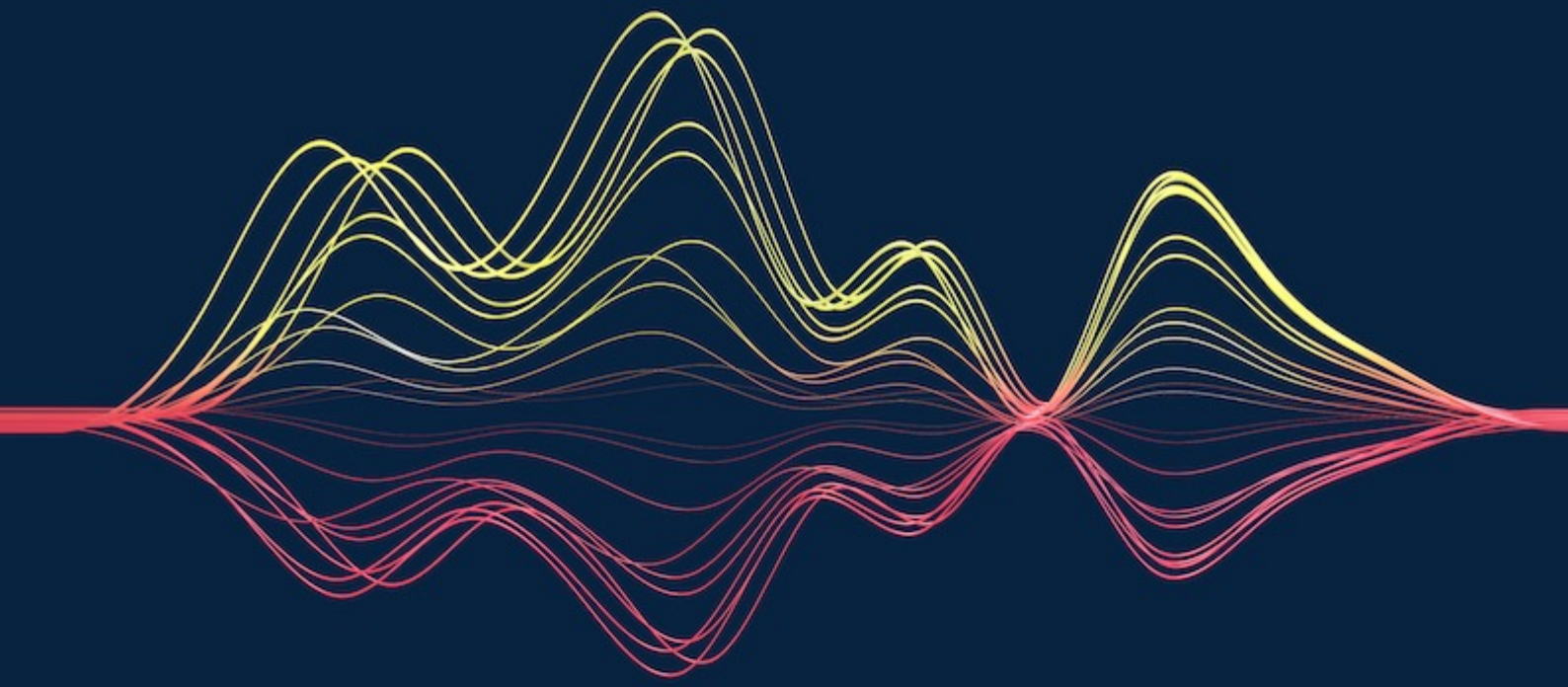
FRANCE

Corporate Power Purchase Agreements



France

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PPA structures and parties involved

To what extent are corporate PPAs presently deployed and what sort of structure do they take?

The use of corporate PPAs in France began to rise in 2019 and will probably continue to increase in the following years.

Before the emergence of corporate PPAs, renewable energy was promoted in France through a feed-in tariff (FiT) mechanism, where a producer could sell its production to an electricity supplier at a regulated price, and tendering processes. The FiT mechanism has been replaced mainly by the purchase obligation system and the contract for difference support mechanism (see Subsidies).

Renewable energy's generation costs have decreased during the last few years, which allowed easier direct negotiations between the producers and offtakers, instead of a tendering process.

Also, PPAs allows the producers to secure the financing of the means of production which facilitates the development of new renewable energy projects.

Therefore, companies are being increasingly interested by the alternative brought by corporate PPA in order to (i) buy renewable electricity at a regulated price, and (ii) meet their corporate social responsibility (CSR) objectives to produce more green energy and prove their consumption of renewable electricity.

Various corporate PPAs have been concluded in 2019 and 2020 notably by the following French companies: Boulanger, SNCF Energie, Crédit Mutuel Alliance Fédérale, Groupe Aéroport de Paris and Orange. This trend reflects the growing involvement of French companies with the RE100 global initiative to commit to 100% renewable energy by 2050.

In France, corporate PPA may take different forms: direct PPA (or physical PPA), indirect PPA (or sleeved PPA) and financial PPA (or synthetic PPA).

The duration of a corporate PPA may vary from approximately 5 years (brownfield projects) to 25 years (greenfield projects), depending on the maturity of the installation.

Do the country's regulators allow corporate owners to purchase (1) directly from a facility, or (2) from a choice of suppliers?

French regulations allow corporate owners to buy both directly from a facility and to choose from a pool of suppliers (notably in the case of an Off-site PPA).

Direct PPAs have evolved as a way for corporates to contract directly with power generators for the power produced from one or more specific facilities.

Other than the generator and the off-taker, are any third parties commonly party to the PPA structure (e.g. a utility or other market agent)?

Agreements involving third parties are possible, notably when it comes to sleeved PPAs, in which the "sleever" (i.e., the intermediary) is responsible for intermediating the different processes between the generator and the end user. The intermediary is free to deliver the electricity to an end user, transforming the Corporate PPA in a B2B2C scheme.

Within such contractual schemes, the risk and hazard of intermittency are borne by the intermediary.

The legal constraints of an indirect PPA are as follows:

- the intermediary must have an administrative authorization as described in Article L. 333-1 of the Energy Code (purchase for resale of electricity);
- the intermediary's activity is subject to obligations of communication and information;
- installations marketing their production via a PPA must be attached to a balance perimeter; and
- there are obligations to participate in the capacity mechanism.

Is a generator permitted to sell electricity directly to an end user? If so, do they require a licence or other form of authorization?

An end user consumer has the possibility to conclude a purchase contract directly with a generator, pursuant to Articles L. 331-1 and L. 314-18 to L. 314-27 of the Energy Code.

It should be noted that if the end user signs a direct PPA with a generator, the latter becomes, in the eyes of the law, a supplier. This change from the legal status of "producer" to "supplier" is very significant because it means that producer becomes subject to specific rules in the same way as all the other suppliers present on the market.

In France, Articles L. 343-1 to L. 343-6 and Article R. 343-5 of the Energy Code provide specific provisions for the construction of direct lines. Their construction is subject to authorization by the administrative authority, which "*shall take into account the environmental requirements applicable in the area concerned*" and "*may refuse, after obtaining the opinion of the Energy Regulation Commission, authorization to build a direct line if the granting of such authorization is incompatible with imperatives of general interest or the proper performance of public service missions*". Authorizations for the construction and operation of such direct lines shall be issued for a period not exceeding twenty years. Otherwise, the connection of the installation may be requested from the public grid, transmission or distribution system operator depending on the power of the installation. The connection and access to the grid is by right. They entail the payment of a fee to the grid operator.

Pursuant to Article L. 321-16 of the Energy Code, any generation facility connected to the public transmission system or the public distribution system must be the subject, by its operator, of a capacity certification application to the public transmission system operator. A producer who has signed a PPA must therefore have its generation facility certified by RTE and can then use its certificates to benefit the players on whom this capacity obligation is based, i.e. the energy suppliers.

Challenges

What are some of the technical, political, financial or regulatory challenges to corporations adopting green energy in the short/medium term in your country and how have these challenges been overcome (or how can they be overcome)?

French companies cannot receive guarantee of origins for the green electricity purchased from a facility benefitting from a contract for difference mechanism (see National support scheme).

Some fear that French companies will turn to foreign producers to buy abroad the green electricity they need.

Corporations adopting green energy are still facing the strong part that nuclear energy holds in France. France has indeed a particular position towards nuclear energy, which provided a stable power price and still has the largest share in the French energy landscape (currently around 70% compared to around 10% globally). Despite the growing attractiveness of renewable energy in France and corporate PPAs, it is quite difficult to estimate the share nuclear energy will hold in the French energy mix in the near future (2025-2030).

Moreover, as corporate PPAs are still quite recent in France, companies may have been confronted to the lack of a standardized contract or market practice rules strongly implemented in France. However, in order to address this matter, *France Energie Eolienne* (FEE) has published at the end of 2019 its standard corporate renewable power purchase agreement, available in open source. This is the result of one year of work and was elaborated by a special FEE working group and in collaboration with various stakeholders in the energy sector, such as producers, consumers, lenders, investors, lawyers, tax specialists.

Regulatory changes

Are there any anticipated regulatory changes which will alter the regulatory landscape for corporate green energy and corporate PPAs?

At this stage, no regulatory changes which will alter the regulatory landscape for corporate green energy and corporate PPAs have been identified.

Incentives and benefits

What is the corporate appetite for green energy, including any political or financial incentives available to corporates to adopt green energy?

The corporate appetite for green energy is growing among French largest companies.

Smaller generators will have to go through aggregators, responsible for grouping the production of small producers, to be able to sell electricity directly to large customers.

When companies sign a corporate PPA, the company that generates the green power provides a guarantee of origin, testifying to their financial contribution to the development of renewable power.

What are the key local advantages of the corporate PPA model which can benefit our clients?

The key local advantage of the corporate PPA model in France is in particular the stability these contracts provide by their fixed price for a long term contract, which protects against fluctuation of energy prices. Corporate PPAs also allows companies to achieve their goals in terms of renewable energy supply.

What subsidies are applicable to the generation and sale of renewable energy?

Before the emergence of corporate PPAs, renewable energy was promoted through two mechanisms:

- the feed-in tariff (FiT) mechanism, where a producer could sell its production to an electricity supplier at a fixed price for a long-term period; and
- call for tenders awarding long term contracts at a fixed price.

The FiT mechanism was replaced mainly by the contract for difference support mechanism.

The contract for difference mechanism takes the form of the payment of a fee corresponding to the difference between the market price and the target rate set by the contract, for a maximum of 20 year term. The fee is paid by EDF OA or any obliged purchaser when the market price is lower than the target rate, and when the market price is higher than the target rate, the producer must pay the difference between the two rates to EDF OA or the obliged purchaser. The producer who benefits from the contract for difference system will therefore be entitled to sell its electricity on the markets (i) directly, (ii) by means of an aggregator or (iii) by a power purchase agreement (PPA). The contract for difference mechanism protects the producer from market price variations because producers will receive or pay the difference between a target rate and the market price.

The allocation of this support mechanism is made through an "open gate" system *(guichet ouvert)* or by a tendering process.

The open gate system allows any producer meeting the specific requirements defined by the DGEC *(Direction Générale de l'Energie et du Climat)* and published on the CRE *(Commission Regulation de l'Energie)* website to benefit from the contract for difference mechanism. The call for tenders is a more competitive and complex system for producers.

Does your country implement a national support scheme with tradable green certificates (such as guarantees of origins)?

The European Directive n°2009/28/CE dated 23 April 2009 relative to the promotion of the use of energy generated from renewable sources which provides the Guarantee of Origin scheme for renewable source electricity was implemented in France in 2012, through articles L.314, R.314 and R333 of the French Energy Code.

In France, the guarantee of origins is issued by an independent organization (currently Powernext) and certifies that a renewable energy or cogeneration source has injected a quantity of energy into the electrical grid (one guarantee of origin representing one MWh of electricity produced).

According to article L.311-21 of the French Code of Energy, "*Electricity produced for which a guarantee of origin has been issued by the producer may not give entitlement to the benefit of the purchase obligation or the contract for difference within the framework of the contracts mentioned in Articles L. 121-27, L. 311-12, L. 314-1, L. 314-18, L 314-31 and, where applicable, L. 314-26".*

Therefore, legislative change in the French Code of Energy would be necessary in order to allow French companies to receive a guarantee of origins for the green electricity purchased from a facility benefitting from a contract for difference mechanism. Such change may not to be expected for the foreseeable future, as during the Parliament's discussions on the Climate-Energy Law in 2019, amendments to this rule have been submitted and have been rejected [See **Note 1**].

Note 1: Amendment no. 47 proposed by Mrs Préville, on July 16, 2019 and amendment no. 537, proposed by Mr Lambert, on June 21, 2019.

Typical PPA terms and risk allocation

To the extent corporate PPAs are deployed, how are prices, terms and risks affected?

Topic	Details
Do prices tend to be floating or fixed?	Corporate PPAs can be concluded on a fixed price or on a variable price (based on the percentage of a market reference for example).
What term is typically agreed for the PPAs?	According to the recent corporate PPA that have been executed during the past 2 years, the term is typically around 21 or 25 years. However, depending on the maturity of the installation concerned, the corporate PPA can have a term from 5 years (brownfield projects) to 25 years (greenfield projects).
Are the PPAs take-or-pay or limited volume?	Details pending.
Are there any other typical risks?	One of the risks inherent to the corporate PPA is the risk of customer bankruptcy during the term of the PPA. Indeed, the risk borne by the seller is equal to the difference between the price determined in the cPPA and the market price for the

volume contracted and the remaining duration of the cPPA. A public guarantee fund covering this risk of default might be set up order to support the development of the renewable energy market in France.

To the extent corporate PPAs are deployed, in whose favour will the risks typically be balanced?

Coming soon.

Balancing

Does your country operate a balancing responsibility scheme?

Yes, France operates a balancing responsibility scheme.

If your country operates a balancing responsibility scheme, who is the balancing authority and do the generator and offtaker typically undertake balancing themselves?

On the French electrical grid, the power injected must be equal to the power withdrawn at each moment. The balance authority in France is RTE *(Réseau Transport Electricité)*, the operator of the public electricity transportation network, which is responsible for the physical balance of the grid on real time.

A balance responsible entity is a market operator which financially compensates for the differences observed *a posteriori* between injections and withdrawals within its balance perimeter from the electrical network. In order to become a balance responsible entity, operators have to comply with RTE specific regulations and execute with RTE a participation agreement as a balance responsible entity.

The contractual commitment with RTE obliges the balance responsible entities to ensure the adequacy between the injected and withdrawn power within their balance perimeter from the electrical network. If an imbalance is discovered, it shall be invoiced either to RTE or to the balance responsible entity, depending on the positive or negative difference between the injections and withdrawals.

It is more common for generators to become a balance responsible entity.

Significant transactions

What significant transactions/deals have taken place in the last 12-18 months?

In May 2019, a solar cPPA has been concluded between Boulanger and Voltalia for 5MW during 25 years, which will represent a minimum of 10% of Boulanger's consumption by 2022.

In July 2019, a solar cPPA has been concluded between SNCF Energie (subsidiary of SNCF Mobilités) and Voltalia for a total of 143 MW during 25 years, which should produce between 3 and 4% of the consumption of electricity required for SNCF Mobilités trains by 2022-2023.

In December 2019, a solar cPPA has been concluded between Crédit Mutuel Alliance Fédérale and Voltalia for a total of 10 MW during 25 years, which should cover 5% of the total consumption of electricity of Crédit Mutuel.

In February 2020, a solar cPPA has been concluded between ADP Group (Groupe Aéroport de Paris) and UrbaSolar for a total of 47 GW during 21 years, which will cover 10% of the electricity needs of the three Paris airports.

In July 2020, a wind cPPA has been concluded between Orange and Boralex during 5 years, for a total of 67 GWh per year of electricity.

In 2021, a solar cPPA has been concluded between Orange and Engie, for a total of 51 MWc per year during 15 years, with a commissioning date scheduled on January 1st, 2023.

In 2021, a solar cPPA has been concluded between Ze Energy (an independent electricity producer) and Sorégies, for a total of 150 Gwh per year during 20 years.

In 2021, a solar cPPA has been concluded between Orange and Total (through its subsidiary Total Quadran) for a total of 100 Gwh per year during 20 years.

In April 2021, a green corporate power purchase agreement has been concluded between EDFR and SNCF for a period of 20 years. This contract covers the electricity production of a 20 MW solar power plant and the plant's annual production will amount to 25 GWh.

In June 2021, a long-term renewable electricity direct purchase contract (Green Corporate PPA) has been concluded between SNCF Energie, a subsidiary of SNCF Voyageurs, and RES, for 40 megawatts over 15 to 20 years, which should cover about 2% of the electricity consumption required for all SNCF Voyageurs trains.

In December 2021, a multi-buyer solar corporate PPA has been concluded with 10 companies for a 56 MW solar power plant developed by Voltalia in the south of France, for a duration of 20 years.

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