

GreenPower for Businesses

Guide



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GreenPower® for Businesses Guide

Contributors

The GreenPower for Businesses Guide was developed by 100% Renewables Pty Ltd, for the National GreenPower Accreditation Scheme. Designed by Werner Weißhappl.



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“Over 25,000 Australian businesses have made the conscious choice to reduce their impact on the environment and help Australia’s renewable energy sector by using GreenPower.”



Broken Hill Solar Farm

Foreword

Tim Stock
Chair, The National GreenPower Steering Group

I am pleased to be releasing the **GreenPower for Businesses Guide** as an important tool to assist businesses in achieving their sustainability goals.

Over 25,000 Australian businesses have made the conscious choice to reduce their impact on the environment and help Australia’s renewable energy sector by using GreenPower.

Primarily, these businesses have chosen GreenPower to reduce their greenhouse gas emissions. But they also help to drive renewable energy investment in Australia over and above mandatory government requirements, creating jobs in the Australian renewable energy sector and supporting local suppliers who provide services to accredited GreenPower generators. Over the years these businesses have voluntarily helped GreenPower to make an outstanding contribution to the renewable energy industry. They’ve helped remove more than 19 million tonnes of greenhouse gases from the electricity sector and provide \$1.5 billion of investment to renewable energy projects around Australia. This guide seeks to help businesses understand why they should invest in renewable energy and the benefits of using GreenPower to do so.

Businesses around the world are realising the benefits of investing in renewable energy and strengthening their sustainability goals. However, Australian businesses are currently falling behind their international counterparts in investing in renewable energy.



This guide can help Australian businesses close this gap and make educated decisions about how to achieve their sustainability goals using renewable energy.

GreenPower offers a range of products, such as GreenPower Connect, that enables businesses to do this.

As Australia’s longest running and largest renewable energy accreditation and offset scheme, GreenPower is in a position to offer unique, credible and rigorously audited renewable energy products. These products are suited to business customers with limited options for investing in renewable energy.

Executive summary

State Governments that are currently members of the National GreenPower Steering Group include New South Wales, Victoria, South Australia and the Australian Capital Territory. GreenPower allows you to source part or all of your grid-supplied electricity from renewables from accredited Australian renewable energy generators like wind, solar, mini-hydro and bioenergy.

Decarbonising electricity use is an integral part of reaching net zero carbon emissions by mid-century as per the Paris Agreement. Buying GreenPower equates to net zero greenhouse gas emissions, and offsets the emissions caused by your business's electricity use. It also demonstrates your commitment to being a socially responsible organisation.

GreenPower purchases are additional to Australia's Renewable Energy Target, and an extensive two-tier auditing process ensures that no double counting can occur. Buying GreenPower avoids greenwashing because your renewable energy and carbon reduction claims are assured and can be verified.

If your business purchases 10% or more of its annual electricity usage as GreenPower, you are eligible to use the GreenPower customer logo on your marketing and business materials. There are other marketing benefits as well, such as being featured on the GreenPower website.

GreenPower is currently the only accredited reduction in emissions allowed in the National Australian Built Environment Rating System (NABERS) program, and you can use your renewable energy purchases to improve your performance under NABERS. GreenPower is also a great way of achieving additional points under the Green Star program. Under

The GreenPower program is an independent government accreditation scheme and is recognised as the most highly regarded standard for offsite renewables in Australia. The program is governed by the National GreenPower Steering Group (NGPSG).

Australia's National Carbon Offset Standard (NCOS), which is a voluntary standard that allows organisations to achieve carbon neutrality, GreenPower purchases are considered a zero-emissions electricity source.

There are several ways your business can purchase GreenPower. The traditional way is to approach your electricity retailer or to buy GreenPower from an independent provider, decoupled from your electricity agreement. However, there are new and innovative ways to buy GreenPower which include Power Purchase Agreements between your organisation and an accredited generator, and GreenPower Connect. With GreenPower Connect, you are signing a Power Purchase Agreement (PPA) with a new (not existing) renewable energy generator, and you can point to that specific generator in your marketing materials.

The cost of renewables has historically been higher than the cost of fossil fuel energy generation, which is one of the reasons it is currently more expensive to buy GreenPower. However, you can lower GreenPower costs significantly by comparing prices of different providers, going to tender, or by securing long-term Power Purchase Agreement contracts. You can also use savings from energy efficiency projects to fund GreenPower purchases, resulting in zero net costs to your business.

Alinta Wind Farm



Introduction

If your business buys GreenPower through this program, you are contributing to more renewable energy being installed in Australia, over and above mandatory government requirements. This means that not only are you reducing your organisation's greenhouse gas emissions, your investment is also making sure that more renewables are being installed than would otherwise be the case. You are also helping to create jobs in the Australian renewable energy sector.

The National GreenPower Accreditation Program was founded in 1997 to help drive investment in renewable energy in Australia and to provide customers with a robust, verified mechanism for purchasing renewable energy.

In Australia, there are two primary drivers for interest and investment in renewable energy: the Paris Agreement developed at the Conference of the Parties (COP21) at Paris in December 2015, and Australia's Renewable Energy Target (RET).

If your business purchases 10% or more of its annual electricity usage as GreenPower, you are eligible to use the GreenPower customer logo on your marketing and business materials. There are other marketing benefits as well, such as being featured on the GreenPower website.

Since its inception, customers of the GreenPower Program have made a significant contribution to the Australian economy. They have provided \$1.5 billion of additional investment in Australia's renewable energy sector, resulting in approximately 450 MW of renewable energy capacity. They have also reduced Australia's greenhouse gas emissions by at least 19 million tonnes of CO₂-e.



Wind power is one form of renewable energy generation



Codrington Wind Farm in southwest Victoria, accredited GreenPower generator

© Pachydro

THE PARIS AGREEMENT

The Paris Agreement establishes a global goal to hold average temperature increase to well below 2°C and to pursue efforts to limit warming to 1.5°C above pre-industrial levels. Greenhouse gas emissions need to be reduced, both by government action, as well as through initiatives by businesses and households. To achieve the goals of the Paris Agreement, global emissions have to reach “net zero” by the middle of this century. A number of state governments in Australia have set aspirational targets to reach net zero emissions by 2050 or earlier.

Replacing fossil fuel energy generation with renewable power is one of the most important actions to reduce greenhouse gas emissions, which is why more and more organisations are looking to install and purchase renewable energy. Buying GreenPower provides customers with assurance that more renewable energy is being created.

AUSTRALIA'S RENEWABLE ENERGY TARGET

The Renewable Energy Target (RET) was established to encourage additional generation of electricity from renewable energy sources. The Commonwealth Government has legislated that renewables must make up more than 20% of Australia's electricity generation by 2020¹.

The RET and the National GreenPower Program are additional to one another but have similar objectives – to reduce greenhouse gas emissions from electricity generation and to drive investment in renewable energy projects. However, the two schemes use different mechanisms to deliver the same objective.

The RET is a mandatory Commonwealth Government requirement, while GreenPower relies on voluntary participation by businesses and households. The renewable energy purchased under the GreenPower Program is not able to be used towards meeting Australia's Renewable Energy Target, which means that any GreenPower purchases your business makes will add more renewables to the grid than the mandated amount.

¹ The exact figure is 33,000 GWh, which will roughly be 23.5% of Australia's electricity generation in 2020.

Why you should buy renewable energy

In April 2017, Bloomberg New Energy Finance reported that seven of the world's top ten largest companies by market capitalisation have renewable energy targets for the short to medium-term and that all are aiming to use 100% renewable energy in the long term².

Research conducted by PwC³ in 2016 found that 72% of US companies surveyed were actively pursuing renewable energy purchases, which is also evidenced by growing participation in the global RE100⁴ campaign. RE100 is a collaborative, global initiative uniting more than 100 influential businesses committed to 100% renewable electricity who are working to massively increase demand for and delivery of – renewable energy.

With all this action worldwide, Australian businesses risk falling behind their global peers. According to a report by the Australian Renewable Energy Agency (ARENA)⁵ from 2017, less than half of Australia's 90 largest public and private companies surveyed are procuring renewable energy and the ones that do only buy a small percentage of their energy use from renewables.

DECARBONISING ELECTRICITY USE

Decarbonising electricity use is an integral part of reaching net zero carbon emissions by mid-century as per the Paris Agreement. Buying GreenPower equates to net zero greenhouse gas emissions, and offsets the emissions caused by your business's electricity use.

CORPORATE SOCIAL RESPONSIBILITY

For years, organisations have set themselves sustainability targets and considered social and environmental factors alongside economic ones. They recognise that customers are increasingly better educated and expect products and services to align with their changing values.

However, it is not only customers that expect companies to do the right thing, but also investors and internal stakeholders. In 2014, Nielsen⁶ conducted a poll of 30,000 people in 60 countries. 67% of people surveyed prefer to work for socially responsible companies. Buying renewable energy demonstrates your commitment to being a socially responsible organisation.

BRAND RECOGNITION

According to a report by ARENA⁷ from 2017, four out of five Australians believe businesses should use renewable energy. Three quarters of Australians would buy a product or service that was made with renewable energy over a comparable one that was not. This is supported by the Nielsen Global Survey poll which found that 55% of consumers will pay extra for products and services from companies committed to having a positive social and environmental impact.

Environmental credentials and local investment, like buying renewables, enhances your organisation's reputation and may also directly or indirectly influence

“Decarbonising electricity use is an integral part of reaching net zero carbon emissions by mid-century as per the Paris Agreement.”



© Andy Nowack

your bottom line. Using GreenPower, for instance, can increase the NABERS or Green Star Performance Ratings for buildings, which in turn attracts higher value tenants. You can also use the GreenPower customer logo to improve the brand recognition of your business.

INCREASED ENERGY PRODUCTIVITY

Boards and CEOs in many organisations is not always aware of the cost of their energy bills. By failing to consider this crucial area of your operations, you may miss out on the opportunity to significantly reduce your energy costs. There are many ways that your organisation can reduce the amount it spends on energy.

Minimising energy demand will increase your energy productivity and unlock savings that can be used to decrease energy demand further and install renewables on site. The money saved from these projects can then be reinvested to change the rest of your electricity supply to GreenPower. In this way, businesses are proactively taking control of their energy supply and use, with cost, productivity and reputational benefits.

² <https://about.bnef.com/blog/companies-buying-green-power-big-trend>

³ <https://www.pwc.com/us/en/sustainability-services/publications/corporate-renewable-energy-procurement-survey-findings.html>

⁴ <http://there100.org>

⁵ <https://arena.gov.au/news/australian-big-business-missing-renewable-energy-opportunities>

⁶ Nielsen Global Survey on Corporate Social Responsibility 2014

⁷ <https://arena.gov.au/news/australian-big-business-missing-renewable-energy-opportunities>

“All GreenPower products guarantee that your selected proportion of electricity used by your business is sourced from accredited Australian renewable energy resources.”



Alinta Wind Farm

What is GreenPower?

GreenPower is an offset mechanism that allows you to source part or all of your grid-supplied electricity from renewable energy generation.

The GreenPower program is an independent government accreditation scheme and is recognised as the most highly regarded standard for offsite renewables in Australia. The program is governed by the National GreenPower Steering Group (NGPSG). State Governments that are currently members of the NGPSG include New South Wales, Victoria, South Australia and the Australian Capital Territory. Its administration and marketing is managed by the Program Manager, which is currently New South Wales. All GreenPower products guarantee that your selected proportion of electricity used by your business is sourced from accredited Australian renewable energy resources. Any claims of GreenPower purchases your business makes are highly credible, giving you and your customers assurance about your sustainability efforts.

INTRODUCTION ABOUT HOW GREENPOWER WORKS

Once renewable energy is generated and fed into the grid, it is indistinguishable from energy generated from fossil fuels. The only way to know that renewable energy was produced is to assign it a certificate, called a “Renewable Energy Certificate”, or REC. Every megawatt hour that is generated from eligible for a REC under Australia’s Renewable Energy Target.

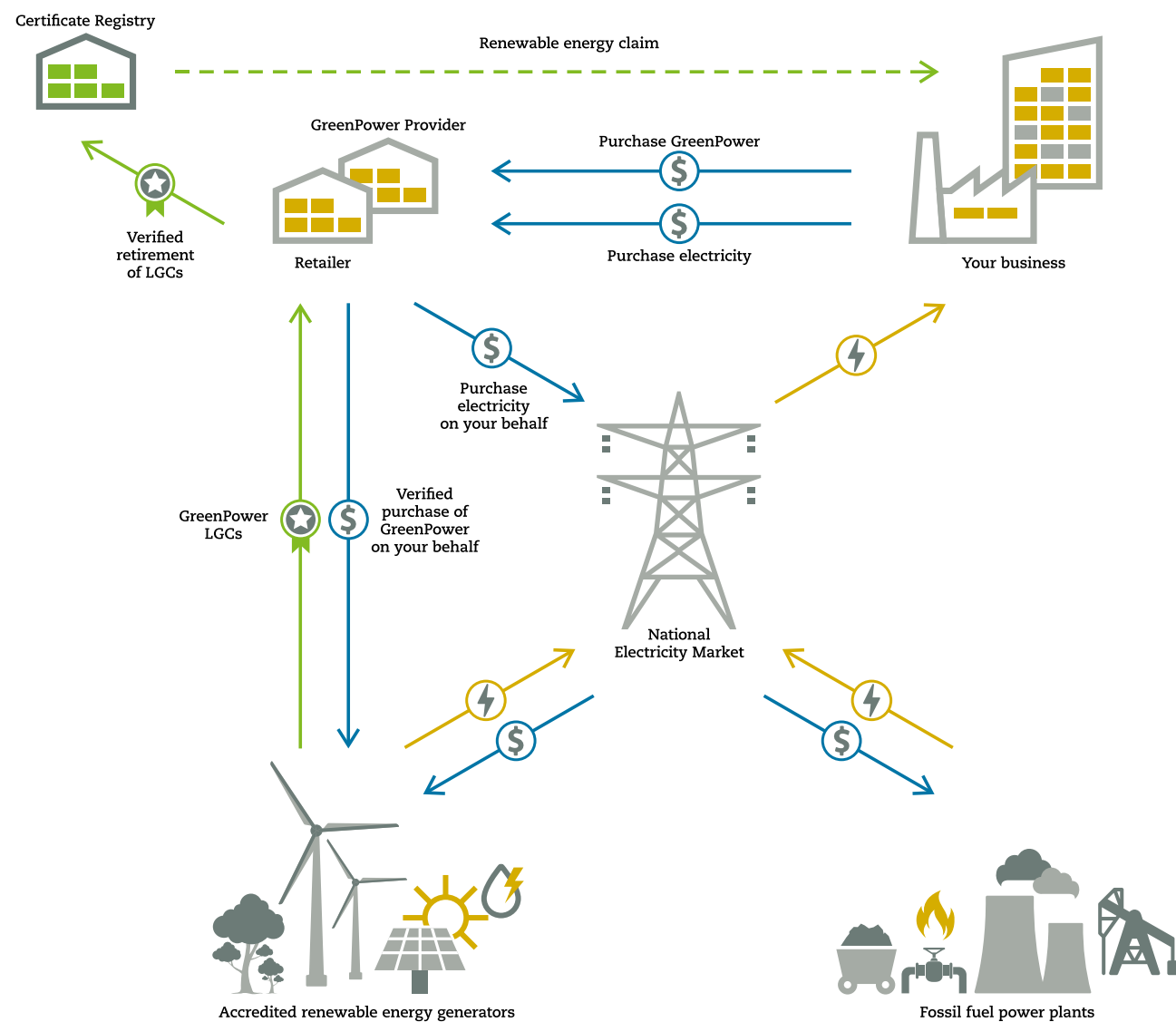
The Clean Energy Regulator distinguishes between small-scale (<100kW) and large-scale renewable energy generation (>100kW). RECs generated by large-scale generation are called “Large-scale Generation Certificates” (LGCs). RECs generated by small-scale generation, like solar panels on a household’s roof, are called “Small-scale Technology Certificates” (STCs). Under the GreenPower program, only LGCs generated by large-scale renewables are included.

LGCs are separate to purchased electricity and as such can be bought and sold separately. Your business can buy renewable energy by choosing a GreenPower product from a retailer or a GreenPower provider. Depending on the specific GreenPower product you purchase, your provider will then purchase a specific number of GreenPower LGCs on your behalf and retire them in the certificate registry. GreenPower LGCs are a subset of LGCs – only GreenPower-accredited generators can create them, and they must not be traded or sold, but instead, be retired in the certificate registry.

Retirement means to invalidate (or cancel) the certificates so they cannot be traded in the market anymore or be used to meet Australia’s Renewable Energy Target. To make sure that the GreenPower provider has retired the LGCs, they are audited on an annual basis by the GreenPower Program Manager.

Your business continues to get electricity from the grid, but you can now net off the retired LGCs against your electricity consumption. You can claim an increase in the portion of renewable energy your organisation uses, as well as a reduction in your carbon footprint.

HOW GREENPOWER WORKS



Bioenergy plant in South Cardup, Western Australia, accredited GreenPower generator



Out of all generators, wind turbines make up the biggest proportion of GreenPower generation, but solar photovoltaic technology has seen significant increases in recent times due to the accreditation of plants at Nyngan, Broken Hill and Royalla. Apart from solar and wind, there are also GreenPower-accredited bio-energy and mini-hydro renewable energy plants. For a full list of generators, please refer to the GreenPower website⁸.

RENEWABLE ENERGY TARGET (RET) ADDITIONALITY

If your business purchases GreenPower, your retailer or GreenPower provider needs to retire LGCs in the REC registry on your behalf. Once certificates are retired, they cannot be used towards meeting Australia's Renewable Energy Target. This means that any GreenPower product your business purchases will increase the penetration of renewables beyond Australia's 33,000 GWh target. Additionally, if certificates are retired, they cannot be on-sold, which eliminates the risk that someone else might claim the environmental benefits for the same activity.

ACCREDITED GENERATORS

There are currently more than 160 accredited generators across Australia that have met the strict GreenPower environmental standard, which goes beyond what is needed to become a generator for the Renewable Energy Target.

Generators must be accepted in the community, and waste-to-energy plants, renewable energy generation from native forest waste and large-scale hydro projects that negatively impact the environment are excluded from becoming accredited GreenPower generators.

GREENPOWER PROVIDERS

There are two types of GreenPower providers. Electricity retailers can become GreenPower providers and sell GreenPower alongside their other electricity offerings. Other businesses can become decoupled GreenPower providers. Decoupled providers do not sell grid electricity. Instead, they offer separate GreenPower products that are not part of electricity supply contracts. Currently, there are approximately thirty GreenPower products in the market.

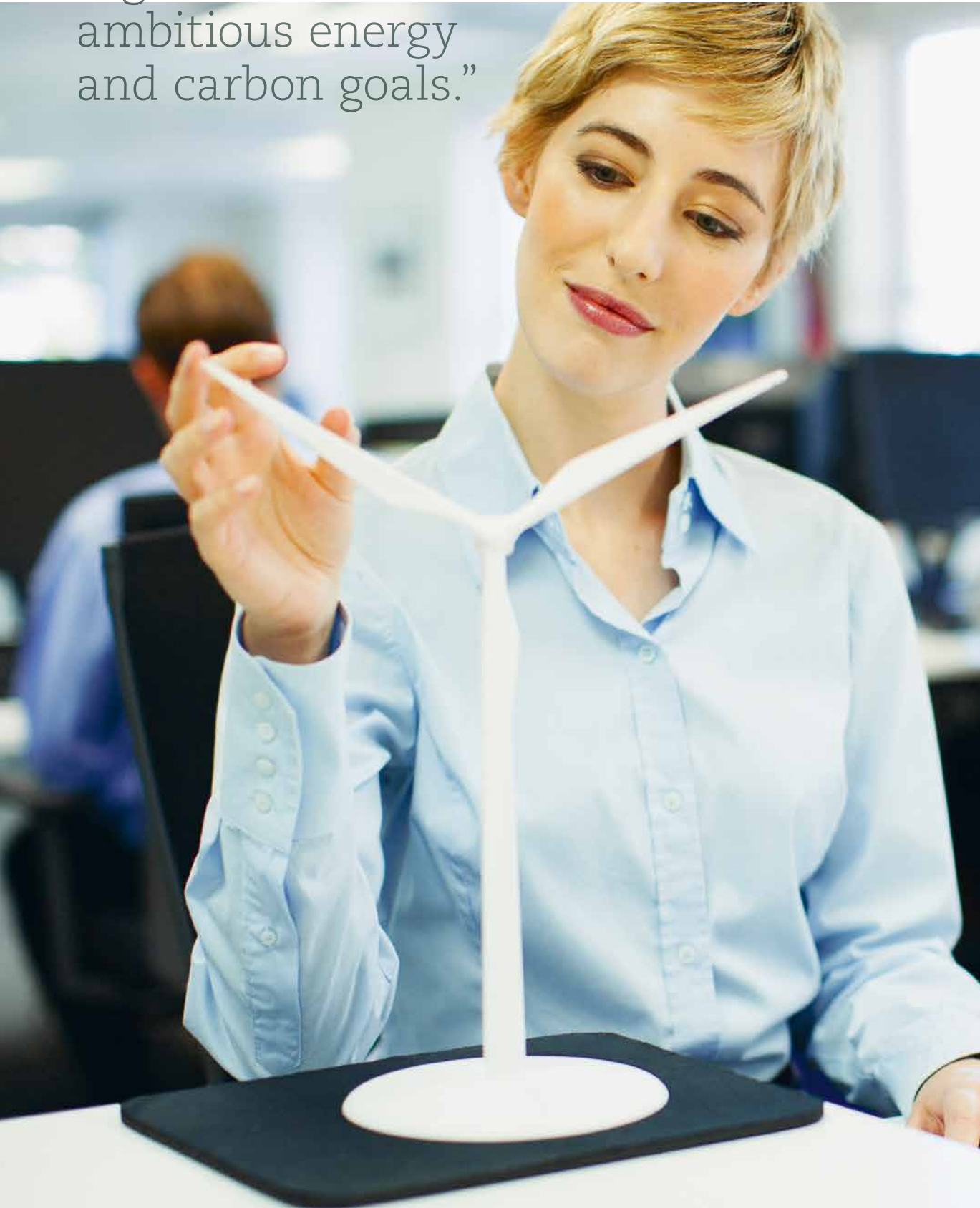
A GreenPower provider can offer one or several GreenPower products, but every GreenPower product must be accredited by the program before it can be sold. You can decide the level of GreenPower you purchase as a nominated percentage of your actual total electricity consumption (e.g. 10%, 20%, 50%, 100%). A GreenPower provider that sells you a GreenPower product commits to ensuring that an equivalent amount of LGCs is purchased from accredited GreenPower generators and surrendered on your behalf.

GREENPOWER AUDITING PROCESS

All GreenPower providers must report their GreenPower sales for the calendar year and must prove that for each megawatt hour of renewable energy sold, one LGC was retired in the certificate registry. GreenPower providers are audited by independent auditors annually to determine their compliance and to make sure that LGCs have been created from accredited generators.

⁸ <http://www.greenpower.gov.au/About-Us/Where-Are-GreenPower-Generators>

“Purchasing offsite renewables is also a great way for organisations to meet ambitious energy and carbon goals.”



How to reduce your carbon emissions

Fossil fuels heavily dominate energy sources in Australia. About 85% of our electricity⁹ is generated from fossil fuels like coal and natural gas.

Most states and territories have committed to ambitious renewable energy and carbon goals over the long-term, but it will take years and even decades before noticeable change will be achieved. Governments have an important role to play in decarbonising electricity, but so do Australian businesses.

ENERGY EFFICIENCY

Carbon emissions should be avoided directly at the source whenever possible. The first step should always be to look for opportunities where you can reduce your organisation's energy consumption. For example, you may install LED lights, improve the efficiency of electric motor systems, or change to more energy efficient business practices. Every kWh that you can reduce through energy efficiency does not need to be produced and paid for.

ONSITE RENEWABLES

You may also be able to invest in on-site renewables like solar panels. There is a significant overlap between standard day-time business hours and solar energy generation, so the business case for solar often makes sense, both environmentally and economically.

OFFSITE RENEWABLES

In some instances, you may have little opportunity to decrease your organisation's energy consumption or put solar panels on your roof. Businesses that rent their premises are particularly affected. Sometimes there is not enough space or roof, and ground spaces may be unsuitable for other reasons. You can still contribute to renewable energy in Australia by considering offsite renewables. This can be in the form of Power Purchase Agreements (PPAs) with a renewable energy developer, or by purchasing GreenPower through a GreenPower provider.



Royalla solar farm in the ACT, accredited GreenPower generator

© Royalla

⁹ <https://www.aer.gov.au/wholesale-markets/wholesale-statistics/generation-capacity-and-output-by-fuel-source>

Purchasing offsite renewables is also a great way for organisations to meet ambitious energy and carbon goals. Energy efficiency and onsite renewables can usually only reduce a business’s energy or carbon footprint by a limited amount. In most cases, it cannot fully replace your electricity consumption from the grid. To become entirely renewable, or to offset your electricity-related carbon footprint, you can purchase the remainder from offsite renewables.

CARBON OFFSETS

Another way to decarbonise your electricity consumption is to purchase carbon offsets. Carbon offset products can be cheaper than GreenPower, although the associated emission reductions come from diverse projects that may not include renewable energy. For instance, some carbon offsets are created through forestry projects. Carbon offset products

may source emission reductions from international projects rather than Australian projects.

Some carbon offset products are sourced from renewable energy projects. One example is GoldPower, which is a global renewable energy label developed by Climate Friendly with the support of WWF. GoldPower comes from renewable energy projects in countries with no Kyoto target and is certified under the highly credible Gold Standard. GoldPower generally costs less than GreenPower, whereas GreenPower specifically supports renewable energy in Australia rather than internationally. Auditing and compliance requirements also differ between the schemes.

The following table summarises a few considerations for carbon reduction and renewable energy options for your business.

Capital wind farm in NSW producing clean energy and grain, accredited GreenPower generator

© Infigen Energy

EVALUATING CARBON REDUCTION AND RENEWABLE ENERGY OPTIONS FOR YOUR BUSINESS

	Costs and savings	Need suitable roof or land space?	Tangible? i.e. traced to specific source	Credible?	Supporting local jobs?	Supporting renewables in Australia?	Can meet renewable energy commitment?	Can meet carbon reduction commitment?
Energy efficiency measures	Low to high cost and Low to high savings	No	Depends on the technology	Yes	Yes	No	Depends on how the target is defined	Yes
On-site renewables	Medium cost and High savings	Yes	Yes	Yes	Yes	Yes	Yes for under 100kW systems Yes for over 100kW systems if LGCs are retired	Yes for under 100kW systems Yes for over 100kW systems if LGCs are retired
Off-site renewables: GreenPower purchase	PPAs: Ranges from cheaper than grid to more expensive than grid GreenPower purchases through provider: GreenPower purchase comes on top of electricity purchase	No	No in the case of standard GreenPower product through a provider Yes in the case of GreenPower Power Purchase Agreement or GreenPower Connect	Yes	Yes	Yes	Yes	Yes
Carbon offsets	Offset purchase comes on top of electricity purchase	No	No	Only if accredited to a certain standard, like VCS, CDM or the Gold Standard	Sourced from Australian projects	No	No	Yes

“There are more than twenty retailers across the country offering GreenPower products for businesses, and they are listed in the Business section of the GreenPower website at greenpower.gov.au”

How you can purchase GreenPower

Buying GreenPower through an electricity retailer is an easy, straightforward process, as you do not need to change your electricity supplier or your existing electricity contract.

There are several ways your business can purchase GreenPower, which include:

- › Electricity retailer
- › Decoupled provider
- › Power Purchase Agreement
- › GreenPower Connect

PURCHASE GREENPOWER-BUNDLED PRODUCT THROUGH AN ELECTRICITY RETAILER

Buying GreenPower through an electricity retailer is an easy, straightforward process, as you do not need to change your electricity supplier or your existing electricity contract. All you have to do is call your current electricity supplier using the customer service number on your electricity bill and ask to purchase an accredited GreenPower product.

There are more than twenty retailers across the country offering GreenPower products for businesses, and they are listed in the Business section of the GreenPower website at greenpower.gov.au. Each GreenPower provider will have their own name for the accredited product they sell, such as “GreenLiving” or “GreenEarth”, and have different options for the percentage of GreenPower you can purchase. However, all accredited products, regardless of the name, will have the GreenPower logo under their product description to confirm that their product is authentic and accredited.

It pays to shop around GreenPower retailers to get the best deal, as GreenPower pricing is market driven. The price you will be offered also depends on the volume of GreenPower you are looking to purchase. There can be different costs based on how the retailer purchases their LGCs and their own pricing structures.

If you are based in the Australian Capital Territory, New South Wales, Queensland, Tasmania or South Australia, you can compare different retailer prices by going to the energy price comparison website www.energymadeeasy.gov.au. The cost of GreenPower is in the Energy Price Fact Sheet or the retailer’s written summary of the offer.

Many businesses find that their electricity plan is outdated and that they can save money by changing their plan. A new plan, combined with GreenPower, can mean that overall there is no added cost to your business. In fact, you may end up saving money off your electricity bills.

GREENPOWER LOGO



Large business tender function

If your business purchases more than 160MWh electricity per annum, you can go to the “Business” section on www.greenpower.gov.au and click on “Large Business Quotes”. Select your state or territory and then choose one or more suppliers in the table. Fill in details about your business in the form underneath, and press “Request Quotes”. The form is automatically emailed to the GreenPower providers and electricity retailers you have selected.

Greenough River Solar Farm

PURCHASE GREENPOWER LGCS THROUGH A DECOUPLED PROVIDER

You can purchase GreenPower through a decoupled GreenPower provider and purchase just the GreenPower LGCs. A GreenPower provider is any person or organisation that has entered into a contractual agreement with the GreenPower program to sell GreenPower products and has had a GreenPower product accredited by the program manager. Use the “Find a Provider” function in the Business section on www.greenpower.gov.au to identify the GreenPower providers in your area. Decoupled providers are marked with a green star.

PURCHASE GREENPOWER LGCS-ONLY OR BUNDLED WITH ELECTRICITY THROUGH A POWER PURCHASE AGREEMENT

Traditionally, Power Purchase Agreements (PPAs) have been used by retailers to purchase power from energy generators, but increasingly they are used by corporations to directly purchase renewable energy from a generator. The big advantage of PPAs is that you can lock in lower prices for LGCs and electricity in the case of a bundled agreement over the longer term, which is typically greater than seven years. A PPA can either be facilitated by a retailer, or your business can directly establish a PPA with a renewable energy generator.

Corporate PPAs with renewable electricity generators are becoming more common in Australia due to organisations wishing to manage their exposure to volatile electricity and LGC prices and ambitious renewable energy and carbon commitments.

PPAs can be for LGCs (or power) only, or for both LGCs and renewable electricity, which is called a “bundled” agreement. Negotiating a PPA can require a large amount of stakeholder engagement, as well as human and financial resources.

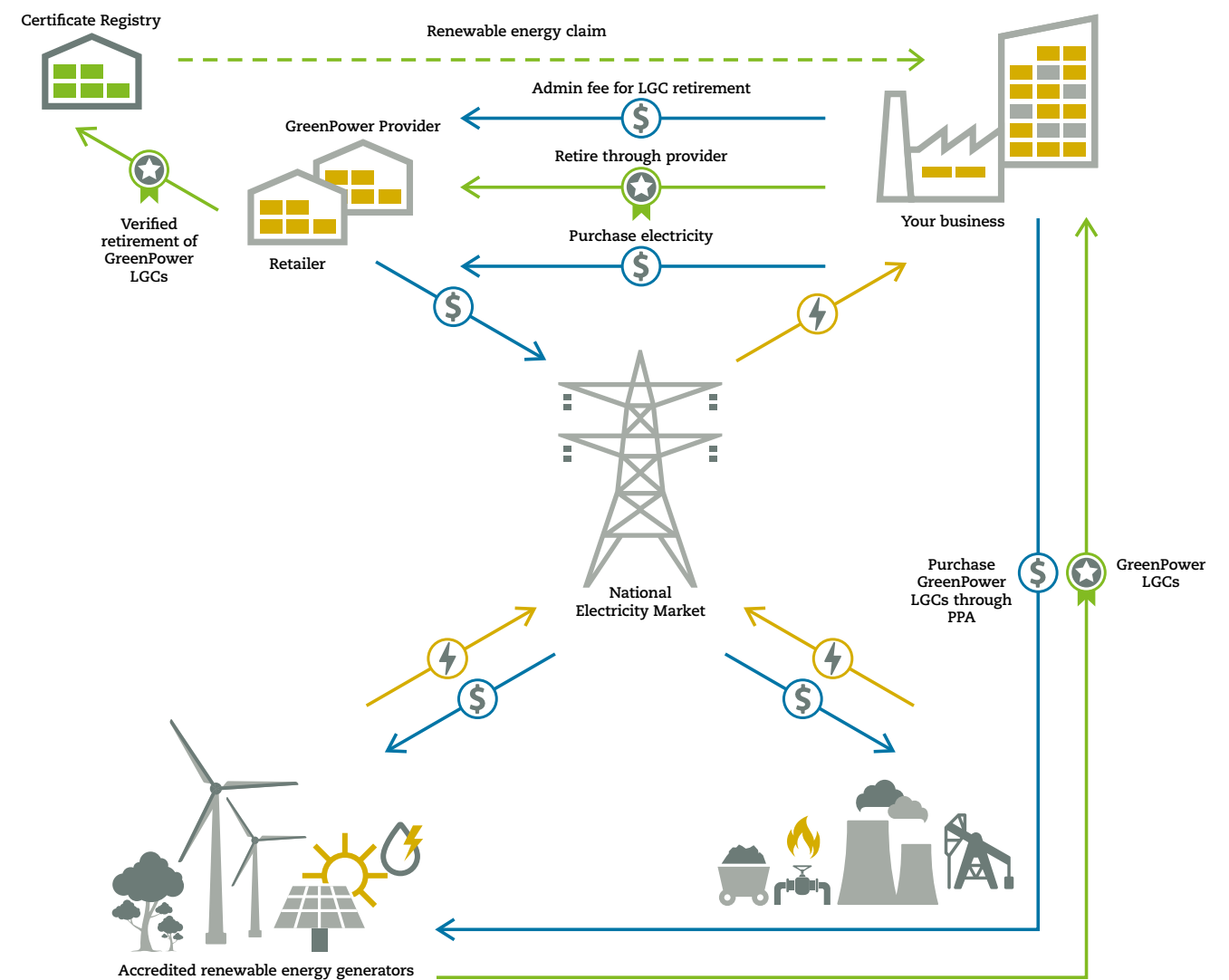
If you purchase LGCs through a bundled or LGC-only PPA and surrender the LGCs, you can claim the renewable energy for your business, as well as the associated carbon reduction. To use the GreenPower logo and benefit from the auditing and compliance procedures built into the accreditation process, you will need to purchase and retire GreenPower LGCs.

GreenPower LGC-only PPA

A GreenPower LGC-only PPA is relatively simple because you are only purchasing the green attributes of renewable energy generation and are not concerned with balancing your energy demand with the output from a renewable energy generator. There is little risk in matching the number of LGCs purchased to the electricity consumed in any given year. It also means that there will be little or no change to your retail electricity agreement. However, you may be able to achieve a better price through a bundled PPA, and striking a deal with a renewable energy generator for LGCs-only may not be sufficient for a new renewable energy project to get off the ground.

Your business will enter into a PPA for GreenPower LGCs-only with a renewable energy generator that is accredited under the GreenPower program. The GreenPower LGCs you obtain from the GreenPower generator will have to be retired through a GreenPower provider. You cannot retire the certificates yourself, as the GreenPower program only audits generators and GreenPower providers. However, the fact that the GreenPower program audits both the generation and the retirement of the LGC gives the GreenPower LGCs a high amount of credibility. Once the GreenPower LGCs have been retired in the Certificate Registry, you can make a renewable energy claim.

GREENPOWER LGC-ONLY PPA



GreenPower-bundled PPA

Under a bundled PPA, your business purchases both the GreenPower LGCs, as well as the power from a renewable energy project. A bundled PPA requires more setup work compared to an LGC-only agreement. Your energy demand needs to be matched to renewable energy generation, and the exposure to spot market price risks needs to be managed.

There are two options for your business to enter into a GreenPower-bundled PPA. Option one is to use your retailer to facilitate the PPA. This option is usually called a “sleeved PPA”. Option two is to enter into a direct PPA with the renewable energy generator, which is usually called a “virtual” or “finance” PPA. In both instances, the renewable energy generator needs to be accredited under the GreenPower program.

To claim GreenPower, the GreenPower LGCs that you obtain from the GreenPower generator will have to be retired through a GreenPower provider. You cannot retire the certificates yourself, as the GreenPower program only audits generators and GreenPower providers.

However, the fact that the GreenPower program audits both the generation and the retirement of the LGC gives the GreenPower LGCs a high amount of credibility. Once the GreenPower LGCs have been retired in the Certificate Registry, you can make a renewable energy claim.

FICTIONAL CASE STUDY

Standard GreenPower purchase

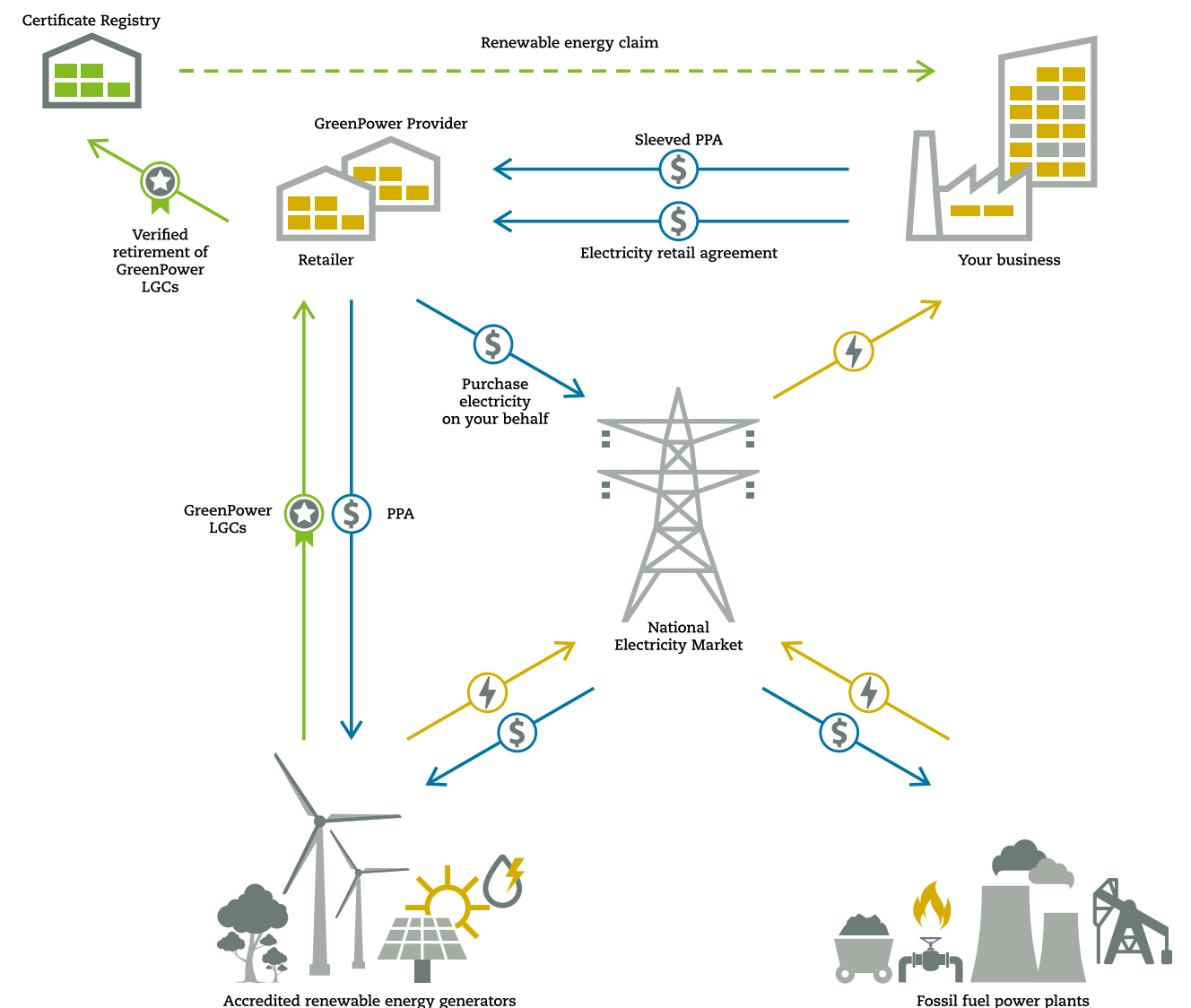
ABC Pty Ltd occupies 3,000 m² in a CBD tenancy and consumes 300 MWh a year. Their current NABERS tenancy rating is four stars. ABC has committed to reducing their carbon emissions from electricity by 60% by 2019 and to achieve a five stars NABERS rating. After getting consent from the building owner, they upgraded their lighting to LED, saving nearly 60 MWh per year and reducing their electricity consumption to 240 MWh a year.

The savings in electricity and maintenance costs from the lighting project amount to \$15,000 a year. With no other significant energy efficiency opportunities available and not being able to build solar on the roof, ABC looked at purchasing GreenPower

to meet the remainder of the target. They decided to use half the savings from the LED upgrade to pay for the additional costs of GreenPower.

Since their electricity contract was about to expire, they went online to <http://www.greenpower.gov.au/Business/Find-a-Provider> and asked three retailers for a combined electricity/50% GreenPower quote. They selected the cheapest provider and are now paying \$6,600 to procure 120 MWh of GreenPower, which ABC can fund from less than half of the savings achieved from the lighting project. As a result, ABC has now achieved a 5.5 NABERS rating, surpassing their target of five stars. They reached their 60% carbon reduction target and are still saving money.

GREENPOWER-BUNDLED SLEEVED PPA



The diagram illustrates the GreenPower LGCs retirement process. At the bottom left, **Accredited renewable energy generators** (represented by wind turbines, solar panels, and a hydro dam) produce electricity and GreenPower LGCs. They sell electricity to the **National Electricity Market** (represented by a power line tower) and LGCs to a **GreenPower Provider** (represented by a house icon). The **GreenPower Provider** then **Retire GreenPower LGCs through provider**, which involves sending them to the **Certificate Registry** (represented by a house icon with a star). The **Certificate Registry** issues a **Verified retirement of GreenPower** (represented by a star icon). The **GreenPower Provider** also sells electricity to a **Retailer** (represented by a house icon), who then sells it to a **Customer** (represented by a house icon). The **Customer** pays for electricity and admin fees for GreenPower LGCs retirement. The **Customer** also has a **Renewable energy claim** (represented by a green arrow). Fossil fuel power plants (represented by a coal mine, gas flaring, and a power plant) also supply electricity to the **National Electricity Market**. A **Virtual PPA** (represented by a star icon) is shown as an alternative transaction between the **Accredited renewable energy generators** and the **Customer**.

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GreenPower Connect is similar to the PPA options described above, except that the renewable energy generator must not be an existing generator. The generator needs to be GreenPower-accredited and must be built within three years of reaching a contractual agreement between your business and the developer. Another difference is that you cannot display the percentage of renewable energy that you are purchasing. Instead, the GreenPower logo will identify the renewable energy project (or projects) you are supporting.

The GreenPower Connect product option has significantly reduced the administrative costs to surrender LGCs, which makes it a more cost-effective option. As with the previous PPA options, you can decide to purchase the physical electricity (the “black” portion) bundled with GreenPower LGCs or just the LGCs. GreenPower LGCs must be retired through a GreenPower provider so that the GreenPower program can audit the retirement of the LGCs. The minimum contract term for GreenPower Connect is five years.

In addition, you will be eligible to use the GreenPower Connect customer logo on your business materials to highlight your support for a new project or projects.



Organisations can also purchase the GreenPower Connect product through a buyers group. Buyers groups are treated as a single customer as long as all members of the group sign with the same GreenPower provider who holds the single contract with the renewable energy generator.

Your business (or the buyers group) will need to pay a GreenPower provider approximately \$5,000 plus a

retail margin fee to access the GreenPower Connect product. GreenPower providers that sign contracts with multiple generators will be charged \$5,000 for each contract, capped at \$15,000.

COMPARING THE DIFFERENT OPTIONS FOR BUYING GREENPOWER

The following table gives an overview of the different options of how you can purchase GreenPower:

Moree solar farm

© FRV

COMPARING THE DIFFERENT OPTIONS FOR BUYING GREENPOWER

Means of purchase	Applicability to what size business?	Costs – based on averages and dependent on volumes	Contract term	New or existing generator	Complexity	Complexity to establish	Usage of GreenPower logo?
Conventional – through Retailer	Small, medium, large	High	Short	Existing or new	Easy	Easy	Yes
Conventional – through decoupled provider	Small, medium, large	High	Short	Existing or new	Easy	Easy	Yes
Conventional – through retailer and decoupled providers via the GreenPower large business tender function	Medium and large (over 160MWh annual energy consumption)	Medium	Short-medium	Existing or new	Medium (proposal evaluation and selection)	Easy	Yes
Purchasing non GreenPower accredited LGCs	Medium to large	Medium	Short-medium	Existing or new	Medium	Easy-medium	No
Power Purchase Agreement – GreenPower LGCs only	Large	Medium-Low	Medium-Long	Existing or new	Medium – Hard	Medium	Yes
Power Purchase Agreement – bundled agreement (black and GreenPower LGCs)	Large	Low	Medium-Long	Existing or new	Medium – Hard	Hard – depends on duration of PPA and percentage of demand that is being supplied	Yes
GreenPower Connect	Large	Low	Minimum 5 years	New	Medium – Hard	Medium to hard	Yes

Costs for GreenPower

The cost of renewables, including LGC costs, has historically been higher than the cost of fossil fuel energy generation. This is starting to change and the cost of renewables is dropping significantly. However, due to the high level of renewables under construction in Australia, the spot price for LGCs is relatively expensive. Spot prices for LGCs have fluctuated in the past five years, from about \$25 to \$90 per certificate. The cost for LGCs is incurred whether it is a GreenPower LGC or not. This is one of the reasons it is currently more expensive to buy GreenPower.

If you purchase GreenPower through a retailer, the retailer will also add a margin. However, prices differ between providers based on how they source the LGCs, and on the volume of GreenPower you are purchasing.

The bulk of the cost of GreenPower is in the LGC price, which flows back to the generator as a financial incentive. On top of the LGC cost, the GreenPower program charges the retailers a fee to run the program, which amounts to less than <1% of overall fees.

You can lower GreenPower costs significantly by comparing the prices of different providers, going to tender, or by securing long-term PPA contracts.

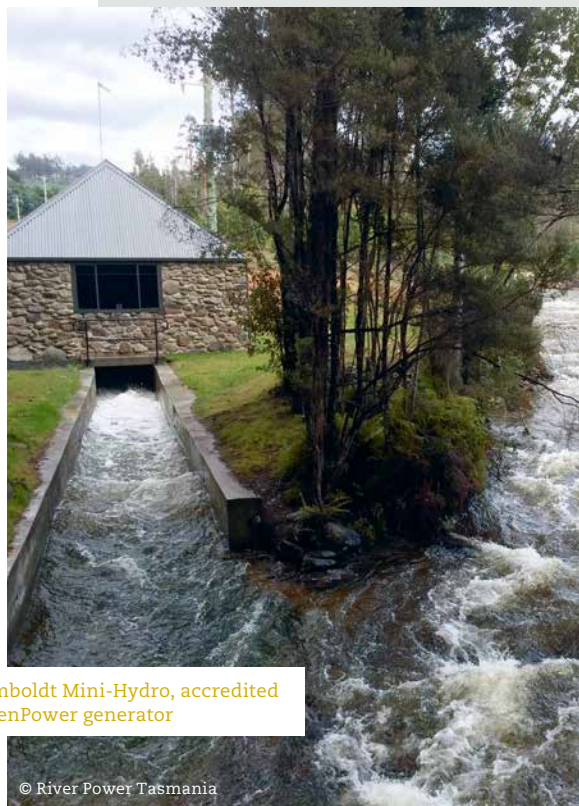
FICTIONAL CASE STUDY

GreenPower purchase through Power Purchase Agreement

BIG ACME, a sustainability leader in their sector, has exhausted their energy efficiency and renewable energy opportunities on site and have decided to enter into a seven year PPA for 20% of their load to meet their carbon reduction commitments.

When they analysed the costs of the PPA over the seven year term and compared it to the forecast retail energy prices, they found that they could obtain the renewable energy plus LGCs for a price similar to their grid-supplied electricity.

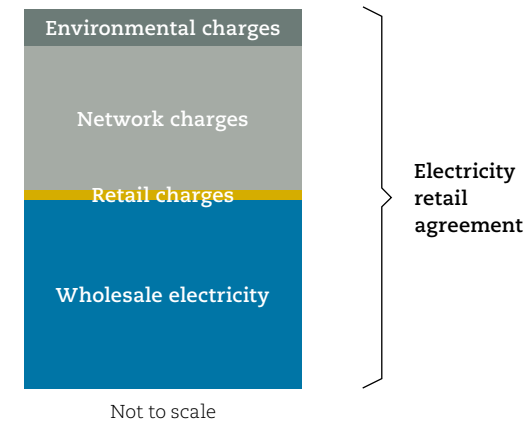
Because they need their renewable energy claims to be verifiable, they decided to base their renewable power purchase on GreenPower-accredited LGCs. Their existing retailer agreed to pass through the renewable energy generation plus GreenPower LGCs as part of the overall retail electricity supply agreement.



Humboldt Mini-Hydro, accredited GreenPower generator

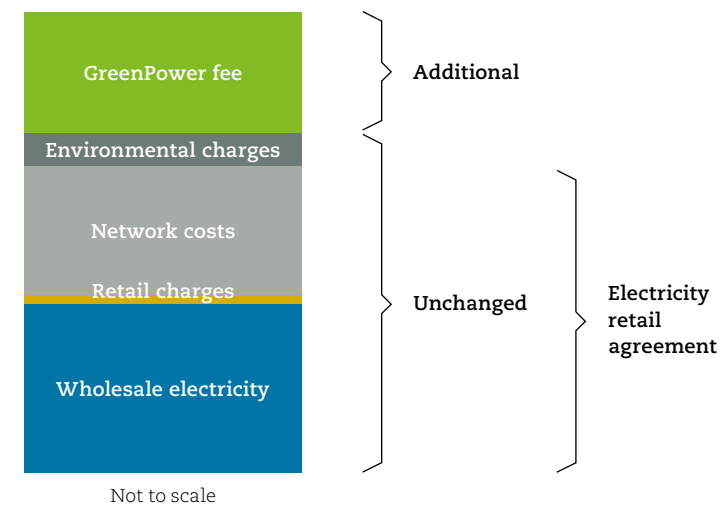
© River Power Tasmania

STANDARD ELECTRICITY AGREEMENT



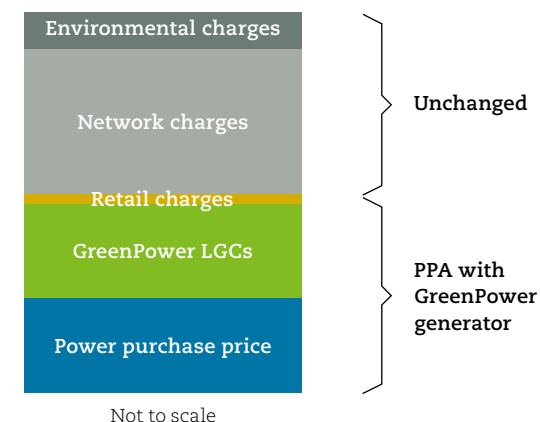
If you don't buy GreenPower and have a standard electricity contract with a retailer, most of the charges on your bill will be paying for the electricity generation ("wholesale electricity") and for the transmission and distribution of the electricity to your point of use ("network charges").

STANDARD PURCHASE OF GREENPOWER



The standard way to purchase GreenPower is to buy a GreenPower product through a retailer or provider. The provider will source GreenPower LGCs in the market and will on-sell them to you. The fee you pay for GreenPower comes on top of your electricity rates and depends on how cheaply the provider can source the GreenPower LGCs.

GREENPOWER POWER PURCHASE AGREEMENT/GREENPOWER CONNECT



A new way to purchase GreenPower is through a Power Purchase Agreement. You will re-negotiate the wholesale portion of your electricity bill to include a new rate for renewable electricity (power purchase price), as well as a fee for the GreenPower LGCs. The bigger the volume and the longer the duration of the power purchase agreement, the cheaper the overall rate.

“The Australian Competition and Consumer Commission (ACCC) states that under the Australian Consumer Law (ACL) consumers are entitled to rely on your environmental claims and expect these to be truthful.”

Avoid greenwashing through GreenPower

Consumers today have an increased awareness of the impact organisations have on the environment. It is essential that customers are provided with accurate information so that they can make informed purchasing decisions.

Your organisation needs to make sure that your renewable energy and carbon reduction claims are scientifically sound and substantiated. In its **Green marketing and the Australian Consumer Law document**¹⁰, the Australian Competition and Consumer Commission (ACCC) states that under the Australian Consumer Law (ACL) consumers are entitled to rely on your environmental claims and expect these to be truthful. The ACL states that businesses must not mislead or deceive consumers in any way. There can be serious penalties for businesses that fail to meet these requirements.

GreenPower is the only government managed, independently verified accreditation scheme for purchasing renewables. Under GreenPower program rules, the provider is required to purchase and surrender your GreenPower LGCs on your behalf. In addition, the renewable energy generator also needs to be accredited under the GreenPower program.

If a business enters into a GreenPower PPA or GreenPower Connect, the business must engage a GreenPower provider to surrender the LGCs on the business's behalf. Both the generator and the GreenPower retailer/provider are independently audited and the findings are made publicly available. This gives the GreenPower program a high level of credibility.

GreenPower LGCs are additional to Australia's Renewable Energy Target, and the extensive two-tier auditing process ensures that no double counting can occur.

WHAT IS DOUBLE COUNTING

The value and integrity of a GreenPower product is fundamentally premised on environmental benefits being attached to LGCs, preventing another party to claim the environmental benefits for the same LGCs.

If participants are able to onsell their LGCs, but still retain the marketing and reporting benefits of stating zero emissions there is a real and unavoidable risk that the emissions savings will be counted twice, once by those that sell the certificate and in the voluntary market of those who buy it.

Market practices that undermine this link will have unavoidable impacts on the integrity and value proposition of GreenPower for both business and household customers.

Buying GreenPower avoids greenwashing because your renewable energy and carbon reduction claims are assured and can be verified.

FICTIONAL CASE STUDY

GreenPower Connect

Food manufacturer YUMMY has operations nationally and an annual electricity consumption of 150,000 MWh. With a strong sustainability culture, YUMMY recently joined the RE100 campaign with a commitment to switch to 100% renewable energy by 2023. YUMMY have another year before their existing electricity contract expires.

YUMMY hired an energy markets procurement consultant to help them go to tender to offtake the entire output of a new solar farm project to be built. The procurement consultant recommended that the solar project be GreenPower Connect accredited so that YUMMY could use the GreenPower Connect logo with the name of the solar farm in their marketing materials.

¹⁰ <https://www.accc.gov.au/system/files/Green%20marketing%20and%20the%20ACL.pdf>

Recognition of GreenPower

NABERS

The National Australian Built Environment Rating System (NABERS) is a national rating system that measures the environmental performance of Australian buildings, tenancies and homes. The program measures and verifies performance information for buildings and assesses performance with a star rating scale from one to six stars. Many tenants seek a specific NABERS rating in their rental leases, and so buildings with a higher star rating generally achieve higher occupancy rates and higher yields.

The NABERS Energy rating provides two separate star ratings. The first, the energy efficiency star rating, allows a building to compare how much energy it uses with other buildings, taking building area, occupancy and office equipment into account. As the focus is on the energy efficiency of the base building, purchases of GreenPower are not taken into account in calculating this rating.

The second, the greenhouse gas performance star rating, allows buildings to compare the emissions from their energy use with other buildings. GreenPower purchases are taken into account under this rating and can be used to improve your performance. GreenPower is the only accredited reduction in emissions allowed in the NABERS program currently.

GREEN STAR

The voluntary Green Star rating program, delivered by the not-for-profit Green Building Council of Australia, provides sustainability ratings for diverse building types. Higher Green Star ratings attract higher capital return through higher occupancy rates and higher yields¹¹.

GreenPower is currently the only accredited reduction in emissions allowed in the NABERS program. Under the NCOS, GreenPower purchases are considered a zero-emissions electricity source and can help you achieve additional points under the Green Star program.

Under the Green Star program, your building must first meet the minimum requirements relating to a building's basic level of operations. Additional Green Star points are then awarded based on the level of greenhouse gas emissions reduction you can demonstrate above and beyond the minimum requirement. GreenPower is a great way of achieving these additional points.

NCOS

Australia's National Carbon Offset Standard (NCOS) is a voluntary standard administered by the Australian Government that allows organisations to achieve carbon neutrality for their organisation, products, events, buildings, or precincts. Once certified, you can use the NCOS Carbon Neutral Certified logo for promotional and marketing purposes.

The Standard guides businesses on what constitutes a genuine, additional voluntary offset. It sets minimum requirements for the verification and retirement of voluntary carbon credits and provides guidance for calculating your carbon footprint. Under NCOS, the purchase of GreenPower is considered to be equivalent to the direct use of renewable energy. The purchases are treated as a zero-emissions electricity source.

“GreenPower is the only accredited reduction in emissions allowed in the NABERS program currently.”



Mugga Lane Solar Park

¹¹ <https://www.gbca.org.au/news/gbca-media-releases/green-star-ratings-secure-better-returns>

Frequently asked questions



Challicum Hills

WHAT IS GREENPOWER?

GreenPower is renewable energy sourced from the sun, the wind, water and waste that is purchased by your energy company on your behalf. Buying accredited GreenPower products means that you support large-scale renewable energy generation in Australia, in addition to national targets. You can also be sure that your renewable energy claim is highly credible, as both the generation of renewable energy, as well as the retirement of Renewable Energy Certificates, are audited by the GreenPower program.

WHAT ARE LARGE-SCALE GENERATION CERTIFICATES?

Large-scale Generation Certificates (LGCs) are a form of renewable energy currency created under Australia's Renewable Energy Target that retailers use to buy electricity from power stations. Visit this web address for a detailed explanation of how they work: <http://www.cleanenergyregulator.gov.au/RET/Scheme-participants-and-industry/Power-stations/Large-scale-generation-certificates>

HOW CAN I SEE THAT GREENPOWER LGCS ARE SURRENDERED?

The annual transfer of LGCs can be seen on the Office of the Renewable Energy Regulator (ORER) website at <https://www.rec-registry.gov.au/getSearchPublicRecHoldings.shtml?recType=LGC>. Nearly all the voluntary LGCs surrendered come from GreenPower.

IS GREENPOWER PART OF THE GOVERNMENT RENEWABLE ENERGY TARGET?

No. GreenPower is fully additional to the Commonwealth Government's Renewable Energy Target. So you know that when you purchase GreenPower, you are helping to increase the amount of renewable energy generated in Australia beyond the national target.

HOW DOES GREENPOWER INTERACT WITH NCOS – NATIONAL CARBON OFFSET STANDARD?

GreenPower is considered carbon neutral electricity consumption under NCOS, and as such, no emissions are added for the part of GreenPower purchased.

For further information, please refer to the Carbon Neutral Program Guidelines:

<http://www.environment.gov.au/climate-change/government/carbon-neutral/ncos>

WHAT PERCENTAGE GREENPOWER SHOULD I CHOOSE FOR MY BUSINESS?

The higher the GreenPower component of your electricity use, the more you are doing to promote the use of renewable energy and reduce the impact of climate change.

As such, offsetting your power as renewable energy can help position your company as a responsible corporate citizen. Offsetting 10% or more of your electricity allows use of the GreenPower logo to promote an environmentally conscious image to your clients and customers.

An offset of 50% to 100% allows you to gain exposure by being listed on the GreenPower website.

WHAT DOES THE GREENPOWER LABEL MEAN?

An accredited GreenPower product will always carry the “tick” label. This accreditation label is supported and managed by governments throughout Australia. When you decide to purchase renewable energy make sure you look for the accredited GreenPower “tick” label (see page 21).

These labels tell you the amount of accredited GreenPower your energy retailer is purchasing on your behalf, as a percentage (10%–100%) of your business’s electricity consumption. 100% means that your energy supplier purchases renewable energy from accredited GreenPower sources to the amount equal to all of your organisation’s electricity consumption.

HOW DOES GREENPOWER INTERACT WITH NGERS – NATIONAL GREENHOUSE AND ENERGY REPORTING SCHEME?

GreenPower is not fully deductible under NGERS. However, an entity reporting under the NGERS Act can state their use of GreenPower as voluntary renewable energy, and this is reported publicly. Refer to <http://www.climatechange.gov.au/government/initiatives/national-greenhouse-energy-reporting/greenpower-and-renewabl-energy-certificates.aspx>

WHAT QUALIFIES AS ELIGIBLE RENEWABLE ENERGY?

Renewable energy is energy derived from sources that cannot be depleted or energy that can be replaced, such as solar, wind, biomass (waste), wave or hydro. Renewable sources do not produce greenhouse gas pollution. Eligible renewable resources include:

- › solar power
- › wind
- › biomass (landfill gas, municipal solid waste, agricultural wastes, energy crops, wood wastes)
- › hydro-electric power (small-scale or on existing dams)
- › geothermal energy
- › wave and tidal power.

Only wood waste sourced from existing sustainably managed forestry plantations, and clearing of specified noxious weeds are eligible. Use of any materials from high conservation-value forests is not eligible. Only crops grown on land cleared before 1990 are eligible under the GreenPower program. Hydro-electric power projects must have adequate environmental flows. Projects that involve construction of new dams or diversion of rivers are not acceptable under GreenPower.

IS RENEWABLE ENERGY RELIABLE – IS THERE ENOUGH TO SUPPLY MY BUSINESS?

All electricity produced from electricity generators (coal or renewable energy) are provided into an electricity grid. It is the grid operators that ensure reliability to customers, coordinating supply with demand – they gauge when certain generators are operating or idle. Therefore, electricity from specific renewable energy generators does not directly go to individual businesses and has no impact on reliability.

As demand for accredited GreenPower increases from customers, energy suppliers will buy more renewable energy from new renewable energy generators. Your investment in accredited GreenPower will feed more energy from clean, renewable energy sources into the grid that services your business.

Albany Wind Farm

Glossary



Royalla Solar Farm

BEHIND-THE-METER

A “behind-the-meter” installation refers to renewable energy systems installed on the customer’s side of a utility meter rather than on the grid-side. Behind-the-meter installations are also known as “distributed” or “embedded” generation. Behind-the-meter installations displace both the network and retail electricity prices.

CARBON DIOXIDE EQUIVALENT (CO₂-E)

An internationally accepted measure that encapsulates all greenhouse gases based upon their global warming potential. Different greenhouse gases like carbon dioxide, methane or nitrous oxide have different warming potentials.

CARBON EMISSIONS

The release of greenhouse gases and their precursors into the atmosphere over a specified area and period of time. In this guide, we use the terms carbon and greenhouse gas emissions interchangeably.

CARBON INVENTORY

A quantified list of an organisation’s greenhouse gas emissions, sources and scopes. In this guide, we are using carbon inventory interchangeably with carbon footprint.

CARBON NEUTRAL

Net greenhouse gas emissions are zero. This can be achieved by reducing operational carbon emissions and by supporting carbon offset project(s) to balance the remainder of the carbon footprint. Examples of carbon offset projects are renewable energy or energy efficiency projects in the developing world or tree planting schemes that will absorb carbon dioxide.

CARBON OFFSET

Offsets are discrete greenhouse gas reductions used to compensate for (i.e., offset) carbon emissions elsewhere, for example, to meet a voluntary or mandatory carbon reduction target or cap. Offsets are calculated relative to a baseline that represents a hypothetical scenario for what emissions would have been in the absence of the mitigation project that generates the offsets. To avoid double counting, the reduction giving rise to the offset must occur at sources or sinks not included in the target or cap for which it is used.

ELECTRICITY RETAILER

Electricity retailers manage the interface between an organisation and the electricity grid. One of the key functions of a retailer is to balance supply of electricity from generators with demand from their customers in the most cost-effective way. Under a renewable energy procurement approach, organisations can choose to involve a retailer in an arrangement with a renewable energy generator. Alternatively, they can choose to de-couple their renewable electricity purchase from the retailer and have a separate retailing arrangement.

GLOBAL WARMING

A gradual increase in the temperature of the earth’s atmosphere attributed to the greenhouse effect caused by increased levels of carbon dioxide, methane, refrigerants, and other greenhouse gases.

GREENHOUSE EFFECT

The trapping of our sun’s heat in the atmosphere leading to global warming and climate change.

GREENHOUSE GASES (GHG)

The seven gases listed in the Kyoto Protocol: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), nitrogen trifluoride (NF₃) and sulphur hexafluoride (SF₆).

GREENHOUSE GAS EMISSIONS

A greenhouse gas is an atmospheric gas that absorbs and emits infrared or heat radiation, giving rise to the greenhouse effect. Typical greenhouse gases include carbon dioxide, methane, nitrous oxide and refrigerants. In this report, the term carbon emissions is used synonymously with the term greenhouse gas emissions.

GREENPOWER ACCREDITATION PROGRAM

The framework established for GreenPower products.

GREENPOWER GENERATOR

A GreenPower generator is defined as an electricity generator approved by the GreenPower Program Manager that results in greenhouse gas emission reduction (within the electricity sector) and net environmental benefits and is based primarily on a renewable energy resource.

GREENPOWER PRODUCT

Any product or service that enables customers to voluntarily contribute financially to renewable energy generation from GreenPower generators and has been accredited under the National GreenPower Accreditation Program.

GREENPOWER PROVIDER

Any person or organisation that operates a GreenPower product.

GREENPOWER LGCS

GreenPower LGCs are Large-scale Generation Certificates that have been accredited under the GreenPower Program, giving them a high level of credibility.

KYOTO PROTOCOL

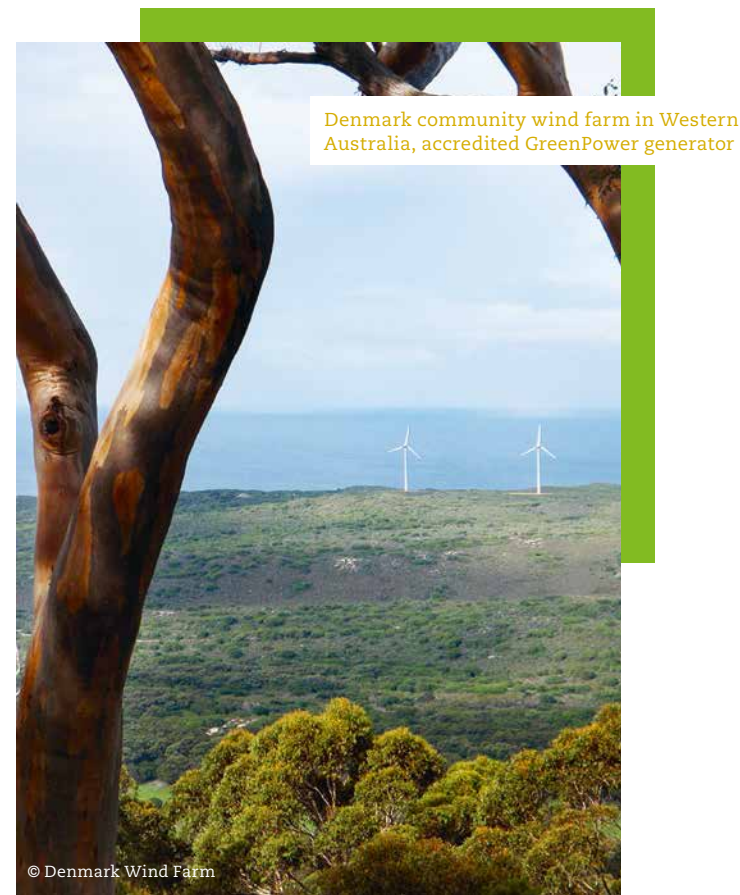
The Kyoto Protocol is an international treaty that commits state parties to reduce greenhouse gas emissions. The Protocol puts the obligation to reduce current emissions on developed countries on the basis that they are historically responsible for the current levels of greenhouse gases in the atmosphere. Most developed countries have agreed to binding targets.

LARGE-SCALE GENERATION CERTIFICATES (LGCS)

Large-scale Generation Certificates (LGCs) are an electronic form of currency created in the REC-Registry by eligible entities under Subdivision A of Division 4 of Part 2 of the Renewable Energy (Electricity) Act 2000. They are created by renewable energy generators with a capacity of greater than 100 kW.

NATIONAL ELECTRICITY MARKET (NEM)

The National Electricity Market (NEM) is the wholesale electricity market for eastern and southern Australia: Queensland, New South Wales, the Australian Capital Territory, Victoria, South Australia and Tasmania. It accounts for about 80% of Australia's electricity consumption. Western Australia and the Northern Territory are not connected to the NEM; they have their own electricity systems and separate regulatory arrangements.



Denmark community wind farm in Western Australia, accredited GreenPower generator

© Denmark Wind Farm



Building a solar farm – installing the cabling

© Pedro Castellano

NET ENVIRONMENTAL BENEFIT

The environmental benefits associated with a project outweigh the adverse environmental impacts. Impacts are considered within an Ecologically Sustainable Development (ESD) framework and include greenhouse gas reduction; water and air quality; land use; impact on flora and fauna; impact on cultural/natural heritage; visual and noise impacts; use and disposal of waste products; transport etc.

MEGAWATTS AND MEGAWATT HOURS

Megawatts (MW) are a measure of power and relate to the capacity of a power station to produce electricity. Megawatt hours (MWh) are a measure of energy over time. (On a typical electricity bill, kilowatt hours (kWh) will be the standard unit: 1,000,000 kWh = 1,000 MWh = 1 GWh.) For example, 1 MW of electrical power running at full capacity (100%) over a year (8760 hours) will consume 8760 MWh or 8.76 GWh.

POWER PURCHASE AGREEMENT (PPA)

A PPA or “offtake” agreement is a contract between an electricity buyer and an electricity generator. The agreement can take several forms and can provide both parties with certainty about price over a long period. In relation to renewable energy, a PPA can refer to a contract to purchase electricity from a specific project, or renewable energy certificates, or both. They can be signed with an existing power generator, or one yet to be constructed. PPAs are routinely used in the electricity wholesale markets between

retailers and generators. PPAs can also be used to finance onsite solar PV systems. However, in this guide a PPA refers to a transaction between an off-site renewable energy generator and a corporate energy user – with the involvement of an intermediary such as a retailer to facilitate the supply of electricity; or directly without the involvement of a retailer.

RENEWABLE ENERGY

Energy that comes from resources which are naturally replenished on a human timescale such as sunlight, wind, rain, tides, waves, and geothermal heat.

RENEWABLE ENERGY CERTIFICATE (REC)

Every MWh generated from renewable energy is assigned a “Renewable Energy Certificate”. In Australia, the Clean Energy Regulator distinguishes between small-scale (<100 kW) and large-scale generation (>100 kW).

RENEWABLE ENERGY TARGET (RET)

The Renewable Energy Target (RET) has been established to encourage additional generation of electricity from renewable energy sources to meet the Government's commitment to achieving a 20% share of renewables in Australia's electricity supply in 2020. The RET legislation places a legal liability on wholesale purchasers of electricity to proportionally contribute to an additional 33,000 gigawatt hours (GWh) of renewable energy per year by 2020.

For more information
on GreenPower visit
www.greenpower.gov.au

