Large companies are increasingly setting the agenda for the growth of renewable energy across the globe. Purchasing power directly from renewable energy generators under a Corporate Renewable Power Purchase Agreement (Corporate PPA) allows corporate consumers and generators to take advantage of a range of economic, reputational and sustainability benefits.

Bird & Bird's lawyers advised on one of the earliest corporate PPAs in 2009 and we have become an experienced advisor on these structures both in the UK and globally.
What are corporate renewable power purchase agreements?

A Corporate PPA allows corporate consumers to purchase power on a long term basis directly from renewable energy generators without being co-located. This is an alternative to the traditional model where a utility purchases power from lots of generators, transports it on the electricity grid and then on-supplies power to consumers.

Global corporates are becoming increasingly pro-active in managing their energy needs: the ability to source electricity directly from renewable sources, together with achieving long term price certainty, has become a key business objective. This has led to strong growth in corporate PPAs in recent years, particularly in USA and LATAM. Major players in the global corporate PPA market to date have been Google, Apple, Amazon, Unilever, Microsoft and others.

Corporate PPAs have been around in the UK for some time (our lawyers closed a wind corporate PPA with Sainsbury’s in 2009). The rise of solar has triggered further growth. Major corporates now play in the UK market, including BT, M&S, Nestle, McDonalds, HSBC, Lloyds, and Nationwide.

Market Drivers
# Opportunities and threats

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
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<tr>
<td><strong>Corporate Consumer</strong></td>
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<tr>
<td>Fix power price - hedge against rising energy and fluctuating energy prices in the wholesale markets. Prices have almost doubled in past 10 years, with high volatility. 40%-50% rises are expected in next 15 years.</td>
<td>Board appetite for the deal – economic benefits only stack up if the board trusts the power price forecasts. Board often unwilling to pay more in short-term for lower prices in long term.</td>
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<td>Achieve sustainability targets and objective to buy 100% of power from renewable sources. RE100 is a group of companies who have pledged to work towards meeting 100% of their electricity requirements from renewable sources, thereby significantly increasing the demand for renewables.</td>
<td>Power purchase not core business – lack of know-how/expertise in closing the transaction.</td>
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<td>Complexity/costs in negotiating the contracts.</td>
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<td><strong>Generators</strong></td>
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<td>Generator can achieve a stable price over the long-term as the corporate consumer often has more appetite to hedge against forecast rising/fluctuating power price rises. This is particularly attractive for projects financed by listed yieldco funds and project finance.</td>
<td>Creditworthiness/bankability of offtaker – a bigger issue for unsubsidised projects as the Corporate PPA will represent almost 100% of total project revenues.</td>
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<td>Consumer sometimes willing to pay higher than wholesale prices in the short term (on the expectation that this will pay off in the long-term when prices rise and consumer still has the benefit of the fix).</td>
<td>Power offtake not core business for the corporate - if power prices decline will the corporate default in order to buy their way out of a bad bargain? Corporate less concerned about reputational impact as it is not core business?</td>
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<td>The deal will need to be bankable – more complex to get a Corporate PPA approved by banks/investors?</td>
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1 DECC November 2015
Corporate PPA contract structures

The two leading models for Corporate PPAs are what are known as (a) the "Sleeved" Corporate PPA; and (b) the "Synthetic" Corporate PPA. The Sleeved Corporate PPA is the contract structure that has mainly been adopted in Europe, whereas the Synthetic Corporate PPA has been the preferred contract structure in the USA.

A) "Sleeved" Corporate PPA

Key features:

Generator sells power directly to the consumer and the utility then sleeves the power through the grid and supplies it to the consumer's site (together with top up power as necessary). We have seen this done through two PPAs as shown, but it could also be structured with one tripartite agreement.

1. Generator sells power at the meter point to corporate consumer under PPA1.

2. Corporate consumer immediately on-sells power at the meter point to the utility under PPA2. The utility then "sleeves" the power through the grid and sells power to the corporate consumer at its site. The utility will perform a balancing service under this PPA2 (renewable energy is intermittent) by topping up the renewable electricity with extra if needed (for example when the generator is not generating).

3. Renewable benefits can be sold either directly from generator to utility or to corporate consumer.

4. The UK regulatory regime requires a licensed supplier to be involved as a licence is required to put electricity onto the grid (i.e. transport the power from the generator’s site to the consumer’s site).

5. The generator can be entirely independent or sometimes the corporate consumer may make an investment into the generator itself to support the project (and open a new revenue stream in potential dividends).

6. The balancing services are usually provided by a licensed supplier. A new model is emerging whereby the consumer also sets up a mini utility company and becomes the balancing party itself. Whilst the mini utility model may save fees, it would obviously require a great deal of investment by the corporate consumer in setting up a licensed supplier and gaining the expertise required to manage its own energy supply. As far as we are aware this model has not yet been implemented in the UK, but is being considered by a number of investors/consumers. Ireland has also used this model.
B) "Synthetic" Corporate PPA

Key features:

Generator "virtually" sells the renewable electricity that it produces to a corporate consumer for a fixed price.

1. Generator sells renewable electricity to a utility under a standard power purchase agreement at a market price.

2. Utility continues to sell power to the corporate consumer under a standard electricity supply agreement at a market price.

3. In parallel to these conventional contracts the generator and the corporate consumer enter into a contract for difference, option or other financial hedge where they agree a fixed "strike" price for the renewable electricity produced by the generator.

4. Generator and corporate consumer settle the difference between the fixed strike price and the variable market price at which the generator sells the renewable electricity it produces to the utility. This serves as a hedge to the electricity price at which the corporate consumer purchases under its standard electricity supply contract with the utility.
Which model to choose?

### Sleeved
Direct relationship with the generator – easier to show power used is procured from renewable sources, giving enhanced reputational benefits.

Ability to contract with a generator at build stage – demonstrate “additionally” by adding new green power to the grid, rather than reallocating existing renewable energy to the corporate.

### Synthetic
Power can be sold “virtually” across separate energy markets (e.g. across US states or across countries). This has been a strong driver for use of synthetic PPAs in the USA (the USA energy market is disaggregated).

Simpler structure – it is a contract for difference/financial hedge. In world of increasingly volatile power prices we wonder if the synthetic model will begin to emerge in Europe?