

Japan: The “roof rental” business¹ for solar power generation is expanding to include ordinary residences

The addition of roof rental options for installing solar panels is also New and Renewable Energy & International Cooperation Unit
New and Renewable Energy Group

The “roof rental” business for solar power generation in Japan is gradually expanding to include ordinary residences as well as public facilities and commercial structures. Since the feed-in tariff (FIT) system for renewable energy started in 2012, the roof rental business has attracted considerable attention as a business model in which organizations, primarily local governments and corporations, rent out rooftop space on the facilities they own (schools, government buildings, factories and large-scale retail facilities etc.) to power producers². However, in recent times an increasing number of owners of private residences have been renting out their rooftops in this way as well.

The typical setup for the roof rental business (or, from the perspective of the operator, “roof hiring business”) is as follows. In this setup, the power producer³ (A) hires the roof from the owner of the building (B), and equips the space with photovoltaic (PV) installations. As a general principle, A covers the costs of the installations themselves and costs relating to installing these; the initial costs incurred by B are therefore zero or at a very low level. A then earns a periodic income through selling the power thus generated through the FIT system; in exchange for this, A pays B rent for the use of the rooftop. Because the maintenance of the facilities is also undertaken by A, B also incurs no maintenance costs. After the term of the contract is up (usually 20 years), ownership of the installations is then transferred to B free of charge.

The two companies who have been quickest to expand into the roof rental business for private residences are DMM Solar (a PV installation works company) and SB Energy Corp, a subsidiary of SoftBank Corp. In the “Produce solar power at your home project”⁴ which was started up by SB Energy Corp. at the end of 2012, solar panels are installed on the rooftops of contractants’ private residences, with 15% of income earned from the sale of the power being paid to the contractants as rent. Meanwhile, contractants with DMM Solar pay approximately 100,000 yen in installation costs,

¹ This paper sets out the latest news in the field interwoven with discussion and analysis based on IEEJ’s own individual perspective, as part of the IEEJ’s efforts in the International energy usage rationalization measures program (survey of energy trends among overseas ministries, etc.), a program consigned to IEEJ by the Ministry of Economy, Trade and Industry (METI).

² Key local governments which are engaged in the roof rental businesses include Tokyo Metropolitan Government, Osaka Metropolitan Government, Kanagawa Prefecture, Saitama Prefecture and Nagoya City; however, the number of governments in this area has increased rapidly in recent times.

³ Power producers are primarily companies involved in the development of solar power generation projects and PV installation works companies.

⁴ It is a fixed-term project lasting from 31 December 2012 to 31 March 2013. The application period for the project is currently closed.

but receive 20% of the power generated⁵. Other companies such as Ecosystem Japan Co., Ltd. are now operating in the roof rental business as well.

The addition of roof rental options for installing solar panels is also beginning to be seen in the house construction industry. Aqura Home Co., Ltd. is one company whose name has been heard on recent TV commercials in this regard. The company, which creates custom-built timber houses, started selling “Solar-powered houses,” a new housing product equipped with PV installations, for a limited period starting from 1 July of this year. Customers purchasing this product can choose from four types of plan for the installation of PV systems, the Roof Rental Plan being one of these⁶. Recently, house construction companies have not only been developing solar panel installation plans as options, but in the case of some companies have also been developing housing products where installations are built in as standard⁷; however, there are still relatively few examples of companies providing roof rental plans in the manner of Aqura Home.

Roof rental is an example of a business model known as “third party ownership” (TPO)⁸. The advantage for the contractant is that because he/she does not own the facilities, he/she will incur almost no costs. Nevertheless, the system also brings the following disadvantages for the contractant. As most of the income earned from sales of the power accrues to the power producer, this reduces the earnings of the contractant. The contractant will also incur cancelation costs should he/she cancel the contract during its term. Finally, although the installations are transferred to the contractant free of charge once the 20-year period is up, by the time this happens it is likely that the installations will have deteriorated in functional terms compared to their initial level of functionality⁹.

Users must carefully consider their own personal life plans and take the long-term view into account when signing such contracts.

Please direct inquiries to: report@tky.ieej.or.jp

⁵ DMM contracts last for 10 years. Currently, it seems that the company is not seeking applications.

⁶ Purchasers can select from among four types of plan as follows: (1) 100% power purchase plan; (2) surplus power purchase plan; (3) solar power joint enterprise plan; (4) roof rental plan. The company also launched the “Solar-based houses for fall” housing product on 1 October. The two plans available through this housing product also include a roof rental joint enterprise plan.

⁷ Across the board, key housing construction companies such as Daiwa House, Sekisui House, PanaHome and Misawa Homes are creating options for PV installations. Some of these companies are achieving extremely high installation rates of up to 92% as seen in the case of Ichijo Co., Ltd. In mid-September, Aqura Home announced that solar power generation was being adopted in 76% of new houses constructed by the company.

⁸ In the United States, the TPO model for solar power generation most commonly consists of lease of the installations rather than rental of the rooftop space. SolarCity and Sunrun Inc. in particular have exhibited dramatic growth in recent years based on the solar leasing model.

⁹ From the power producer’s perspective, one disadvantage of the solar leasing model is that problems can occur with regard to the leasehold rights over the rooftop and rights of ownership over the PV installations if the contractant sells his/her property during the term of the contract.