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JAPAN'S SOLAR FIT: LIFE AND DEATH WITH SUNRISE AND SUNSET

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Japan's solar power feed-in tariff (FIT) has been wildly successful at driving adoption of solar power. The introduction of the FIT drove spending on new solar power systems from 0.6 trillion yen ($7bn) for 1GW of new installations in calendar year 2011 to 2.6 trillion yen ($25bn) for 8GW in 2014.

Beyond this wave of installations that have taken place since the FIT policy was instituted, there is also a massive volume of solar power systems that have been approved but not yet installed. As of 1/1/2015, there are 76GW of approved solar power systems in Japan of which only 21GW is already installed. This leaves 55GW of FIT-approved solar power projects pending in Japan. This 55GW of approved solar power systems is equivalent to more than >16 trillion yen (>$130bn).

There is no way that Japan's traditional electricity companies can survive such a large volume of new generation capacity coming online, especially if the new capacity is controlled by other players. The traditional electricity companies are pushing for a sunset of the FIT with increasing ferociousness because this is a life or death situation. Last year, several utilities suspended approvals for new solar power installations. Then many utilities lobbied for changes in the FIT to enable unlimited curtailment by utilities of solar power plants. And the utilities appear likely to push more fiercely for an end of the FIT in hopes of causing a crash in new solar power installations.

Yes, the FIT will likely change in Japan. Yes, changes in the FIT will drive down FIT-based solar installations. But solar system financiers are already ahead of this with a new dawn of activity that will enable much (not all but much) of the 55GW already approved to be installed in the coming years. Some examples of the financiers being ready for transition away from the FIT:

- Today, there are 200+ financiers offering financing for new C&I solar power installations at 1.60% to 2.65% typically with 0.5% to 1.0% down with simple application processes. In other words, very low cost capital is available from a wide range of sources for deployment of distributed solar power systems. Many (not all but many) of these financiers are already looking for paths to finance solar power outside the FIT.

- In 2014, there were ~1GW of new solar power systems installed using financing that goes beyond the FIT in the form of power purchase agreements (PPAs), leases and roof rights contracts. Many of these were for commercial/industrial (C&I) solar power installations. Basically, the business model for solar power installations under direct contracts with financiers is already established even if the minority of market until FIT falls over.

- Today, there are already dozens of solar power companies in Japan with active plans to sell or lease new PV systems with financing that will provide solar electricity prices well below avoided grid prices (below energy portion of electricity bills) outside the FIT. Basically, the companies most impacted by FIT changes are ahead of the changes with plans to bring financing solutions.

These three bullets as brief evidence that changes in FIT are not going to be the end of financing for distributed solar power in Japan. Instead, the changes in the FIT will drive a faster path to what has happened in other markets like U.S., with more contract-based financial structures such as PPAs rapidly growing. In other words, the sun setting on Japan's solar FIT brings with it the sunrise for PPAs and other private financing of solar systems in Japan.

At 2014 JREF conference, we suggested that JREF play a role by starting a deep dialogue about financing solar power (and other renewables) in Japan. In 2015, we remain hopeful that the JREF community will take up this topic soon with more focus, because the future of solar power in Japan will be driven by financing structures that are well vetted in other markets, but are still not familiar to many Japanese companies. There is an important role for JREF to play as the FIT fades by sharing global best- and worst-practices in non-FIT financing of renewables.