



# Certificate Services.





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Ecovantage are the most versatile Accredited Certificate Provider (ACP) in Australia.

Our Certificate Services department specialises in the creation and procurement of certificates across Australia.

Certificates are divided into two primary categories, Carbon Credits and White Certificates. The creation of either certificate is subject to the project nature, implementation type, location and organisational aims.

Certificates can be created for Renewable Energy Implementations, Energy Efficiency Upgrades and Fuel Switch Upgrades on commercial and industrial scales.

Our qualified teams assist project progression from viability studies, through project registration, to certificate creation and trade.

The below reference guides detail what each certificate represents and the carbon attributes for programs in Australia.

## Reference Guides.

| Certificate | Classification               | Representative of                        | Attribute Recognised by External Programs | Renewable Energy Value if Surrendered                             |
|-------------|------------------------------|------------------------------------------|-------------------------------------------|-------------------------------------------------------------------|
| ACCUs       | Carbon Credit                | 1 Tonne of CO <sub>2</sub> -e            | Carbon                                    | Recognise & Measure Carbon Abatement                              |
| LGCs        | Renewable Energy Certificate | 1 MWh of Renewable Generation            | Renewable Energy                          | Recognise & Measure Renewable Generation                          |
| STCs        | White Certificate            | 1 Calculated MWh of Renewable Generation | None                                      | Create a Financial Incentive for Small-Scale Renewable Generation |
| VEECs       | White Certificate            | 1 Calculated Tonne of CO <sub>2</sub> -e | None                                      | Create a Financial Incentive for Energy Efficiency Upgrades       |
| ESCs        | White Certificate            | 1 Nominal MWh                            | None                                      | Create a Financial Incentive for Energy Efficiency Upgrades       |
| PRCs        | White Certificate            | 0.1kW of Peak Demand Reduced             | None                                      | Create a Financial Incentive for Peak Demand Reduction            |
| REPS        | White Certificate            | 1 Calculated GJ                          | None                                      | Create a Financial Incentive for Energy Efficiency Upgrades       |

| Program                             | ACCUs        | LGCs     | White Certificates |
|-------------------------------------|--------------|----------|--------------------|
| RE100                               | Not accepted | Accepted | Not accepted       |
| Climate Active                      | Accepted     | Accepted | Not accepted       |
| SBTi (Net Zero)                     | Accepted     | Accepted | Not accepted       |
| GreenPower                          | Not accepted | Accepted | Not accepted       |
| NABERS                              | Accepted     | Accepted | Not accepted       |
| Green Building Council of Australia | Accepted     | Accepted | Not accepted       |
| Greenhouse Gas Protocol             | Accepted     | Accepted | Not accepted       |





# Measurement & Verification.

## M&V Experts.

Measurement and Verification (M&V) is the process of planning, measuring, collecting and analysing energy consumption data before and after an upgrade to report on the savings. Savings are determined by comparing measured energy use before and after project implementation with appropriate adjustments for changes in conditions. The below graph demonstrates this.

Depending on the upgrade and the site's location, several scheme specific factors are applied. Certificates are then created based on the difference between the two measurement periods, and depending on the scheme, certificates are either awarded for every tonne of CO<sub>2</sub> equivalent that is saved or for every MWh that is saved.

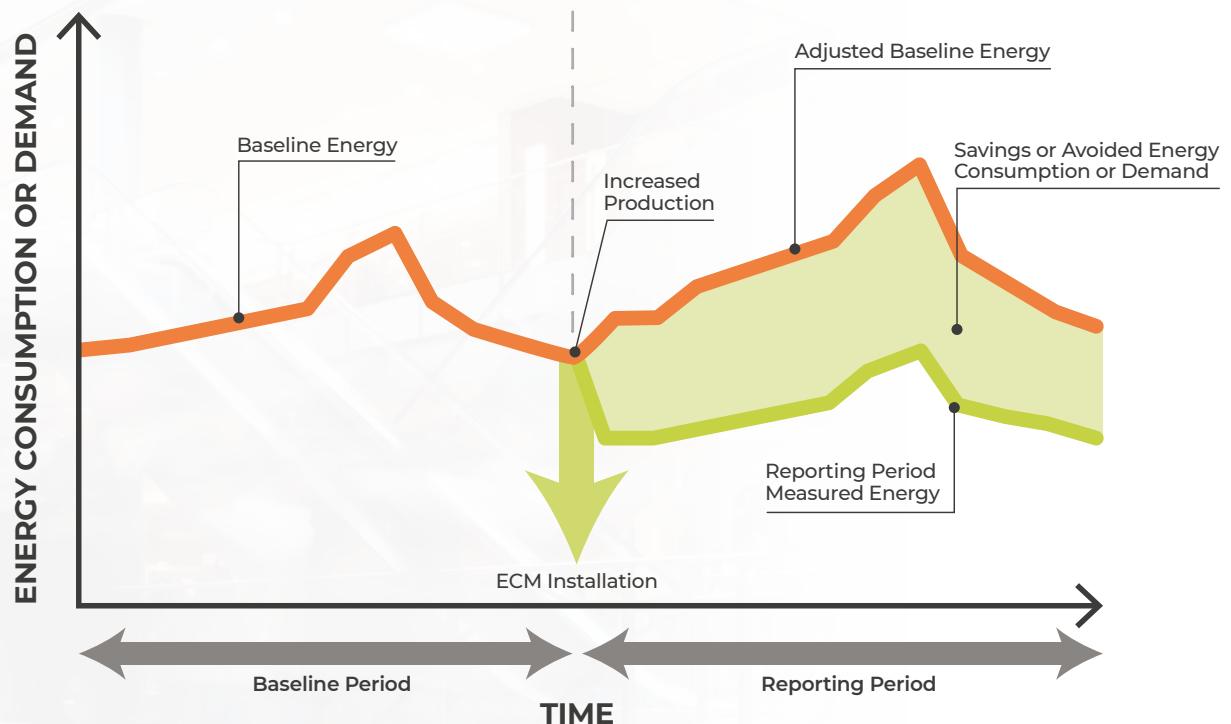
## M&V Activities.

Deemed activities, such as commercial lighting and heat pump upgrades in Victoria and New South Wales, follow a routine calculation to estimate energy savings based on the approved product and typical hours of use.

Deemed activities cover routine installations that are on a small to medium scale.

M&V projects may become beneficial where:

- The operating hours exceed a normal work day
- The upgrade is not an approved activity
- Multiple upgrades are occurring at once
- The energy savings are high
- The upgrade involved fuel switching
- A number of sites can be aggregated



## Types of M&V.

There are two overarching project types under M&V; aggregated, and single site projects.

### Aggregated

An aggregated project is applicable in two circumstances:

- 1 There is more than one site where implementations or 'treatments' result in small energy or fuel savings that limit its financial viability as a single project. This may be two sites where the same machinery upgrade is being performed (ie. HVAC), a strata housing project where a series of upgrades are being rolled out, mining camp accommodation upgrades, or even a fleet changing from Internal Combustion Engines to Electric Vehicles.
- 2 Where a primary company has an involvement or interest in many upgrades of the same nature. This could encompass machinery manufacturers, installers, consultants, or any other relevant third party.

For aggregated projects, the rights to certificates created must be assigned to the third party in exchange for a financial benefit to the site owner. Alternatively, the certificates may be transferred to the site owner on creation for the purposes of surrender to offset.

### Single Project

A single project is applicable where the energy or fuel saved through a single upgrade, or multiple upgrades on one site, reaches the minimum threshold as outlined over leaf.

## Example Technologies.

- Machinery Upgrades
- HVAC Upgrades
- Fleets switching from Internal Combustion Engines to Electric Vehicles
- Lighting Upgrades
- Efficient Machinery Distributor under an Aggregated Method
- Process Heating Upgrades

## How Can Your Site Harness M&V?

There are significant opportunities for your site to leverage Measurement and Verification methods for a variety of projects and upgrades.

Any implementation that will save a single site energy equivalent to the listed recommended minimum savings, or multiple sites that cumulatively reach those minimum savings, is eligible to create certificates under Measurement and Verification methods.

State-based schemes create 'White Certificates'. These certificates act similar to a rebate as opposed to being a verified carbon credit. The benefit of white certificate creation is that a site is able to monetise the certificates, and still claim the full benefit of the energy reduction in their carbon accounting.

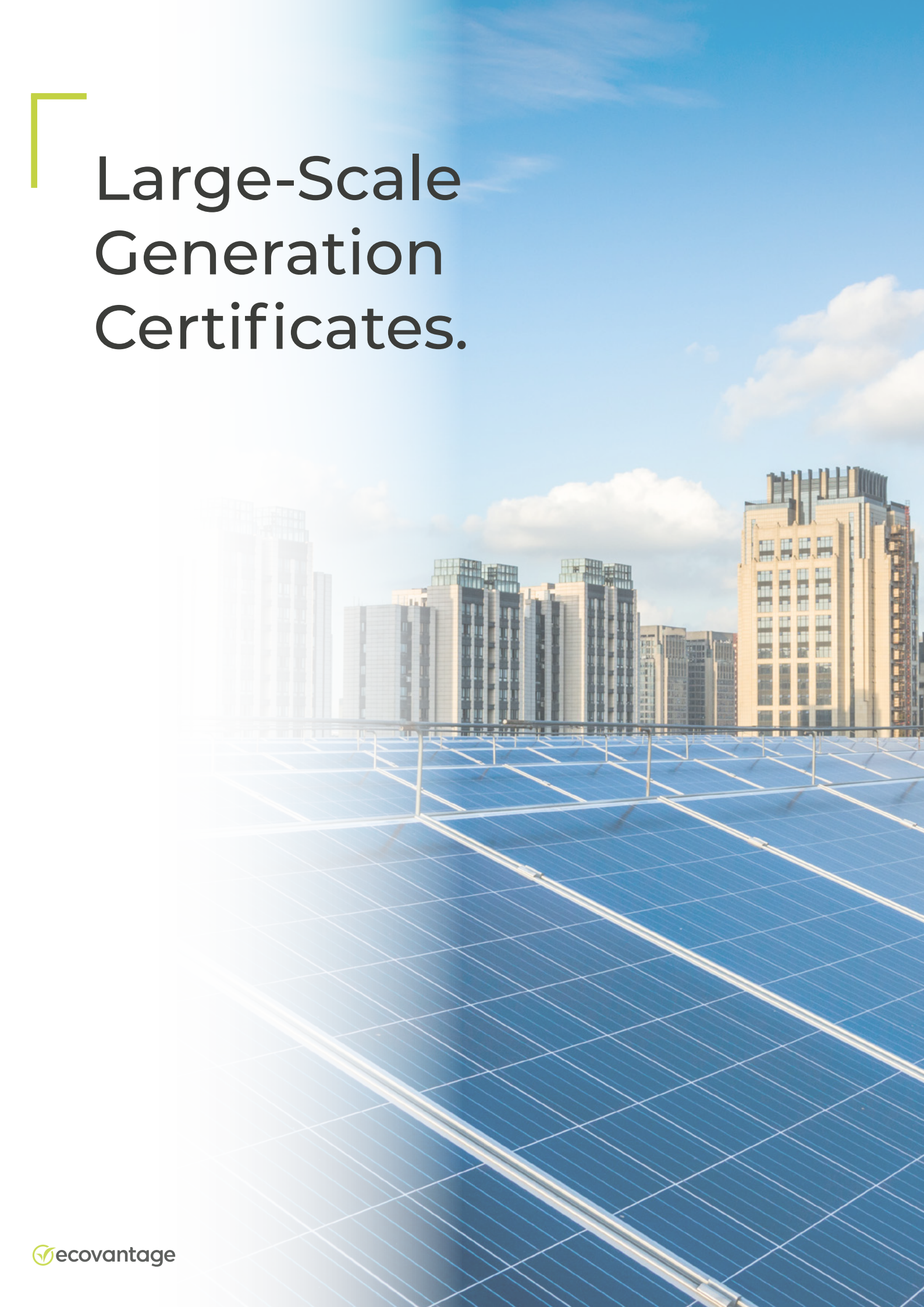
The benefit of a federal scheme creating internationally recognised carbon credits, is that it lessens the financial constraint of purchasing that volume of carbon credits, plus they can account for the energy reduction. Many clients procure Australian Carbon Credit Units (ACCUs) for the purpose of surrender. The ability to provide an upgrade service that will produce ACCUs for a 7 year period is certainly an additional benefit.

Our team can assist in establishing the viability of each opportunity, both from financial and carbon perspectives.



## Schemes.

|                             | Emissions Reduction Fund (ERF)                                                                                                                                        | Victorian Energy Upgrades (VEU)                                                                | Energy Savings Scheme (ESS)                                                                                                                       | Retailer Energy Productivity Scheme (REPS)                                                                  |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Location                    | Federal                                                                                                                                                               | Victoria                                                                                       | New South Wales                                                                                                                                   | South Australia                                                                                             |
| Certificates Created        | Australian Carbon Credit Units (ACCUs)                                                                                                                                | Victorian Energy Efficiency Certificates (VEECs)                                               | Energy Savings Certificates (ESCs)                                                                                                                | Retailer Energy Productivity Scheme (REPS) as a gigajoule target (GJ) (Created under the commercial target) |
| Crediting Period            | 7 Years with Annual Measurement and Creation                                                                                                                          | 9.9 Years Forward Creation or 10 Years with Annual Creation                                    | 9.9 Years Forward Creation or 10 Years with Annual Creation                                                                                       | 9.9 Years Forward Creation or 10 Years with Annual Creation                                                 |
| Recommended Minimum Savings | 800-1000MWh per annum                                                                                                                                                 | 100-180MWh per annum                                                                           | 100-180MWh per annum                                                                                                                              | 100-180MWh per annum                                                                                        |
| Strengths                   | Wide range of technologies available. Certificates created are internationally recognised carbon credits. New projects can create certificates under certain criteria | Flexible regulator. Wide range of technologies available, including solar PV                   | No Grid intensity factor, and therefore no decreasing certificate value annually. Higher certificate value awarded for upgrades in regional areas | High volume of certificates created to counter a low certificate financial value                            |
| Weaknesses                  | No forecasted emissions factor. No forward creation method for M&V projects                                                                                           | High volatility in the certificate market                                                      | Additional administrative requirements                                                                                                            | Low certificate financial value. Capped volume for certificate creation each year                           |
| Similarities                |                                                                                                                                                                       | Similar method and available technologies to the New South Wales and South Australian programs | Similar method and available technologies to the Victorian and South Australian programs                                                          | Similar method and available technologies to the Victorian and New South Wales programs                     |



# Large-Scale Generation Certificates.



Large-Scale Generation Certificates (LGCs) are renewable energy certificates offered under the Renewable Energy Target (RET) scheme.

Renewable Energy Systems larger than 100kW are eligible to create LGCs. LGCs are based on the amount of renewable electricity they produce. Wind, Hydro, and Biomass systems meeting certain criteria are also included.

One LGC is equal to one megawatt hour of renewable energy, the number of LGCs generated depends on the annual generation of the system.

Once created, an LGC acts like a share that can be traded and sold. Some companies choose to use their own LGCs for Carbon Offset and Carbon Neutrality and other companies purchase them (mainly electricity retailers) to surrender for a LGC liability.

1 LGC  
=  
1 MW/h of  
Clean Energy

## Ecovantage Understands LGCs.

Ecovantage work with large solar asset owners, installers, and to create LGCs. We take the pain out of creating your solar income by offering the following.

- 1 Strongest Product Offerings**  
We work directly with our solar partners to create the highest rebates, give cash-positive solutions and offer finance to help get customers over the initial hurdles.
- 2 Easy Collaboration**  
24hr turn-around, bespoke certificate offerings, dedicated account managers, and direct communication lines.
- 3 Upfront Payments**  
Ecovantage have partnered with industry bodies to offer customer the rebate/certificate upfront. No finance. No loans. No risk.
- 4 Lock-in Pricing**  
Price Certainty: An annual dollar figure can be priced in and locked in today. Giving you or your client a stable and dependable income source that can be included in your budget and financial forecast.



# Australian Carbon Credit Units.



## Scheme Details.

Australian Carbon Credit Units (ACCUs) are an Australian based carbon credit that can be created as a result of activities that avoid or remove greenhouse gas emissions.

Each ACCU is representative of one tonne of carbon dioxide having been removed, or avoided, by the eligible activity.

Similar to many other Renewable Energy Certificates, ACCUs act as a financial instrument for activities that are directly avoiding or removing carbon emissions that would have otherwise been released without the project.

For an emissions related project, ACCUs are generated through a measurement and verification process, and created annually for 7 years.

These certificates involve a complex methodology, and therefore become viable with large-scale activities.

**1 ACCU**



**1 tonne CO<sub>2</sub>  
equivalent removed**

## Who Purchases ACCUs?

Large Organisations that have carbon neutrality, net zero or baseline emission targets can procure and surrender ACCUs as carbon offsets. This mimics the offset process that Large-Scale Generation Certificates (LGCs) are used for.

## How are ACCUs Monetised?

Similar to many other Renewable Energy Certificates, once created ACCUs can be surrendered as an offset or traded. This revenue is often used to offset the cost of the energy efficiency or renewable energy project.

With Ecovantage, we mitigate the risk of a volatile market by allowing you to lock in a fixed price upon the commencement of your project. This allows you both peace of mind and financial stability knowing the revenue that your project will produce from the beginning.

## What Activities are Eligible?

There are several activities eligible to create ACCUs, provided they are on a large-scale.

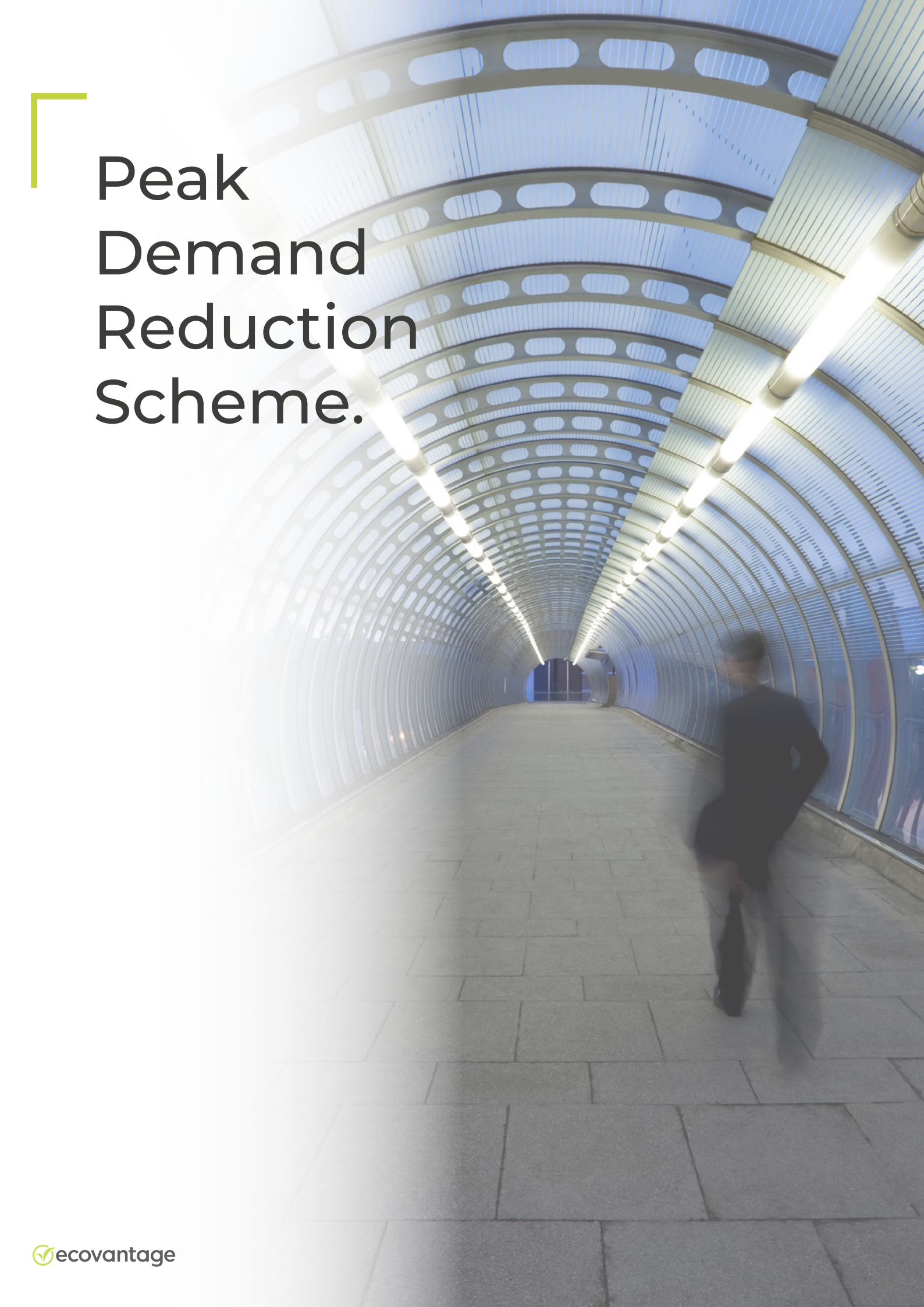
These include:

- Lighting Upgrades
- HVAC
- BMS Equipment
- VSD Installation
- Solar\*
- Any other energy efficiency upgrades

For more information, or to discuss a potential project with our team, please contact us at anytime.

*\*ACCUs for Solar are subject to spot pricing to determine viability.*





# Peak Demand Reduction Scheme.



## Scheme Details.

Designed to incentivise technology upgrades and modifications to reduce energy demand during peak periods, the Peak Demand Reduction Scheme (PDRS) began in late 2022 with a select set of eligible activities and a trajectory to broaden accepted methods each year.

### Peak Period



**2:30pm – 8:30pm AEDT**

The current peak period is defined as the hours of 2:30pm to 8:30pm AEDT from September 30th to March 31st each year. For each 0.1kW of peak demand deemed to be saved within this period through an eligible upgrade, 1 Peak Reduction Certificate (PRC) may be created. PRCs are known as a 'White Certificate', meaning that they hold the purpose of creating a rebate mechanism rather than being a recognised carbon credit unit.

### 1 PERC



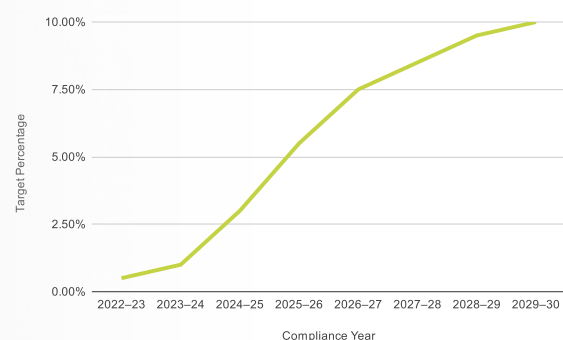
**0.1kWh saved during the outlined peak period**

The PDRS launched with residential and small commercial implementations and is proposed to progress to the commercial and industrial sphere in the coming years. Existing deemed activities such as air-conditioners, heat pumps, and refrigerated display cabinets, were allowed under the scheme from its inception through the first year of operation. These activities are under the umbrella of demand savings. Year two is set to allow a technology-agnostic approach to allow for the introduction of demand shifting, focussing on industrial processes which do not vitally need to occur within the peak window. The third year is projected to introduce incentives for demand response technologies.

- 1 Demand Saving**
- 2 Demand Shifting**
- 3 Demand Response**

The annual certificate target starts at 0.5% (4 million PRCs) and climbs rapidly to 10% (80 million PRCs) in an exponential fashion to 2030. From 2030, the target is maintained at 10% for the duration of the program. This aims to strengthen energy reliability and security on the path to Net Zero by 2050. A flow-on effect reducing the cost of electricity for customers as peak demand reduces is anticipated.

#### Annual PRC Creation Target



# Guarantee of Origin Scheme.



## Scheme Details.

The Guarantee of Origin (GO) program was released for consultation by the Federal Government in December 2022, and is currently in the design phase.

With an exponentially growing demand for emissions to be tracked for hydrogen production and renewable energy production on a long-term basis, the GO scheme looks to satisfy this demand.

The current Renewable Energy Target governs the creation of LGCs and STCs, though it is due to sunset in 2030. The preliminary design of the GO program looks to create a certificate program beyond this time.

Certificate programs in Australia are used to support the development of renewable energy and to encourage businesses and organisations alike to invest in and use renewable energy sources. Companies can then use the certificates created to offset their energy or carbon footprint.

The program is divided into two main strands:

- 1 Guarantee of Origin Certificates (GOs)**
- 2 Renewable Energy Guarantee of Origin Certificates (REGOs)**

## Renewable Energy Guarantee of Origin Certificates (REGO).

The REGO program has been created for renewable energy generation. The program works by issuing Guarantee of Origin certificates for each megawatt-hour (MWh) of renewable energy that is produced.

These certificates can then be traded to gain a financial benefit, or surrendered to claim the renewable energy benefit.

**1 REGO**  
**=**  
**1MWh of  
Renewable Energy**

The purpose of the program is to provide transparency and credibility in the renewable energy market. By providing information on the origin and type of renewable energy, it helps to support the development of renewable energy, as well as provide surety to companies purchasing REGOs that the certificates are of a high quality.

In its initial structure, the GO program may launch as early as 2024. Renewable generation sources may choose to create REGOs or LGCs until 2030, while sites considered previously ineligible to create LGCs may have the opportunity to create REGOs.

Ecovantage submitted a comprehensive consultation response, which outlined our key support and considerations for the program's design.





# Contact Us.

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