

Private wire FAQs

Amidst unpredictable network reform and charging, the lesser understood concept of corporate ‘private wire’ power purchase agreements (PPAs) is gaining interest. This brief aims to answer FAQs on the topic to provide a starting point for decision-making.

What is private wire?

A private wire is a direct supply of electricity from a generation asset (such as a wind turbine) to typically a single user (such as a factory). The connection between the generator and user is detached from the national electricity network and thus, exempt from network charges. Private wire arrangements can offer greater autonomy and cost savings to both parties when done correctly.

However, the legal conditions to comply with electricity supply licence rules and potential exemptions are complex and need expert advice to avoid inadvertently straying from these, which can result in significant penalties.

Is all private wire the same?

Private wire or ‘Behind the Meter’ arrangements, where electricity is supplied without passing through the national electricity network, are just one form of corporate PPA. Other forms of corporate PPAs, such as sleeved PPAs and virtual PPAs, do not carry the same risk of the generator or buyer potentially breaching electricity supply licensing requirements and exemptions as licensed electricity suppliers are involved in the overall transaction.

Sleeved PPAs are where energy is supplied from a generator to a consumer for a contracted price via an intermediary licenced supplier. The licenced supplier incorporates or ‘sleeves’ the energy from the generator into their wider electricity supply to that consumer.

Under a virtual PPA, the generator sells the generated electricity to a licensed supplier for the market price. The consumer buys electricity from the licensed supplier, often with a volume equivalent (or approximate) to the generated volumes at the same market price. Under the virtual PPA, the generator and the consumer have agreed a hedging arrangement under which reconciliation payments are made (often monthly) to keep each party in the net commercial position that the generator has received and the consumer has paid the agreed ‘strike price’ for the generated volumes.

What are the benefits of PPAs?

As with the electricity price under the sleeved PPA, the strike price under the virtual PPA is often a fixed indexed price per MWh. There is no real cost benefit in relation to the avoidance of grid charges (except for some avoided transmission network charges for assets not on the transmission network). The main driver for sleeved and virtual PPAs is that it allows the consumer to buy from one specific clean energy generator for a pre-agreed price. Understanding the difference between the various types of corporate PPA arrangement is crucial for evaluating the varying levels of risk attached and specialist commercial and legal advice should be sought.

The common motivation for pursuing a private wire arrangement is to secure lower-cost energy by avoiding non-commodity costs, including charges arising from Contracts for Difference (CfDs), renewable obligations levies or standing charges. The considerable savings to be gained from these arrangements serve to benefit both the generator and the consumer of the electricity. The two parties typically agree to split the difference whereby the generator sells above market value (for unit price) and the consumer buys below it.

However, in 2021, Ofgem and DESNZ issued a [call for evidence](#) around the review of Distribution Use of System (DUoS) Charges which sought, in part, to address the lack of visibility around private wire operations. Since then, there has been little update on forthcoming legislation but if the workstream develops further, the financial incentive for private wire could be subject to change, for example if network charges were to be socialised.

Can anyone participate in private wire?

To qualify as a licence-exempt supply and partake in a private wire agreement, there are strict criteria to adhere to. The Electricity (Class Exemptions from the Requirement for a Licence) Order 2001 details the specific structures that can be deemed exempt from holding generation, distribution or supply licences. If a supplier is found to be operating outside of the legal exemption and not fulfilling relevant criteria, they will be supplying electricity illegally and be subject to serious penalties.

Corporate PPAs between supplier and consumer will need to be drafted to ensure that circumstances cannot change such that the supply falls outside an exemption, principally through some standard restrictions on on-supply by the consumer. Consulting with a lawyer is highly advised before progressing with such arrangements.

Aside from the legal constraints, the benefits are also limited to certain physical conditions. Private wire connections are only feasible where a developer and consumer are located adjacent or in close proximity to one another. The cost of consents for each stretch of land through which a private wire must be laid, as well as the cost per kilometre of cabling, limits the financial viability of private wire to a maximum distance of around 5-10km.

Private wire is typically seen in hydro, solar and onshore wind power located close to energy users. Onshore generation located large distances from energy users has low feasibility for private wire arrangements.

The size, financing and nature of the connection of an offshore wind farm also means that a private wire PPA is completely unfeasible. Such projects require high levels of long-term, government-backed support through the CfD regime and through high volume sleeved or virtual corporate PPAs to secure financing and deliver the projects. The nature of their network connection, often at transmission level, also precludes any form of private wire arrangement.

For the limited sites that may be suitable for private wire agreements, consultation with lawyers is strongly advised to assess eligibility, scope of financial benefit, initial and ongoing risk and potential penalties.