

GREEN HEDGING:

A GUIDE TO STRUCTURING CORPORATE RENEWABLE PPAs

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THIS PUBLICATION
HAS BEEN PREPARED
IN PARTNERSHIP WITH:



**DIRECT PROCUREMENT
OF RENEWABLE
ENERGY BY
CORPORATES
IS RECEIVING A
SIGNIFICANT AMOUNT
OF ATTENTION
AROUND THE WORLD.
THE TREND IS SET TO
GATHER MOMENTUM
IN AUSTRALIA,
AS THE MARKET
DRIVERS BEGIN TO
OVERCOME THE
EXISTING BARRIERS
AND CHALLENGES.**

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PURPOSE

One of the key challenges in bringing corporate power purchase agreements (PPAs) to the Australian market has been a lack of information or knowledge as to how to structure and price such PPAs.

This report is designed for corporates and aims to unpack the opportunities of a “Corporate PPA” and explore different structures that may be considered. This report is ultimately intended as a tool to facilitate the expansion of this new market.

In this report we:

- Explain what a “Corporate PPA” in Australia looks like and set out its business case
- Consider some of the key challenges of structuring a Corporate PPA and how corporates with significant energy usage may work around these challenges
- Highlight some of the key practical and regulatory considerations that corporates need to be aware of when forming a corporate PPA procurement strategy
- Include a glossary of terms used in the report on page 33
- Set out a key issues checklist in Annexure A that corporates may use as a practical guide when planning and considering a corporate PPA.

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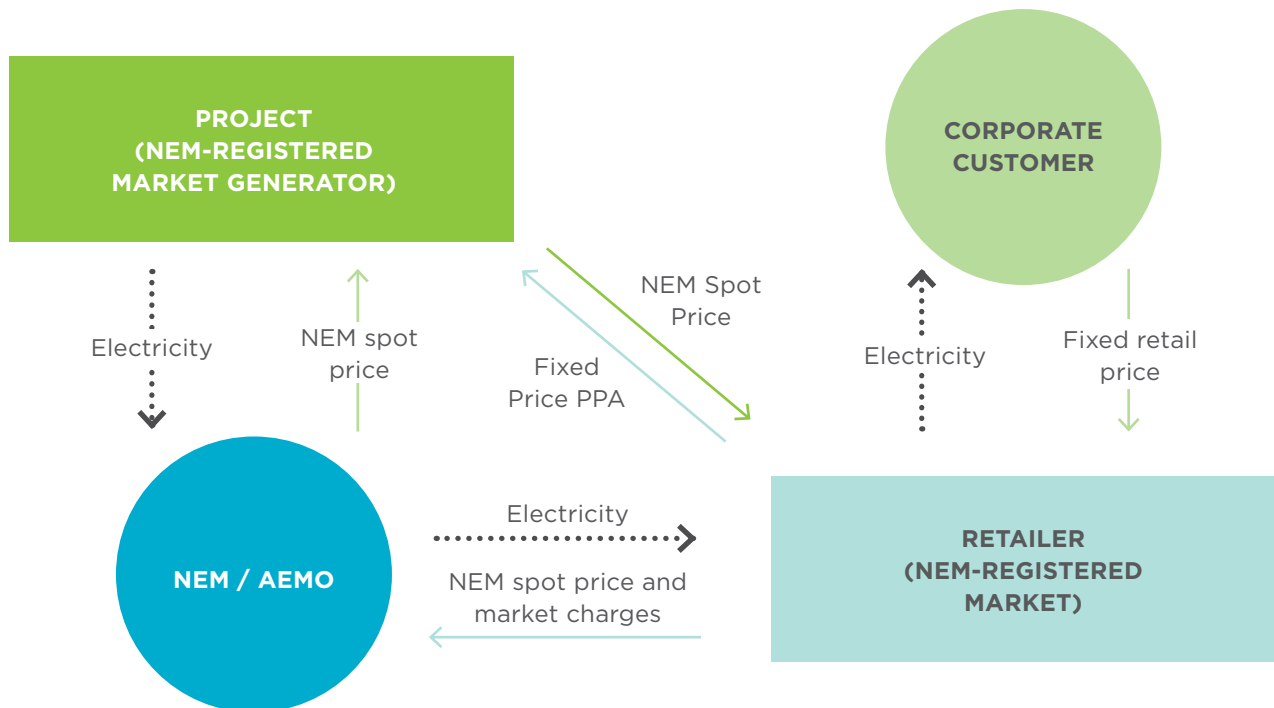


BUILDING THE BUSINESS CASE



BACKGROUND: WHAT IS A “CORPORATE PPA”?

A PPA is a contract between a buyer and generator to purchase (whether physically or notionally) electricity at a pre-agreed price for a pre-agreed period of time. In the context of the National Electricity Market (NEM), which is a pooled wholesale market for the supply of electricity across Australia (excluding Western Australia and the Northern Territory), a retail licence is required to trade in electricity. In the absence of a “Corporate PPA”, typically energy is acquired, hedged and retailed as follows:



As an alternative to the above, a corporate can instead choose to take the control over its energy hedging and retail arrangements (and supply of green rights) by contracting either directly or indirectly with a renewable energy generator. This is known as a “Corporate PPA”, that is, a PPA between a generator and the end corporate customer (either directly or indirectly through a licensed retailer).

In practice, a Corporate PPA can be viewed as an electricity pricing “control tool” or a “green hedge” and can take a number of different forms, ranging from a physical transfer of power to a pure financial derivatives contract. In an era of energy uncertainty, and rising prices for both electricity and renewable energy certificates, a Corporate PPA offers the opportunity to hedge and thereby manage long term pricing risk.

Key drivers for a Corporate PPA

Corporate PPAs are becoming more popular both globally and domestically, as corporates become increasingly interested in actively managing their electricity procurement costs in the face of volatile and / or rising power prices and in investing in the renewable energy industry (see Figure 1 that illustrates, by way of example, the electricity price increases faced by manufacturing businesses in South Australia). Corporate PPAs provide the corporate with visibility over, and therefore the ability to control:

- a) Their exposure to electricity wholesale costs
- b) The wholesale cost of large-scale generation certificates (LGCs) or other green rights.

By entering into long term hedging or supply arrangements with the generators, the corporate is well positioned to reduce these costs.

The table below sets out the key drivers for corporates to enter into Corporate PPAs:

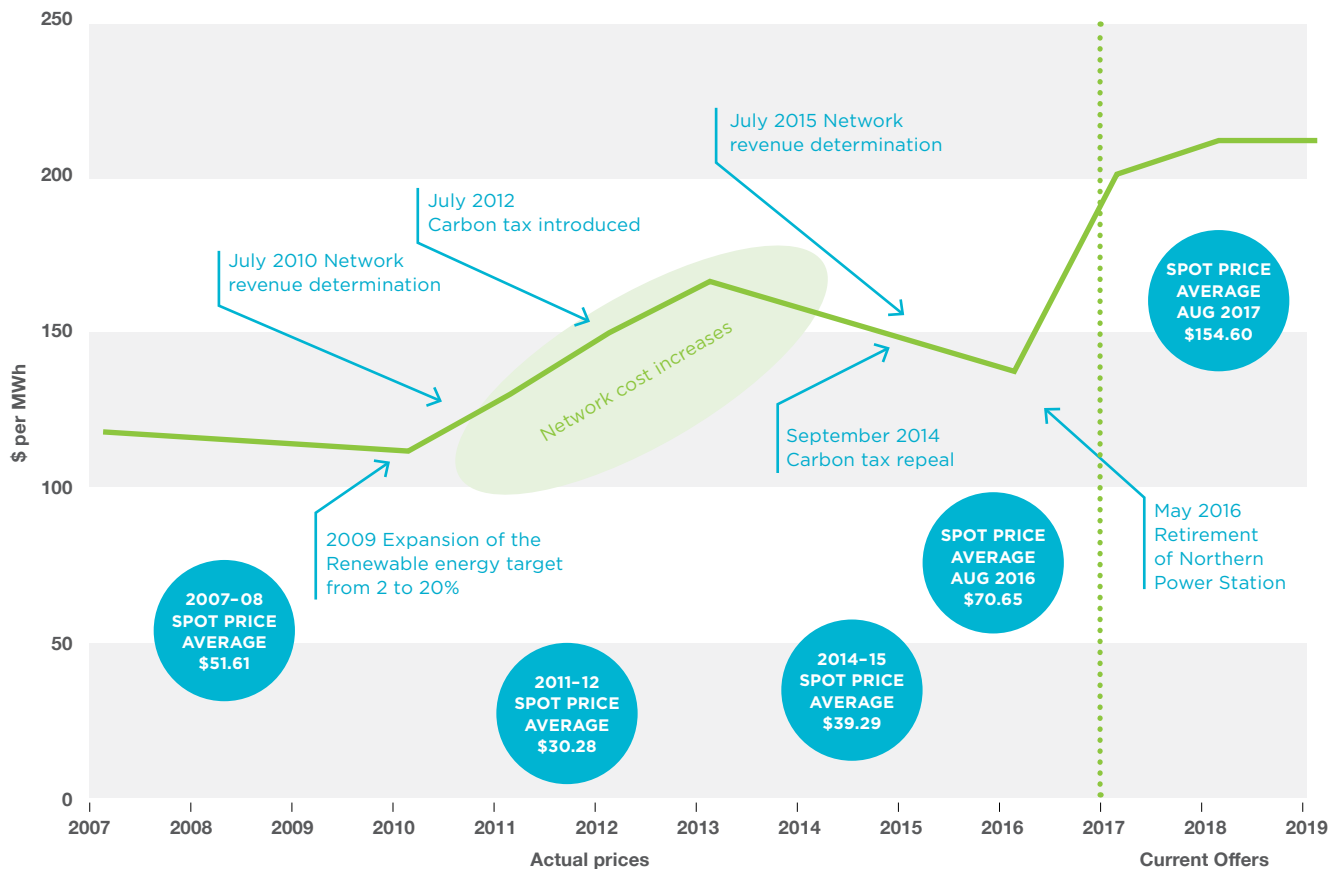
Managing energy and LGC cost risk	Corporate PPAs can allow corporates to avoid periodic renegotiation of electricity retail contracts (and consequential exposure to potentially volatile electricity and green right costs) by securing a longer term supply or hedge arrangement (e.g. 7 to 15 years) directly with a renewable energy generator for all or a portion of their load.
Lowering the cost of electricity	In the face of rising electricity retail prices (see Figure 1 below) companies can gain directly from falling technology costs (wind, solar and battery storage) and, potentially, reduce the cost of their electricity in exchange for providing renewable energy generators or retailers with long term energy hedging or supply arrangements. This is done without any up front capital investment.
Lowering the cost of meeting renewable energy and emission reduction targets	<p>By entering into long term offtake agreements with a renewable energy generator for the supply of LGCs or other green rights (such as emissions reduction targets contemplated by the National Energy Guarantee, the new energy policy announced by the Federal government in October 2017 (National Energy Guarantee), a corporate is able to:</p> <ul style="list-style-type: none"> • lower the cost of procuring renewable energy (in exchange for providing the generator with long term price certainty); • avoid or minimise the retailer's margin for acquiring and acquitting renewable energy on behalf of the corporate; and • fix the cost of procuring renewable energy to meet renewable energy or emission reduction commitments (whether voluntary or mandatory). <p>At a minimum, the LGCs or other green rights generated by the project can be used by a corporate to meet their direct or indirect mandatory renewable energy target under the Renewable Energy Target (the target set for renewable energy generation in terms of the <i>Renewable Energy (Electricity) Act of 2000</i> (Cth) (Renewable Energy Target) (which is a cost incorporated by retailers in all energy retail contracts) or the emissions reduction target contemplated by the National Energy Guarantee.</p>
Achieving renewable energy targets	Voluntary sustainability and renewable energy targets (with social and reputational benefits) are rising as key drivers. Eighty percent of Australian consumers believe big business should be using more renewable energy. ¹ Many of the world's most influential companies have set themselves ambitious renewable energy targets (e.g. the RE100 ²), with some companies having already reached their initial goals and others closing in quickly.
Reducing risks associated with climate change	Some companies view reducing emissions as an integral part of protecting supply chains and asset portfolios from continued climate change risks. For example, Nestle has stated that it is determined to play its part in tackling climate change as an essential strategy for long term survival. A Corporate PPA enables the corporate to meet its corporate emission reduction or renewable energy commitments cost effectively.
Reporting on carbon emission reduction targets	A Corporate PPA presents a simple instrument to allow corporates to evidence their compliance with increasing climate change reporting and corporate governance requirements.
Supporting new renewable energy projects	<p>On the supply side, the Corporate PPA market is critical to facilitating the development of new renewable energy facilities (as part of or additional to any legislated renewable energy target or the National Energy Guarantee) by providing or underwriting longer-term PPAs with renewable energy developers.</p> <p>For example, Telstra's recent Corporate PPA was considered critical in underwriting RES Australia's \$100 million solar project.³</p>

1 ARENA "The Business of Renewables". <https://arena.gov.au/assets/2017/07/AU21476-ARENA-Corporate-Report-REVISED-v1-1.pdf>

2 The RE 100; The world's most influential companies, committed to 100% renewable power. <http://there100.org/>

3 RENEconomy - Tracking the next industrial revolution; <http://reneweconomy.com.au/telstra-signs-deal-for-70mw-solar-farm-to-cap-energy-costs-78281>

FIGURE 1: TIMELINE OF PRICE DRIVERS AND AVERAGE TOTAL COST OF ELECTRICITY FOR THREE MEDIUM MANUFACTURING BUSINESSES IN SOUTH AUSTRALIA



Source: ACCC analysis based on price information from three de-identifies manufacturers in South Australia and AEMO. **Information Hub:** average price tables (viewed on 8 September 2017). Average weighted monthly spot prices August 2016 and 2017 from the Department of Environment and Energy.

AUSTRALIAN CORPORATE PPAs

Activity within the Corporate PPA space in Australia has picked up over the past 12 months:

- Telstra entered into a 70MW, 8 year PPA with RES Australia for the Emerald Solar project in Queensland (QLD). Through this PPA, Telstra receives the spot price for the project output that enables it to hedge a portion of its load against volatile electricity costs in the NEM. Under the PPA Telstra also acquires the project's LGCs
- Kleenheat entered into a 30MW, 10 year PPA with WestGen Pty Ltd for the Byford Solar project in Western Australia. Under the PPA Kleenheat also acquires the project's LGCs, and

- Sun Metals entered into a 116MW PPA with First Solar Farm for the Sun Metals solar farm in QLD. This behind-the-meter (where an electricity generator is located on or near the same site as the off-taker) PPA, made possible due to Sun Metal's location, will provide around one third of the refinery's electricity needs.

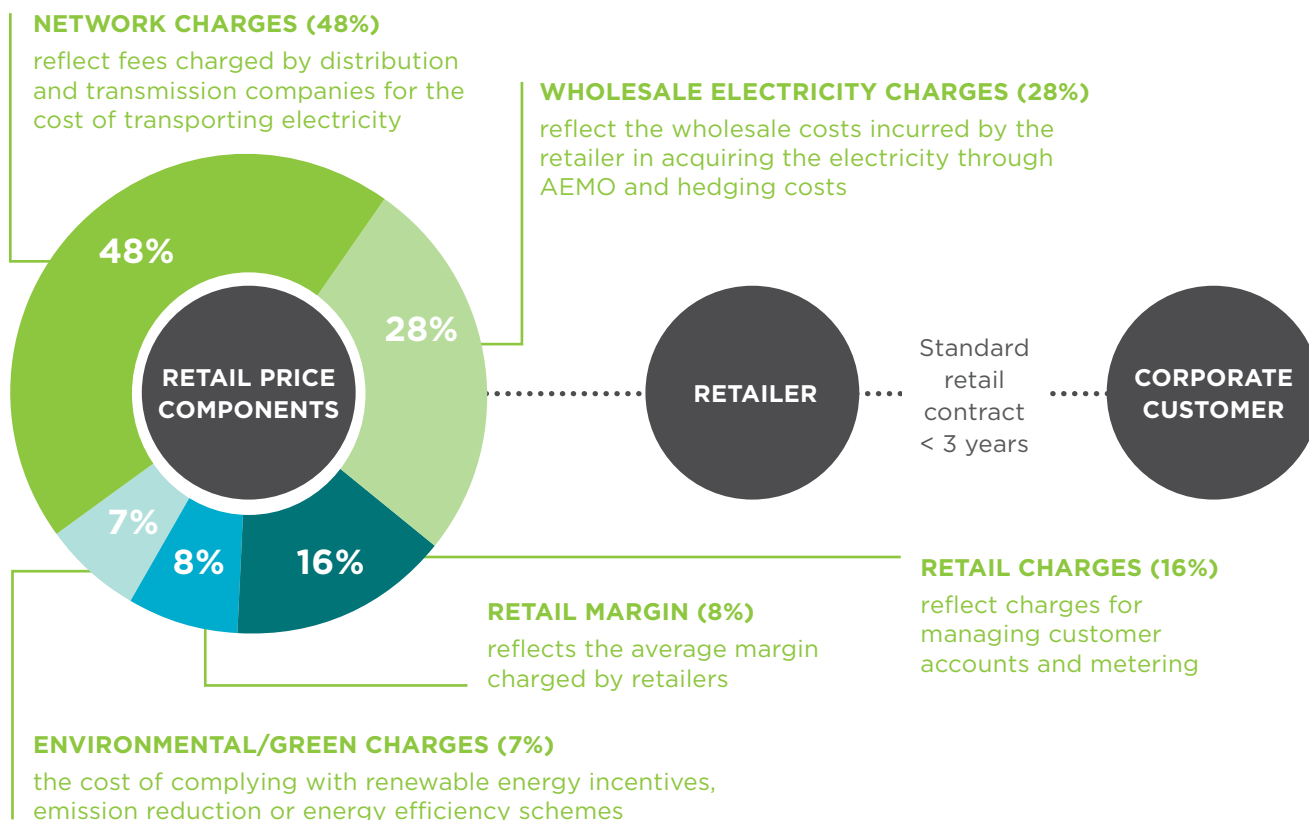
Additionally, a number of requests for proposals (RFPs) for Corporate PPAs are currently in the market including University of Technology Sydney, Monash University (for a 55GWh solar or wind farm), University of Queensland, Coles and ABInBev / Carlton United Breweries to name a few.



UNDERSTANDING THE VALUE IN CORPORATE PPAs

A conventional electricity retail contract in Australia generally involves the supply of all of the corporate customer's electricity consumption in return for a bundled price that is made of various components. In order to understand the benefits of a Corporate PPA, it is important to understand these components, as set out in the "cost stack" of an average retail electricity bill reflected in Figure 2.⁴

FIGURE 2



A Corporate PPA can be viewed as an electricity price "control tool" for corporates as it creates an opportunity to reduce their energy costs by:

- Making them more reflective of the wholesale electricity charges
- Decreasing (or eliminating) retail charges
- Decreasing (or eliminating) environmental charges, including margins charged by retailers for procuring LGCs

- In behind-the-meter projects only, decreasing (or eliminating) network charges.

This control tool is of course more valuable to a corporate that has a larger electricity bill as it enables the corporate to hedge more exposure to volatile pricing than it does for smaller corporates with lower electricity loads.

The different PPA structures that can be used, and options for dealing with environmental rights (such as LGCs), are discussed in detail in the next section of this report.

⁴ Percentages of each cost component are taken from the Australian Energy Regulator's "About Energy bills" 2015. <https://www.aer.gov.au/consumers/my-energy-bill>



MARKET ENABLER FOR RENEWABLE ENERGY GENERATION

The Federal government has recently announced its plans for a new energy policy, from 2020, which has been described as the National Energy Guarantee. The National Energy Guarantee contemplates two separate guarantees:

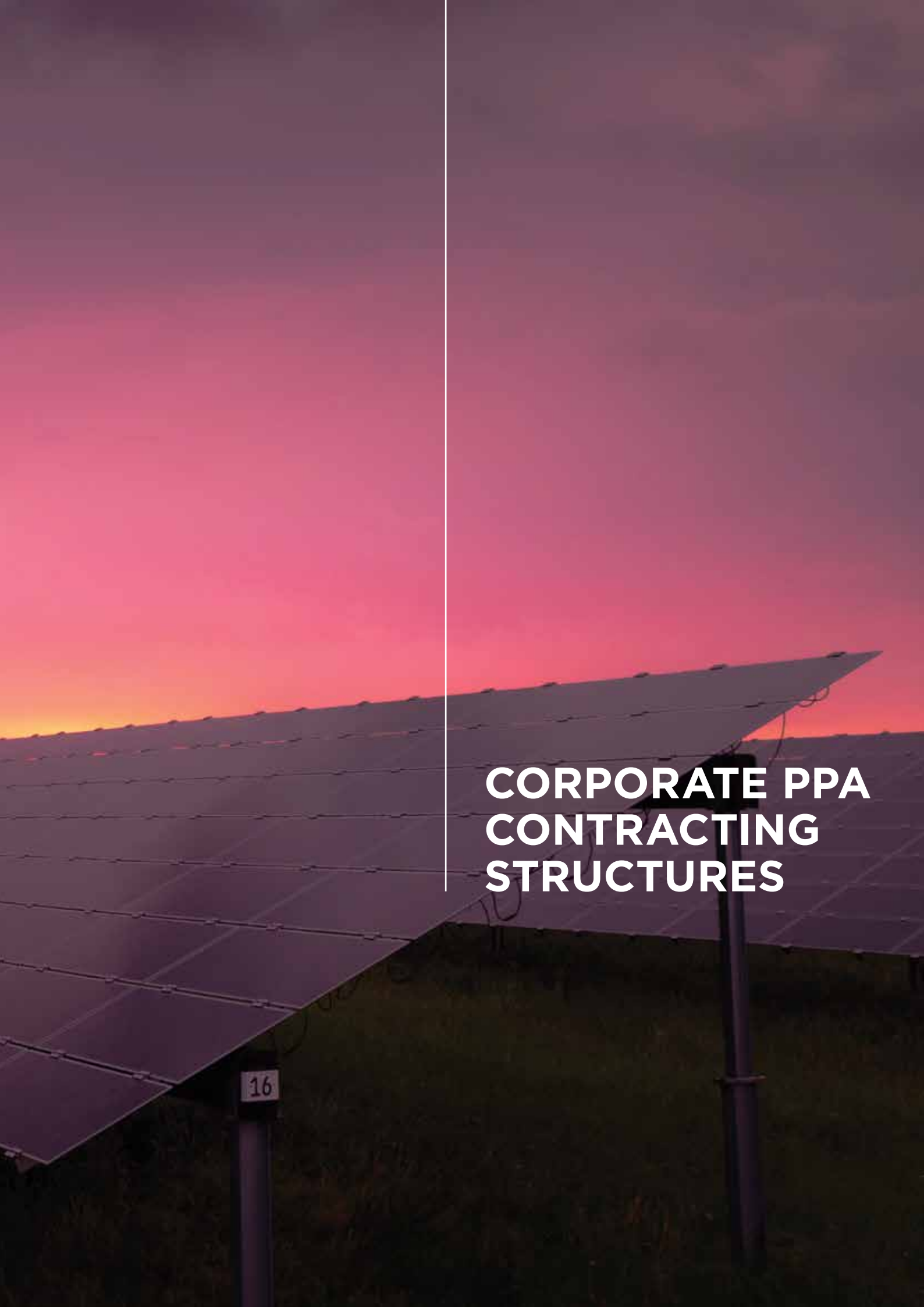
- An **emissions guarantee**, whereby electricity retailers and large users registered in the NEM will be required to purchase a certain amount of energy below an emissions threshold in order to meet a nationwide emissions target to be set by the Federal government
- A **reliability guarantee**, whereby electricity retailers and large users who purchase directly from the NEM will be required to meet a certain percentage of their electricity load requirements with ‘flexible and dispatchable resources’ (this could include coal, gas, hydro, solar thermal, pumped hydro, battery systems, demand response or wind and solar PV systems with firming arrangements (on site batteries, backup generators, etc.)).

While not confirmed, it is most likely that the RET will be grandfathered and continue until its existing end date of 2030. A Corporate PPA, which has a duration that supports the grant of project financing, will still be likely to promote the financing and development of new renewable energy capacity by:

- Providing the renewable energy project with revenue certainty in respect of energy
- Maintaining demand for renewable energy and green benefits for the RET out to 2030 and where corporates remain committed to voluntary renewable energy targets
- Providing the renewable energy project with a level of credit support that may be higher than a retailer.

Entry into Corporate PPAs is therefore likely to continue to provide corporates with cost-effective opportunities to contribute to the construction of new renewable energy projects, which is an important and valuable marketing instrument.



A photograph of a solar farm at sunset. The sky is a gradient of orange, pink, and purple. Rows of solar panels are visible, tilted towards the sun. In the foreground, a metal support pole has a small white sign with the number '16' on it. The overall mood is serene and modern.

CORPORATE PPA CONTRACTING STRUCTURES

SUMMARY OF PPA STRUCTURES

Below is a high-level summary of all five Corporate PPA structures we have outlined in this section. Following this, we compare some of the key features of each structure, and identify where each may deliver advantages to the corporate, when adopted:

STRUCTURE 1: VIRTUAL PPA

Corporate buys all electricity from grid via a short-term contract with retailer (for a fixed price)

Financial hedge (CfD) for portion of electricity & LGCs from a specific renewable energy project. Electricity generated is exported directly to the grid

No electricity is purchased directly from the renewable energy project

STRUCTURE 4: BUY LOGs ONLY

Corporate buys LGCs only directly from a renewable energy project

The corporate can then transfer, retire or sell LGCs as required

No electricity is purchased directly from the renewable energy project

STRUCTURE 2: MODIFIED VIRTUAL PPA

Corporate buys all electricity from grid via a short-term contract with retailer (with a portion at a fixed price and a portion at the spot price).

Financial hedge (CfD) for portion of electricity & LGCs from a specific renewable energy project. Electricity generated is exported directly to the grid

No electricity is purchased directly from the renewable energy project

STRUCTURE 5: BEHIND THE METER

Renewable energy project installed onsite at corporate's premises. Corporate agrees to purchase all or a portion of electricity generated by project

Any demand unmet by the onsite project is serviced via a separate retail contract

Direct electricity supply via private infrastructure

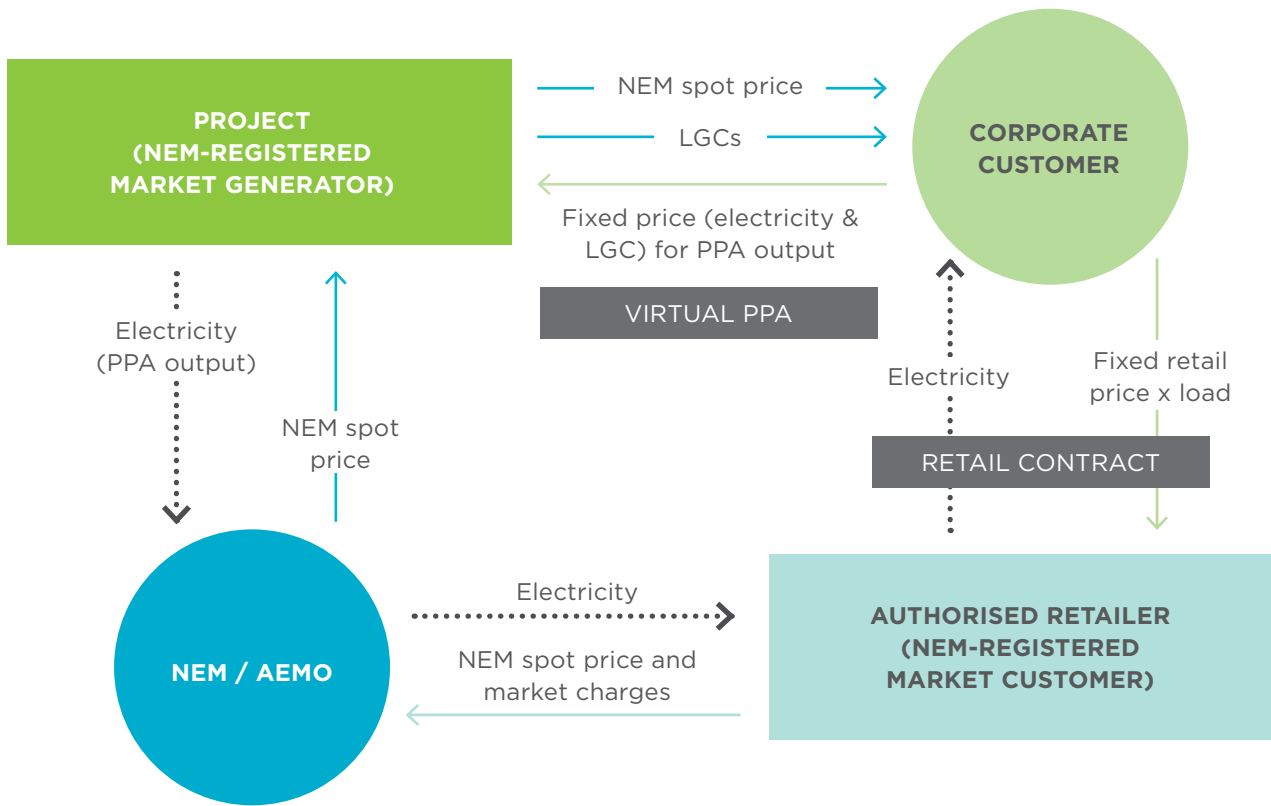
STRUCTURE 3: SLEEVED PPA

Corporate buys electricity & LGCs from a specific renewable energy project via a retailer under long-term contract for specified load.

Retailer hedges the corporate's load with the renewable energy project for the same contract term as the corporate's retail contract

No electricity is purchased directly from the renewable energy project

STRUCTURE 1: VIRTUAL PPA



SUMMARY

This is a financial contract (in the form of a CfD), where the project owner and the corporate agree to swap a fixed price (paid by the corporate to the project) with the spot price (received by the project and paid onto the corporate) in respect of a certain volume of output that is contracted under the PPA (PPA Output). The corporate also receives the LGCs produced in respect of the PPA Output and is faced with several options in how it can deal with these, each with advantages and challenges (discussed in detail at Structure 3). The corporate continues to procure all of its electricity from its existing retailer under its standard retail contract.

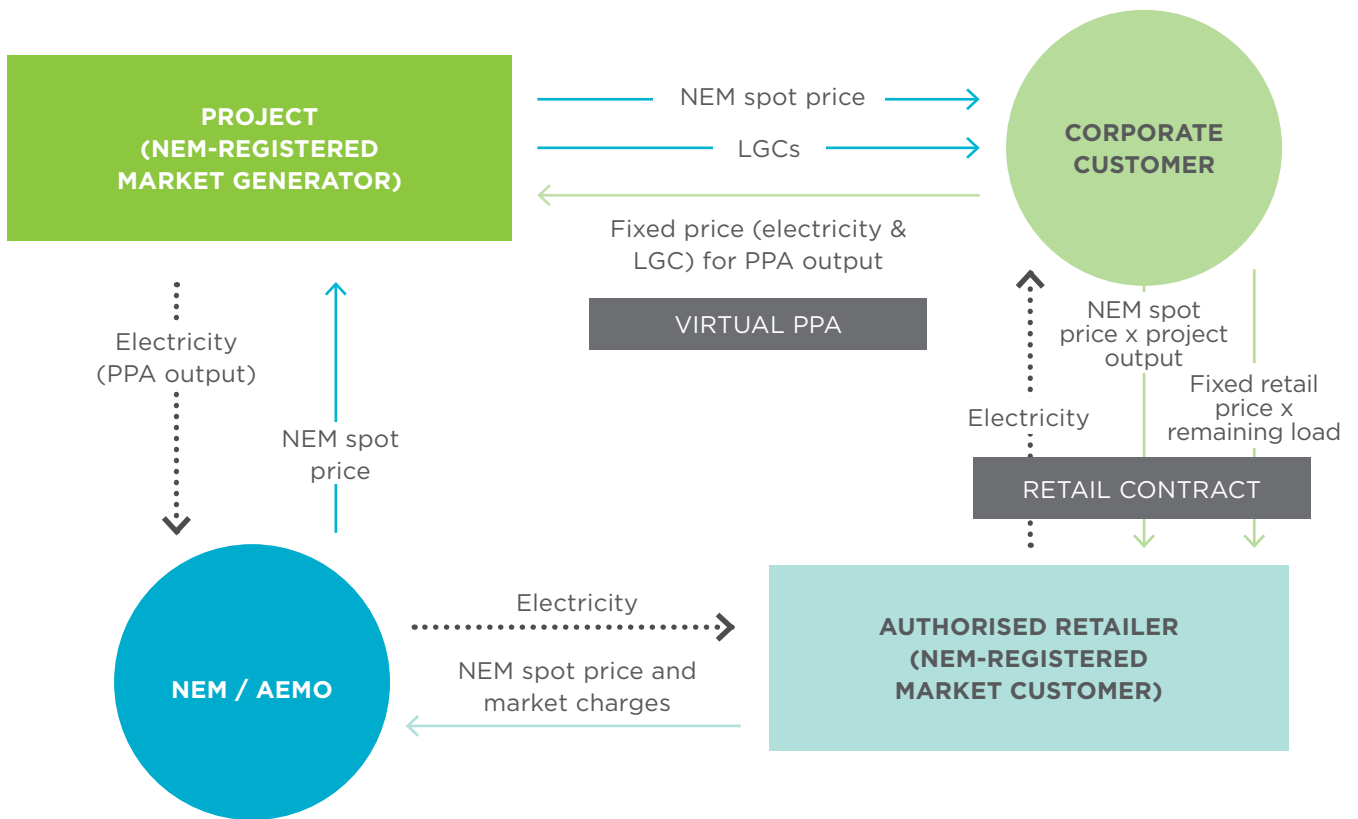
Advantages	Challenges
Does not require a retailer, allowing for an easier and direct contracting structure between the corporate and project.	As the corporate receives the spot price, it must accept some "basis risk", in that a change in the spot market (affecting the corporate's position under the PPA) may not be directly correlated with changes to the corporate's retail electricity costs. See example below for more on this risk.
Option for a corporate to enter into a number of PPAs across multiple sites, allowing the corporate to diversify its risk in respect of technology, location and project.	Risk associated with regional pricing differences if the project is located in a different NEM state to the corporate.
If the spot price is high, corporates will enjoy a saving on their energy costs.	If the spot price falls below the agreed fixed price, the corporate may end up paying more for its electricity than it would have otherwise. However, the price payable by the corporate to the project is fixed.
Direct negotiation with the project allows the corporate to control its exposure and, possibly, achieve better electricity and LGC pricing.	Requires a sophisticated corporate or the involvement of a market forecasting specialist to accurately determine the amount of power to contract.
Corporate can reduce the LGC cost component of its retail contract or sell LGCs to a third party.	Corporate assumes the risk associated with decreasing LGC prices over the term of the CfD.
Contractual arrangements relatively simple (and could potentially be governed by an International Swaps and Derivatives Association Master Agreement (ISDA Agreement)).	Derivative nature of the PPA may also trigger AFSL requirements for the corporate.
Does not require land at or near the customer's site to build the project.	
Allows the corporate to cost effectively acquire LGCs (or other green rights) to meet renewable energy or carbon reduction commitments.	
Option for multiple corporates to pool together in respect of the offtake of energy and LGCs for the project.	

Using hypothetical numbers, this example illustrates the spot price risk of the Virtual PPA (noting that the following example does not include analysis in respect of LGCs):

Current position 2017	Base Case Year 2022	Scenario 1 Year 2022	Base Case Year 2022	Scenario 2 Year 2022
Fixed price in respect of the energy component under Corporate's retail contract: \$80/MWh	Spot price rises to \$150/MWh		Spot price falls to \$10/MWh	
	(a) no Virtual PPA; (b) energy component of the corporate's retail contract: \$160*/MWh	(a) Virtual PPA with contracted fixed price \$80/MWh; (b) energy component of the corporate's retail contract: \$160*/MWh	(a) no Virtual PPA (b) energy component of the corporate's retail contract: \$20*/MWh	(a) a Virtual PPA with contracted fixed price \$80/MWh (b) energy component of the corporate's retail contract: \$20*/MWh
	Corporate's energy cost is \$160*/MWh	Corporate's energy cost is \$90/MWh	Corporate's energy cost is \$20*/MWh	Corporate's energy cost is \$90/MWh
		Corporate saves \$70/MWh in Year 2022 by entering into a Virtual PPA		Corporate loses \$70/MWh in Year 2022 by entering into a Virtual PPA

* \$10 component represents retail margin

STRUCTURE 2: MODIFIED VIRTUAL PPA



SUMMARY

To remove the spot price risk under the Virtual PPA (Structure 1), the Corporate seeks to pass some of this risk to the retailer, by paying the spot price on part of its retail contract. The term of the retail contract remains standard 1 to 3 years.

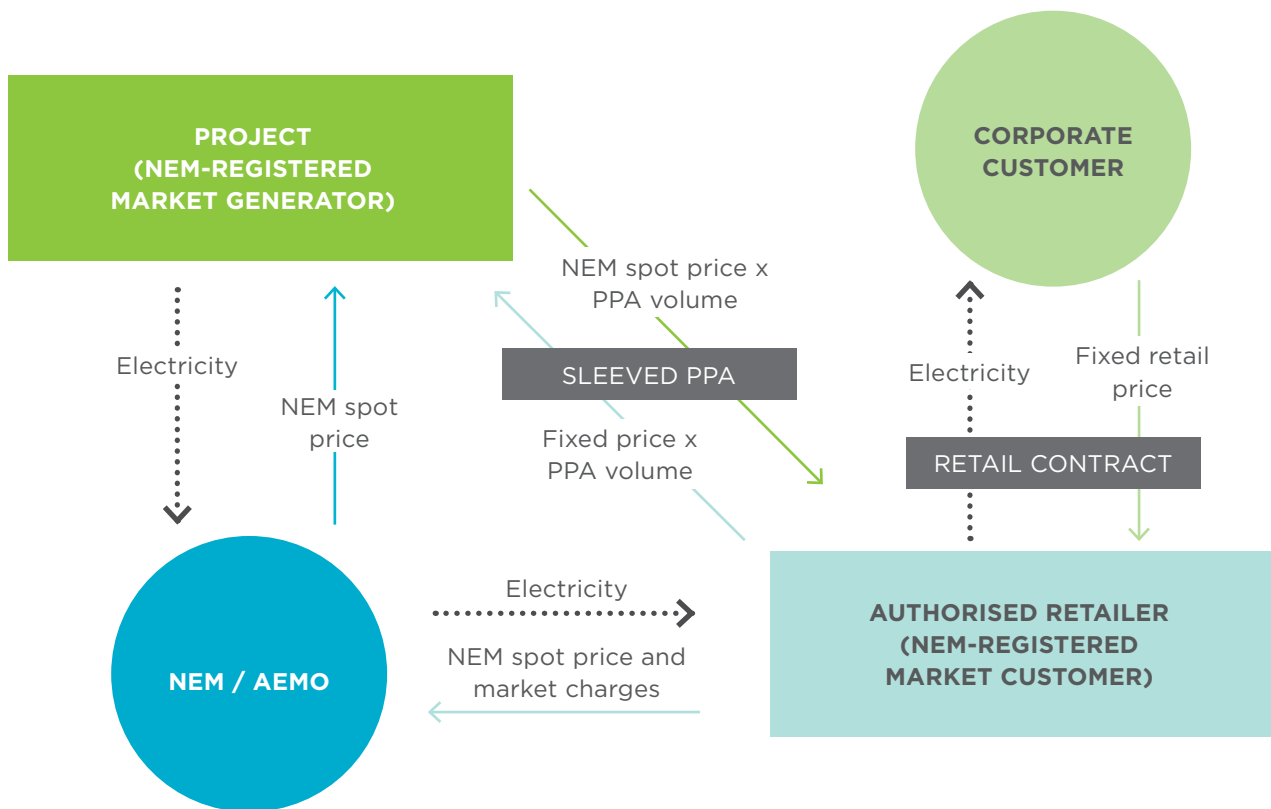
Advantages	Challenges
Corporate hedges (partly or fully) electricity price increases over the term of the CfD with the generator, as the corporate receives the spot price in respect of the volume of energy generated by the project, and pays the retailer a spot price on part of its load.	Corporate assumes the risk of exposure to the spot price to the extent that the generation profile of the project does not mirror the load profile of the corporate.
Corporate procures lower pricing for LGCs, given the long-term offtake arrangement with the generator.	Corporate assumes the risk of exposure to the spot price to the extent that the regional reference node for the project is different to the regional reference node for the corporate's load.
Corporate benefits from lower retail prices that reflect the retailer is not required to hedge a portion of its supply obligations, nor procure LGCs.	Derivative nature of the PPA may trigger AFSL requirements for the corporate.
Does not require land at or near the customer's site to build the project.	Corporate assumes the risk associated with decreasing LGC prices over the term of the CfD.
Contractual arrangements relatively simple (and could potentially be governed by an ISDA Agreement, with minor modifications to existing retail arrangements).	Retailer involvement adds an extra layer of complexity. If the retailer suffers insolvency, the Retailer of Last Resort (RoLR) is not obliged to assume the obligations under the Corporate PPA. Debt providers and equity must take a long-term view of the retailer.
Enables the corporate to cost effectively acquire LGCs (or other green rights) to meet renewable energy or carbon reduction commitments.	
Option for multiple corporates to pool together in respect of the offtake of energy and LGCs for project.	

Using hypothetical numbers, this example illustrates spot price risk:

Current position 2017	Base Case Year 2022	Scenario 1 Year 2022	Base Case Year 2022	Scenario 2 Year 2022
Fixed price in respect of the energy component under Corporate's retail contract: \$80/MWh	Spot price rises to \$150/MWh		Spot price falls to \$10/MWh	
	(a) no Virtual Modified PPA (b) energy component of the corporate's retail contract: \$160/MWh	(a) Virtual Modified PPA with contracted fixed price \$80/MWh for 50% of corporate's load; b) energy component of the corporate's retail price split: \$160*/MWh on 50% of corporate's load and the spot price (\$150/MWh) on 50% of corporate's load (+margin, e.g. \$1).	(a) no Virtual Modified PPA (b) energy component of the corporate's retail contract: \$20*/MWh	(a) Virtual Modified PPA with contracted fixed price \$80/MWh for 50% of corporate's load (b) energy component of the corporate's retail contract split: \$20*/MWh on 50% of Corporate's load and spot price (\$10/MWh) on 50% of load (+ margin, e.g. \$1).
	Corporate's energy cost is \$160*/MWh	Corporate's energy cost is \$121/MWh	Corporate's energy cost is \$20*/MWh	Corporate's energy cost is \$51/MWh
		Corporate saves \$39/MWh in Year 2022 by entering into the Virtual Modified PPA		Corporate loses \$31/MWh in Year 2022 by entering into the Virtual Modified PPA

* \$10 component represents retail margin

STRUCTURE 3: SLEEVED PPA



SUMMARY

This model contemplates a retailer driving the contractual arrangements. The project owner and retailer enter into a CfD for electricity and LGCs generated by the project. In return for paying a fixed price calculated on the basis of the project's output, the retailer receives the spot price calculated on the basis of the project's output.

The retailer enters into a retail contract with a corporate that mirrors the same term of the CfD. The corporate may pay the retailer a "Bundled PPA price" (a price that includes both an electricity tariff component and an LGC price component) or a market-based tariff, depending on the corporate's preference for price certainty. The retailer receives LGCs from the project to cover the corporate's LGC liability (although the retailer will likely charge a fee for this). The corporate may be required to provide credit support to the project.

Variations include pooling corporate customers whose load is aggregated or contracting with a vertically integrated retailer who is also the renewable energy developer.

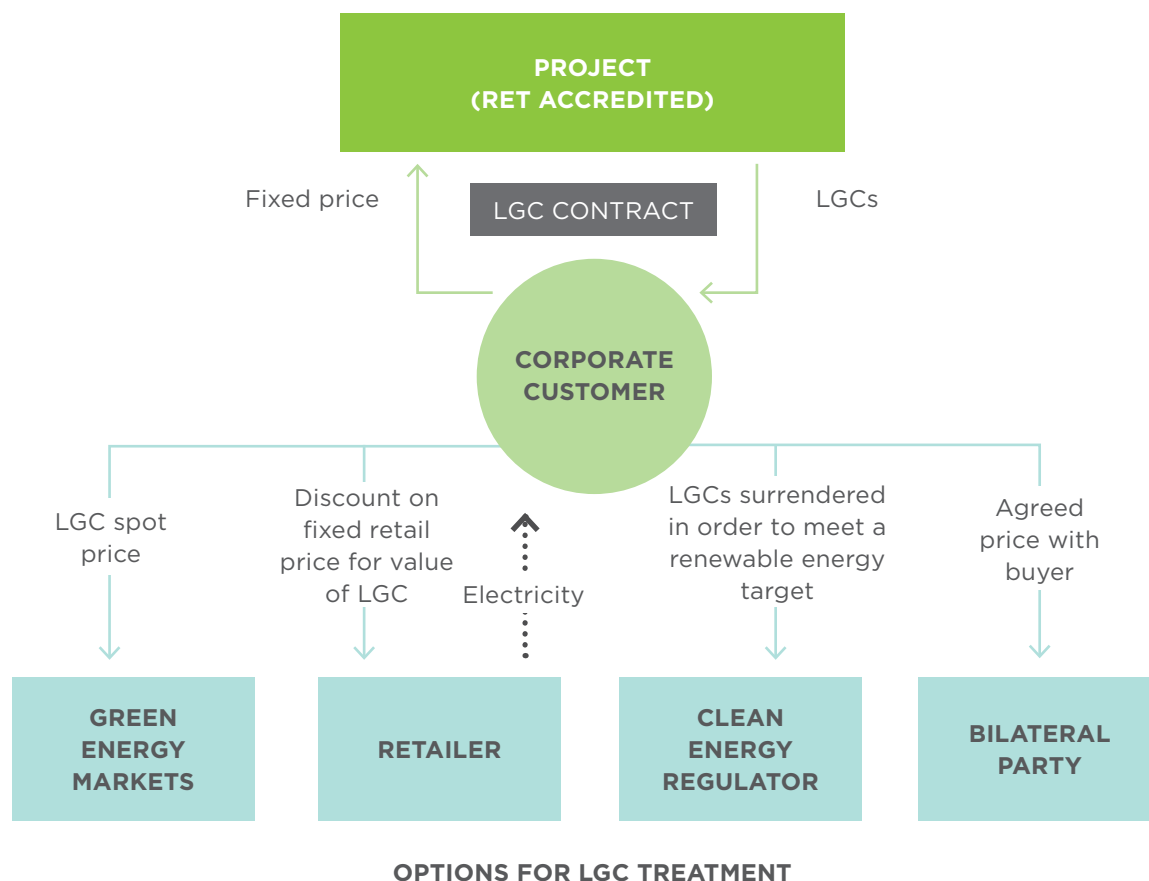
Advantages	Challenges
Corporate's electricity costs should decrease to reflect long tenor of the retail contract.	The retailer will charge the corporate a fee for entering into the Corporate PPA arrangements.
The LGC cost component of the customer's retail contract should decrease to reflect the long tenor of the retailer's LGC offtake arrangements with the generator.	Requires involvement of a retailer, which complicates the contracting structure. If retailer becomes insolvent, the Retailer of Last Resort is not obliged to perform the Corporate PPA. Debt providers and equity must take a long term view of the retailer.
Does not require land at or near the customer's site to build the project.	Corporate may have to provide a payment guarantee to the project for the retailer's payment obligations under the bundled PPA.
Allows the corporate to cost-effectively acquire LGCs (or other green rights) to meet renewable energy or carbon reduction commitments.	Corporate assumes the risk associated with decreasing LGC prices over the term of the CfD.
Option for multiple corporates to pool together in respect of the offtake of energy and LGCs for project.	

Current position 2017	Base Case Year 2022	Scenario 1 Year 2022	Base Case Year 2022	Scenario 2 Year 2022
Energy component of retail fixed price: \$80/MWh	Spot price rises to \$150/MWh		Spot price falls to \$10/MWh	
	(a) no Sleeved PPA; (b) energy component of the corporate's retail contract: \$160*/MWh	(a) Sleeved PPA is entered into between the retailer and the generator; (b) energy component of the corporate's retail contract: \$85/MWh (as the corporate locked in pricing under its retail contract in 2017 for e.g. 10 years)	(a) no Sleeved PPA (b) energy component of the corporate's retail contract: \$20*/MWh	(a) Sleeved PPA entered into between the retailer and the generator; (b) energy component of the corporate's retail contract: \$85/MWh (as the corporate locked in pricing under its retail contract in 2017 for e.g. 10 years)
	Corporate's energy cost is \$160*/MWh	Corporate's energy cost is \$85/MWh	Corporate's energy cost is \$20*/MWh	Corporate's energy cost is \$85/MWh
		Corporate saves \$75/MWh in Year 2022 by entering into the Sleeved PPA		Corporate loses \$65/MWh in Year 2022 by entering into the Sleeved PPA

* \$10 component represents retail margin

STRUCTURE 4: BUYING LGCS

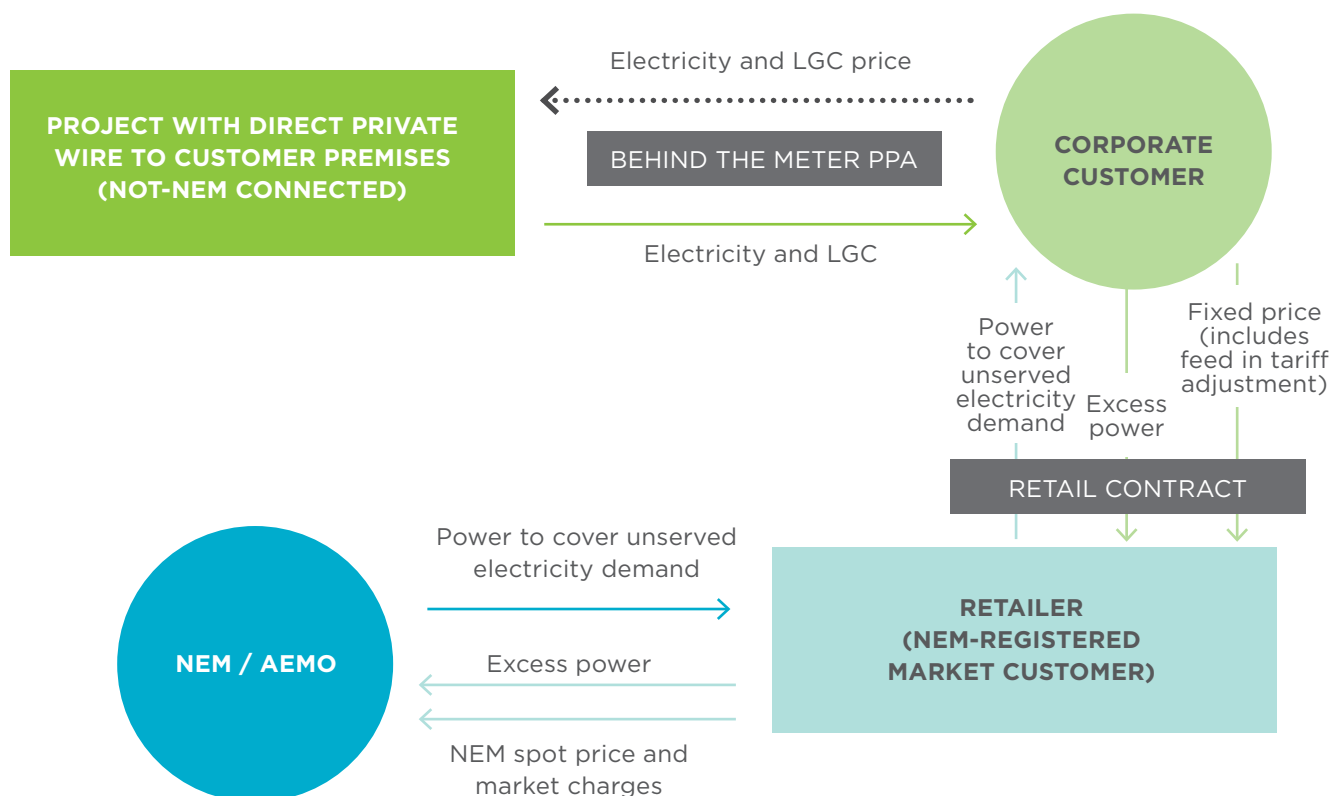
Some corporates may prefer to simply acquire LGCs from a project. Corporates are then faced with several options when it comes to dealing with LGCs acquired from a project. Each option will, like the previous structures, depend on the key drivers for each corporate. Options for buying LGCs, however, do not provide the corporate with any control over its electricity prices.



These options are explained below

1. **Green Energy Markets** - the corporate may trade the LGCs on the wholesale market in return for the prevailing spot price. The spot price of LGCs is currently trading relatively high, although it is expected to fall once the Renewable Energy Target is met. The value of LGCs will then depend on whether a replacement of the RET is introduced in Australia.
2. **Transfer to Retailer** - the corporate may choose to transfer the LGCs to its retailer in return for a discount on the retailer's "green energy charge". This discount is currently lower than the spot price of LGCs.
3. **Retire** - the corporate may choose to retire LGCs if it has made additional, voluntary renewable energy targets (or emission reduction targets). There is some debate as to whether retirement of an LGC is necessary for a corporate to meet emission reduction targets, or whether these claims can be satisfied through alternative means (while trading the LGC), e.g. acquiring carbon offsets.
4. **Bilateral Agreement** - the corporate may enter into a bilateral contract for the LGCs with a third party (e.g. another corporate with renewable energy targets) at an agreed fixed price. This may be used as a hedge against any fall in LGC prices.

STRUCTURE 5: BEHIND-THE-METER GENERATION



SUMMARY

The project is located on the customer's premises (or close by) and will sell electricity via private network infrastructure, likely owned/operated by the project or its nominee, to the customer. Corporates with sufficient onsite space for a renewable energy project (for example, mining and agri-business companies) that can cover a reasonable portion of their load may consider the behind-the-meter structure to be an option.

Advantages	Challenges
Avoidance of the complexity of having an authorised retailer involved or assuming spot price exposure in terms of Structures 1 or 2.	Corporates generally do not have sufficient onsite space to support a project at locations with large load requirements.
Avoidance of expensive network charges.	Feed-in tariffs for excess energy are considerably lower than the wholesale costs although these are beginning to rise.
Corporate receives long term certainty on the cost of LGCs.	Many corporates are tenants in their buildings, meaning they may require landlord approval, which creates an extra layer of complication.
Marketability and traceability (i.e. being able to easily identify the generation plant and say "this is powering our factory") is easier under this structure.	A number of landlords have shown a reluctance to agree to these deals as they are trying to monetise their roof space themselves.

UNDERSTANDING THE VALUE IN CORPORATE PPAs

	Structure 1: Virtual PPA	Structure 2: Modified Virtual PPA	Structure 3: Sleeved PPA	Structure 4: Buying LGCs	Structure 5: Behind-the-meter generation
Involvement of a retailer required?	No. The short-term retail contract between the corporate and its retailer remains the same. The retailer is not involved in the Virtual PPA.	Partly. The short-term retail contract between the corporate and its retailer remains largely the same, with the exception that the corporate pays the retailer: (a) the spot price (+ margin) on its load that is the equivalent of the project's generation volume; and (b) a fixed price on the remaining load. The retailer is not directly involved in the Modified Virtual PPA.	Yes. The retailer will require a fee for the services it provides under this structure. The creditworthiness of the retailer will also be a key consideration for debt providers.	No. The short-term retail contract between the corporate and its retailer remains the same. The retailer does not need to know of the LGC offtake agreement (unless the LGCs are transferred to it in return for a discounted retail price).	Partly. The short-term retail contract between the corporate and its retailer remains largely the same, with a number of exceptions, including the acquisition and supply of the 'overs' and 'unders' of energy generated by the project.
Is space for generation near or on the corporate's premises required?	No. The Virtual PPA is not a physical supply contract.	No. The Modified Virtual PPA is not a physical supply contract.	No.	No. The arrangement is only for the offtake of LGCs.	Yes.
Hedges all or part of the corporate's exposure to the spot price?	Partly. The corporate receives the spot price on the volume exported by the renewable energy project. The corporate's full exposure to the spot price will depend on the tariffs payable for the energy consumed under its retail contract.	Partly. The corporate receives spot price on the volume exported by the project. The corporate will be exposed to the spot price to the extent that the corporate's load (upon which it is paying the retailer a tariff that reflects the spot price) does not mirror the generation profile of the project.	Generally. The corporate may pay the retailer a fixed price for energy over the term of the retail contract. If so, the retailer will charge the corporate a fee that reflects the cost of the retailer procuring hedging arrangements (and providing the 'sleeving' services).	No.	Generally. Depending on the size of the project and the corporate's load, the corporate may still need to buy electricity from a retailer for any generation shortfall.

KEY

Material advantage of the model	Advantage of the model
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UNDERSTANDING THE VALUE IN CORPORATE PPAs (CONTINUED)

	Structure 1: Virtual PPA	Structure 2: Modified Virtual PPA	Structure 3: Sleeved PPA	Structure 4: Buying LGCs	Structure 5: Behind-the-meter generation
Hedges all or part of the corporate's exposure to LGC volatility?	Yes. The corporate procures LGCs that are generated by utility-scale projects over a long-term (typically the same term as the Virtual PPA). Whether the project LGCs will be sufficient to meet the corporate's requirements will depend on the corporate's load use, the project's generation volume and the corporate's commitments to sourcing renewable energy.	Yes (same as Structure 1).	Yes (same as Structure 1, with the exception that the retailer may acquire the LGCs directly).	Yes.	Yes. The corporate may procure LGCs that are generated by the project. Whether the project LGCs will be sufficient will depend on the corporate's load use and commitments to sourcing renewable energy.
Corporate achieve better electricity & LGC pricing?	Generally. The corporate's long-term offtake arrangements for LGCs should be reflected in lower LGC prices (though this does depend on future clean energy policies in Australia). Whether the corporate's long term energy costs are cheaper will depend on the movement of the spot price and the corporate's tariffs under its retail contract.	Generally (same as Structure 1).	Partly. The corporate's long term offtake arrangements for LGCs and energy should be reflected in lower LGC and energy prices. The retailer will, however, charge the corporate a fee to cover its costs (including a retail margin) in procuring the sleeved PPA arrangements.	Only in respect of LGCs. The corporate's long-term offtake arrangements for LGCs should be reflected in lower LGC prices.	Generally. The corporate's long term offtake arrangements for LGCs and energy should be reflected in lower LGC and energy prices. The retailer may charge a 'balancing' fee.

KEY

Material advantage of the model

Advantage of the model

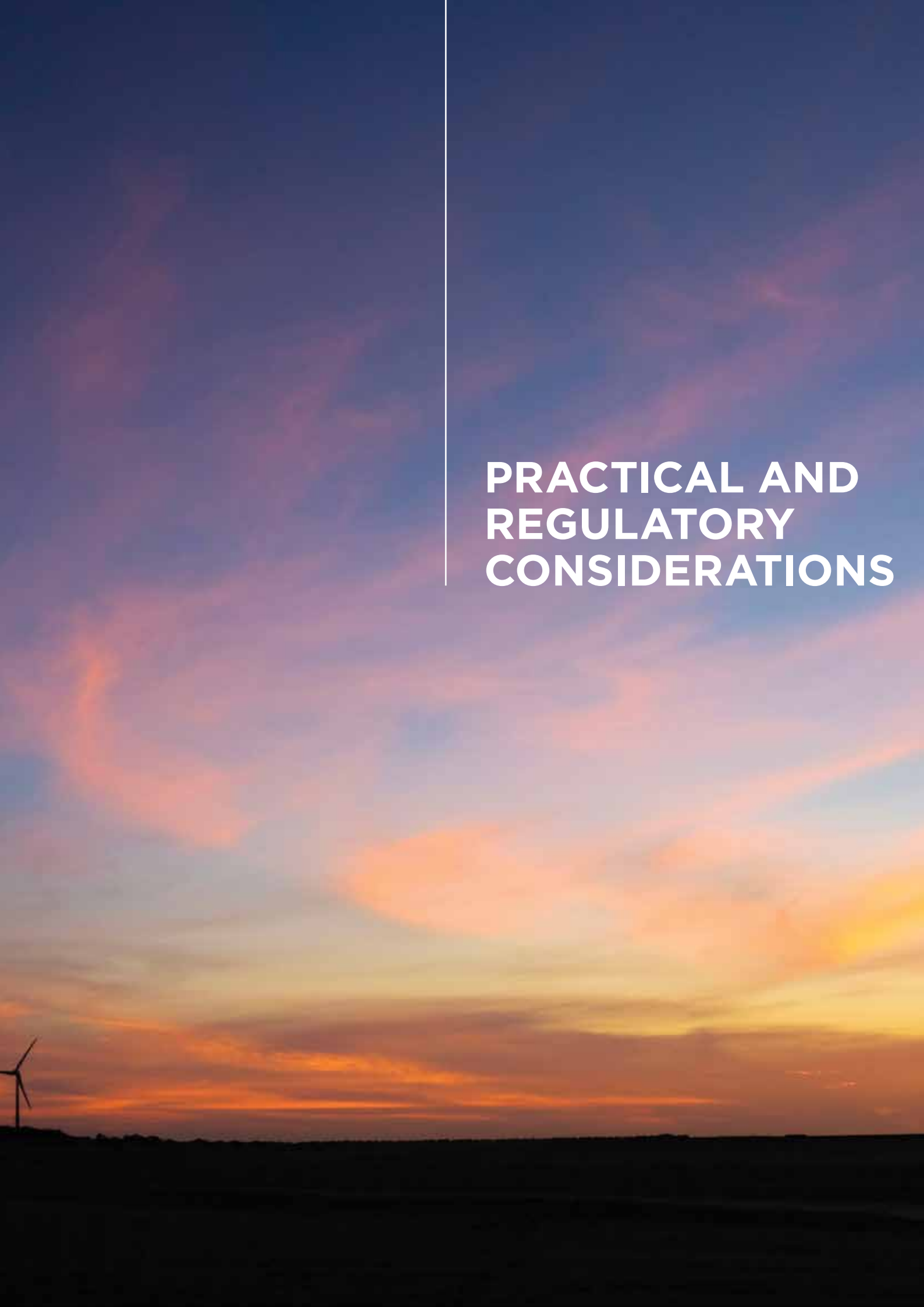
UNDERSTANDING THE VALUE IN CORPORATE PPAs (CONTINUED)

	Structure 1: Virtual PPA	Structure 2: Modified Virtual PPA	Structure 3: Sleeved PPA	Structure 4: Buying LGCs	Structure 5: Behind-the-meter generation
Corporate able to meet renewable energy targets?	Yes, if the corporate chooses to retire the LGCs.	Yes (same as Structure 1).	Yes (same as Structure 1).	Yes (same as Structure 1).	Yes (same as Structure 1).
Support development of new renewable projects?	Yes. The Virtual PPA will provide the project with a long-term, fixed revenue for the project to support project financing. Banks may favourably view the credit risk of the corporate (in comparison to some retailers).	Yes (same as Structure 1).	Yes (same as Structure 1).	Only in part. The project may still require a PPA in respect of its generation of electricity (unless a bank accepts merchant risk on energy).	Yes. The PPA will provide the project with a long-term, fixed revenue for the project.
Is there an opportunity to aggregate corporates?	Yes.	Yes.	Yes.	Yes (although it may be difficult to create economic efficiencies if multiple corporates contract just for LGCs).	No (unless there are multiple customers on or near the same site).
Retail licence required by the project?	No.	No.	No.	No.	Yes (unless a retail licence exemption is obtained).
Australian Financial Services Licence (AFSL) required by the Corporate?	Depends on the corporate, but may be exempt (AFSL may be required by the project depending on structure and business).	Depends on the corporate, but may be exempt (AFSL may be required by the project depending on structure and business).	No (AFSL may be required by the project depending on structure and business).	No.	No.
Comment	The corporate must be willing to take the spot risk. Relatively simple documentation.	The corporate must be willing to take some spot risk. Relatively simple documentation.	Requires an involved retailer, which may mean less savings / cost reduction to the corporate. More complexity in terms of documentation.	Does not manage the risk of volatile or increasing electricity prices. Relatively simple documentation.	Requires appropriate site. Network charges may be avoided.

KEY

Material advantage of the model	Advantage of the model
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PRACTICAL AND REGULATORY CONSIDERATIONS

KEY CONSIDERATIONS FOR CORPORATE PPAs

PROCUREMENT STRATEGY FOR CORPORATE PPAs

Tender process

To ensure competitive pricing, corporates looking to procure renewable energy can run a tender process amongst:

- Generation projects for the cheapest wholesale price of electricity and LGCs
- Authorised retail entities for the cheapest and most competitive electricity retail pricing and terms.

These tenders could be run separately or jointly, where generators and retailers are invited to propose joint solutions to the customer. Recently released tenders within the Australian market have reflected a flexible approach, with corporates showing a willingness to let bidders come up with an optimal strategy.

Pricing at each stage of the above process should be transparent, with competitive pressures under the generator and retail tender ensuring the lowest possible pricing for the Corporate PPAs ultimately entered into.

Retailer Role

There is potentially an opportunity for small and mid-tier retailers to enter into this market. By working within the parameters of a Sleeved PPA, a retailer is presented with access to an entirely new avenue of customers.

Providing Scale: Aggregated Corporate PPAs

Retailers are currently not incentivised to undertake the additional administration required to broker these transactions due to the relatively small size of each customer's load.

Retailers may therefore begin looking at consortiums of corporate buyers to provide the scaling required to make this model more attractive. Similarly, corporates can increase their buying power by aggregating their load and contracting with a retailer (or a project) through a single point. This would:

- Create more flexibility for a corporate to contract a smaller portion of their consumption and create more flexibility in matching the project's generation profile with their load profiles

- Provide scaling opportunities for retailers and corporates to build portfolios of aggregated offtake arrangements
- Support the development of more renewables projects.

According to Matt Langley, Vice President of finance and origination at Infinity Renewables (an American developer), smaller companies in particular are going to play an increasingly important role in growing the renewables market. "There are only so many companies like Google or Walmart that can buy hundreds of megawatts at a time. Developers need to figure out ways to execute deals with smaller buyers, or they will get left behind," said Langley.⁵

A good example of this approach is reflected in the Melbourne Renewable Energy project (MREP), where the City of Melbourne led a group of leading Melbourne businesses, universities, council groups and cultural institutions to purchase 88 GWh of energy from a 39-turbine, 80 MW wind farm in Ararat, Victoria.

Another example is the Renewable Energy Aggregation pilot project (REAP) set up under World Wide Fund for Nature's (WWF) Renewable Energy Buyer's Forum, and managed by property group Jones Lang Lasalle (JLL), to investigate the challenges and opportunities involved in delivering aggregation projects.

In addition, Akamai Technologies, a midsize American cloud delivery platform company, has entered into a virtual PPA with a wind farm in Texas for 7 MW, constituting approximately 10% of the wind farm's output. Akamai's deal is one of the smallest corporate PPAs recorded to date. It is noteworthy because it shows that smaller companies can access the benefits of large-scale renewables even if they do not have the appetite for entire projects of that size.

Moreover, the structure of the deal negotiated by Akamai can easily be replicated by other buyers that have small, distributed loads, like retail stores or offices. The developer expects a suite of other buyers to take hold and split the remaining part of the project.⁷

The aggregation of buyers could also be performed, for example, by industry associations or geographically linked corporates (such as "community solar" initiatives that empower members of a community to procure solar power as a collective rather than on an individual

5 Rocky Mountain Institute; The Corporate Renewables Market Is Ready for Smaller Buyers. https://rmi.org/news/Corporate_renewables_market_smaller_buyers/

6 RE 100 Annual Report: 2017. <https://www.theclimategroup.org/news/re100-annual-report-2017>

7 Rocky Mountain Institute; The Corporate Renewables Market Is Ready for Smaller Buyers. https://rmi.org/news/Corporate_renewables_market_smaller_buyers/

basis). The similarity of members within a buyer's pool is considered to be an important aspect in streamlining the process.⁸

However, corporates need to be mindful of:

- Default risk of one off-taker triggering a default of the aggregated PPA. Whether this is a problem or not will depend on a number of factors including the size of the aggregated pool, debt financiers' view on the overall credit rating of the aggregated pool and the Corporate PPA model that is used. Corporates may be able to negotiate the PPA on a several basis (i.e. where their respective liability is on an individual basis and not shared), where the portfolio of corporates has an appealing credit rating
- Project financing requirements, including security requirements such as the need to have a tripartite agreement with each off-taker. This could be managed by nominating an agent on behalf of the group of buyers to enter into a single PPA and tripartite agreement
- Cartel conduct prohibitions under competition laws when forming alliances with other corporates. Corporates may need to form a (incorporated or unincorporated) joint venture to avoid those restrictions depending on the particular circumstances and whether another relevant exemption applies. In illustrating ways of overcoming this challenge, the Australian Competition and Consumer Commission (ACCC) recently allowed the South Australian Chamber of Mines and Energy, along with 24 other South Australian businesses, to establish a joint electricity purchasing group. The ACCC proposes to grant authorisation for 11 years.

“smaller companies can access the benefits of large-scale renewables even if they do not have the appetite for entire projects”

BANKABILITY REQUIREMENTS

Where a Corporate PPA is used to underwrite a new build project which will be financed using a third party's balance sheet, such financiers are likely to require the following:

- **Offtake (i.e. PPA) linked to debt requirements:** typical commercial lenders will require revenues to be locked in for a certain period of their loan to sufficiently de-risk the project. Ten years is usually considered a minimum PPA term in the Australian project finance market. This, however, may be viewed by some corporates as a long time for a commitment to be made and may have pricing implications in negotiations. Alternative lenders, such as the Clean Energy Finance Corporation (CEFC), have banked projects without off-take arrangements (i.e. merchant projects), though this is not considered to be a mainstream option yet.
- **Credit support:** lenders will be taking a long-term view on the corporate's credit strength and will require additional payment support (usually in the form of a parent company guarantee or letter of credit) where the credit strength is not sufficient. Such payment guarantees may be in breach of the parent company's own debt covenants and may require consent from its own lenders.
- **Lender tripartite agreements:** the corporate will need to enter into a separate tripartite agreement with the project and its lenders to provide the lenders with suitable step-in rights in the event that the project defaults under the PPA (regardless of which structure is used). If an aggregated model is used by multiple corporates, it is likely that lenders will require a tripartite with each corporate or a nominated agent of the corporates (as discussed above).
- **Single asset risk:** where a project is being contracted for a specific asset, for example, a behind-the-meter structure, lenders will also need to take a view on the projected lifecycle of the specific asset and may require additional credit support.

⁸ Facilitating End User Deployment of Off-Site Renewable Generation; Emily Mitchell and Graham Mills (2017). http://www.lowcarbonlivingcra.com.au/sites/all/files/publications_file_attachments/rp1032_final_project_report_2017_0.pdf

RETAILER OF LAST RESORT

Where a Sleeved PPA model is used, there is additional credit risk created in respect of the retailer. In the event that the retailer becomes insolvent, a Retailer of Last Resort may be nominated as the financially responsible entity to supply electricity to the customers within the jurisdiction of the insolvent retailer. In terms of the National Electricity Rules, the retailer of last resort is not obliged to accept or comply with any hedging arrangements that the insolvent retailer had in place. This would mean that a Corporate PPA which involves a retailer intermediating the transaction (i.e. a Sleeved PPA), will be exposed to the risk of being terminated in the event of an insolvency of the retailer.

BUILDING INTERNAL AND EXTERNAL SUPPORT

In a survey conducted by PwC in respect of corporate renewable energy procurement, 71% of respondents cited "building internal support" as the biggest hurdle in the renewable energy procurement process.⁹ Energy procurement officers will need to illustrate the financial benefits that a PPA offers the corporate's balance sheet in order to secure support from the finance team. Improving knowledge within organisations has also been cited by Australian Renewable Energy Agency (ARENA) as a key issue in its report into the uptake of renewable energy by large corporates¹⁰. Key in this process will be educating investment committees and boards' in respect of the corporates' "out-of-money" exposure.

A pragmatic and phased approach to renewable energy procurement internally will involve:

- Defining the internal mandate, objectives and parameters (what are the key outcomes, how will this be achieved and timing for achievement, what we can and can not do)
- Running the procurement processes (generator and retailer tenders to determine market pricing and supply terms) and selecting the most suitable approach and structure
- Making a final investment decision (clearly presenting a refined solution for board approval), and
- Implementing the project (final negotiations of Corporate PPA and ancillary agreements, authorisation applications, commencement of operations).

MANAGING SPOT PRICE EXPOSURE WITH LOAD FLEXIBILITY

Regardless of which structure is used, the corporate needs to take a view on electricity spot prices for the period of the contract and, where possible, ensure that its contract does not settle against it. Ultimately, the benefits that a Corporate PPA offers need to outweigh the downside risk of a turn in prices.

The nature of a corporate's operations, and the flexibility of its load, will influence its ability to take a long term view on its own electricity consumption requirements. This will in turn determine the optimal level of hedging and tenor of a PPA. Businesses that place a value on having operational flexibility will find it more difficult to predict how long they require a fixed energy procurement arrangement, whereas businesses that own fixed assets for which electricity consumption is more certain are in a better position to evaluate their requirements.¹¹

Any mismatch between a corporate's load and the generation profile of a project may be mitigated in time through the inclusion of battery storage to bridge the gap. While market commentators have speculated that costs for commercial and industrial use will reach the tipping point by 2020/2021, activity within this market is already picking up in Australia. Nectar Farms recently announced that it will contract 100% of its power from renewable energy, primarily through a new 196 MW wind farm combined with a 20 MW storage plant, to be built on its premises by French developer, Neoen.

It should also be noted that Corporate PPAs (and in particular, virtual PPA structures) that involve a generator in a different state to the corporate will have the added risk of a difference in wholesale market prices. Corporates should therefore favour projects that are based within the same pricing node as they are, though this can sometimes be difficult to achieve. Ultimately, this risk should not be considered as a "deal-breaker", just one to consider during the planning process.

9 PwC "Corporate renewable energy procurement survey insights". <https://www.pwc.com/us/en/sustainability-services/publications/assets/pwc-corporate-renewable-energy-procurement-survey-insights.pdf>

10 ARENA "The Business of Renewables". <https://arena.gov.au/assets/2017/07/AU21476-ARENA-Corporate-Report-REVISED-v1-1.pdf>

11 Facilitating End User Deployment of Off-Site Renewable Generation; Emily Mitchell and Graham Mills (2017). http://www.lowcarbonlivingcrc.com.au/sites/all/files/publications_file_attachments/rp1032_final_project_report_2017_0.pdf

CLEAN ENERGY POLICY UNCERTAINTY

The market value of LGCs, and therefore renewable energy, is inextricably linked to the Federal or State government's carbon and emission reduction policies. The National Energy Guarantee may have an impact on the secondary market value of LGCs (or other renewable energy certifications) which corporates will need to take into account when modelling Corporate PPAs going forward.

Policy risk therefore needs to be considered by corporates before entering into these long term arrangements.

ADMINISTRATIVE AND TRANSACTION COSTS

Electricity procurement can be a complicated task. Corporates will either need to have in-house support (technical, legal and commercial) or will need to outsource these services. We have set out a key issues checklist for corporates to consider in Annexure A.

Given the early stage of this market, all deals are currently being carried out on a bespoke and granular basis. This has been identified as a key issue for all parties involved and a major hurdle to overcome. The development of standardised documentations and processes will ultimately drive costs down and open up this market.

These costs can, however, be offset by the advantages of being an early mover in the market.



REGULATORY ISSUES

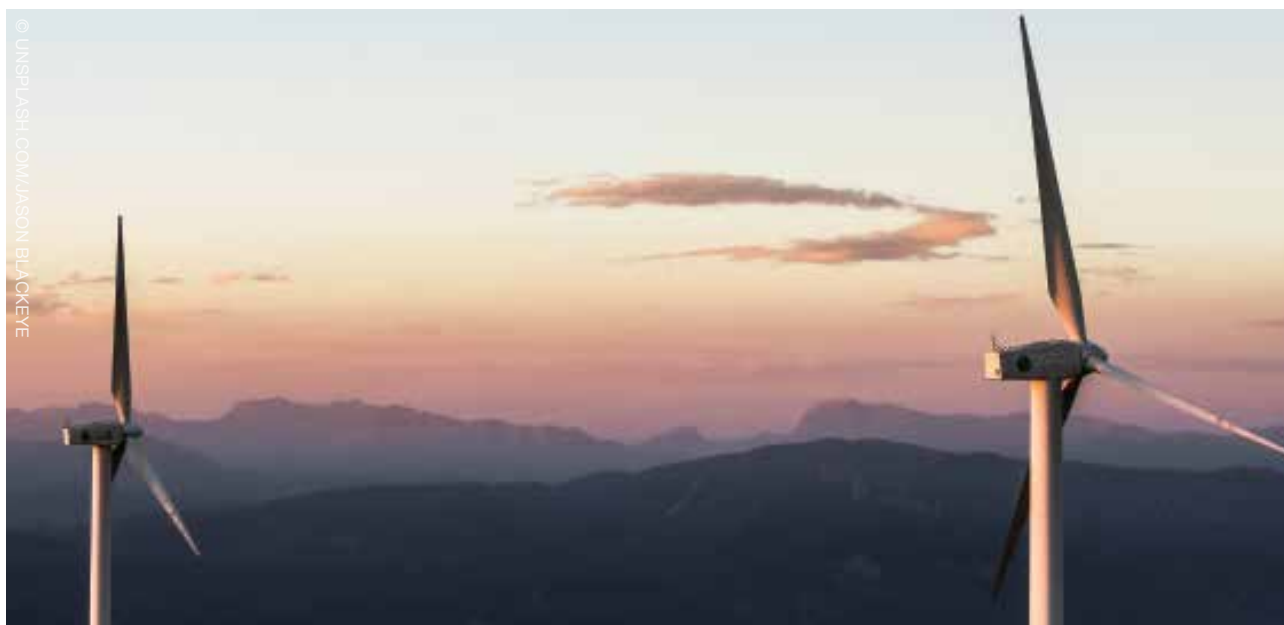
There are various regulatory requirements that need to be considered when structuring a PPA process. The applicable regulatory requirements will vary according to the particular circumstances. However, the following are common regulatory issues that need to be considered:

- Financial services - the requirement to hold an AFSL needs to be considered. For example, a corporate that enters into a derivative arrangement in the form of a CfD may require an AFSL unless they fall within an exemption
- Electricity regulations - authorisation requirements under the national electricity law and applicable state laws must be considered when structuring any Corporate PPA. For example:
 - For the behind-the-meter model:
 - A retail authorisation or exemption is generally required for the physical sale of electricity
 - A network service provider authorisation or exemption is required for management of the private network infrastructure
 - There is a standing exemption for large energy users but an extension of this exemption to smaller users is likely required for this market to grow.
- Competition issues - as noted above, if customers form an alliance competition restrictions, including the cartel conduct provisions under the *Competition and Consumer Act 2010* (Cth), need to be considered.

TAX AND ACCOUNTING TREATMENT

The accounting treatment of a PPA will depend on the accounting standards by which the corporate is governed. The introduction of a new reporting standard (IFRS 16) creates a risk that a Corporate PPA might be treated as a lease and be brought onto the corporate's balance sheet. The key consideration of whether a Corporate PPA will be treated as a lease depends on whether the corporate controls the use of the relevant asset (i.e. obtains substantial economic benefit and directs its use).

Corporates considering entering into PPAs should consult their accounting and tax teams at the outset to understand what it can and can not do.



GLOSSARY OF TERMS:

AFSL	Australian Financial Services Licence, as required in terms of the <i>Corporations Act of 2001</i> (Cth) for certain transactions and business practices, including entering into derivative transactions.
ARENA	Australian Renewable Energy Agency.
ACCC	Australian Competition and Consumer Commission.
Behind-the-meter	Where an electricity generator is located on or near the same site as the off-taker.
Bundled PPA price	A price that includes both an electricity tariff component and an LGC price component.
CEFC	Clean Energy Finance Corporation.
Competition and Consumer Act	<i>Competition and Consumer Act of 2010</i> (Cth).
Contract-for-difference or CfD	A form of derivative, where the contract price is based on the difference between an agreed PPA price and the applicable spot price for electricity in the NEM.
corporate	A corporate entity that, in the context of this report, is seeking to procure a hedge against electricity and LGC prices in Australia by entering into an agreement with a renewable energy generator and is likely to have significant energy usage.
Corporate PPA	A PPA where the purchaser is a corporate.
GWh	Gigawatt hours.
ISDA Agreement	The master agreement developed by the International Swaps and Derivatives Association (ISDA), which is used as a standardised form of contract for derivative transactions.
LGCs	Large-scale renewable energy certificates.
Load	Electrical demand.
MWh	Megawatt hours.
National Electricity Rules	The National Electricity Rules, as amended from time to time, that govern the NEM.
National Energy Guarantee	The new energy policy announced by the Federal Government in October 2017.
NEM	National Electricity Market.
PPA	Power Purchase Agreement which governs the sale and purchase of power (either physically or notionally) between two parties.
PPA Output	The volume of output that is contracted under a PPA.
Renewable Energy Target	The target set for renewable energy generation in terms of the <i>Renewable Energy (Electricity) Act of 2000</i> (Cth).
Sleeved PPA	A PPA where there is a notional transfer of electricity from the generator to the retailer, which is passed on to the customer, as set out on page 18.
Virtual PPA	A PPA where there is no physical or notional transfer of electricity between the parties.



An aerial photograph showing several rows of blue solar panels installed on a green grassy field. The panels are arranged in a grid pattern, with white lines separating the individual cells. The grass is a vibrant green, and the overall scene is brightly lit, suggesting a sunny day.

ANNEXURE A:

**KEY ISSUES
CHECKLIST | VIRTUAL
PPA, MODIFIED
VIRTUAL PPA &
SLEEVED PPA
STRUCTURES**

1. INTRODUCTION

The following checklist is designed to be a tool for corporates to use when evaluating a Corporate PPA opportunity in respect of a virtual (or modified) PPA or a sleeved PPA (Structures 1, 2 and 3). The checklist has been prepared on the basis that it will be used internally by corporates. It can also be used by corporates to identify the information to ask a potential project proponent to provide together with its proposal.

The checklist is not designed to be comprehensive, but rather a guide, as each transaction will vary depending on counterparties (e.g. government versus private) and motivations (e.g. reducing energy costs versus security of green rights supply).

This checklist assumes that: (a) there is a single corporate offtake arrangement (i.e. no aggregation); and (b) there is a single project (i.e. no project aggregation). This checklist will still be useful in respect of evaluating a Corporate PPA where there is aggregation of customers or projects, however additional questions not covered in this checklist will also be relevant.

2. PROJECT DUE DILIGENCE

Area	Issue	Completed	Comments
Project			
1.	Size		
	What is the nameplate capacity to be installed?	<input type="checkbox"/>	
	Is the renewable energy project's (Project's) proponent (Proponent): (a) seeking to hedge with the Corporate all or part of the market price to be received with respect to the generation output of the Project; and (b) seeking to sell all or some of the green benefits generated by the Project?	<input type="checkbox"/>	
	If the Proponent is only offering the Corporate a part-hedge: (a) does the Corporate have priority in terms of the Project satisfying the terms of its PPA?; (b) is the Proponent required to offer the Corporate the best pricing it offers any other off-takers?	<input type="checkbox"/>	
	Will the Project offer ancillary services (such as frequency or voltage support services) or want the flexibility to offer ancillary services?	<input type="checkbox"/>	
	Is there any scope for the Proponent to expand the Project (e.g. does the development approval (if any) allow for an expanded Project)? Is there scope to scale up or down the percentage (%) of the hedge in respect of the Project's output?	<input type="checkbox"/>	
2.	Energy type		
	What is the Project's resource(s) (i.e. solar, wind, battery, gas)? What is the proportion generated by each energy resource?	<input type="checkbox"/>	

Area	Issue	Completed	Comments
	Does the Proponent have a preference in terms of how the PPA is documented (e.g. is it based on an ISDA Master Agreement (i.e. as published by the International Swaps and Derivatives Association) or bespoke)?	<input type="checkbox"/>	
	How does the generation profile of the Project marry with the load profile of the Corporate? Has an energy expert been engaged to advise on this?	<input type="checkbox"/>	
3.	Green Rights		
	Is the Proponent seeking the offtake of all green rights or only LGCs (or other specified green rights)?	<input type="checkbox"/>	
	Is the Corporate seeking to meet a voluntary target (and therefore required to voluntarily retire green rights)?	<input type="checkbox"/>	
	Does the Proponent propose to create and/ or transfer to the Corporate a minimum number of green rights over a specified period, and if so, what are the consequences if the Proponent does not do this?	<input type="checkbox"/>	
4.	Location		
	Where is the Project located?	<input type="checkbox"/>	
	What will be the regional reference node to be used for calculating payments under the PPA?	<input type="checkbox"/>	
	In what region does the Corporate have the greatest load profile/ the site(s) with the largest consumption requirements and does this match the location of the regional reference node used by the Project (noting that some corporates may have a preference for the regional reference price used by the Project to be in the same State as their load/ where most of their load is located).	<input type="checkbox"/>	
5.	Financing		
	What financing arrangements are planned to be in place (or are in place) for the Project?	<input type="checkbox"/>	
	Is the Project operating, under construction or in the development phase? How does the stage of the Project correlate with the term of the PPA?	<input type="checkbox"/>	
	Are any financier consents required to be obtained before any corporate PPA can be executed?	<input type="checkbox"/>	
Proponent			
6.	Counterparty to the PPA		
	Who is the counterparty to the PPA and how does this counterparty sit within its corporate group?	<input type="checkbox"/>	
7.	Credit risk		
	What is the credit risk of the PPA counterparty? (Corporate could review (where available) financial statements / reports for the Proponent).	<input type="checkbox"/>	

Area	Issue	Completed	Comments
	Is there a parent company guarantor party to the PPA?	<input type="checkbox"/>	
	What is the credit risk of the parent company? (Is there any credit rating available or, if not, any recent financial statements that are available?)	<input type="checkbox"/>	
	Does the PPA counterparty intend to provide credit support under the PPA (and if so, in what form, for what period and what quantum)?	<input type="checkbox"/>	
8.	Retail licence	Does the PPA counterparty also have a retail licence in the same state as the Corporate's load? (This may open up opportunities in respect of how the PPA is structured).	<input type="checkbox"/>
9.	Development risk	What is the Proponent's experience in developing similar projects in similar locations?	<input type="checkbox"/>
		Is the Proponent proposing to subcontract in respect of O&M and EPC services (and if so, how/ to what contractor)?	<input type="checkbox"/>
10.	Litigation	Is the Proponent party to any current proceedings? Litigation searches can confirm this.	<input type="checkbox"/>
11.	Assets	Are the Project's assets to be owned by the same entity that will be counterparty to the PPA?	<input type="checkbox"/>
12.	Other projects	Does the Proponent own other assets within its portfolio (including other assets that generate green benefits, which could be used if there was a shortfall under the PPA)? Is there any brand risk to the Corporate in respect of the Proponent's other projects?	<input type="checkbox"/>
13.	Intermediary	Does the Corporate intend to act as the generator intermediary? If yes, does the Project agree to adopt this structure?	<input type="checkbox"/>
Pricing			
14.	Price	What fixed price has the Proponent offered under the PPA?	<input type="checkbox"/>
		Is the fixed price under the PPA calculated in respect of energy and green rights?	<input type="checkbox"/>
		Is the fixed price payable under the PPA fixed for the term of the PPA or is it subject to indexation etc?	<input type="checkbox"/>

Area	Issue	Completed	Comments
	Are there any caps or floors on the floating price payable by the Proponent under the PPA?	<input type="checkbox"/>	
	What price is payable to the Proponent under the PPA for LGCs?	<input type="checkbox"/>	
	What are the pricing arrangements under the Corporate's retail arrangements with the retailer?	<input type="checkbox"/>	
15. Changes in law	Are there likely to be any regulatory changes that could impact the pricing under the Project (e.g. proposed 5 minute settlement rule change)? If so, does the Corporate have a preference as to whether such changes do or do not trigger a price review?	<input type="checkbox"/>	
Term of the PPA			
16. Expected commencement of commissioning of the plant / export of energy and creation of green rights	<p>What is the Proponent's expected timeframe in respect of commissioning of the plant and the first export of energy, does this meet the Corporate's timing requirements and is there any reason the Corporate's timeframe is not realistic, e.g.:</p> <ul style="list-style-type: none"> • Has the Proponent obtained all necessary permits and authorisations required for development and construction of the Project, including the development approval? • What has been the extent of the Proponent's community engagement and the outcomes of this engagement? • What is the status of the connection agreement? • What is the status of any financing arrangements (if any)? • What is the status of the EPC and O&M agreements? • What is the status of permits and authorisations required for operation of the Project, including generator authorisations under the National Electricity Rules and any state-based legislation and RET scheme accreditations? • Is there a time gap between the commencement of the Corporate's retail contract and the Project's exportation of electricity? 	<input type="checkbox"/>	
17. Consequences for not meeting the target date for commissioning of plant / first export of energy	<p>What are the consequences of the Project not being commissioned / exporting energy before any target date (e.g. compensation)?</p> <p>Such terms could be set by the Corporate or requested by the Proponent, subject to negotiation in either scenario.</p>	<input type="checkbox"/>	
	Does the Corporate require/ has the Proponent offered a sunset date to be fixed for commissioning the Project / first export of energy?	<input type="checkbox"/>	

Area	Issue	Completed	Comments
	What are the consequences if the sunset date is not met (e.g. termination by the Corporate) as above, such terms could be set by the Corporate, or requested by the Proponent, subject to negotiation in either scenario?	<input type="checkbox"/>	
18. Conditions precedent	Will the commencement of the PPA be subject to fulfilment of certain conditions (e.g. reaching financial close, receiving ARENA or CEFC funding?)	<input type="checkbox"/>	
19. Term of the PPA	What is the term of the Corporate PPA that the Corporate / Proponent is seeking?	<input type="checkbox"/>	
	Does the Corporate/ Proponent want any rights to extend the term of the Corporate PPA?	<input type="checkbox"/>	
Performance			
20. Contracted capacity and performance guarantees	Does the Corporate require the Proponent to pay the Corporate for any shortfalls in achieving a minimum capacity of the plant?	<input type="checkbox"/>	
Termination			
21. Termination rights	What rights do the parties have to terminate the agreement for continued breach or underperformance? What termination payments are expected (as above, such terms could be set by the Corporate or requested by the Proponent, subject to negotiation in either scenario)?	<input type="checkbox"/>	
22. Force majeure and change in law	What rights do the parties have if an unexpected or unforeseen event or change in law prevents a party from being able to perform under the PPA or makes such performance commercially unfeasible (as above, such terms could be set by the Corporate or requested by the Proponent, subject to negotiation in either scenario)?	<input type="checkbox"/>	
23. Insurances	What insurances does the Corporate require the Proponent to hold and maintain (and provide evidence of) and can the Proponent meet those requirements?	<input type="checkbox"/>	
Modified Virtual PPA Only			
24. Retailer	On what terms has the Corporate's retailer agreed to: (a) a market-based tariff in respect of all or part of the Customer's load? (b) purchase LGCs from the Corporate that the Retailer must surrender on behalf of the Corporate's acquisition of energy?	<input type="checkbox"/>	

Area	Issue	Completed	Comments
25. Term	What is the term of the Corporate's retail contract?	<input type="checkbox"/>	
26. Hedging products	Does the Corporate's retail contract offer the Corporate flexibility to enter into hedging products during the term of the retail contract (and on what terms)?	<input type="checkbox"/>	
Sleeved PPA			
27. PPA between the Retailer and the Project	What is the commercial arrangement in respect of the Retailer's 'margin' that is applied to the PPA to compensate the Retailer for its role?	<input type="checkbox"/>	
	What control and involvement will the Corporate have in respect of the negotiation of the PPA to be entered into between the Proponent and the Retailer?	<input type="checkbox"/>	
28. Terms of the Retail Contract	Does the term of the Retail Contract match the term of the PPA?	<input type="checkbox"/>	
	What is the scope of the carbon pass-through provisions?	<input type="checkbox"/>	
	What are the conditions precedent to the commencement of the retail contract (i.e. is commencement dependent upon the commissioning of the Project - and if so, what safeguards are there for the Corporate)?	<input type="checkbox"/>	
	What is the form of credit support that the Corporate will be required to provide to the Project (particularly in the event that the Project will be financed)?	<input type="checkbox"/>	
	Does the Corporate have the ability to add more, subtract less or replace sites to the retail contract?	<input type="checkbox"/>	
	What are the consequences of a change of control or assignment of the retail contract (and PPA)?	<input type="checkbox"/>	
	What will be the bank's view on the credit risk of the Retailer (in the event that the Retailer becomes insolvent and a RoLR becomes a party to the retail contract with the Corporate but not the PPA) and what credit support arrangements are required?	<input type="checkbox"/>	
29. Interdependency of arrangements	What is the arrangement between the Project, the Retailer and the Corporate in respect of all LGCs (and other green benefits) generated by the Project?	<input type="checkbox"/>	

Area	Issue	Completed	Comments
	What rights do the parties have if an unexpected or unforeseen event or change in law prevents a party from being able to perform under the PPA or materially changes the commercial position of one of the parties under the agreement?	<input type="checkbox"/>	
	What rights do the parties have to terminate the arrangements, what are the cross-default provisions and what are the consequences of default / termination?	<input type="checkbox"/>	

