusses enablers that can achieve more than 150GW of PV dissemination such as storage batteries, new application in the future.

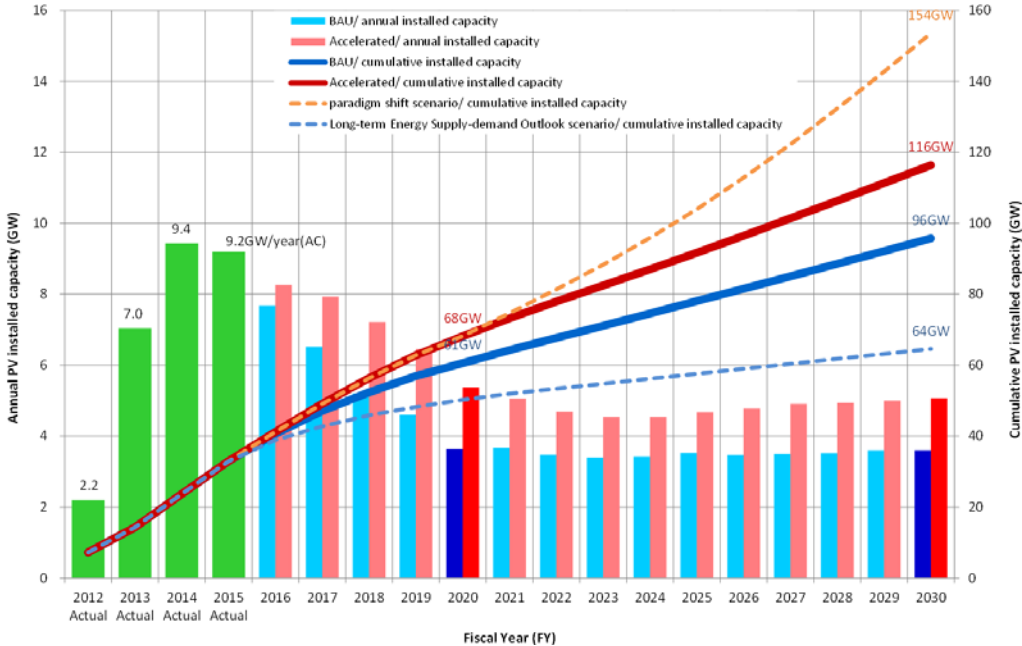


Figure 1: Outlook of Japanese PV market (Revised figure will be presented at PVSEC-27)
Source: RTS Corporation