



# Renewable energy for business

Increasing operational efficiency long-term certainty through direct energy procurement

Climate Capital Pty Ltd



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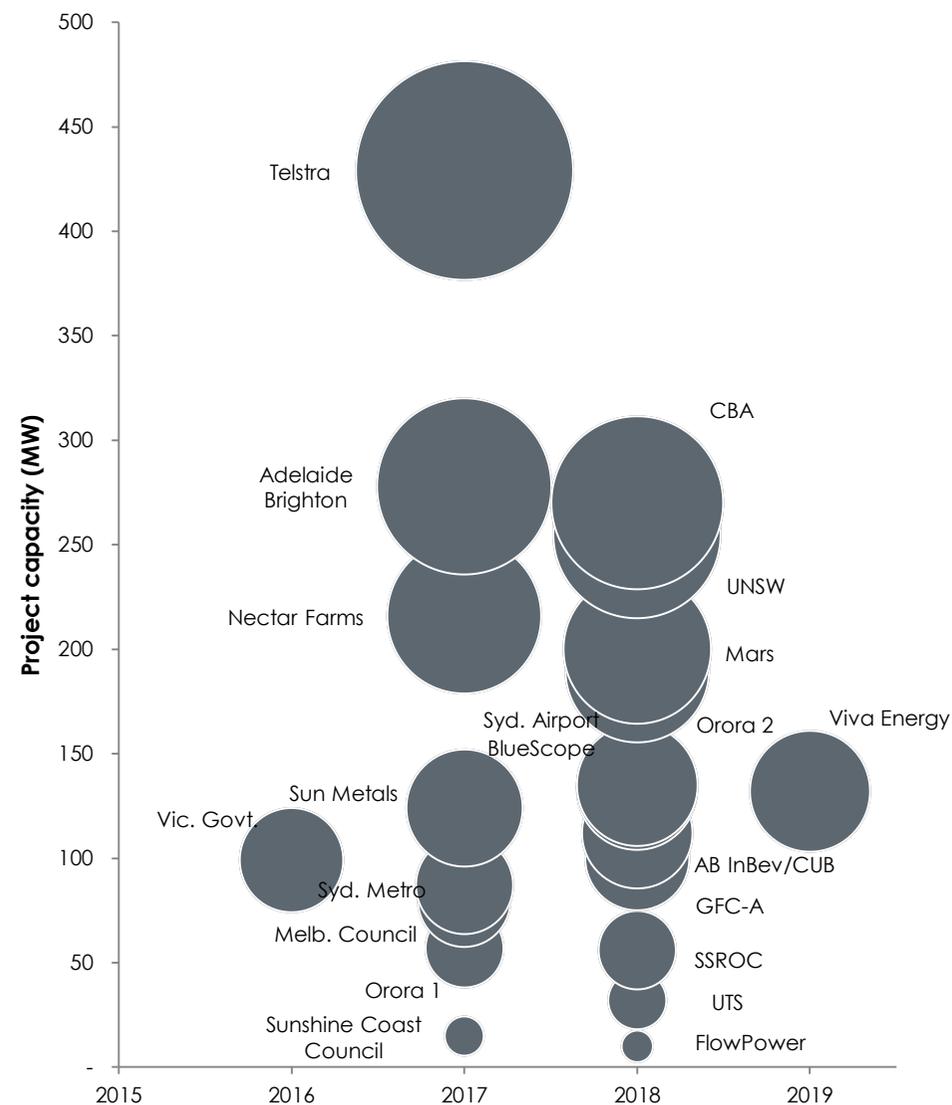
# Overview

Australia has seen a dramatic increase in corporate energy procurement directly from energy generators over the last three years. This rapid increase has been driven by decreasing technology costs, increasing wholesale market prices and volatility; and legislative uncertainty.

Major Australian businesses are staying ahead of these uncertainties by entering long-term supply arrangements with renewable energy generators.

This document unpacks these drivers as well as typical corporate PPA procurement models and commercial considerations for corporates.

Corporate PPA activity accounts for in excess of 3GW of renewable projects over 3 years



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## Key drivers of corporate PPA activity



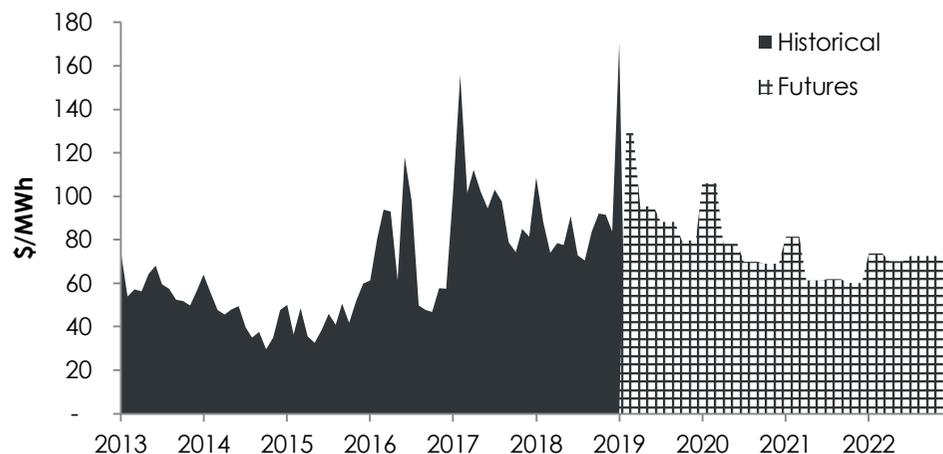
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Over the last three years, the National Electricity Market ["NEM"] has seen a significant increase in price level and volatility as a result of increasing renewable energy generation and the withdrawal of base load generation assets.

The events, coupled with the rapidly decreasing cost of renewable generation technology, has given birth to Australia's corporate PPA market as businesses seek to insulate themselves from a range of energy market and regulatory uncertainties.

This energy procurement model is restoring Australian business's competitive advantages by restoring bottom line profitability and indirectly through ESG benefits.

**Rolling monthly averaging historical and futures NEM prices**



Note: historical and futures contracts prices are rolling monthly averages across NEM markets.

Source: Bloomberg, LLP.

## Key drivers of corporate PPA activity

### 1 East cost gas shortage

The east coast gas shortage and lack of competition has driven up gas prices at a time when demand for synchronous and dispatchable gas-fired power generation is needed to support the growth in renewable energy generation. This has had significant flow on effects to electricity prices.

### 2 Price volatility

Price levels and volatility have increased due to the changing generation mix, the increasing reliance on gas-fired power generators as marginal dispatching units and the lack of capital investment to replace ageing coal energy generation assets.

### 3 Network charges

Network charges currently account for about 40-45% of electricity prices. Over \$46b was invested between 2007 and 2012 to replace and augment existing electrical network infrastructure which are passed through to consumers.

### 4 Environmental charges

Environmental charges include all compliance obligations from the Renewable Energy Target (RET) and State-based schemes. The RET was reviewed and re-set to 33,000GWh in 23 June 2015. During the review, investment into the renewable energy sector paused but is now rapidly catching up. This 'pause' drove up renewable energy certificates prices, particularly those related to commercial grade renewable generation, resulting in higher environmental pass-through charges in the short term.



# Procurement models

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## Drivers

The economic drivers for corporate PPA's can include offsetting energy costs, network charges, environmental charges or a combination of all three.

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## Considerations

The appropriate PPA structure will also be determined by the customer load profile, the physical location of the customer's operations and the availability of surplus land or roof space and the existence of a robust renewable energy resource.

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## Structure

The two most common corporate PPA structures are '**Behind-the-Meter**' where the generation asset is located at the site of demand and '**Synthetic**' where an energy retailer facilitates the supply of energy via a contract for difference where a project cannot be located at the site of demand.

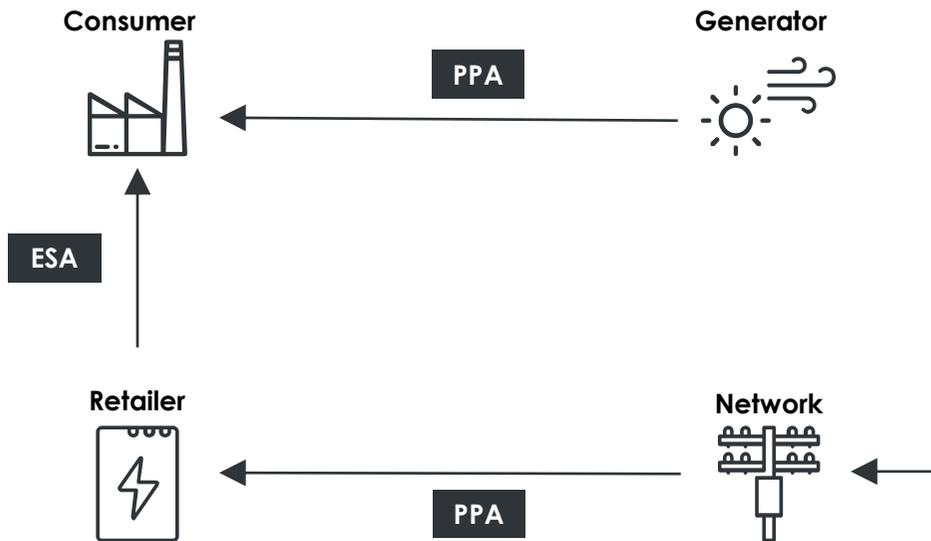
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## Procurement modes



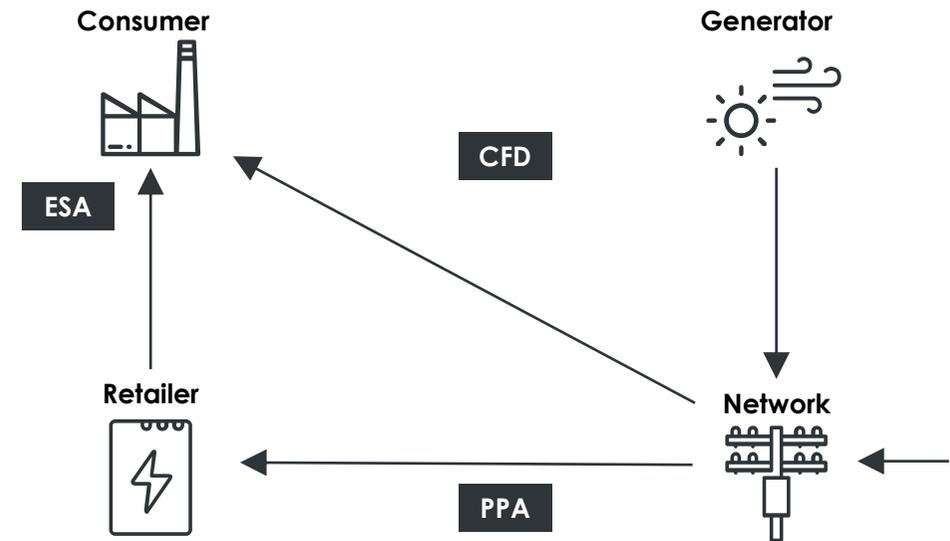
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### Behind the Meter PPA



- The consumer enters into a PPA with the generator.
- The generator supplies energy to the consumer under the contract and despatches any surplus energy generated to the market via the customer network connection.
- The consumer continues to purchase energy via the existing energy supply contract for energy during periods when the generator is not producing.

### Synthetic PPA



- The generator enters into a PPA with the retailer.
- The retail supplies power to the consumer under an electricity supply agreement.
- The generator and the consumer enter into a contract for difference agreed at a fixed price. The CFD is settled between the fixed price and the variable market price at which the generator sells the electricity to the retailer.

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## Corporate PPA terms, considerations and pricing



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### Key terms and considerations

#### Structure – Behind the Meter or synthetic?

Determining whether the PPA will be with an asset 'behind-the-meter' or synthetic via an existing retailer is critical to pricing and supply.

#### Term and extension

The term of the PPA will be important to determining the price at which the PPA is struck at. In addition, the re-contracting mechanism provides additional certainty to both parties. Typical terms are between 8 – 12 years with an option to re-contract for the same term.

#### Price

What is the price per unit of energy supplied? Is it bundled (i.e. energy plus environmental charges)? Importantly, does the proposed price support the economic drivers for the consumer?

#### Minimum supply quality

Corporate PPA's are only effective when the power supplied by the renewable energy generator is the same quality as supplied. Typical PPA's will require a minimum standard which is verified by a third party.

#### Pre-emptive rights

In some cases, it may be economical for the consumer to acquire the asset after a certain number of years (typically 5 – 7 years).

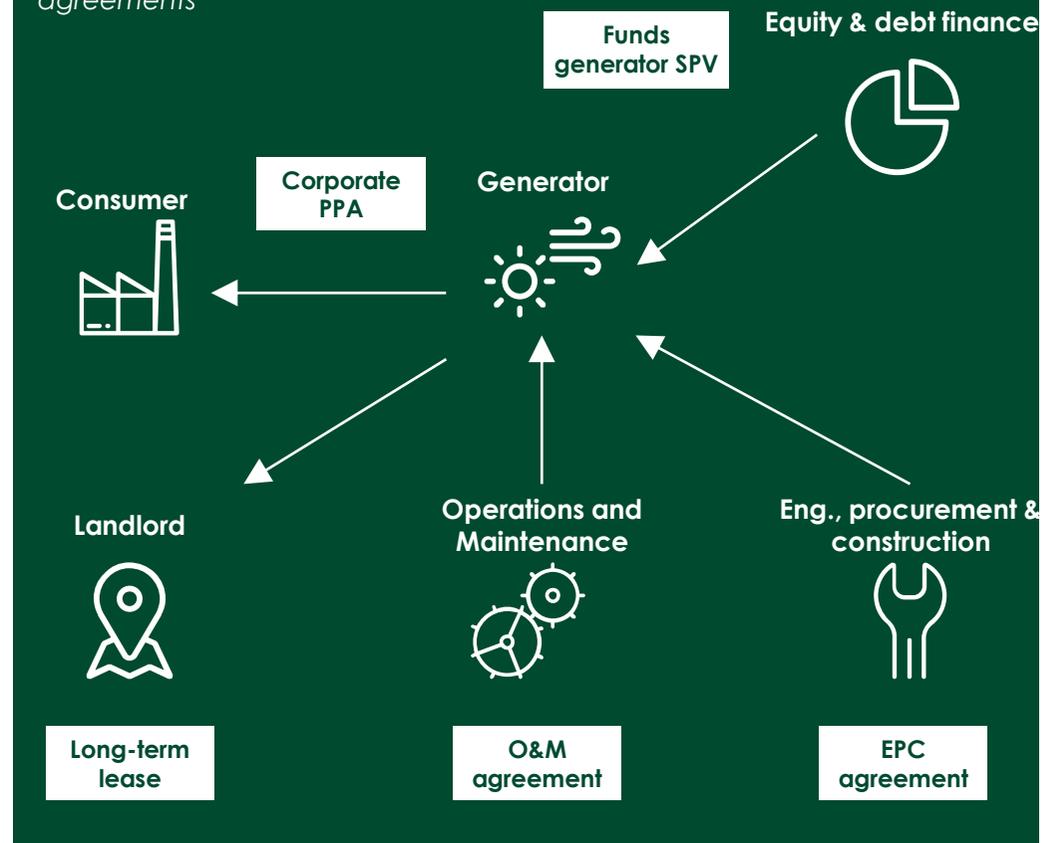
#### Damages

What remedies are available to the consumer if the generator does not supply energy by an agreed commissioning date or throughout the life of the asset?

Entering into a corporate PPA is encoding a long-term commercial relationship between a customer and renewable energy generator. As such, there are a number of other critical commercial considerations which must be reflected in the PPA and supporting documents.

### Typical C-PPA commercial structure

Key obligations set out in the PPA regarding project delivery and operations are 'backed-to-back' with the construction and maintenance agreements



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## Partnering with Climate Capital



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### Who we are

Climate Capital invests in renewable projects around Australia. Climate Capital seeks to invest in projects which are behind-the-meter or present the ability to contract electricity offtake with a corporate counterparty; are 1 – 10MW in capacity; and offer sector and geographic diversification to Climate Capital's existing portfolio.

Climate Capital operates a co-investing model with its corporate shareholders who are a mix of social impact and family office investors. In addition, Climate Capital maintains strategic relationships with a range of institutional investors.

### Investing criteria

#### Scale

1MW – 10MW in capacity (solar PV). Larger projects or portfolios considered where a corporate offtaker has been identified for part or all project output (solar and wind).

#### Offtake

The opportunity to sell the power generated under a long-term power purchase agreement to a corporate offtaker either directly or via a swap arrangement.

#### Diversification

Projects that meet Climate Capital's overall counterparty sector and geographic diversification requirements all major energy networks in Australia.

### Our experience

Climate Capital's team has developed in excess of 1,700MW of generation capacity in Australia. Its team has overseen the successful deployment of nearly AU\$2 billion of development capital in operating domestic renewables projects.

### Partnering with us

Climate Capital is experienced in structuring mutually-beneficial partnership and pipeline investments and power purchase agreements with corporate advisors, project developers and corporate customers.

### Project partners

#### ✓ Corporate customers

Corporate customers with multi-megawatt energy loads which are constant or coincide with peak pricing. Climate Capital's team are expertly placed to assist in the delivery and financing of projects.

#### ✓ Project developers

Climate Capital's own development experience means it understands the development model and economic drivers. Climate Capital is well-placed to be a provider of pre-financial close capital and assist developers in the delivery of projects and portfolios.

#### ✓ Land owners

Renewable energy projects can present attractive, long-term passive income streams to land owners located near favourable resources and connection points. Climate Capital has a combined experience in excess of 30 years liaising with landowners to deliver optimum project outcomes.



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# Contact us

If you would like to discuss a project or partnering with Climate Capital, please reach out to our team via the details provided below

**Dominic Churchill**  
Chief Executive Officer

Tel: +61 4 449 841 244  
[d.churchill@climatecapital.com.au](mailto:d.churchill@climatecapital.com.au)

**Shane Bartel**  
Chief Operating Officer

Tel: +61 4 408 997 735  
[s.bartel@climatecapital.com.au](mailto:s.bartel@climatecapital.com.au)