



Australian Government

Department of Climate Change, Energy,
the Environment and Water

Renewable Electricity Certification

Policy position paper for renewable electricity
certification under the Guarantee of Origin scheme and
for economy-wide use

December 2022

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1. Introduction

In the 2022-23 Budget, the Government provided \$2.2 million for the Department of Climate Change, Energy, the Environment and Water to develop and consult on a Guarantee of Origin certificate scheme to track and verify emissions associated with renewable electricity, hydrogen and other low emissions commodities produced in Australia.

This paper complements the broader Guarantee of Origin position paper which outlines the proposed process for tracking and verifying emissions attributable to specific products including renewable electricity that is an input to the production of low emissions products such as hydrogen from renewable electricity electrolysis.

This paper outlines the proposed design and implementation of a renewable electricity certification mechanism to track and verify renewable electricity generation as part of the Guarantee of Origin scheme as well as to support other voluntary claims.

How to have your say

The Department of Climate Change, Energy, the Environment and Water is seeking feedback on the proposed approach for an enduring renewable electricity certificate mechanism under the proposed Guarantee of Origin scheme for Australia. In particular, your responses are sought to the 17 policy position proposals stated and highlighted throughout this consultation paper. Responses can be provided directly through the Department's [consultation hub](#).

Stakeholder consultation process to date

The Department has previously sought feedback from stakeholders on renewable electricity tracking and verification as part of a Guarantee of Origin Scheme through:

- *A Hydrogen Guarantee of Origin scheme for Australia* paper published on 21 June 2021 – this was open for public consultation.
- Phase 1 of the Clean Energy Regulator's Hydrogen Guarantee of Origin trials running March to October 2022 – participants were mostly from the hydrogen industry.
- Targeted consultation during August and September 2022 – various stakeholders were engaged in meetings and focus groups, including states and territories, industry bodies, renewable electricity generators, energy storage providers, energy retailers, local governments, and businesses from the hydrogen, resources, metals, tourism and entertainment, food, retail and property sectors.

2. Policy context

The Australian Government has legislated to reduce greenhouse gas emissions to 43 per cent below 2005 levels by 2030 and to achieve net zero emissions by 2050. The Government is implementing a suite of measures to deliver Australia's future energy system and achieve its emissions reduction targets. In particular, Rewiring the Nation will deliver \$20 billion of investment to modernise the grid to support increasing levels of renewable electricity generation.

All state and territory governments have committed to achieving net zero emissions by 2050, with the majority setting interim targets. All states and territories also have renewable energy targets and/or plans to reduce emissions specifically in the power sector.

In addition, businesses and other organisations are increasingly committing to emissions reduction targets and procuring renewable electricity to support these goals and reduce costs. In response to consumer demands domestically and internationally, there is an increasing focus on low and zero emissions products, including renewable hydrogen and carbon neutral building materials. The production of these involves energy intensive processes that require large volumes of renewable electricity.

To demonstrate low emissions product and renewable energy claims, many organisations participate in voluntary schemes, such as RE100, Climate Active, GreenPower and NABERS. Over 70 organisations in Australia participate in RE100, Climate Active has over 400 participants, while over 1,100 organisations have current energy ratings under NABERS. GreenPower has broader coverage with almost 30,000 commercial and over 330,000 residential customers.

Many of these voluntary schemes apply a market-based, scope 2 emissions accounting approach, which makes use of tradeable renewable energy certificates to account for zero emissions renewable electricity. The Guarantee of Origin scheme is also proposed to apply a market-based approach in accounting for scope 2 emissions and would rely on renewable electricity certificates for verifying and tracking the use of renewable electricity in the production of hydrogen and other low emissions products.

Beyond these existing and proposed schemes, there are many organisations entering into renewable power purchase agreements (PPAs) and other arrangements to demonstrate progress towards renewable energy and emission targets. The renewable PPA market has grown rapidly in recent years, with at least 52 corporations contracting over 7.5 TWh of annual renewable electricity offtake since January 2020.¹ PPAs are often underpinned by renewable energy certificates that are used by purchasers to support renewable energy claims through mandatory and voluntary surrender.

The renewable electricity certificate market in Australia is dominated by the trade of large-scale generation certificates (LGCs), which are created by eligible renewable generators under the Renewable Energy Target (RET) scheme. While established to encourage additional renewable generation through obligations on retailers and other electricity acquirers, the LGC framework under the RET is increasingly being used voluntarily by many organisations. In 2021, around 180 organisations voluntarily surrendered LGCs or had a third party surrender them on their behalf, in addition to the 361,783 GreenPower customers. Small-scale Technology Certificates (STCs) are also available under the RET scheme. However, STCs are generally not considered a robust way to

¹ Energetics, [Corporate renewable PPA deal tracker](#), Energetics website, accessed 10 October 2022.

support renewable energy claims because they are provided up front and based on an estimate of future generation over a limited timeframe, rather than being based on actual generation like LGCs.

While there is sufficient renewable generation capacity to create the volume of LGCs needed to meet the legislated annual targets under the RET out to 2030, demand for LGCs has grown in recent years, driven by demand from businesses and others seeking to make voluntary renewable energy claims. This growth is expected to continue (Figure 1).

This voluntary demand from business and other organisations for renewable electricity supports investment in new projects and contributes to domestic emissions reductions. Enabling this market to continue to grow would ensure that consumers across the economy are encouraged to contribute to Australia’s decarbonisation.

I-RECs, renewable electricity certificates issued by the Green Certificate Company and created under the International REC Standard framework, are also starting to emerge in the Australian market for voluntary use.

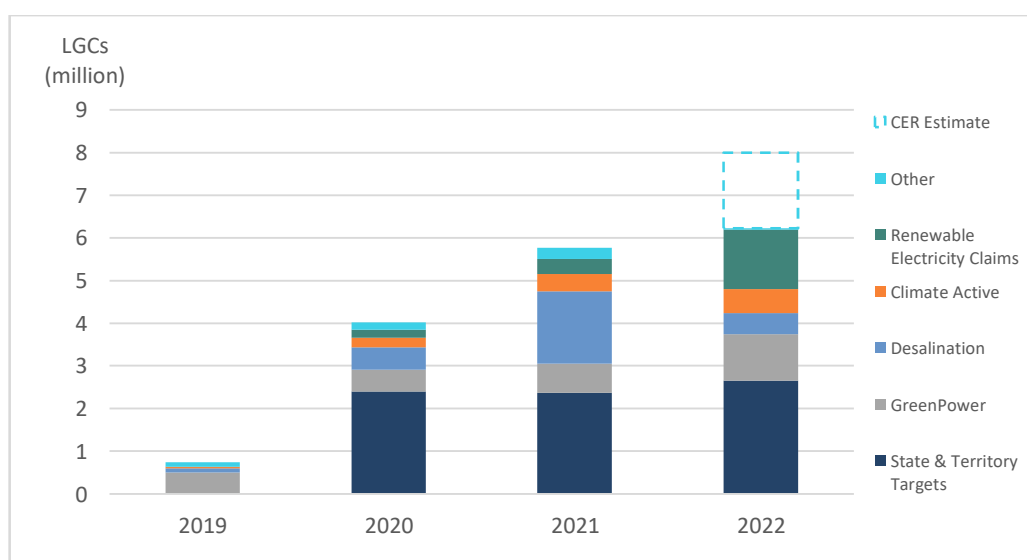


Figure 1: Voluntary surrender of large-scale generation certificates (LGCs) since 2019, including surrenders made during Q1, Q2, Q3 of 2022 (i.e. from January to end of September), and the Clean Energy Regulator’s estimate for Q4 2022. Source: Department of Climate Change, Energy, the Environment and Water; Clean Energy Regulator.

2.1 Need for a new mechanism

The RET scheme has played a significant role in growing renewable electricity investment across Australia. The scheme has enabled renewable electricity certificates to be created and traded – both for the purpose of acquitting mandatory retailer liability and for voluntary surrender by those seeking to demonstrate renewable energy claims.

The scheme, however, is due to sunset in 2030, so does not provide an ongoing renewable energy certificate framework. The RET also does not allow certificates to be created for exported electricity, or for offshore renewable generation outside Australia’s territorial waters, and by design excludes ‘below-baseline’ generation – generation from capacity that existed prior to 1997.

Introducing a new mechanism now would seek to address these exclusions and time limitations. Implementing an enduring mechanism would provide organisations with certainty around how renewable electricity would be recognised in the market after 2030. This could support planning, contracting and investment decisions being made by businesses today.

A new mechanism that incorporates electricity for international export and below-baseline generation prior to the expiry of the RET scheme could support the development of new, low emissions industries and help position Australia as a trusted supplier of renewable electricity and low emissions products.

Consultations to date indicate that many renewable energy generators and investors strongly support an enduring renewable energy certificate mechanism and have stressed the urgency for this to provide certainty that underpins investment decisions. They have indicated that it is particularly important for Australia's energy transformation as well as the development and international competitiveness of emerging low emissions industries such as hydrogen.

An alternative could be to implement a renewable certification mechanism after the RET scheme expires in 2030. However, this would not provide certainty for investors and in the interim, generation that is not eligible to create LGCs would continue to be excluded. This could result in alternative mechanisms to certify renewable energy operating at the same time with various levels of integrity, which could create inconsistencies and inefficiency.

The Department does not propose any changes to liability, treatment of emissions-intensive trade-exposed (EITE) industries or operation of the Small-scale Renewable Energy Scheme (SRES) under the RET scheme. The focus of the new mechanism is on extending renewable electricity certificate creation for voluntary purposes.

2.2 Interactions with existing accounting schemes

Renewable electricity certificates are used widely in market-based electricity and carbon accounting methodologies to recognise the use of renewable electricity and its zero emissions attribute. The certificate mechanism proposed in this paper would create a new instrument that could be used in both domestic and international market-based accounting approaches.

Accounting schemes are varied with several used by organisations in Australia (Table 1). The aim of the proposed certificate mechanism would not be to introduce another accounting framework, but to create an instrument for use in existing accounting frameworks. It would be up to the rule-makers of existing schemes to decide whether or not to incorporate the new certificate within their frameworks.

Schemes that use only location-based carbon accounting methodologies, like Australia's mandated National Greenhouse and Energy Reporting scheme (NGERs), generally do not recognise renewable electricity certificates, and so would not be impacted by the proposed mechanism. There are plans to extend NGERs to include a voluntary, market-based methodology, but this is still at the design phase and would be provided as a supplementary method to the existing location-based method.

Table 1: Schemes with market-based electricity accounting frameworks.

Scheme	Rule-maker
Climate Active	Australian Government
GreenPower	NSW Government on behalf of the National GreenPower Steering Group
NABERS	NSW Government on behalf of federal, state and territory governments
Corporate Emissions Reduction Transparency report	Clean Energy Regulator
RE100	Climate Group in partnership with CDP (both non-profit organisations)
TCFD framework	Task Force on Climate-Related Financial Disclosures (TCFD) established by the international Financial Stability Board

3. Purpose and principles

This paper proposes a new renewable electricity certificate mechanism as part of the Guarantee of Origin scheme for use as an input to the certification of hydrogen and other products, and for consumers across the economy seeking to make credible renewable electricity claims.

3.1 Objective

The objective of introducing a new renewable electricity certificate framework is to provide an enduring mechanism for the tracking, verification and trade of all renewable electricity generation in Australia.

This certificate mechanism would act as an enabler in Australia’s energy transformation by supporting organisations across the economy choosing to use renewable electricity and reduce emissions. It would build on the effective, well-understood and highly-regarded certification framework provided under the RET scheme to create a new form of renewable electricity certificate - a Renewable Electricity Guarantee of Origin (REGO) - that is fit-for-purpose for growing voluntary uses, including potential export of renewable electricity.

The mechanism could be used to support renewable electricity claims for low emissions hydrogen and other products under the proposed Guarantee of Origin scheme, and support claims under other voluntary carbon and energy accounting schemes such as Climate Active, GreenPower and the Corporate Emissions Reduction Transparency report. Separate to those schemes, it could also be used by organisations wanting to demonstrate their progress towards renewable energy and emission reduction targets to investors, customers and the community (Figure 2).

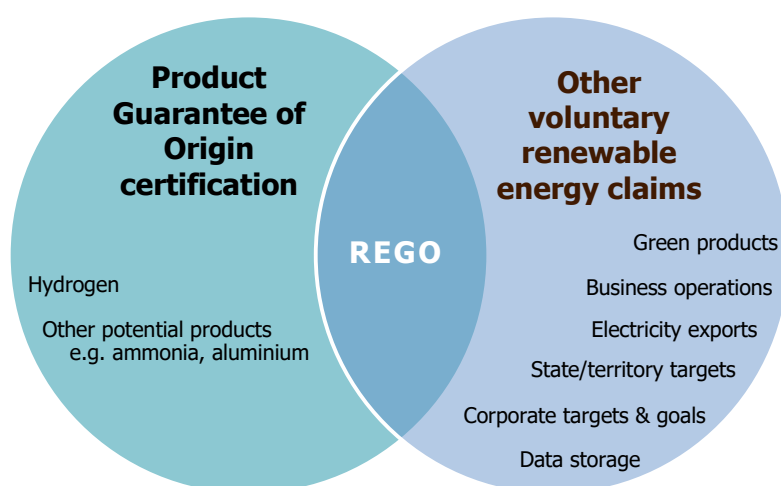


Figure 2: Existing and potential applications of renewable electricity guarantees of origin (REGO).

3.2 Role for the Australian Government

The Australian Government has experience in renewable energy certification dating from the commencement of the RET in 2001. The scheme provides a robust framework for the creation, verification and trade of renewable electricity certificates. The Clean Energy Regulator administers the scheme by applying legislated rules to accredit renewable power stations and issue renewable

electricity certificates. This has led to credibility, transparency and confidence in Australia's renewable energy certificate market.

Stakeholder feedback to date suggests a strong preference for the continuation of an Australian Government-led and administered certificate mechanism that leverages the strengths and relevant design components of the RET scheme.

Legislating the mechanism would support strong governance arrangements and allow for the Clean Energy Regulator to make use of the systems already in place.

Participants in the LGC market are familiar with the RET framework and appreciate having a centralised and nationally consistent certificate registry and creation framework. Having one national framework would reduce the risk of a single unit of renewable electricity being certified by multiple schemes, and avoid other complexities related to having multiple certificate mechanisms concurrently operating in the market.

4. Design

The new REGO certificate would be based on the existing RET architecture, including aspects of the certification framework that are well understood, proven, robust and practical. Like an LGC, a REGO would be a tradeable certificate representing 1 megawatt-hour (MWh) of eligible renewable electricity generation.

The method for calculating generation reflected by a REGO would be the same method that applies in the creation of LGCs. The LGC method incorporates marginal loss factors (to capture energy losses due to electricity transmission) and takes account of auxiliary losses from onsite use of generation. REGOs would therefore represent net generation.

REGOs could be created by electricity generators or storage providers and sold to electricity consumers or other organisations involved in the certificate market (Figure 3). REGOs could be traded between renewable electricity generators and other entities in private commercial arrangements, or sold openly on the spot market, either bundled with or independent of the electricity generated and sold. A REGO could be surrendered in the registry administered by the Clean Energy Regulator to support voluntary renewable electricity claims or to feed into the creation of a Guarantee of Origin certificate for a product, such as hydrogen, under the proposed Guarantee of Origin scheme.

An enduring renewable certificate mechanism would be fit-for-purpose for various voluntary uses in the lead up to, and beyond, the RET sunsetting in 2030.

Policy position proposal 1: The Department proposes to develop and implement an enduring tradeable renewable electricity certificate mechanism administered by the Clean Energy Regulator.

While there are other options for tracking and verifying renewable electricity, such as a ledger system that verifies contractual arrangements between electricity suppliers and consumers, a tradeable certificate mechanism is the most simple, flexible, traceable and economically efficient option. A tradeable mechanism has proven to be popular and effective, with growing voluntary participation in the LGC market in Australia. Tradeable renewable energy certificates are also

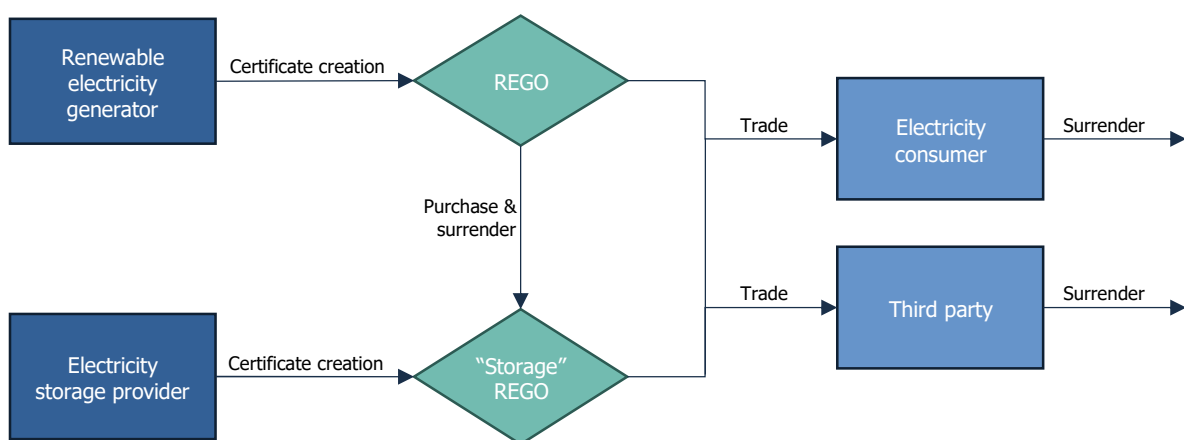


Figure 3: Overview of the creation, trade and surrender of REGO certificates.

common in markets around the world. A tradeable mechanism would also allow other market-based certification and greenhouse gas accounting schemes to use REGOs.

REGOs would be able to be decoupled from and sold independently of the actual electricity. For further information on how REGO certificates fit into the proposed Guarantee of Origin scheme see Section 2 of the Guarantee of Origin paper.

4.1 Eligibility

The Department proposes that a new renewable electricity certificate mechanism has broad eligibility, allowing renewable electricity generators operating in Australia to create REGOs.

This would allow renewable generators unable to create LGCs under the RET to certify their renewable electricity generation.

It would also allow generators eligible under the RET a choice over whether to create LGCs or REGOs out to 2030. An individual power station would be able to create certificates using both the LGC and REGO frameworks, but to avoid duplication they would only be able to create either an LGC or a REGO (not both) for any given MWh of generation. The Clean Energy Regulator would ensure that a power station had not created an LGCs and REGO for the same 1 MWh of generation through a verification process.

Broad eligibility for certificate creation would support consumers who are seeking certificates from new renewable energy power stations in order to support new investment, while also providing an efficient option for consumers seeking to make a renewable electricity claim by accessing certificates from existing generators. This is intended as a flexible approach to allow the market to support investment in renewables and support development of new industries such as hydrogen, or new low emissions products such as green steel or aluminium.

Broad eligibility would also allow other schemes in the market, including government programs such as Climate Active, GreenPower and NSW's proposed Renewable Fuels Scheme, and non-government schemes, to overlay their own stricter eligibility criteria.

To avoid double counting of the same volume of electricity, generation that had created LGCs would not be eligible to create REGOs. Similarly, any volume of electricity generation that had been issued with certificates under another scheme, such as I-RECs, would not be eligible to create REGOs. Systems that have created STCs under the RET would only be eligible to create REGOs once the maximum deeming period for which certificates were created (from date of installation), as set out in Section 19D of the *Renewable Energy (Electricity) Regulations 2001*, had passed.

Policy position proposal 2: The Department proposes to allow renewable electricity generation to create REGOs where that generation has not already created LGCs, STCs (unless the certificate creation period has passed) or other certificates.

Renewable energy sources

The Department proposes to use the eligible renewable energy sources defined under Section 17 of the *Renewable Energy (Electricity) Act 2000* to define what types of renewable energy generation are eligible to create certificates. This would allow for a broad range of renewable energy sources to be included in the mechanism and ensure consistency with the RET scheme while it is still in place. The Government has recently conducted a public consultation on issues related to the eligibility of

native forest wood waste under the RET.² Outcomes from that consultation will be reflected in the design of this scheme.

Consideration could be given to expanding the eligible renewable energy sources to include secondary energy sources derived from renewable energy, such as renewable hydrogen used as a fuel to generate electricity. This is not proposed, but the Department is keen to receive stakeholder feedback. For clarity, other forms of electricity generation from non-renewable sources are out of scope and not for consideration.

Policy position proposal 3: The Department proposes to allow eligible renewable energy sources as defined under the *Renewable Energy (Electricity) Act 2000* to create REGOs.

Storage

In addition to renewable generation facilities being eligible, the Department proposes that energy storage facilities would be eligible to create certificates. In order to create REGOs for electricity that is dispatched, a storage facility would be required to demonstrate that the electricity that was imported and stored came from a renewable electricity generator. This could be done by purchasing REGOs or LGCs from a generator and surrendering them to the Clean Energy Regulator, and then creating new REGOs for the volume of electricity dispatched. This could provide an additional revenue stream for storage facilities.

It is proposed that there would be no size limit on storage facilities seeking to create REGOs. However, consideration would need to be given to how storage facilities and power stations create REGOs when there is combined storage and generation capability behind the meter.

Policy position proposal 4: The Department proposes to allow storage facilities to create REGOs for electricity dispatched if they demonstrate that the stored energy came from eligible renewable electricity generation by first surrendering an appropriate REGO or LGC.

Offshore generation and generation for export

Renewable electricity generators located offshore are eligible to create LGCs if they are located within Australian territories and the electricity is supplied for domestic use. This includes both coastal waters of states and territories and the territorial sea of Australia. The Department proposes that any offshore electricity projects already eligible to create LGCs could be eligible to create REGOs instead.

The *Offshore Energy Infrastructure Act 2021* regulates offshore renewable energy infrastructure in Australian Commonwealth waters which start 3 nautical miles from the coastline and extend to the outer boundary of Australia's exclusive economic zone. Any offshore electricity generation projects located in areas covered by the *Offshore Energy Infrastructure Act 2021* would be eligible to create REGOs. This would provide an additional revenue stream for offshore energy projects, such as offshore wind supplying Australian customers, and complement the regulatory arrangements that have been established.

Electricity that is generated in Australia but exported overseas is not eligible to create LGCs. While there is currently no transmission of electricity across Australia's international borders, the

² DISR, [Native forest biomass in the Renewable Energy Target: consultation paper](#), Consultation hub, accessed 27 October 2022.

Department proposes that an electricity generator located in Australia that exports electricity overseas to be able to create REGOs. This would ensure that international export projects, such as Sun Cable's proposed Australia-Asia PowerLink project, would be eligible to create certificates and participate in domestic and international certificate markets where appropriate. Enabling REGOs for exported renewable electricity would contribute to facilitating cross-border electricity trade and meet commitments made through initiatives such as the Singapore-Australia Green Economy Agreement.

Policy position proposal 5: The Department proposes that electricity generated by offshore renewable energy power stations and storage facilities located within coastal waters of states and territories, the territorial sea of Australia, and Australia's Exclusive Economic Zone, and electricity that is exported internationally, be eligible to create REGOs.

Below-baseline generation

It is proposed that all electricity generation from an eligible renewable energy generator would be able to create certificates regardless of the age of the generator. This means that, unlike under the RET, there would be no baselining of generation from renewable power plants, including those in operation prior to 1997.

Other alternatives could be considered, including to apply the existing RET baselines or establish a new baseline level of generation for existing generators to limit the ability to create REGOs to only the generation that exceeds that baseline. However, such an approach would limit the available supply of REGOs, which could increase costs for consumers in the voluntary market.

The impacts of introducing below-baseline certification through the REGO mechanism while the RET is in place would depend on the trajectory of voluntary demand and how the LGC and REGO markets interacted. Allowing below-baseline generation to create and sell certificates would increase certificate supply.

I-RECs (certificates created in accordance with an internationally recognised, industry-led standard) have already entered the Australian market and are being issued for some below-baseline generation, though use is limited by the extent to which they are recognised. I-RECs are unable to be used in government accounting schemes in Australia.

Allowing below-baseline generation to create REGOs would ensure that consumers of renewable electricity have access to certificates at lowest cost, and allow hydro generation to support the growth of low emissions industries including hydrogen. This broad eligibility criterion would allow for differentiation in the certificate market, with certificates for generation from newer power plants potentially attracting a premium, thereby incentivising new investment.

Policy position proposal 6: The Department proposes to allow all renewable electricity generation to create REGOs regardless of power station age.

Size threshold

The Department proposes that generation of any capacity be eligible to create REGOs. This would include small-scale systems, except where the generator had created STCs and the maximum deeming period had not ended, and large-scale power stations, except generation that had already received LGCs under the RET. However, the Department is keen to explore this position further and is seeking feedback from stakeholders to better understand the impacts of this design choice.

Not implementing a size threshold could provide opportunities for third-parties and owners of multiple small-scale systems to aggregate the generation from multiple small-scale systems, create certificates and participate in the REGO market. However, it is expected that most owners of small-scale generators would find it cost prohibitive to participate in this scheme and prefer to create certificates upfront, so would choose to create STCs while still available.

Policy position proposal 7: The Department proposes to allow all renewable electricity generation to create REGOs regardless of power station or storage facility capacity.

4.2 Energy Attributes

Under the RET scheme, LGCs include the following publicly visible information and energy attributes:

- Certificate serial number
- Fuel source for electricity generation
- Electricity generation year
- State/territory of electricity generation
- Certificate creation date
- Current owner of certificate
- Current status of certificate
- Creator of the certificate
- Power station accreditation code

The Department proposes that the above information be captured on REGOs and be publicly visible. In the case of the fuel source attribute for storage facilities, storage technology type would be included instead.

The Department also proposes that the additional energy attributes, discussed below, be required to be included on REGOs and be publicly visible to provide more granular information on the grid location and time of generation and the age of the facility (Figure 5). This would allow renewable electricity consumers to purchase certificates that meet specific requirements. For example, some buyers might be interested in time or location matching their consumption with generation, or want to purchase electricity from new power stations to support additional renewable generation investment. In this way the REGO market would be flexible, transparent and allow for consumer choice. Additional attributes would also help to differentiate certificate products in the market, allowing some generators to charge a premium, with other products providing a lower cost option for consumers.

Policy position proposal 8: The Department proposes to require REGOs include all the information currently displayed on LGCs, and that this information be publicly visible.

The Department also proposes to provide for LGCs to include some or all of the additional energy attributes discussed below on a voluntary basis. This would help power stations creating both LGCs and REGOs to have a consistent approach and create greater transparency for voluntary LGC buyers.

Policy position proposal 9: The Department proposes to allow RET participants to choose to include on LGCs some or all of the additional information required on REGOs.

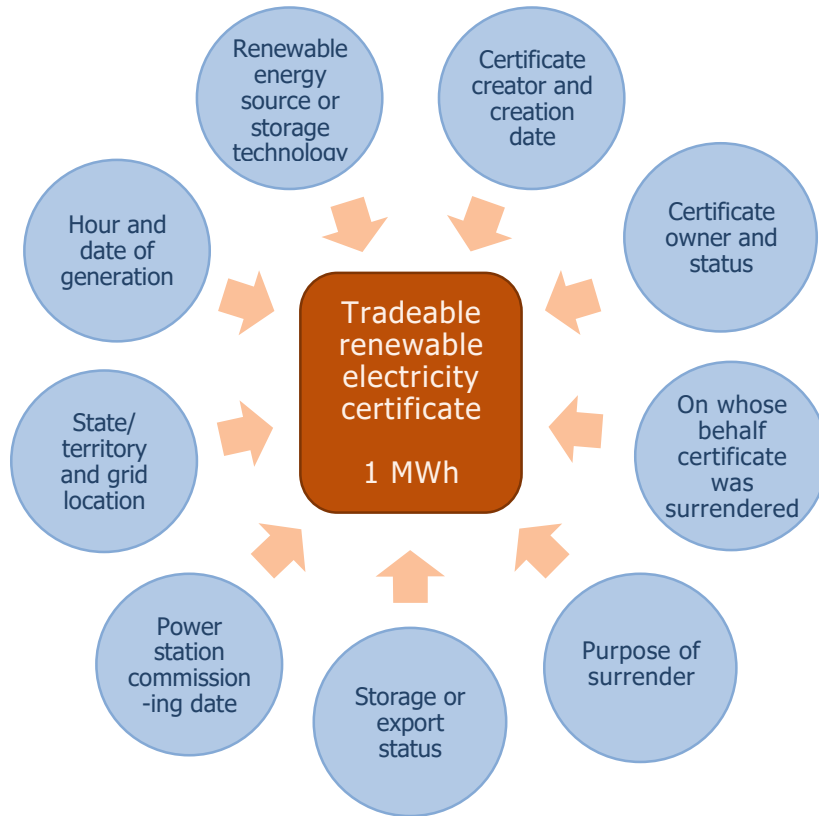


Figure 4: Proposed information required on REGOs.

Power station age

Many buyers of renewable electricity are interested in driving investment in renewable energy generation that results in further emissions reduction. Others are solely focused on the renewable energy attributes of the electricity and accessing low cost renewable energy to support industry development and competitiveness. Voluntary schemes have their own definition of additionality and REGOs could be used to meet those requirements.

To support consumers seeking to encourage investment in new renewable generation, the Department proposes that an energy attribute capturing the 'newness' or age of the power station be required to be reported on a REGO. The commissioning date is proposed to provide this measure.

Policy position proposal 10: The Department proposes to require REGOs include the commissioning date of the power station or storage facility creating the certificates.

Location of generation

Some consumers are interested in purchasing renewable electricity generated within the same electricity network as their consumption. In order to facilitate such purchase decisions, the Department proposes to require an energy attribute capturing the grid in which the electricity was generated, for example, "National Electricity Market", "South West Interconnected System", "North West Interconnected System", "Darwin Katherine Interconnected System" or "other/micro-grid". This would give buyers additional information on where the generation took place, helping them to match the grid location of generation with their consumption.

Policy position proposal 11: The Department proposes to require REGOs to include the grid location of the power station or storage facility creating the certificates.

Time of generation

Some electricity consumers wish to demonstrate that they are consuming renewable electricity at the same time as when the electricity was produced by a generator or dispatched by a storage facility. The Department proposes that a time-stamp reflecting the time and date of generation be required on REGOs at an hourly interval. This would provide a more granular price signal to the market, allow for more accurate energy and carbon accounting, and assist organisations wanting to pursue 24/7 renewable electricity procurement and decarbonisation strategies.

Time-stamping could help to incentivise investment in storage and flexible demand-side technologies, which in turn could contribute to maintaining power grid capacity and reliability as renewable generation penetration increases. Electricity grid decarbonisation will be faster if Australia incentivises projects that support 24/7 renewable energy. At the moment demand for time matching of renewable energy consumption is limited, with leading companies in the data sector having made commitments to hourly matching of consumption. However, others might want to follow these leading companies with time matching in the future.

There is potential value in providing this temporal information to the market. Even if there is limited interest in more granular time matching at this time, the extra information provides opportunity to support ambitious action and standards. Other schemes could build on this feature. It would be up to consumers to decide to what extent they wish to time match, if at all.

The majority of renewable generators already provide high resolution time and generation data to the Clean Energy Regulator under the RET scheme so data accessibility and provision should not be an issue for most renewable generators. For smaller generators and aggregators, providing this data may be challenging.

Many smaller power stations also generate less than 1 MWh within a one hour period, and so the Department proposes that only facilities over 1 MW in capacity would be required to timestamp certificates. As noted above, generation from multiple small-scale power stations could be aggregated to create REGOs and the total aggregate capacity would determine whether or not the certificates need to be timestamped.

For those generating a partial MWh within a one hour period, generation could be carried over to the next one hour period. Aggregation across several time periods might be required, with the electricity being allocated to the final hour of generation.

Policy position proposal 12: The Department proposes that REGOs created by power stations and storage facilities over 1 MW in capacity be required to include a timestamp reflecting the hour in which the electricity was dispatched by the power station or storage facility.

International export and storage

The Department proposes that REGOs for electricity sent overseas include an 'export' stamp. When, during the lifecycle of a REGO, this is included on the certificate would need to be considered.

Similarly, electricity certificates created by a electricity storage facility would need to have a 'storage' stamp, while electricity certificates created by renewable generation with or without

behind the meter storage would have no storage stamp. The storage stamp would be included on a REGO at the point of creation.

These additional attributes would provide transparency to the market and assist the Clean Energy Regulator in verifying certificate information and ensuring scheme integrity.

Policy position proposal 13: The Department proposes to require REGOs to include information indicating whether the certificate was created for generation exported overseas, or for electricity dispatched from a storage facility.

4.3 Surrender

Participation in the Guarantee of Origin scheme, including the creation and use of REGOs, would be voluntary. REGOs could be surrendered to the Clean Energy Regulator to verify a claim against an equivalent volume of electricity. Once surrendered, a REGO would be cancelled so it cannot be used by others. A surrendered REGO could be consumed as an input to a product Guarantee of Origin (GO) certificate as discussed in Section 2.2 of the Guarantee of Origin paper.

The Department proposes no restrictions on when REGOs could be surrendered to the Clean Energy Regulator. This means that the owner would be able to surrender regardless of certificate age (vintage) or energy attributes. This provides flexibility in the market and minimises administrative burden. Other government and non-government schemes may choose to implement their own eligibility requirements in relation to certificate vintage or other energy attributes.

Policy position proposal 14: The Department proposes that anyone may surrender a REGO at any time, including for the purpose of creating a product Guarantee of Origin certificate.

Energy attribute matching

Consumers may be interested in surrendering certificates with energy attributes that are matched to their actual electricity consumption. This could include matching the time of generation with time of use, or ensuring that the power station is grid connected to the facility that is making renewable electricity claims.

The Department is not proposing any mandatory requirements for energy attribute matching, however the registry is proposed to provide the necessary functionality to support it. More information is in Section 4.3 of the Guarantee of Origin paper.

The Department proposes the Clean Energy Regulator would develop systems and processes to support attribute matching of renewable electricity claims more broadly over time, and a standardised approach for this. As it may take some time for the CER to develop systems and processes, these may not be available until after the scheme commences.

Options could include the Clean Energy Regulator validating or enabling the matching of energy attribute conditions across facilities or organisational boundaries, or enabling third party platforms or applications to support consumers who wish to time match. The Department is keen to hear stakeholder views on the optimal role for Government in supporting time and other attribute matching.

Policy position proposal 15: The Department proposes that the Clean Energy Regulator develop systems and processes to facilitate the voluntary matching of certificates based on time or other energy attributes.

Proxy surrenders

Some organisations may employ a third party to purchase and surrender certificates on their behalf. The Department proposes that the owner and surrenderer of the certificate provide an additional data point explaining on behalf of whom they are surrendering the REGO. This would not be required where the surrenderer is making one transaction on behalf of many organisations, for example retailers surrendering certificates on behalf of their GreenPower customers.

Currently LGCs include the name of the third party, but not the organisation wanting to claim the renewable electricity certificate surrender, which restricts transparency in the market. Providing this information would increase transparency by allowing any organisation's renewable energy claims to be checked against information held in the public registry.

Policy position proposal 16: The Department proposes to require REGOs to include the name of the person or organisation on whose behalf the REGO is being surrendered, where applicable and if the surrender is being made on behalf of many organisations.

Surrender purpose

The Department proposes that those surrendering certificates provide information on the purpose of certificate surrender. The purpose could include product GO creation, GreenPower accreditation, Climate Active accreditation and/or meeting organisational renewable energy goals. This information would be publicly visible in the certificate registry, increasing transparency in the market and assisting the Clean Energy Regulator in verifying certificates, managing certificate surrenders and ensuring scheme integrity. This requirement is consistent with that for Product GOs under the broader proposed GO scheme (see Section 2.3 of the Guarantee of Origin paper).

Policy position proposal 17: The Department proposes that additional information capturing the purpose of the REGO surrender be required to be provided when a person or organisation surrenders a REGO, and be publicly visible.

5. Implementation

A new renewable electricity certificate mechanism would be implemented through Guarantee of Origin legislation. This means that two pieces of Australian Government legislation enabling renewable electricity certificates would exist concurrently until the RET sunsets in 2030. Once the RET scheme ends, the new REGO mechanism would provide ongoing renewable electricity certification. Consequential amendments to the RET legislation would be needed to reflect the different certificate mechanisms and provide clarity on the specific eligibility and different purposes for each mechanism.

5.1 Legislated frameworks and administration

The accreditation and certificate frameworks in place under the RET would form the basis for, and help shape, implementation of renewable electricity certification under the proposed Guarantee of Origin legislation.

Accreditation of eligible renewable energy power stations under the RET provides a robust framework for determining eligible generation and ongoing creation of certificates. Features of this accreditation framework would be replicated to facilitate REGO creation.

The Clean Energy Regulator would draw on its experience with administering the RET scheme and issuing LGCs, STCs and ACCUs to provide a platform for the creation of REGOs and operation of the Guarantee of Origin scheme more broadly. The Clean Energy Regulator is well-placed to provide this function given it aligns with its existing roles in administering renewable energy certificates and supporting voluntary markets.

The architecture that supports the existing renewable energy certificate registry could be applied to a system that is developed to issue and accept surrendered REGOs. The Clean Energy Regulator would be able to verify generation using available data, such as AEMO settlement data.

Participation in the Guarantee of Origin scheme and eligibility to create REGOs would involve a registration process, similar to that for power stations under the RET scheme and other facilities in the proposed GO scheme. Details of this process can be found in Section 2.3 of the Guarantee of Origin paper.

Facilities would be able to be registered and accredited under the GO scheme and the RET scheme simultaneously, which would allow them to participate in both the LGC and REGO markets. Electricity consumers making renewable electricity claims would have the option to register as part of the GO scheme. Registration would be relatively simple and include providing contact details and basic identity verification. Once registered, any REGO claims could be linked to the consumer's profile, enabling traceability of certificates and encouraging transparency in the market.

The Guarantee of Origin paper contains more details on the implementation of GO certificate creation, transfer and other arrangements.

In accordance with the Australian Government's cost recovery guidelines, it is envisaged that there would be fees attached to the operation of the GO scheme, including the creation and surrender of REGOs. Cost recovery involves charging participants for the efficient costs of Government providing certain goods, services and/or regulation. The extent of such charges would depend on the final policy outcomes.

5.2 Implications for the RET and other schemes

While some amendments would need to be made to the RET scheme legislation, particularly to clarify the roles of LGCs and REGOs, the operation of the RET scheme would remain unchanged. There would be no changes to obligations under the RET scheme. Liable entities would continue to be required to surrender LGCs and STCs annually.

There would be no changes to eligibility criteria for LGC creation. Power stations accredited under the RET scheme would also be eligible to be accredited under this new scheme. Accredited generators would be able to create LGCs or REGOs and could switch between those at any time. However, each megawatt-hour of eligible electricity generation would only be able to be represented by either an LGC or a REGO, and not both.

There is potential for other schemes to provide certification of renewable electricity that would be out of scope for the Australian Government scheme, such as I-RECs. Given the intention is that one MWh is represented by only one certificate, consideration would need to be given to how the Clean Energy Regulator could prevent creation of REGOs (and LGCs) where an I-REC or other certificate had been created for the same unit of electricity. The legislation implementing the scheme would need to be designed to prevent entities from creating multiple certificates for the same MWh of electricity. To some extent, time stamping would be able to help with this. It would also be up to the other voluntary schemes in which the certificate was used to monitor what is being claimed to prevent double counting.

Amendments would be required to enable LGC suppliers to provide the same energy attribute information that will be required on REGOs should they wish.

Consequential amendments may be needed to adjust the rules governing other schemes, including to avoid double counting or recognise or exclude REGOs where LGCs are already recognised or excluded, such as under the Carbon Farming Initiative rule under the Emission Reduction Fund scheme.