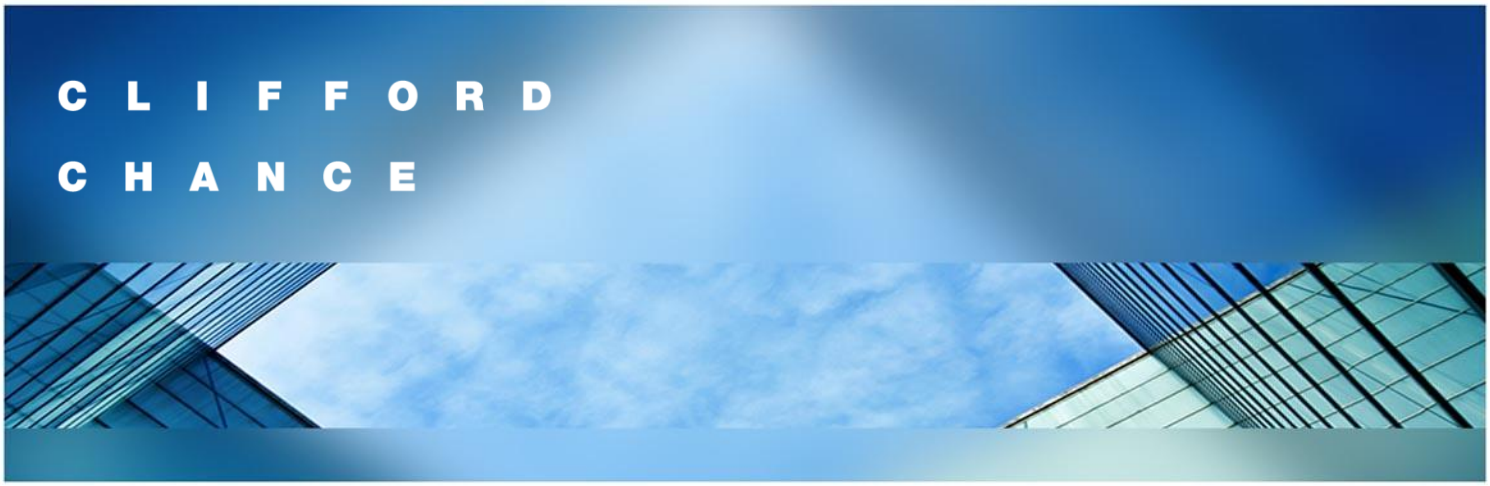

LIFE AFTER FIT? CORPORATE PPAS IN JAPAN

In Japan, corporate power purchase agreements (**Corporate PPAs**) have recently come under the spotlight. Since the introduction of the Japanese feed-in tariff (**FIT**) regime in 2012, renewable power generators have been relying on attractive, 20-year, fixed price PPAs. Now, as the number of new FIT-based PPAs dwindles while demand for "clean" energy from corporate and industrial power consumers in Japan increases, the market for Corporate PPAs in Japan is expected to expand rapidly.

Despite its potential, this market is still in its infancy, however. In this briefing we outline the unique aspects of the Japanese Corporate PPAs market from a regulatory perspective and draw some comparisons based on our experience with the development of the Corporate PPAs market in other jurisdictions.

KEY CATALYSTS

There are some key catalysts behind the market shift in Japan towards Corporate PPAs.

Firstly, as society moves towards the goal of achieving net-zero emissions, the pressure on Japanese businesses to adopt cleaner energy sources is coming from all directions including the government, investors and customers. These businesses are showing an increasing appetite to procure renewable energy directly from power generators. Recently, there have been regular press releases from Japanese companies about their procurement or supply of clean energy through Corporate PPAs.

Second, the FIT-based PPA regime has been phased out. From 2012, renewable power generators enjoyed 20-year, fixed price PPAs with regional utility companies who were under a statutory obligation to enter into such PPAs. This proved to be popular and was successful in attracting significant investment into the Japanese renewable energy sector. As the volume of renewable power generation has rapidly increased, the Japanese government has shifted its focus towards incentivising power generators to optimise power demand and supply. In April 2022 the Japanese government replaced the FIT programme with a new feed-in premium (**FIP**) regime under which a monthly

Key points

- The market for Corporate PPAs in Japan is expected to expand rapidly over the coming years.
- Under the existing regulatory framework there are limited options for a power generator to sell electricity directly to an end user, however this is permitted through a tripartite Corporate PPA involving a registered electricity retailer.
- Deregulation is anticipated that will permit power generators to enter into virtual PPAs to directly transfer non-fossil fuel certificates to end users without the need to involve an electricity retailer.
- While the Japanese Corporate PPAs market is still evolving, the Corporate PPAs markets in a number of other countries have an established track record and offer a preview of the kinds of issues that parties to Corporate PPAs in Japan will need to anticipate, consider and negotiate.
- It seems likely that for an initial period, new Corporate PPAs for greenfield renewable power projects in Japan will be drafted and negotiated on a project-specific, case-by-case basis and standardisation of terms may take some time to emerge.

variable subsidy is paid to renewable power generators on top of the market power price. Under the FIP regime, while the amount of the subsidy in a certain month is fixed, the market power price varies according to the supply and demand balance from time to time (and there is no floor). This makes it difficult to accurately forecast the revenue to be generated by a particular project, and therefore challenging to secure limited recourse project financing with high leverage unless the power generator is able to introduce features to mitigate the impact of revenue fluctuations. This is where Corporate PPAs come in. By providing a long-term fixed power price, Corporate PPAs are attractive for renewable power generators who want to secure a steady revenue stream in order to mitigate risk and raise limited recourse project financing.

CURRENT REGULATIONS AROUND CORPORATE PPAS IN JAPAN

In Japan, the sale of power to end users is a regulated business. Under the Electricity Business Act of Japan, if a power generator wants to sell power to an end user it must either (i) register itself as an electricity retailer (*kouri denki jigyosha*), (ii) rely on one of the exceptions to the regulations, or (iii) involve a registered electricity retailer (e.g. one of the regional power utilities) in the transaction. We analyse each option in further detail below.

Option (i) (*generator registers as an electricity retailer*) – This is not a viable option for most small to mid-size generators. Being an electricity retailer is a regulated business and it is costly to complete the registration process and build up and maintain the necessary human resources to conduct an electricity retail business.

However, certain large Japanese corporations have followed this route and established a group company registered as an electricity retailer. In such cases, the Japanese company has its generating entities sell power to its retailer entity and then such retailer entity is able to sell power to end users.

Option (ii) (*exceptions to regulations*) – There are two notable exceptions that do not require the involvement of an electricity retailer:

- **On-site PPA**: This is where a power generation business operator installs solar power generation equipment on the premises of a customer (e.g. the roof of a customer's building). However, this exception can be relied upon only in limited circumstances. If the power generator wishes to sell power to offsite users, this exception does not apply.
- **Offsite PPA – self-wheeling (*jiko takusou*)**: Previously, this exception applied to cases where the power generator transferred its self-generated power to a group affiliate company through the central grid system. This exception was valid only if a corporate group had both a business requiring power and a power generating business.

  However, due to demand from Japanese corporates, in November 2021 the government expanded the scope of this exception to cases where a power generator and an end user establish a partnership which meets the requirements set out in the new regulations. Unfortunately, in practice it is understood that this expanded exception only applies to large facilities with steady energy consumption. Also, the power generator and end user need to manage the imbalance risk (i.e. the risk of imbalance between power supply and power demand). Thus, this exception has not been widely relied upon to date.

Option (iii) (*involving an electricity retailer*) – Given the above, this seems to be the most viable option in the context of Corporate PPAs. To fall within option (iii), a Corporate PPA would need to take the form of a tripartite agreement between a power generator, a registered electricity retailer and an end user. In this case, the power generator is not required to have a retailer registration or to comply with various requirements to rely on a narrow exception to the registration requirements. Also, under this arrangement the imbalance risk can be passed to the registered electricity retailer.

PREDICTING REGULATORY CHANGE

As discussed above, complications arise if the sale of power is involved due to the regulations applicable to the power market. In order to achieve the procurement of renewable energy without involving the sale of power, the electricity markets in certain jurisdictions have developed virtual PPAs where only the environmental value of the electricity is traded (in the form of a certificate) whereas the power itself is sold elsewhere.[1]

In Japan, there are three types of certificates: (i) non-fossil fuel certificates, (ii) green electricity certificates and (iii) J credits. Currently only electricity retailers are permitted to purchase non-fossil fuel certificates in respect of non-FIT projects. However, this sale and purchase system will be revised to enable direct procurement by large-scale consumers that meet certain requirements (e.g. account opening at Japan Electric Power Exchange or JEPX).

Following deregulation, a power generator will be able to transfer non-fossil fuel certificates to an end user directly and the two parties will be able to enter into a virtual PPA without involving an electricity retailer.

INSIGHTS FROM OTHER JURISDICTIONS

Although the Japanese Corporate PPAs market is still evolving, the Corporate PPAs markets in the USA, Spain, the UK and a number of other countries already have an established track record – even if not all can claim they have developed a truly liquid market to date. The UK for example saw solar PV projects without any subsidies in 2017 already, and Corporate PPAs have become popular as a stable source of revenue since then. Given this longer history, we can gain some insight from the issues which arose in such markets as they developed.

One of the key issues for renewable energy projects is the intermittent nature of power generation, which fluctuates depending on the source of energy e.g. solar radiation and wind, while power supply needs to match a corporate demand profile. This can be addressed through a "sleeved Corporate PPA" (which involves an intermediary utility and is similar to Option (iii) above) or a "synthetic Corporate PPA" (which is essentially a virtual PPA). Another solution which has sometimes been adopted is a bilateral Corporate PPA with a parallel imbalance PPA to cover shortfalls in power output from the renewable energy project.

Corporate PPAs present a new risk profile for both power generators and their corporate offtakers. A critical issue in some jurisdictions has been "additionality" – the requirement that Corporate PPAs should promote the development of

[1] In order to achieve a virtual PPA in a certain jurisdiction, the environmental value of the energy should be separated from the energy itself under the regulatory regime in such jurisdiction. Typically, the environmental value of the energy is recognised in the form of a certificate. Energy users are able to procure "clean" energy by purchasing such certificates while they procure their actual electricity needs from a mix of sources including fossil fuel energy sources.

new renewable power capacity rather than simply incentivising power purchasers to buy power from pre-existing renewable power facilities. This means that Corporate PPAs need to address a range of issues relating to greenfield project development, including when first power will be available. This is not natural territory for many corporate entities buying power so a learning curve applies. Unlike regulated utility companies which generally have robust credit ratings or benefit from quasi-governmental support, the creditworthiness of an independent power generator is that of a ring-fenced special purpose vehicle, while on the other side the creditworthiness of corporate offtakers also varies and may change over the course of a long term Corporate PPA. Integral to PPAs with a single generation asset, the parties will need to consider what happens during periods of force majeure and maintenance. Equally, the corporate offtaker may look for some flexibility around certain demand events that an energy retailer or utility offtaker would not request. For both sides, events of default and liability and termination regimes will need to be carefully considered and negotiated.

The result we find in jurisdictions outside Japan is that there is no market standard form Corporate PPA. While we expect a greater degree of convergence to arise over time, for now Corporate PPA arrangements remain tailored to the specific market and circumstances, with bespoke negotiation and commercial solutions having to be found, which means the transaction costs of putting a Corporate PPA in place may be relatively high. The bigger Corporate PPA buyers have already established preferred contract forms in some jurisdictions, however these may not always be fit-for-purpose in other jurisdictions without detailed amendment.

CONCLUSION

Corporate PPAs offer a win-win situation, giving power consumers a secure source of renewable energy and offering power generators a stable revenue stream in an environment in which government subsidies for renewable power generation are being scaled back. Against the current uncertain macroeconomic environment – and the global push to achieve net-zero emissions by 2050 – we foresee that the reduction of government subsidies for renewable power generators, deregulation in the power sector and growing consumer demand for clean energy will lead to more businesses in Japan seeking to enter into Corporate PPAs. This is largely unchartered territory for renewable power generators in Japan and Japanese corporate power buyers and will require careful analysis, consideration and negotiation of the terms and conditions of such Corporate PPAs to ensure they meet the parties' respective commercial requirements and function as intended within the evolving Japanese legal and regulatory framework for the power sector.

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