

Optimising Energy Procurement via Corporate PPAs



Corporate consumers are entering into Corporate Power Purchase Agreements with renewable energy projects as a means of achieving price certainty and saving on future energy costs.





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Introduction

The Australian energy market remains the subject of intense scrutiny and debate, with daily news surrounding material increases in wholesale electricity prices and political uncertainty around renewable energy targets. Notwithstanding its relatively late start, Australia's renewable energy sector is rapidly developing as prices fall and technology improves.

This convergence of cost and technology has resulted in companies sourcing their electricity demand through power purchase agreements with 'green' generation facilities (**Corporate PPAs**). This trend was initially seen by large energy consumers in the United States, particularly by companies with large data centres. Other large multinationals followed, pursuing global green power initiatives via cost-efficient power purchase agreements with renewable generation projects.

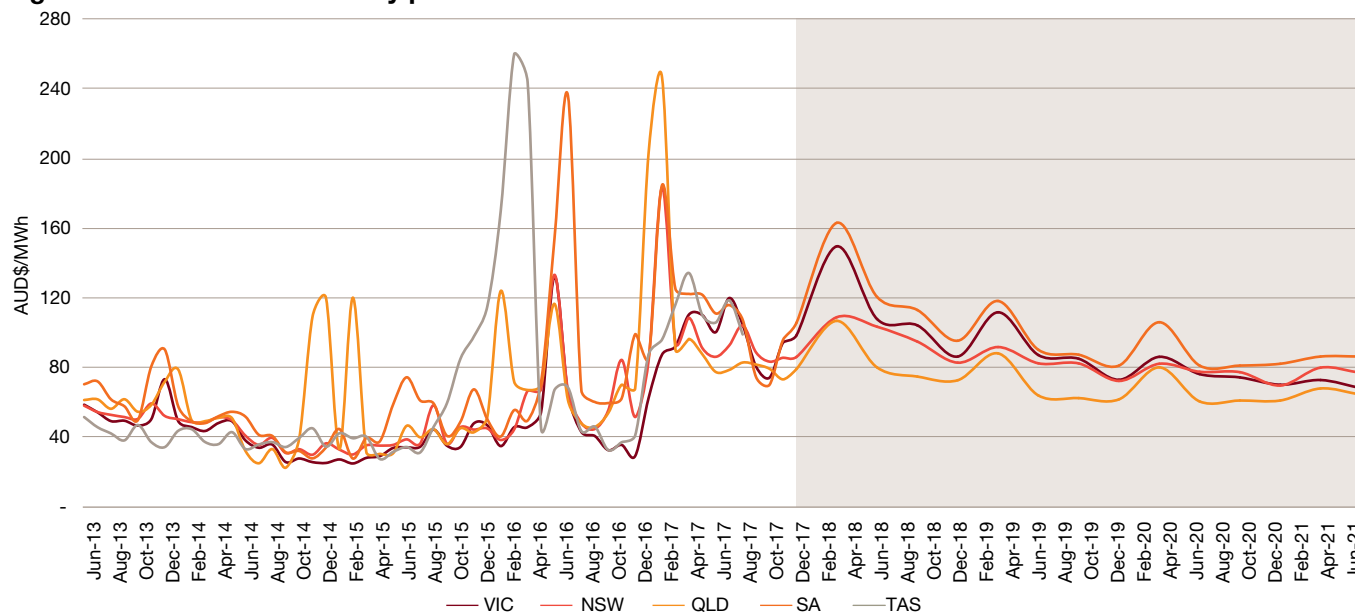
Australian corporate consumers are becoming increasingly active in the domestic electricity market, seeking long term offtake agreements to reduce their electricity costs and exposure to price volatility or, in some cases, meet their national or global sustainability targets.

This paper analyses the opportunities and business imperatives for Australian corporate consumers, as well as some of the challenges they face in entering Corporate PPAs. The paper aims to assist corporate consumers in navigating this market and explores solutions for corporates wanting to enter into such agreements.

Australian context

Until recently, the Australian Corporate PPA market was virtually non-existent. However, there has been a significant increase in power prices faced by Australian consumers over the 2016/17 period. Economic modelling suggests power prices are likely to remain almost double compared with what was paid by consumers only a few years ago.

Figure 1 – Wholesale electricity prices



Notes:

1. Historical prices are monthly average spot price to 31 October 2017, sourced from AEMO
2. Forecast prices from Nov-17 to Dec-17 are monthly base price futures as at 7 November 2017, sourced from ASX Energy
3. Forecast prices from Mar-18 to Jun-21 are quarterly base price futures as at 7 November 2017, sourced from ASX Energy

The reduced supply of power as a result of the closure of the Hazelwood power station and resultant increase in forward curve prices has nevertheless prompted a wave of interest from commercial and industrial customers procuring their own electricity, and seeking alternatives to their existing retailer contracts. This is particularly so in the case of customers who compete against global peers, and where prices for the sale of their products or services are set by reference to a global benchmark. The impact of rising input costs goes directly to their bottom line, and many are claiming they will be unable to continue to operate economically at current electricity prices.

We are also seeing some interest driven by global corporate customers at the forefront of sustainability and environmental considerations, who are seeking to be carbon neutral by a target date of 2030. Examples of recent Australian Corporate PPAs entered into or put to the market are set out in the table below.

Table 1 – Recent Australian Corporate PPAs

| Corporate | PPA term | Energy purchased |
|------------------------------------|--------------------|------------------|
| ‘Behind the Meter’ | | |
| Sun Metals | Not disclosed | 116MW |
| Nectar Farms | Not disclosed | 196MW |
| Westpork | Not disclosed | 2.2MW |
| GMA Garnet | Not disclosed | 3MW |
| Tyrrell’s Wines | 20 years | 350kW |
| ‘Synthetic PPA’ | | |
| Kleenheat | 10 years | 30MW |
| Telstra | 8 years | 70MW |
| AB InBev/Carlton United Breweries* | Until 2030 or 2035 | 80GWh p.a |
| Monash University* | 10 years | 55GWh p.a |
| University of New South Wales* | 10 years | 93GWh p.a |
| University of Technology Sydney* | 10-15 years | 27GWh p.a |



There are a variety of reasons for entering into the above agreements. Media reports suggest that Sun Metals¹ Nectar Farms², and Tyrrell’s Wines³ decided to enter into a renewable energy PPA primarily to address continually rising costs of procuring traditional energy supply, and secure a fixed cost of energy.

Published press comments show that the motivation for Telstra’s Corporate PPA is two-fold. Firstly, and most importantly, it protects Telstra from volatility in energy prices and provides certainty in energy costs, similar to how large corporations protect themselves from exchange rate and interest rate movements through hedging and forward contracts⁴. Secondly, it forms part of Telstra Energy’s plan to offer any excess electricity Telstra generates from its exchanges to the wholesale market when ultra-high demand causes prices to surge⁵.

In contrast, the primary motivation behind AB InBev’s Corporate PPA is the company’s commitment to source 100 per cent of its purchased electricity from renewable sources by 2025⁶. AB InBev expects to secure between 75 per cent and 85 per cent of its electricity needs through renewable energy Corporate PPAs, with the remaining capacity provided by on-site solar PV installations.

*Requests for proposals for PPAs

¹ Source: <http://reneweconomy.com.au/sun-metals-goes-bigger-solar-plant-hedge-energy-costs-21064/>

² Source: <http://reneweconomy.com.au/nectar-farms-on-100-renewables-why-would-you-do-it-any-other-way-79279/>

³ Source: <http://reneweconomy.com.au/nsw-vineyard-going-solar-with-one-of-australias-first-commercial-ppas-76834/>

⁴ Source: <http://www.afr.com/business/energy/solar-energy/telstras-solar-contract-part-of-bigger-power-play-20170530-gwg0ul>

⁵ Source: <http://reneweconomy.com.au/queensland-solar-farm-is-just-start-of-telstras-big-solar-plans-17442/>

⁶ Source: <http://www.ab-inbev.com/content/dam/universaltemplate/ab-inbev/News/press-releases/public/2017/03/EN%20-Anheuser-Busch%20InBev%20Commits%20to%20a%20100%20Renewable%20Electricity%20Future.pdf>

Structuring Corporate PPAs

Corporate PPAs may be structured in a variety of ways. The most appropriate structure will require an understanding of the corporate's primary drivers, an analysis of its load profile and an evaluation of any other relevant considerations applicable to the corporate, such as location. Proper financial analysis of the available alternatives, together with a risk identification, allocation and mitigation analysis is essential.

Many customers seeking Corporate PPAs want to replicate what they have done elsewhere in the world. For example, enter into a fixed price long term contract for their power from a renewable source, without differentiating the pricing for the electricity itself and the 'green' certificates (i.e. Large Scale Generation Certificates or LGCs under the *Renewable Energy (Electricity) Act 2000*, or other 'Green Benefits' under a State target).

In Australia's National Electricity Market (NEM), this is not necessarily as straightforward as in some other jurisdictions. In the NEM, electricity ('merchant' or 'black') prices are set by the Australian Energy Market Operator (AEMO) through a pooling mechanism at specific transmission nodes. These multiple transmission nodes are grouped by State. The electricity price for each State is determined with reference to generator supply and consumer demand at that node. Hence, the location and timing of dispatch of the renewable power generation versus the location and timing of when and where the power is utilised by the end consumer cannot necessarily be priced in a direct contract between the parties.

The price of 'green' power, or renewable energy certificates/credits is separately determined from the energy price on a spot market, based on the number of LGCs (1 LGC = 1MWh) in existence at any given time versus the statutory obligations on liable entities (mostly retailers) to surrender LGCs each year.

A retailer is necessary to manage billing, the mismatch (if required) of renewable generation and demand through market trading (merchant), LGC

certificates (if required), and ancillary services (such as Frequency Control Ancillary Services (FCAS)) and AEMO interaction. Generators may not have a retail licence and do not undertake many of these intermediary roles, requiring their retailer or another entity to act as intermediary.

The corporate's initial preference for a Corporate PPA is not generally a pure project offtake exposed to intermittent power from the facility. It is a firm (i.e. dispatchable) offtake from projects (i.e. placing the risk of 'firming capacity' – either via batteries or third party load following derivatives onto the project). In this case, project costs would increase significantly and would likely see the corporate offtake price increase. Until such time storage costs decrease significantly, we do not envisage the situation whereby 'firm' Corporate PPAs from renewable projects will become commonplace. We consider that a corporate can better manage this risk itself by purchasing any additional/firming load requirements in excess of project output from a retailer via a 'sleeved' Synthetic PPA.

Through a Corporate PPA, and the inclusion of a retailer, the corporate consumer will benefit from a financial relationship with the generator (e.g. Contract For Difference or CFD). In addition, 'firming capacity' can be sought via the retailer, ensuring energy demand will be met irrespective of the generation profile of the renewable energy project they have contracted with (i.e. risk has been reallocated). However, it is noted the tenure of the 'firming' contract with the retailer may not necessarily match the tenure of the generation contract from the underlying renewable project. The retailer may charge a 'sleeving' premium for assuming this risk. It is important to consider these additional premiums when calculating the cost benefit of entering into a Corporate PPA.

Bundled, LGC only or Electricity only PPAs

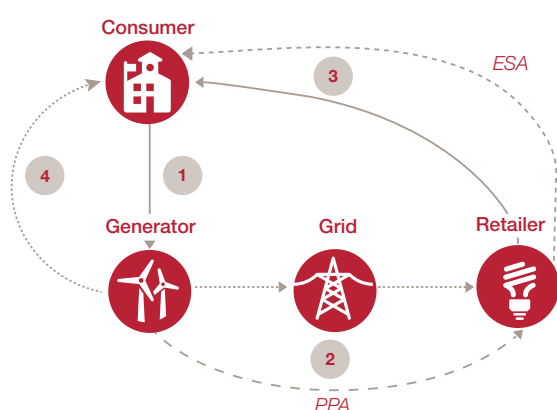
Often, retailers will write fixed bundled price PPAs covering the electricity and LGC component when sourcing power from renewable projects. In some circumstances, for example if the retailer does not require any more LGCs to meet its obligations, it may enter into a contract for electricity only, leaving the generator free to sell the LGCs to another entity. This can then be surrendered or traded on the spot market.

Our experience suggests that corporates are largely wanting to enter into bundled contracts (and indeed this would be the preference of the renewable project developer selling the output). If the corporate's primary driver is Environment, Social and Governance (ESG) related, it would then surrender the LGCs so that its renewable energy procurement truly achieves 'additionality' (i.e. is fully sourced from renewables). However, if its primary driver is to hedge pricing volatility, the corporate can opt to sell the green certificates on the spot market, thereby partially offsetting the bundled price paid.

'Behind the Meter' PPAs

This is the simplest form of Corporate PPA, so called because it physically connects the renewable energy generator to the consumer 'behind the meter' on the site, and does not usually contemplate connection to the NEM. Examples include large rooftop or on-site solar or wind installations, and involve a contract directly between the generator and the customer. The generator may or may not be permitted to sell any capacity in excess of the corporate's load requirements to the grid or other customers with different profiles. Unless a storage solution is involved, this arrangement will not generally allow the corporate to 'go off the grid' and bypass the retailer since the corporate's load profile is unlikely to exactly match the intermittent generation profile

Figure 2 – 'Behind the Meter' PPA



Steps:

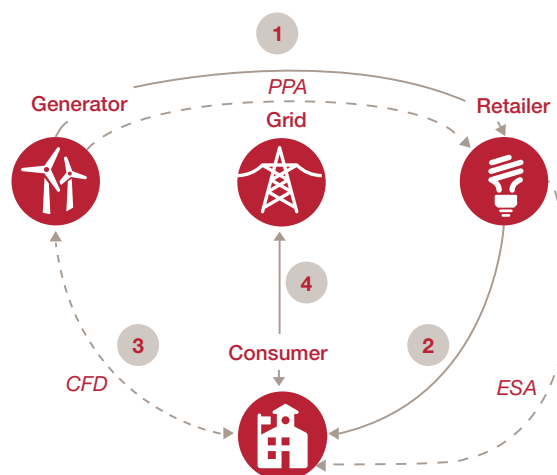
1. Consumer contracts directly with the generator (or no contract necessary if consumer owns the facility).
2. Generator sells any excess electricity into the grid, either at merchant or through a PPA with a retailer.
3. Consumer continues to purchase electricity from the retailer under a standard ESA to cover load requirements where the generator is not producing (i.e. 'firming') (note: may not be necessary for combined generation and storage solutions such as solar or wind + battery or solar or wind + diesel generation).
4. Assuming consumer has some ownership interest in the generator, consumer receives return on investment from the generator.

of the generator. In that case, although the corporate may have reduced its retail bill, it would still need to pay the connection charges, which form a large and rising component of those costs. Co-locating batteries and other technology (e.g. pumped hydro, solar CSP, or even conventional energy turbines) may see this type of PPA become increasingly popular for firming, particularly for Corporate and Industrial (C&I) customers in more remote locations.

Synthetic PPAs

Other structures of PPAs include 'synthetic' or 'virtual' structures, which involve connection to the NEM and therefore contracting with a retailer (or an entity that has all the relevant licensing to be a retailer). Such PPAs are essentially financial hedges or contracts for difference, under which fixed prices are settled against floating or spot prices in the NEM. A form of Synthetic PPA will be required where there is no complete on-site solution for the corporate consumer. There are several variations on the Synthetic PPA, depending on the merchant risk appetite of each entity involved. Under the fixed price PPAs written to date between major retailers and generators, retailers have offered a fixed price for a certain term, accepting merchant risk during that term (generally contracting to the end of 2030).

Figure 3 – 'Synthetic' PPA



Steps:

1. Generator sells power to retailer under a PPA with variable market price.
2. Retailer continues to sell power to the consumer under a electricity supply agreement (ESA).
3. Generator and consumer enter into a contract for difference (CFD) whereby they agree a fixed 'strike' price for the electricity produced by the generator.
4. The CFD is settled between the fixed strike price and the variable market price at which the generator sells the electricity it produces to the energy retailer.

Risks and uncertainties in Corporate PPAs

In late 2015/early 2016, following the emergence of Corporate PPAs in the US, various financial and legal consultants (including PwC US) issued papers on corporate power purchase agreements. Whilst US-centric, these reports provide useful insights on some of the challenges faced in entering into Corporate PPAs.⁷

The main concerns of corporate consumers entering into a Corporate PPA are summarised below:

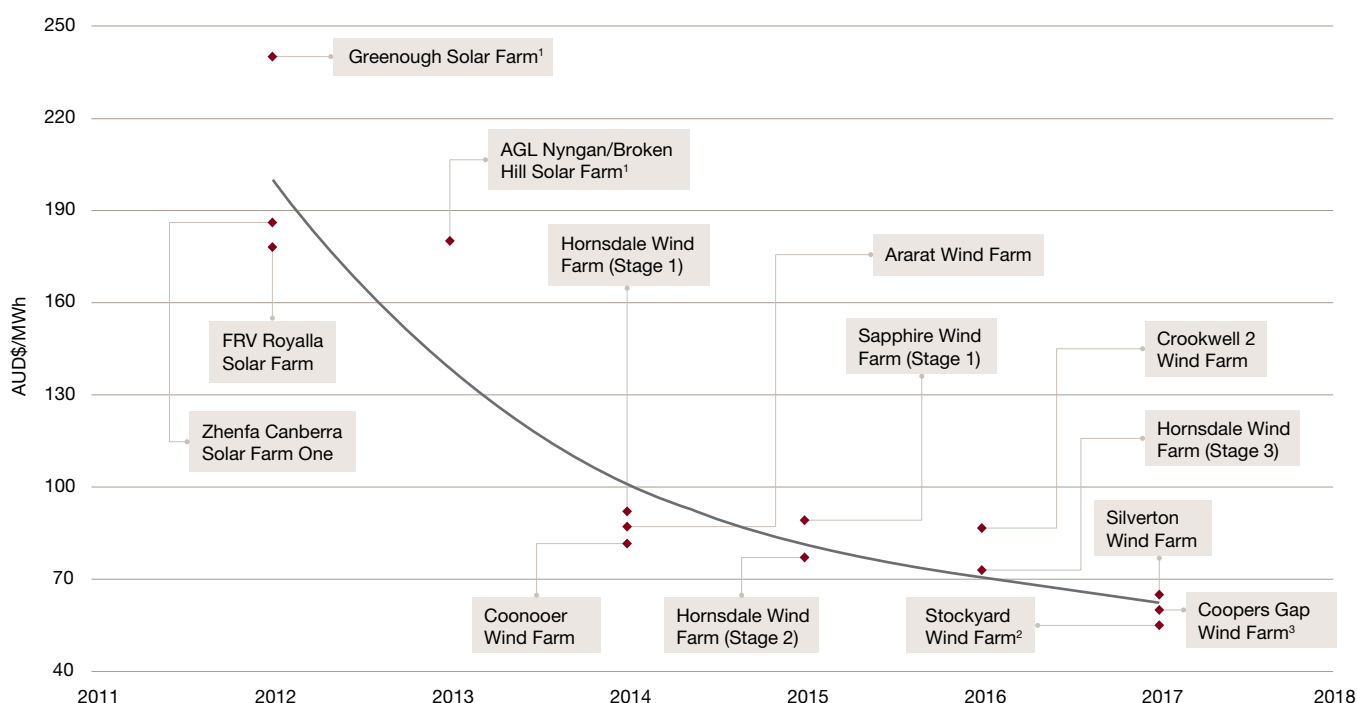
- Forecast wholesale price uncertainty.
- Counterparty risk.
- Power consumption risk.
- Accounting complexity.
- Change of law/regulation risk.

Forecast wholesale price uncertainty

Corporates are naturally concerned that wholesale power prices may decline below the agreed strike price for a sustained time period. We consider these contracts should be thought of as a hedge against rising prices and uncertainty in the same way that corporates hedge interest rate risk. Nevertheless, corporate concerns are understandable given offtake contracts are generally for a longer term to help underpin necessary certainty and economic viability of renewable sites.

However, we have witnessed in recent years that as technology costs have reduced, and consequently the capex cost of projects has decreased, contracted offtake prices bid by proponents have reduced accordingly. The chart below sets out recent examples of contracted PPA prices offered from renewable projects. Whilst these are generally with the major retailers or State governments, they show prices which provide acceptable returns to projects, noting that certain projects benefitted from favourable financing through ARENA or CEFC.

Figure 4 – Australian Renewable PPA prices



¹ Price is the Levelised Cost of Energy (LCOE) derived by the ACT Government, Environment and Sustainable Development Directorate

² Stockyard Wind Farm price is between \$50/MWh and \$60/MWh

³ Coopers Gap Wind Farm PPA struck at less than \$60/MWh, although shown above at \$60/MWh

Source: PwC Analysis

⁷ Sources: <https://www.pwc.com/us/en/sustainability-services/publications/assets/pwc-corporate-renewable-energy-procurement-survey-insights.pdf>; <http://www.pwc.com/us/en/sustainability-services/publications/renewables-procurement-winning-practices.html>

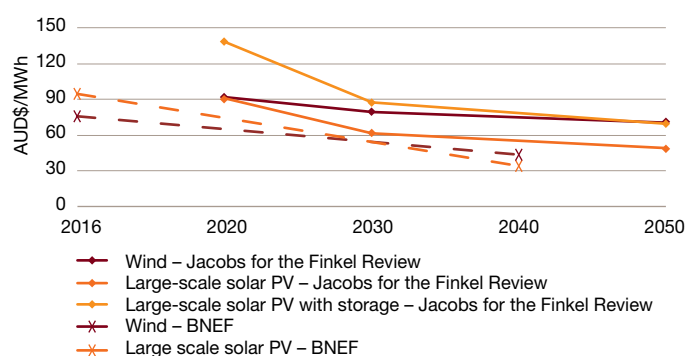
Based on our experience with current EPC prices, assuming a 2030 contract with an investment grade counterparty, and reasonable developer return expectations, we are currently seeing new projects with significant scale bid in a range of \$60-\$70/MWh plus annual indexation.

The question remains as to how this will compare to the longer term price of energy. Historically, wholesale prices were typically around \$40/MWh when set by reference to the marginal cost of base load coal fired generation.

Whilst it is recognised that existing baseload coal plants are currently the cheapest form of generation (with no carbon price), as the fleet becomes older, it is also widely accepted that the costs of refurbishment and maintenance will eventually become uneconomical. This means plants will need to be decommissioned over coming decades. The forecast decrease in supply of baseload power will contribute to increases in wholesale energy prices, as replacement investment in new generation will (based on current prices) come at a higher cost. This is perhaps best demonstrated by the recent closure of the 1600MW Hazelwood power station, where the consequent reduced supply has led to an increase of wholesale prices in excess of \$100/MWh. This is reflective of the marginal cost of more expensive gas fired generation to plug the gap. Understanding future supply mix, and the expected marginal costs of various fuel types, is therefore an important determinant in understanding future prices.

Recent modelling of this data, most notably by Jacobs for the Finkel⁸ review and Bloomberg New Energy Finance (BNEF)⁹, anticipates the gradual exit of coal fired generation, which will be needed to achieve Australia's commitment to the Paris Agreement to reduce emissions.

Figure 5 – Wind and solar, forecast levelised cost of energy



Both advisers also highlight the rapidly falling cost of new renewable projects.

BNEF² further highlights their views of levelised (all in) costs by 2040, and forecasts the average cost of solar to be US\$26/MWh and wind to be US\$33/MWh.

While the cost of renewable energy projects are in decline and may decline to prices below the price of coal fired generation, the costs to address the intermittent output of renewable energy projects will drive the forward wholesale prices of energy. The cost of 'firming technologies' (ie via pumped hydro, solar thermal, gas or batteries) are not forecast to fall below the historical wholesale prices of electricity.

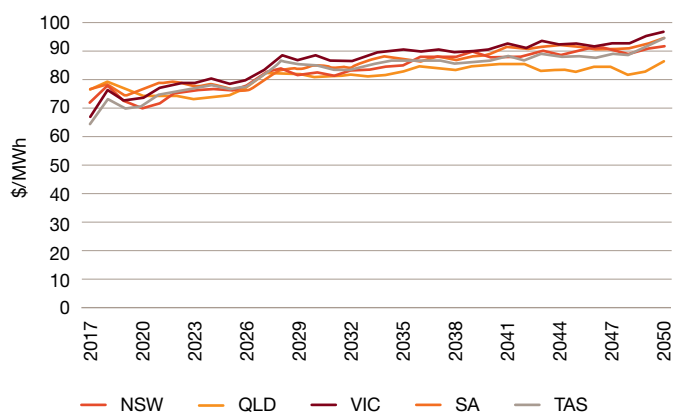
This is supported by independent modelling for the Finkel review, which shows wholesale prices gradually increase post 2020, in line with assumed increases in gas prices and reduced supply from coal fired generators.

There would appear to be little downside risk of prices dropping below the contract prices of renewable generation which are currently being negotiated. Therefore, to the extent that the renewable energy project can offset some of the wholesale energy costs that the corporate is exposed to, there would seem to be benefit in entering into a Corporate PPA. This of course will require 'firming' electricity from a retailer at a cost that does not outweigh this benefit. As previously noted the tenure of the firming contract with the retailer through an energy supply agreement may be a shorter term (say three years) and would be expected to become cheaper over time as firming technology of battery storage improves and costs reduce.

⁸ Source: Independent Review into the Future Security of the National Electricity Market by Dr. Finkel, p.487 <http://www.environment.gov.au/system/files/resources/1d6b0464-6162-4223-ac08-3395a6b1c7fa/files/electricity-market-review-final-report.pdf>

⁹ Source: Bloomberg New Energy Finance (BNEF)'s New Energy Outlook 2017, as stated by the Australian Financial Review, www.afr.com/news/cheap-wind-solar-will-make-australia-a-magnet--bloomberg-20170615-gwrwat

Figure 6 – Annual average wholesale market spot price forecast, BAU, per state in the NEM.



Source – Jacobs Consulting (2017).

In addition to detailed cost analysis, structural price protections could be considered, for example caps/collars versus fixed price, which would enable some sharing of the merchant exposure between the corporate and the generator.

Counterparty risk

The second risk flagged by potential corporate offtakers is counterparty risk and the concern the energy supplier may become insolvent and not be able to meet its obligations under the contract. Under Corporate PPA structures, the retailer would act as an intermediary and any financing solution for construction of the facility would need to consider the long term creditworthiness of the generator (Synthetic PPA structure).

We consider there are three areas of potential concern due to the manner in which the Australian energy market operates, although we consider the risk to be fairly low for the corporate in each case.

The first area of concern is where the corporate signs up for offtake from the project whilst it is still in development prior to operational phase. This is becoming more commonplace in order to underwrite a project with a Corporate PPA. Whilst the PPA would usually have a condition precedent of project financial close being achieved, the corporate is exposed to the risk that the project is not completed on time. The risk should be able to be managed and mitigated via the corporate's tender process in selecting which project to choose as the energy supplier. Whilst price is a key evaluation criterion, corporates need to address other criteria, including:

- an assessment of the certainty of the project deliverability;
- undertaking sufficient due diligence on the project owners and contractors;
- understanding the construction and supply contracts, and the status of grid connection;
- assessment of the overall bankability of the project; and
- timing and likelihood of the project reaching completion and meeting required performance standards on an ongoing basis.

Secondly, there could be the situation where the project only provides a portion of its output to the corporate, and the balance of the output is sold into the market at merchant prices. However, through merit order bid pricing, renewables projects (with minimal marginal cost) would generally be able to bid lowest, be asked to dispatch first whenever the resource (solar or wind) is available, and thereby generate revenue. The concern is that the volumes of generation and prices earned would not enable projects to meet their financial obligations. Project financiers are cautious in lending to partially contracted (primarily merchant) assets, and they will apply a conservative forecast price curve when determining the level of funding to be provided. To date, with the possible exception of Clean Energy Finance Corporation (CEFC) generally project financiers have not been willing to finance pure merchant facilities, and there has been little corporate appetite to take long term merchant exposure. For those operating projects which have been predominantly equity funded, the risk of insolvency of the generator should theoretically be lower due to the absence of debt servicing costs.

Thirdly, we accept that, under a Corporate PPA, the offtaker is exposed to the generator's obligation to generate and deliver energy. However, in the case of a fully contracted asset, the risk is reduced since banks lend on the quality of the terms of the contract and creditworthiness of the corporate offtaker. From the perspective of the generator and its lenders, both would seek a term of at least seven years and ideally ten to twelve years, with an investment grade credit rating offtaker or appropriate credit support. A longer term or a corporate consumer's high creditworthiness could serve as leverage in order to negotiate a lower offtake price.

It is commonplace in project financings of renewable energy projects for lenders to require a tripartite or direct deed with the offtaker to obtain protections against termination of the PPA by the offtakers in the event of insolvency or enforcement against the generation. Corporate offtakers may require similar protections against lenders or receivers appointed by them terminating the Corporate PPA.

Furthermore, CFD payments are settled on the same day that AEMO settles for generation supplied, so there is no material cash time lag suffered by the project.

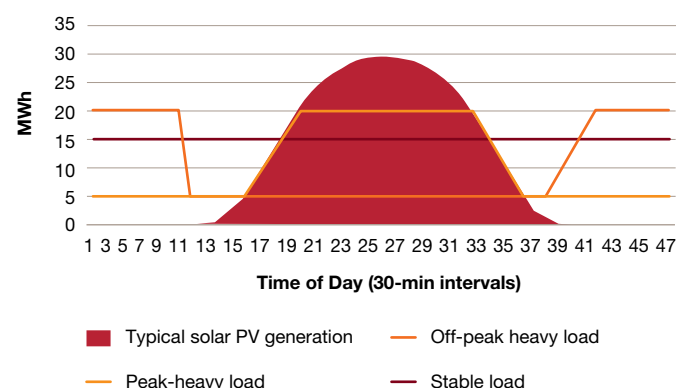
Power consumption risk

In the US, some corporates were concerned that generation from renewable projects may not service their load efficiently. In the case of under supply, the corporate consumer is subject to merchant risk (i.e. real time fluctuations in the wholesale market price). We consider this to be a fundamental strategic decision to be considered when entering into a Corporate PPA. Not all corporates are data centres with a very stable 24/7 demand profile. Shift working, trading hours, Christmas holiday shutdown periods, etc. can materially impact usage patterns. Corporates need to determine their energy procurement strategy with an understanding of their overall usage and load profile and how this may change overtime.

Generally, corporates will have one of the following load profiles:

1. Peak heavy load (daytime traders, e.g. retail shops).
2. Off peak heavy load (night traders, e.g. petrol stations).
3. Stable load (e.g. data centres and resource manufacturing).

Figure 7 – Illustrative load profiles



Corporates need to overlay the output profile from the renewable project(s). As demonstrated by the chart above, typically, there would be a balance which will be firmed up and contracted, for example via a Synthetic PPA with their regular retailer.

One strategy may be to form a buyers group with other corporates who have different load profiles and pool requirements. The benefit of forming a buyers group, similar to that undertaken by the South Australian Chamber of Mines and Energy (SACOME); or arrangements offered by WWF’s procurement model, is purchasing low cost energy from a large generator with economies of scale and lower prices. Importantly, the Australian Competition and Consumer Commission (ACCC) approval for SACOME notes that each member will enter into a separate offtake agreement.

Subject to the specific arrangements adopted, in times of low usage there may be times of surplus power supply which could be sold back into the grid at merchant prices.

Prior to tendering for a PPA, corporates need to undertake modelling to determine the strategy to be adopted, and whether the alternative procurement methodology is able to generate cost savings versus the status quo (assuming price is a key reason for entering into the contract).

Conversely, there is also an issue regarding the volume of power the corporate can acquire. The relative size of Corporate PPAs compared to a retailer or State government PPA could be small.

In the absence of any group pooling or aggregation, the demands of corporate buyers may be insufficient to cover the entire generation of a renewable energy project, particularly with the recent trend of 100MW plus sites. Partial PPAs on a project may present the developer with funding difficulties, as noted in the 'counterparty risk' section. However, we envisage a scenario where a project could be selling power under multiple Corporate PPAs. This will require careful drafting of offtake agreements around first right to power and any required allocation, particularly in times of low wind or solar yields and reduced generation output. It will likely require a common approach across the project and, from a corporate's perspective, a clear understanding of other contracts relating to the project, and the priority of its entitlement.

Accounting complexities

Accounting implications of a Synthetic/Corporate PPA may impact the corporate's credit rating due to possible recognition of long term liabilities, or the fact it may trigger derivative accounting. These questions are often raised by corporates as concerns.

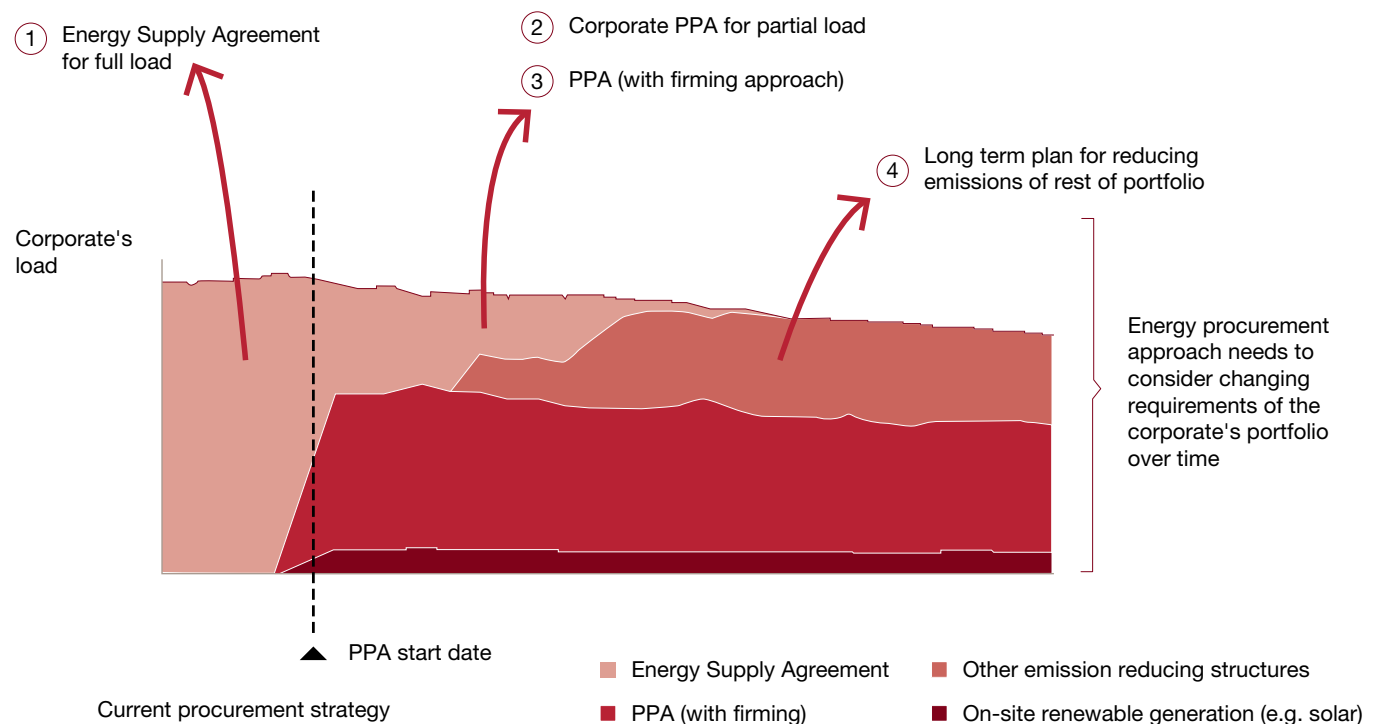
The first concern is the PPA arrangement could be treated as a finance lease for accounting purposes, which would require the present value of the 'lease

payments' (i.e. the payments under the PPA) to be recognised on the balance sheet, as a generation asset with a corresponding finance lease liability.

Accounting standards provide detailed guidance on how to determine if a PPA contains a lease, and if the lease is an operating or finance lease. Currently, operating leases are 'off balance sheet', with payments being recognised on a straight line basis in the profit and loss over the life of the lease arrangement. From 1 January 2019, under the new lease accounting rules, there will be no distinction between operating or finance leases and both will be accounted for on the balance sheet.

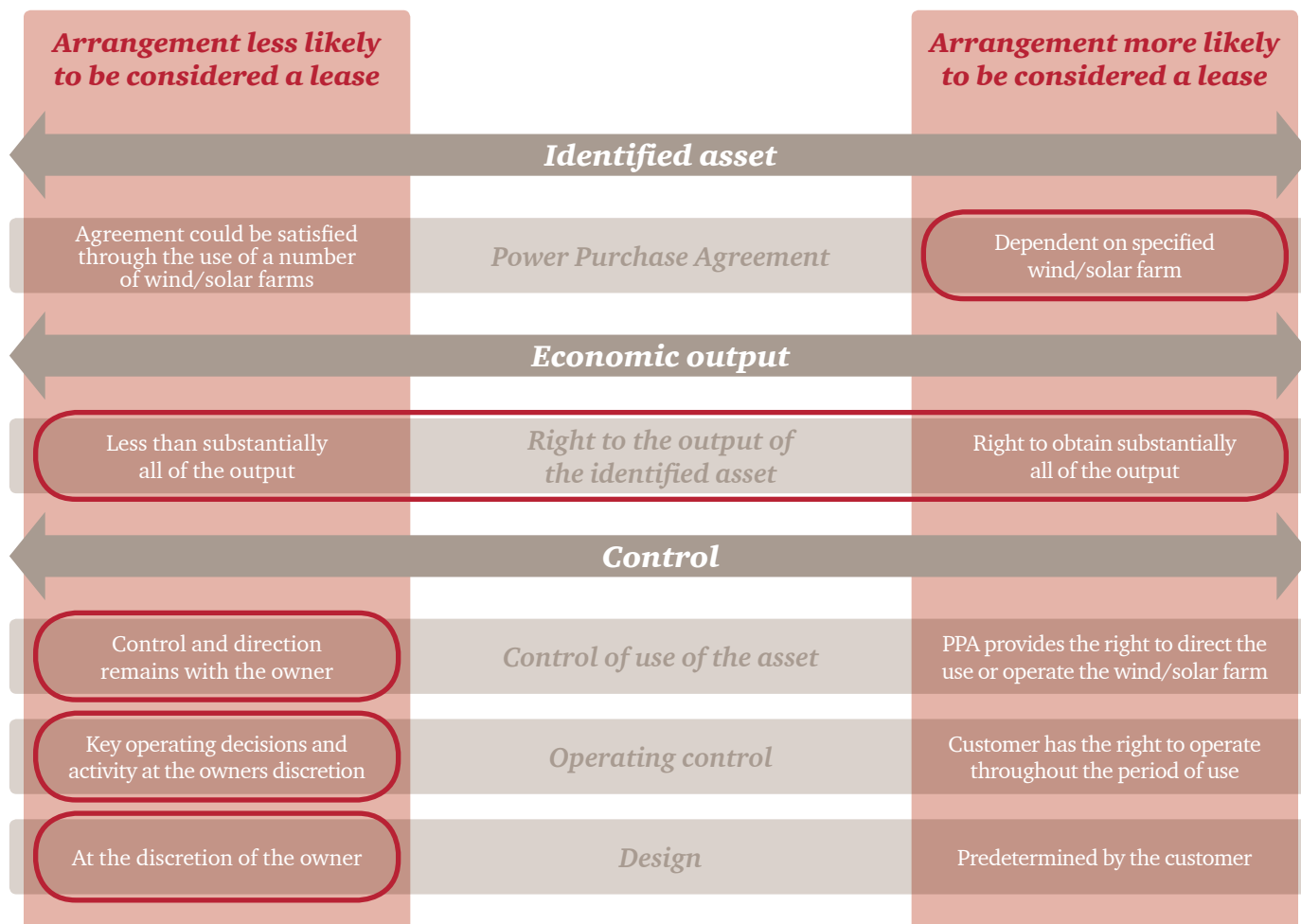
If the Corporate PPA is considered a lease and recognised on balance sheet, the impact on a company's income statement can be significant, compared to expensing payments as incurred under the normal electricity purchase agreement. If the PPA is on the balance sheet, the Corporate PPA asset is depreciated and there will be ongoing interest costs associated with the lease liability. This can result in unintended consequences on profitability and key performance metrics (EBITDA, NPAT, net debt), which will need to be carefully considered.

Figure 8 – Illustrative corporate procurement strategy



The diagram below outlines some of the key considerations that will likely determine if the Corporate PPA contains a lease.

Figure 9 – Key lease considerations



In a typical Corporate PPA, where the developer designs, operates and dispatches the output, and a corporate purchases from this individual wind/solar farm, the outcomes circled in figure 9 above would generally be evident. The treatment as to a lease or not may therefore ultimately be determined by the size of the contract relative to the total plant output.

If the arrangement is considered not to contain a lease, it could still be a derivative financial instrument due to the net settlement provisions under the arrangement, and therefore the application of hedge accounting could apply.

Derivative financial instruments are required to be recorded at fair value on the balance sheet (recognising the difference between the contract price and forward prices over the life of the contract), with fair value movements in the instrument being recorded in profit and loss if hedge accounting is not applied.

Depending on the circumstances, obtaining hedge accounting for corporates may present challenges. However, if it is possible to achieve, all fair value movements would be deferred into equity within the cash flow reserve and recycled to profit and loss in line with hedged purchase.

If hedge accounting is not possible, consideration might need to be given to structuring Corporate PPA arrangements in such a way to be more akin to a normal purchasing agreement, and therefore to avoid derivative and/or lease treatment.

These outcomes will be contingent on the key terms of the arrangement, and companies should carefully consider the potential outcomes prior to execution. Careful planning and consideration of the accounting outcomes should be contemplated when negotiating the commercial arrangements to ensure both consequences are fully understood and acceptable.

Change of law

In June 2015, the revised RET achieved bipartisan support and as recently as July 2017, the Minister for Environment and Energy confirmed it was 'set in stone'. However, corporates may be worried about the current energy policy debate and any possible change in law or change in regulation which may adversely impact a long term agreement. Retailers, as project offtakers, have typically taken change in law risk, such that RET-repeal risk (i.e. a change in law preventing the generator from being able to create LGCs or equivalent) will not affect the bundled price paid to the generator. It is increasingly common though for some change in law risks to be shared with the generator.

For a project with a Corporate PPA to be bankable, lenders need to understand how the changing economics from various changes in the law (including tax law), or rules (or their interpretation) could affect the various parties, and how this risk could be mitigated. Unfortunately, there is no easy solution to this. Some provisions we have seen for both change in law or 'market disruption' type events require parties to 'meet and discuss' 'in good faith' amendments to the PPA. This enables the parties to continue to perform their obligations in a manner that results in the commercial and risk allocation position for the parties being as similar as possible the original position (i.e. stabilisation clauses).

Some provisions require a financial adjustment to be made for certain regulatory risks, and in some cases shared proportionately; and some require expert determination or termination rights either for failure to agree to the relevant PPA price amendment, or for generator compliance costs exceeding a certain threshold. There are any number of ways these risks can be allocated, depending on the risk appetite of the corporate and the generator (and its lenders). However, the corporate will generally be in the best negotiating position for these risks, as it simply wants a fixed price contract and is not in the business of anticipating or managing energy regulatory risk. On the other hand, it is the generator who is likely to be directly impacted by most regulatory changes (by increasing its cost of despatching energy), and the onus will therefore be on the generator to try to pass these risks through to the corporate (arguing that the corporate could pass the costs on to its customers). It is also possible that lenders will adopt a somewhat more conservative approach in negotiating the terms of financing such a project if the generator has to bear greater risk exposure.

Other risks

The above considerations have been identified as some of the key risks for potential corporate offtakers. However, there are likely to be other issues that require consideration in each case, and provided for when drafting and negotiating Corporate PPAs. Such issues include whether the corporate must continue to purchase electricity from the generator during very low (or negative) prices in the NEM, curtailment risk, and dealing with basis price differences between States (i.e. where the generator is located in one State but the corporate's usage is in another).

Conclusion

Amidst rising wholesale energy market prices, the decreased levelised cost of renewable energy and socioeconomic and sustainability considerations, there is currently a real opportunity for corporate consumers to enter into Corporate PPAs and hedge their bottom line electricity costs.

The study undertaken by PwC US on Corporate Renewables Procurement highlighted the lack of mandate as a major blockage to more transactions.¹⁰

Assuming that the corporate's main driver for procuring a Corporate PPA is price, it is important to undertake an analysis of the options, to provide C-suite management (and the procurement team) with a comparison of the potential long term cost under a Corporate PPA, coupled with other strategies against the 'business as usual' of procuring energy under existing retailer contracts.

We do not pretend this is easy – today's energy markets are complex – and crystal ball gazing around future policy directions and costs of new technologies is inherently difficult. Extensive market knowledge and familiarity with the relevant generators, pricing and structures will be key to helping with this evaluation.

We expect that Corporate PPAs will become more commonplace in Australia and provide corporate offtakers with an option to purchase energy from alternate and renewable sources. Typically, this will require a shift from their business as usual procurement strategy of entering one to three year contracts with major retailers and entering into longer term fixed price contracts. Undoubtedly, early adopters will enjoy certainty and potentially net energy savings, particularly in the early years given current market prices. The arguments for many corporates to enter into such PPAs are compelling, and the challenges are solvable. However, a case by case analysis will be required to further assess the benefits and risks, and the most appropriate form of Corporate PPA.



¹⁰ Source: <https://www.pwc.com/us/en/sustainability-services/publications/assets/pwc-corporate-renewable-energy-procurement-survey-insights.pdf>

The PwC experience

PwC presents a unique, truly integrated advisory offering. Legal and financial advisory services, coupled with strategy, due diligence, financial modelling, tax, accounting and other specialist services are combined holistically to mitigate risks and identify financial and commercial opportunities. Our expertise will unlock value for you and ensure a successful and efficient project outcome is achieved.

A non-exhaustive list of our services are below. These services will assist you with mitigating key commercial risks that may arise in the process of procuring an efficient offtake agreement.

| Risk/opportunity | PPA term |
|---|--|
| Project selection | Our pipeline of developments provides for a wide range of possible offtake opportunities in multiple states in the NEM. We can pair corporate consumers with these projects, or have the extensive experience to undertake a tender process to procure the best option for a corporate consumer. |
| Financial feasibility | Financial modelling and commercial strategy analysis will be undertaken to determine the efficiency of preferred structures and PPAs prior to entering into them. This includes an assessment of your needs; electricity usage and financial capability. |
| Accounting treatment of Corporate PPAs | We have experience in assisting companies with assessing the draft commercial terms of such arrangements and identifying the key elements that have the most impact on the resulting accounting treatment. |
| ESA and PPA negotiation | Negotiate and draft new ESA and PPA agreements. Our relationships with Tier-1 and Tier-2 retailers can be leveraged to benefit you. |
| Hedging strategy | Utilise our debt and capital advisory resources to identify possible hedging strategies and financing opportunities (depending on the structure obtained). |
| LGC trading | Engage with our existing relationships to take advantage of LGC trading at your request. Trading in the secondary market could provide long-term financial benefits. |
| Interfacing of the testing regimes | Ensure the performance testing regime in Engineering Procurement Construction Contract mirrors the requirements for testing and commencement under the Power Purchase Agreement to prevent delays, lost revenue and liability for damages under the Power Purchase Agreement. |
| Underperformance risk | Undertake financial modelling of the proposed renewable energy project to ensure a competitive market price is pursued for the Power Purchase Agreement and assist in the negotiation of this price. Review of performance testing, performance guarantee regime and compensation regime in the Engineering Procurement Construction Contract to ensure that you are protected and are market tested for bankability. |

Contacts

To understand how our unique market presence can help you unlock available value, 'Go Green', or take advantage of our current pipeline of development projects, please contact a PwC dedicated renewable energy specialist.



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