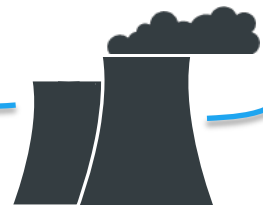


Investment and Economics & Bird & Bird

EFELA - Beyond Energy Sector Reforms

Brussels, 18 September 2018, 10:00

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Overview

1. Corporate PPAs – Investment Security Post Renewable Energy Schemes?
2. State Aid Guidelines review post 2020 - State Aid Investment Security



1. Corporate PPAs

Corporate PPAs

Area of Growth

- Will interest of larger corporations affect the agenda for the growth of renewable energy across the globe?
- Corporations globally purchased 5.4 GW of clean power capacity directly from generators in 2017 under a Corporate Renewable Power Purchase Agreement (Corporate PPA)
 - Germany currently installed base alone is 5.8 GW offshore wind – but 53 GW onshore wind, 45 GW solar
- Corporate PPAs seen as allowing corporate consumers and generators to take advantage of a range of economic, reputational and sustainability benefits

Corporate PPAs

Opportunities and Threats

Corporate Consumer

Opportunities

- Fix/floor/cap power price - hedge against rising and fluctuating energy prices in the wholesale markets. Prices have almost doubled in past 10 years, with high volatility.
- Achieve sustainability targets and objective to buy 100% of power from renewable sources. This has become as important, if not more important, than economic drivers.
- Smaller corporates can club together to share risk and enhance bargaining power.

Threats

- 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.
- Complexity/costs in negotiating the contracts. Power purchase is not core business. Hurdle for small and medium sized enterprises.
- A utility will still be required to provide power when the generating station is not generating (renewable power is intermittent). Allocation of balancing risk is a key issue – it can affect the level of price certainty that is achieved.
- If a project finance lender has financed a project it may require further security: e.g. direct agreement with the corporate or parent company guarantees.
- Change in law risks affecting the commercial balance of the deal and triggering re-negotiation.

Corporate PPAs

Opportunities and Threats

Generators

Opportunities

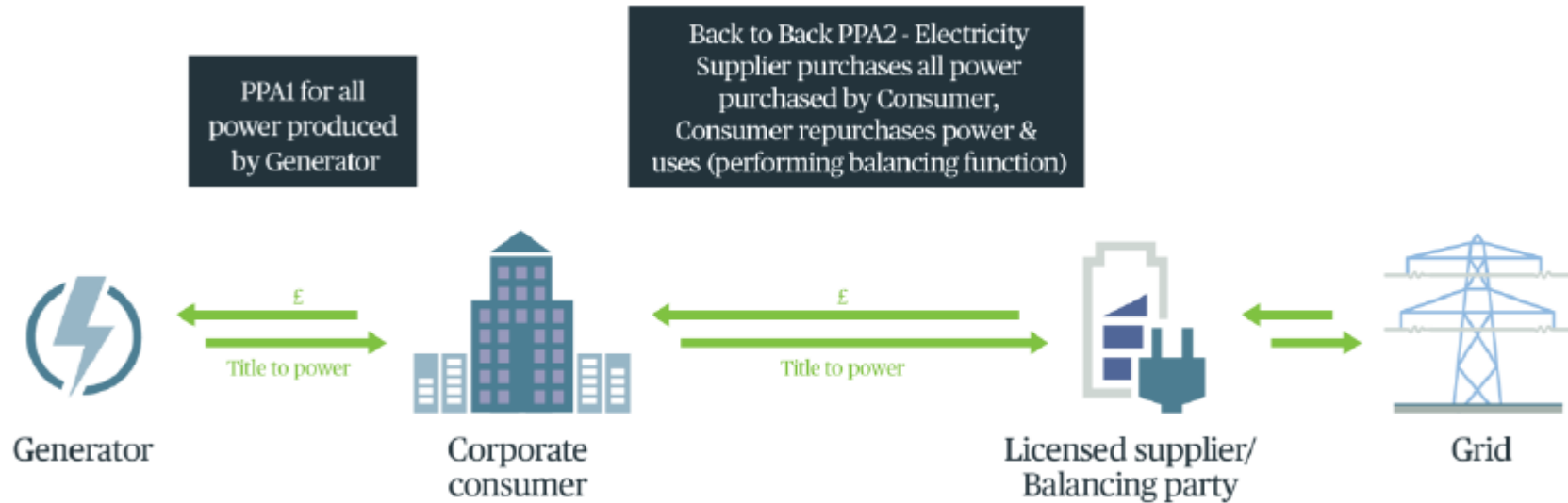
- Generator can achieve a stable price over the long-term as the corporate consumer often has more appetite to hedge against forecast rising/fluctuating power price rises. This is particularly attractive for projects financed by listed yieldco funds and project finance.
- Consumer sometimes willing to 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).
- The phasing out of renewable subsidies means that Corporate PPAs offer a new route to market for Generators

Threats

- Price – the price the corporate consumer is willing to pay / set the floor at may not be sufficient to bank the project
- Creditworthiness/bankability of offtaker – a bigger issue for unsubsidised projects as the Corporate PPA will represent almost 100% of total project revenues.
- 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?
- Inconsistencies between regulatory regimes in different member states
- The deal will need to be bankable. There is not yet a "standard" Corporate PPA – more complex to get a Corporate PPA approved by banks/investors?

Corporate PPAs

Corporate PPA Contract Structures: Sleeved PPA (1)



Corporate PPAs

Corporate PPA Contract Structures: Sleeved PPA (2)

- 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)
 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

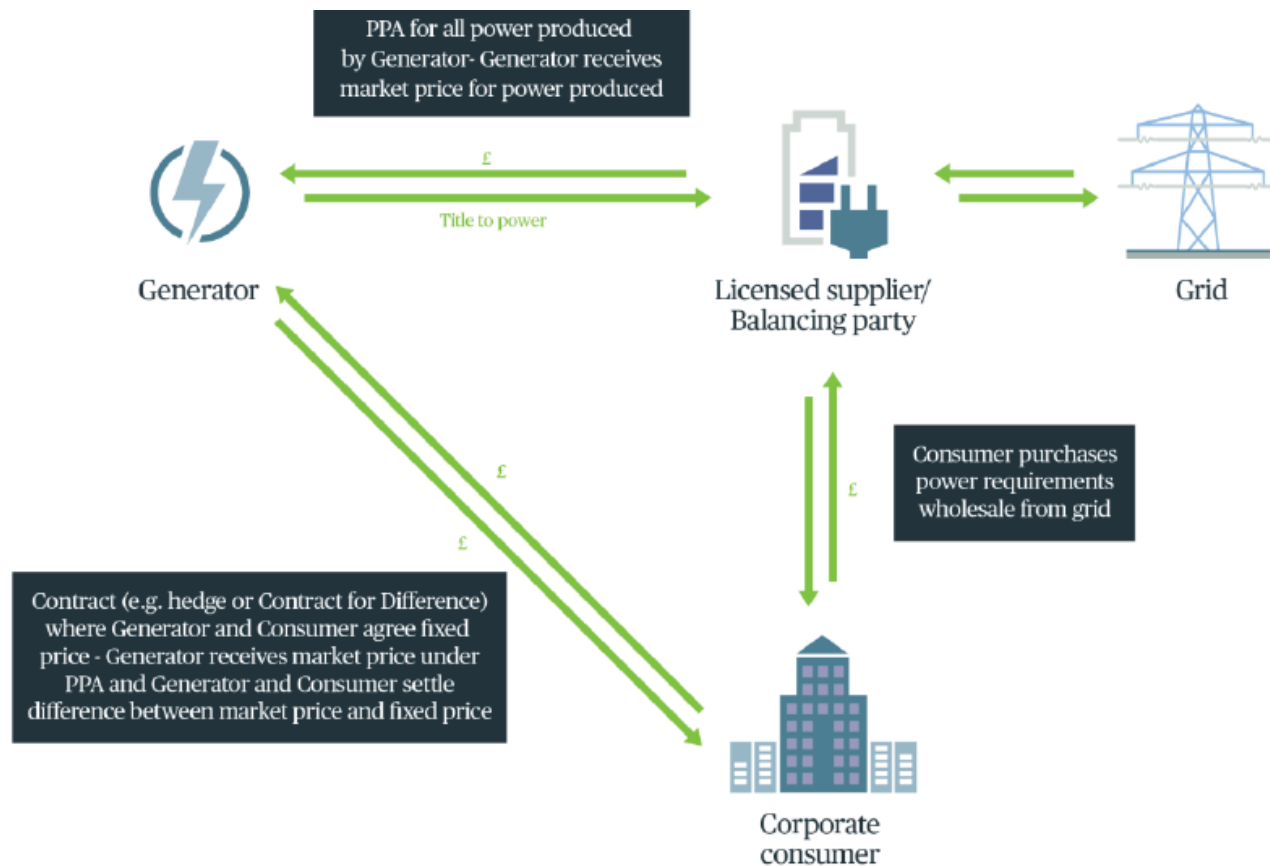
Corporate PPAs

Corporate PPA Contract Structures: Sleeved PPA (3)

4. Regulatory regimes usually require a licensed utility to be involved 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. Depending on the regulatory regime, the licensed utility and balancing party may be the same entity (as in the UK) or separate entities (as in the Netherlands)

Corporate PPAs

Corporate PPA Contract Structures: Synthetic PPA (1)



Corporate PPAs

Corporate PPA Contract Structures: Synthetic PPA (2)

- 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

Corporate PPAs

Corporate PPA Contract Structures: Synthetic PPA (3)

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

Corporate PPAs

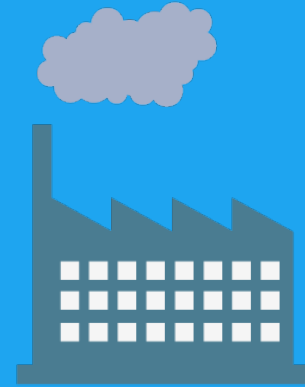
Corporate PPA Contract Structures: Sleeved or Synthetic?

- Sleeved
 - Direct relationship with the generator – easier to show power used is procured from renewable sources, 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)
 - 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

Corporate PPAs

Corporate PPA Contract Structures

- We reviewed 16 countries and regions for corporate PPA structures
 - United Kingdom, Sweden, Finland, The Netherlands, Spain, Italy, Denmark, Hungary, Germany, Ireland, Poland, Czech Republic, Slovakia, as well as Singapore, South East Asia, Australia
- Use very much depends on existence and structure of national RES support regimes
- Not successful where national support or regulatory regimes make it easy and cost efficient for companies to procure renewable energy through "normal" power purchase agreements
- Possibly a vehicle post feed-in tariffs and other state driven remuneration support schemes to increase investment security



2. State Aid Guidelines review post 2020 - State Aid Investment Security

State Aid Investment Security



Necessity of legal certainty for investment in the energy transition

- Legal certainty needs to cover all areas of the energy transition
 - RES support schemes, long term contracts (PPAs) and capacity mechanisms state aid approach, cross-border RES investment
- Challenge: State Aid Investment Security
 - Easy in theory, more difficult in practice
 - Example: Commission approach on public support for environmental protection and energy
 - Very substantial growth of renewable energy until 2014 was strongly induced by state driven support schemes, previously considered to be outside of state aid regime (PreussenElektra)
 - Lead to progress on environmental objectives but also caused serious market distortions and increased costs to consumers
 - Resulted in guidelines on State aid for environmental protection and energy 2014-2020 (EEAG), valid from 1 July 2014 until the end of 2020

State Aid Investment Security



Recap: EEAG 2014-2020 objectives

- Shall support Member States in reaching their 2020 climate targets while addressing the market distortions that may result from subsidies granted to renewable energy sources
- Promote a gradual shift to market-based support for renewable energy
- Provide criteria on how Member States can relieve energy intensive companies that are particularly exposed to international competition from charges levied for the support of renewables
- Include new provisions on aid to energy infrastructure and generation capacity to strengthen the internal energy market and ensure security of supply

State Aid Investment Security



Example: Influence on German support schemes

- Lots of decisions made
 - EEG 2012
 - Commission decision of 25 November 2014 – [C\(2014\) 8786 final](#)
 - Support of renewable electricity and of energy-intensive users
 - Decision of General Court of 10 May 2016 – [Case T-47/15](#)
 - EEG 2014
 - Commission decision of 23 July 2014 – [C\(2014\) 5081 final](#)
 - Reform of the Renewable Energy Law
 - Commission decision of 25 November 2014 – [C\(2014\) 8822 final](#)
 - Reform of the Renewable Energy Law - Reduced EEG-Surcharge for Railways
 - EEG 2017
 - Commission decision of 20 December 2016 – [C\(2016\) 8789 final](#)

State Aid Investment Security



Example: Influence of European Commission in German support schemes

- Lots of decisions made (cont'd)
 - Network Charges
 - Commission decision of 28 May 2018 – [SA.34045](#)
 - In-depth investigation already started in March 2013
 - Exemption for certain large electricity users (above 7.00 hours and 10 GW) in Germany from network charges in 2012-2013 was against EU State aid rules
 - No grounds to fully relieve those users from paying network charges
 - Germany now has to recover the illegal aid (EUR 300 million)

State Aid Investment Security



Example: Influence of European Commission in German support schemes

- German Government
 - Upheld view that EEG not state aid
 - Considered important concerns of the European Commission, e.g. better market integration of renewables, also to be in the national interest
 - Considered it necessary that European legal framework shall be developed in such a way that competitiveness of electricity intensive industries shall be further ensured in the future
- Unfortunate: No judgement of the Court on the substance in preliminary ruling case on German scheme for the support of renewable electricity sources and energy-intensive users to finally settle debate on state aid definition in renewable energy support schemes (25 July 2018, Case C-135/16), but appeal against 2016 judgement by Germany still pending (Case C-405/16 P)

State Aid Investment Security



State aid guideline review post 2020

- Can build on the 2014-2020 experience
- Needs to take due account of legal certainty expectations not only of the energy industry, but also of indirectly affected parties
 - No collateral damage for energy intensive industries
- Need to be aligned with wider EU energy policy aims

Thank you & Bird & Bird

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