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Best Practice Corporate Renewable Power Purchase Agreements

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Partners



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The Business Renewables Centre Australia was established in 2018 by partners Climate-KIC Australia, WWF-Australia's Renewable Energy Buyers Forum and UTS Institute for Sustainable Futures to progress renewable energy uptake nationally. Our funding partners are ARENA, NSW, Queensland and Victoria State Governments.

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June 2021

About Business Renewables Centre-Australia

BRC-A, a national not-for-profit initiative, was established to facilitate the growth of corporate renewable energy Power Purchase Agreements (PPAs) with seed funding from the NSW Government, Victorian Government and ARENA.

As the market for renewable energy PPAs has grown, BRC-A has become the leading source of independent information and advice. BRC-A's core offering includes:

- **A suite of information resources:** primers, guides, templates and other tools adapted from the Rocky Mountain Institute resources for buyers on all stages of the PPA journey such as deal structures, how to maximise social and community benefits and accounting treatments.
- **Capacity building:** an innovative model of buyer and developer 'bootcamps' which include a 'faculty' of experienced buyers who are matched with participants for learning and connections and on-going informal advice and support for members.
- **Knowledge sharing:** the BRC-A runs a very popular webinar series ('Buying Power'), regularly presents at industry conferences and workshops and publishes case studies, articles and an annual State of the PPA Market report.
- **Facilitating industry connections and reducing transaction costs:** BRC-A hosts an online marketplace platform listing 11 GW of projects seeking buyers and a directory with profiles of member developers and service providers.



The BRC-A is the leading national organisation for corporate renewable power purchase agreements in Australia. I can testify to the quality of the resources and support they bring.

Simon Corbell, Chief Adviser, Energy Estate
ex-Deputy Chief Minister, ACT



Best Practice Corporate PPAs to meet 100% renewable electricity goals

Power Purchase Agreements (PPAs) are a powerful tool, but clarity is needed in the market to continue their impact. In this document we put forward some ideas and key considerations related to defining PPA best practice. This will be shared with industry as a discussion paper to seek feedback.

The ultimate objective is the development of a basic rating system that enables buyers, developers and the industry at large, to have a clearer understanding of what 'good' looks like in corporate renewable energy procurement.

Corporate Power Purchase Agreements (PPAs), spurred by the growth in renewable energy commitments and favourable market conditions, have underpinned more than \$5 billion of investment in wind and solar projects in Australia over the past 4 years. The advantages of Corporate PPAs for enabling long term investment for the developers of new wind and solar projects and delivering financial and promotional benefits for buyers have seen PPAs become a popular model of renewable energy procurement. Around 100 deals have been signed across nearly every sector including regional councils, universities, manufacturers, agri-businesses, schools and infrastructure projects.

As demand has grown for Corporate PPAs, so too has supply with the market responding with different PPA models. This growth in different models is a positive development as it provides greater choice for buyers and has opened up Corporate PPAs to a new tranche of organisations. However, as retailers develop products that look and feel more like traditional energy contracts, the distinction between these products and PPAs is blurring, and it can be harder to evaluate their impact on decarbonising the grid. The situation has been exacerbated with the achievement of the Renewable Energy Target in 2020.

In this rapidly evolving context, some less impactful PPA deals are announced with great fanfare, while other remarkable deals accelerating the path to a decarbonised grid do not achieve the same recognition.

Clarity is needed to help all parties entering a PPA contract to align their actions with best practice. One of the roles of the BRC-A is to provide independent guidance for Corporate PPA buyers. We think it's time to take stock and open up a discussion about how to define best practice in renewable energy procurement.



The birth of a new era: GreenPower to PPAs

In Australia, up until around 2016, the primary way for an organisation to achieve their renewable energy goals was to purchase it via the government accredited GreenPower program. GreenPower accredits electricity retailers to purchase and surrender Renewable Energy Certificates (RECs) (see breakout box) when the customer purchases GreenPower. There are more than 20,000 businesses across Australia that purchase GreenPower¹

However, in the US, around 2010, a number of large corporates like Google and Facebook kicked off a new model of renewable energy procurement. In addition to being motivated by reducing the greenhouse gas emissions associated with their electricity consumption, they had a laser sharp focus on additionality. They wanted to ensure that their activity would see new investment in wind and solar and so they chose to only contract with projects prior to them being financed.

These new deals with credit worthy counter parties like Google and Facebook became a major new way for wind and solar projects to get financed, reaching over 1GW of combined new projects in 2014. While this has been great for the renewable energy industry and emissions reduction, it has also become an increasingly popular option for corporates in the US, and now globally. Large energy users get to tap into the financial benefits of increasingly cheap wind and solar, as well as meeting their sustainability objectives.

For those early pioneers, the old model had limitations, including:

- **Limited financial benefit** – RECs on their own (as in the case of GreenPower) are a cost, with no direct financial return on investment, which did not tap into the increasing commercial viability of wind and solar.
- **Weak market signal** – Wind and solar farms are long term assets requiring 10-15 year loans to compete with existing (coal and gas) generation. A short-term, high REC price does not give long term revenue confidence to banks to finance new projects.
- **No Tangibility** – If RECs are purchased on the open market, the buyer does not have a link to a particular project or wind and solar farm to demonstrate the impact of their investment.
- **Not scalable** – While one organisation may be committed to paying more to be renewable, it is hard to convince all corporates and institutions to do this

In truth, RECs are a tool. They can be used in ways that overcome the above limitations, such as in the case of our own RET which has compulsory levels of purchase and retirement. But Greenpower and short-term purchasing of RECs is not a method of directly enabling long term investment in new wind and solar.

The Large-Scale Renewable Energy Target (LRET)

The objective of the LRET was to encourage investment in large-scale renewable power stations to achieve 33,000 gigawatt hours of additional renewable electricity generation by 2020. The mechanism for the LRET is the Renewable Energy Certificate (REC), known as Large Scale Generation Certificates (LGCs) in Australia. There are two sources of demand for LGCs, a mandatory market and a voluntary one. The mandatory market relates to the amount of LGCs that large electricity purchasers (usually energy retailers) must legally buy and surrender to the Clean Energy Regulator each year. The voluntary market enables organisations to purchase LGCs and as long as they are 'retired' and not on-sold, this investment is considered 'additional' to the investment that is underpinned by the mandatory market. The LRET was achieved in 2020. Investment in new wind and solar has continued beyond the LRET, which will create an oversupply of LGCs compared to the mandatory RET of 33,000 gigawatt-hours. The oversupply may be so large that it is unviable that enough electricity customers will take up voluntary surrender of LGCs to balance supply and demand, and maintain price signals for renewables investment based on LGCs.

¹ <https://www.greenpower.gov.au/our-impact>

What are the guiding principles for rating PPAs?

Fast forward just five years since PPAs started taking off in Australia and you can now find a range of models on the market. This is a positive development but also raises questions. How can organisations gain a clear picture on the real impact of their renewable energy procurement choices, how their actions can affect this and therefore how their decisions align with their sustainability ambitions? And how can the supply side of the industry ensure that quality procurement of renewable energy that delivers on economic, social and environmental objectives is quick and easy for organisations?

Creating a rating system for PPAs is one tool to support buyers and sellers. Rating PPAs is tricky and any rating system will be subject to debate. So, it is important to establish some principles based on objectives and outcomes for the rating system.

Principle 1: PPAs should support decarbonisation of the electricity grid.

The key purpose and benefit of PPAs is their ability to support investment in renewable energy, in particular new wind and solar farms, and in turn support the transition to a decarbonised electricity grid. As the emissions reduction of wind and solar is set once designed and built, it is the finance and construction of new wind and solar that is the key step to decarbonising the grid.

Before the RET was met it was a binary judgement as to whether offsite renewable purchases were 'additional' or not. If LGCs were retired, they were 'additional' to the RET and created new demand for renewable energy. Now, support for a new project through a PPA has the highest impact, even if the LGCs are not retired. There is a spectrum of options which add to the

demand for renewable energy in different degrees. So, it is not a case of one deal being green and another black, but rather there are different shades of green.

Principle 2: PPAs should support further decarbonisation of the electricity grid by enabling other projects.

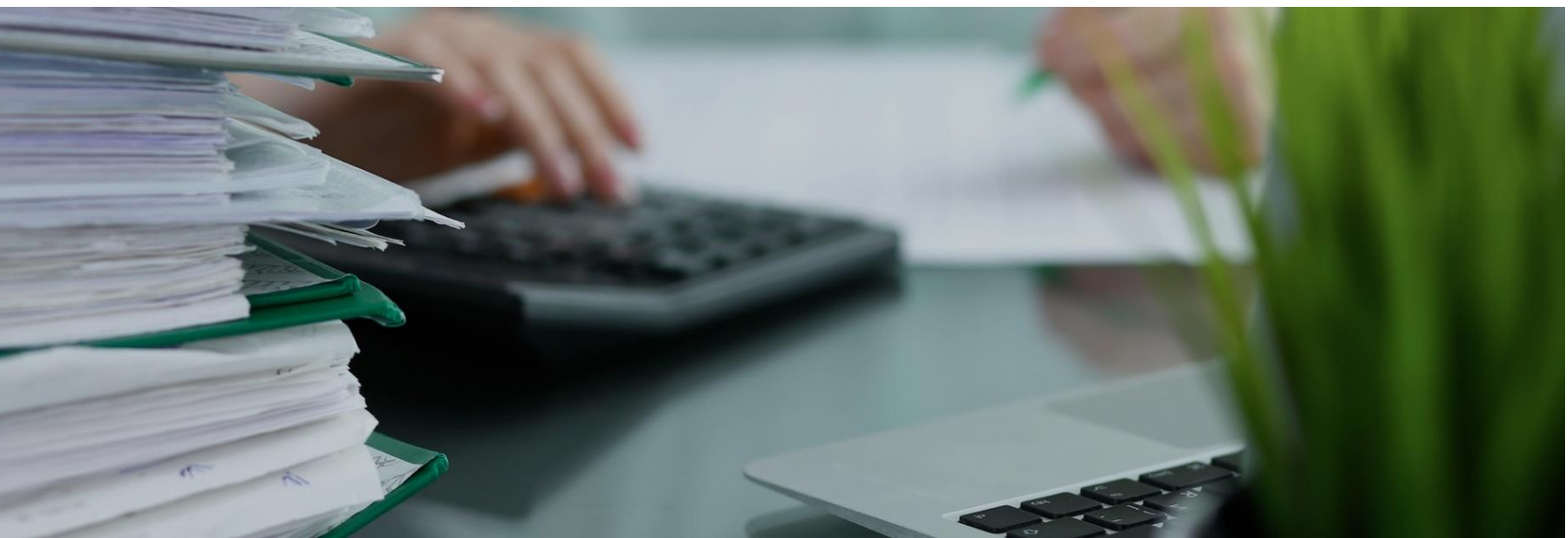
Increased storage and matching of generation with demand is required to facilitate higher levels of renewable energy. PPAs which include storage, some type of firming arrangement (e.g. hydro) or wholesale pricing to encourage demand-management assist in creating space for more renewable energy.

Principle 3: PPAs should support other environmental and social benefits in order to build 'social licence' for renewable energy.

Some buyers have negotiated PPAs with other environmental, social and economic benefits, such as increased local employment, biodiversity or programs for disadvantaged labour market or community members. Projects with higher social, environmental and economic standards help build community support and 'social licence' for future renewable energy projects.

Discussion Questions

1. Do you agree with these principles for assessing the impact of PPAs?
2. Are there other developments in PPAs or current market circumstances that need to be considered when evaluating the impact of PPAs?



It's not about Deal Models

An important point to note is that there are a variety of different PPAs and renewable energy procurement models. The type does not necessarily affect the impact or role in accelerating to a decarbonised grid.

The table below from a 2018 study from the Low Carbon Living Cooperative Research Centre² summarises the various decisions and options that shape the type of PPA deal. Almost any of these options can result in a best practice PPA if combined with the considerations and actions outlined in our Rating Scale 1.0 in the next section.

Decision Type	Options
Economic Structure	Buy (contract) or Own
Project Type	New or Existing
Form of renewable energy procured	Electricity only, LGC only or Bundled
Deal Type	Exclusive or Aggregated (Group)
Counter Party	Retailer or End User
Metering & Settlement	Physical or Virtual
LGC Treatment	Sell, Surrender or Combination

Contract Term

Longer contracts enable more wind and solar investment by allowing longer term, cheaper debt finance. Contracts under 10 years rarely enable the finance of new wind and solar.

It is also intuitive that most of the cost of a wind or solar farm is in construction, and projects have relatively low cost to operate, particularly with no fuel cost (for now!). So, if its generation is divided by its cost, the generation becomes cheaper each

year it operates. Longer term contracts therefore enable the buyer to tap into the lower cost of wind and solar, resulting in a financial benefit. This is a fundamental driver for PPAs. If this key advantage of wind and solar is not taken by the buyer, then it is likely the buyer isn't entering into a 'true' PPA.

A remaining consideration related to term is that any buyer that enters a PPA may be out of the market for the duration of the PPA, up to 15 years. This means they are unable to invest or contract further with renewables until the end of this contract. It is important therefore that buyers fully understand the impact of different PPAs and that their choice aligns with their objectives.

As PPA models proliferate, there is greater potential for buyer confusion. It is therefore crucial that clarity is brought to the market, to avoid willing renewable energy buyers being locked out of a truly impactful market.

LGC retirement and renewable energy claims

The purchase and retirement of LGCs either independently or via accredited programs like Greenpower remain essential for organisations seeking to:

- manage their Greenhouse Gas emissions accounts;
- offset emissions due to electricity use;
- achieve accredited or verifiable emissions reductions;
- meet stakeholder expectations around emissions reductions; and
- make credible and defensible public claims on emissions reductions.

²
http://www.lowcarbonlivingcrc.com.au/sites/all/files/publications_file_attachments/rp1032_final_project_report_2017_0.pdf

http://www.lowcarbonlivingcrc.com.au/sites/all/files/publications_file_attachments/rp1032_final_project_report_2017_0.pdf

PPA Rating System 1.0

The below table summarises a conceptual PPA rating system put forward by the BRC-A. It is presented as the start of a discussion that we hope will lead to the development of an industry accepted rating system.

Rating	PPA or renewable energy procurement summary	Details
Gold	<p>This is the highest standard of PPA.</p> <p>It directly supports new renewable investment</p> <p>and</p> <p>includes additional commitments that deliver on social, environmental and economic outcomes.</p>	<p>Contract with a pre-finance project either directly or via a retailer.</p> <p>Includes storage and/or load matching to reduce or eliminate requirement for firming 'black' electricity.</p> <p>Enables a multiple of more new generation capacity than the buyer organisation has the capacity to contract</p> <p>Includes commitments aligned to environmental, social and economic outcomes.</p> <p>Some examples are:</p> <ul style="list-style-type: none"> • Local employment and training • Local education • Energy storage • Biodiversity objectives • Community energy component <p>Full LGC retirement.</p>
Silver	<p>Directly supports new renewable investment but does not include any additional commitments</p>	<p>Contract with a pre-finance project either directly or via a retailer.</p> <p>Or</p> <p>Contract with existing asset with contract to invest further.</p> <p>No LGC retirement</p>
Bronze	<p>Contract with operating wind or solar farm.</p>	<p>Contract with an operating wind or solar farm either directly or via a retailer that only develops or contracts with renewable energy projects, or is actively investing in or contracting new generation to on-sell as Corporate PPAs.</p> <p>Whilst it is an agreement with an operating project, by contracting with a counter-party that is signing PPAs with new projects to on-sell it has a more direct impact on renewable energy investment than other types of PPAs with operating projects.</p>

There are other renewable energy procurement options that we believe meet more of a 'compliance' category. These include short term (less than 5 years) contracts either directly or via a retailer with an operating wind or solar farm and also LGC only deals from the secondary market. These can be used to reduce organisational emissions for carbon accounting purposes but do not align with Principle 1 of this guide which is to support decarbonisation of the electricity grid.

Discussion Questions

1. Do you agree with the criteria outlined in the rating system?
2. Are there other criteria that need to be considered in a PPA rating system?
3. How should additional benefits (environmental, social, economic) be treated in the rating system?
4. Should the rating system include other types of offsite renewable energy procurement such as purchasing LGCs from the secondary market and other types of energy contracts with operating projects?

Conclusion

Clarity is needed in the evolving Australian Corporate PPA market to help organisations set the scale of their ambition, to encourage organisations to aim for high quality Corporate PPAs that achieve deep impact and to reward those going above and beyond by ensuring that their PPA creates additional renewables and a positive societal and environmental impact.

This discussion paper seeks to draw input from industry to work towards an agreed understanding of what elements of a Corporate PPA meet these objectives.

[To comment and provide input to this discussion, please complete the short survey available here.](#)

The BRC-A will collate this feedback in order to release version 2.0 of the rating system. We see this as a long term project to iteratively improve the quality of Corporate PPAs being signed in Australia and in turn to impact on how quickly the electricity grid can be decarbonised.