



SGU Owners Guide

RET PROCESS FOR OWNERS OF SMALL GENERATION UNITS (SGUs) small-scale solar photovoltaic panels, wind and hydro electricity systems

In this fact sheet:

- Options for gaining financial benefits from your RECs
- RECs defined
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Options for gaining financial benefits from your RECs

The Renewable Energy Target (RET) scheme does not provide a rebate or feed-in tariff. The purchase of an SGU (small-scale solar photovoltaic panel, wind or hydro electricity system) may entitle you to renewable energy certificates (RECs) if your SGU is eligible. These certificates can then be sold and transferred to liable parties on a market based online system called the REC Registry.

For more information about RET visit – [RET- the basics](#)

For more information about rebates and feed-in tariffs for SGUs contact your State Government or agent/retailer/installer.



You must be the owner of the system at the time it is installed to be entitled to assign RECs to an agent or create RECs in the REC Registry. In some circumstances where the SGUs are installed in new buildings, this can be the builder or property developer.

There are two options for reimbursement of your RECs under the RET scheme:

OPTION 1 - AGENT ASSISTED

Find an agent and assign your RECs to the agent in exchange for a financial benefit which could be in the form of a delayed cash payment or upfront discount on your SGU. A majority of owners take this option.

OPTION 2 – INDIVIDUAL TRADING

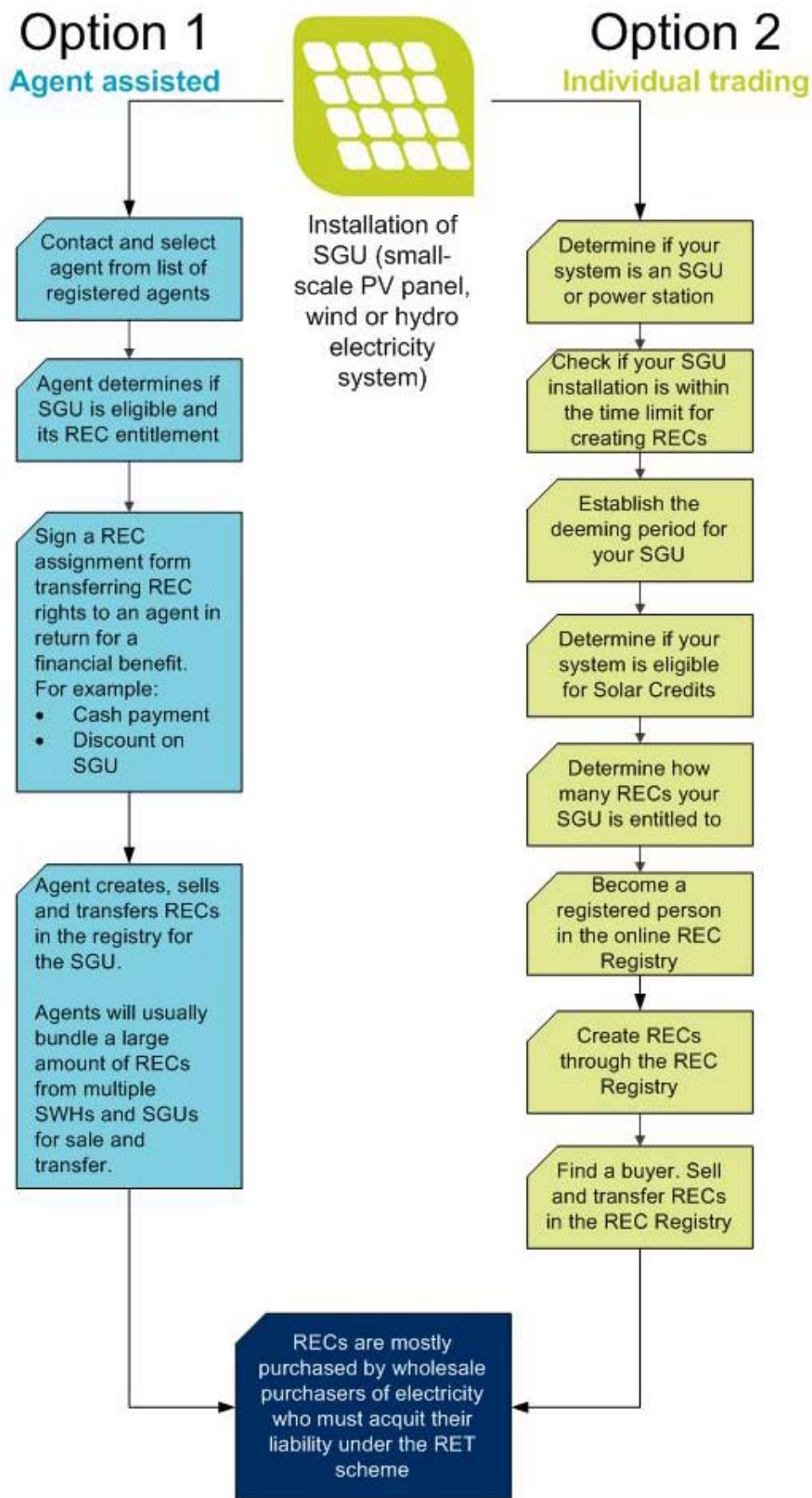
Create the RECs yourself. Find a buyer then sell and transfer RECs in the REC Registry.

RECs defined

A renewable energy certificate (REC) is a commodity in the REC market. RECs are created by eligible parties and sold to liable parties via the REC Registry to meet their liability under the RET.



SGU process – Options for gaining financial benefits from your RECs





Installation advice

Systems must be installed before they can create RECs.

Under the Act, small-scale solar photovoltaic panels that choose to create RECs for a 15 year deeming period must be installed by a Clean Energy Council (CEC) accredited installer. CEC accredited installers are required to demonstrate conformance with Australian Standards and industry guidelines. The accredited installer is also required to ensure that the SGU/PV system meets product certification to Australian and International Standards.

For installations of all SGU systems it is advised that owners request a copy of the installer's certification, issued by a suitable authority. There may also be further State Government requirements for installations. i.e. Certificate of Compliance and/or installation report. For further information please contact your relevant state authority.

If your system has not been installed and you have already assigned your RECs to an agent by signing a REC Assignment Form contact the ORER compliance team by emailing compliance@orer.gov.au

GAINING FINANCIAL BENEFITS FROM YOUR RECS: OPTION 1

Agent Assisted

A majority of owners of SGUs find it convenient to assign their rights to create RECs to a registered agent at the time the SGU is installed in exchange for a financial benefit. RECs are assigned when the owner completes a REC Assignment Form. A registered agent will:

- Determine whether your SGU is eligible for the RET
- Determine for you how many RECs your SGU is entitled to under the RET scheme.
- Offer a financial benefit to you. This may be in the form of a cash payment or discount on your SGU.

If you would like to determine the approximate number of RECs that your system could receive under the RET the REC Registry contains a Small Generation Unit REC Calculator.

Visit – [Small Generation Unit REC Calculator](#)

It is important to note that agents list different prices and payment processes for RECs. After buying the RECs from you the agent will register your RECs and usually bundle them with other small generation unit and solar water heater RECs for sale and transfer in the REC Registry.



The ORER recommends that SGU owners contact a range of agents before entering into any contractual agreement.

Visit – [List of registered agents](#)

Before assigning your right to create RECs to the agent through a REC Assignment Form:

- Make sure the system is installed. RECs cannot be assigned prior to installation.
- Make sure you are satisfied with the financial benefit and the date of payment the agent is offering for your RECs.
- Check that details are recorded in writing through a REC Assignment Form that should be provided by your agent.





If you experience a delay in receiving payment for your RECs contact the agent you have agreed to sell them to.

Solar Credits

If your system is installed on or after **9 June 2009** it may be eligible for additional RECs under Solar Credits. The multiplication for additional RECs under Solar Credits is as follows.

Installation Period	Multiplication
9 June 2009 – 30 June 2010	5 x
1 July 2010 – 30 June 2011	5 x
1 July 2011 – 30 June 2012	5 x
1 July 2012 – 30 June 2013	4 x
1 July 2013 – 30 June 2014	3 x
1 July 2014 – 30 June 2015	2 x

Your agent should factor this multiplication into your REC calculation and resulting financial benefit. Your agent will determine the eligibility of your system but if you wish to understand the eligibility criteria for Solar Credits see **Option 2: Individual Trading/Step 4: Determine if your system is eligible for Solar Credits.**

Installing additional capacity

If you wish to install additional capacity to an existing system it may be entitled to RECs. Additional capacity is not entitled to the REC multiplier through Solar Credits. To determine the number of RECs the additional capacity may be entitled to insert the rated power output (in kW) for the additional capacity into the Small Generation Unit REC Calculator. Note the number of RECs without Solar Credits in the results.

Visit – [Small Generation Unit REC Calculator](#)



ORER does not set the price of RECs nor does it get involved in disputes between buyers and sellers. Payment for RECs or the rights to create RECs is a contractual matter between the buyer and seller.





GAINING FINANCIAL BENEFITS FROM YOUR RECS – OPTION 2

Individual Trading



As this process is relatively complex a majority of owners assign their RECs to an agent. For information on how to engage an agent see – **Option 1: Agent Assisted**

Step 1: Determine if your system is an SGU or power station

Compare your system’s kW capacity against the following criteria to determine if your system is an SGU or power station:

System type	System capacity and annual electricity output	Installation periods
Small wind turbines	No more than 10 kW and a total annual electricity output less than 25 MWh	On or after 1 April 2001
Solar (photovoltaic) systems	No more than 100 kW and a total annual electricity output less than 250 MWh	On or after 14 November 2005
Solar (photovoltaic) systems	No more than 10 kW and a total annual electricity output less than 25 MWh	Between 1 April 2001 and 13 November 2005
Hydroelectric systems	No more than 6.4 kW and a total annual electricity output less than 25 MWh	On or after 1 April 2001

If the kW rating or MWh generation for a SGU is above the respective thresholds or if the unit was installed prior to 1 April 2001, it is not eligible to have RECs created for it as a SGU. However, it may be eligible for accreditation as a renewable energy power station.

Upon installation of a small hydro, small wind or small solar (photovoltaic) system with a capacity of less than the prescribed threshold for a small generation unit RECs may be created under the legislation as if the system were a small generation unit.

Any subsequent installation of additional capacity with the effect that the total capacity of the system exceeds the prescribed threshold of capacity for a small generation unit, will mean the system is no longer a small generation unit. The operator of the system may apply for accreditation of the system as a power station and if the system satisfies the requirements for accreditation then the Regulator will accredit it.

However, RECs may not be created for electricity generated by that part of the power station that was the ‘small generation unit’ as originally installed, and for which RECs were created. The nominated person for the power station will need to determine what proportion of electricity generated by the whole power station was generated by the ‘old’ small generation unit and deduct that electricity from the total electricity generated by the power station. The nominated person will then only be able to create RECs for that portion of electricity generated by the ‘extended’ part of the power station.

Information on the power station accreditation process is available on the [power stations page](#) of the ORER website. If your system meets the above eligibility criteria **go to Step 2.**





Step 2: Check if your SGU installation is within the time limit for creating RECs

Time limits for the creation of RECs for SGUs may apply depending on their installation date and SGU type. If the installation date and REC creation time limit for your SGU falls outside of the following thresholds your system is not eligible to create RECs.

SGU installation date	Deeming period	SGU type	REC creation time limit
On or before 6 October 2007	1 or 5 years	Wind, solar (photovoltaic), hydro	Anytime after installation
On or after 6 October 2007	First deeming period (1 or 5 years)	Wind, hydro	Within 12 months of the installation date
On or after 6 October 2007	First deeming period (1, 5 or 15 years)	Solar (photovoltaic)	Within 12 months of the installation date

Step 3: Establish the deeming period for your SGU

If your SGU meets the eligibility requirements you can establish the deeming period for your SGU. RECs may be created for SGUs in batches, for either 1, 5 or 15 year deeming periods, depending on the particular installation. At the beginning of each subsequent deeming period, the Regulator must be satisfied that the SGU is still installed and is likely to remain functional for the next deeming period. The ORER may request evidence to support this claim.

RECs may be created for **wind** and **hydro** SGUs either:

- annually; or
- on installation for the first 5 years after the installation (the deeming period) and then at the start of each subsequent 5 year deeming period.

RECs may be created for **solar (photovoltaic)** SGUs either:

- annually; or
- on installation for the first 5 years after installation (the deeming period) and then at the start of each subsequent 5 year deeming period; or
- on installation for 15 years (the deeming period) - no further RECs may be created. Special eligibility requirements are associated with the 15-year deeming option. The system needs to be designed and installed by an accredited Clean Energy Council installer for stand-alone and grid-connected power systems.





Step 4: Determine if your system is eligible for Solar Credits

Solar Credits is a mechanism under the expanded RET which multiplies the number of RECs able to be created for eligible installations of SGUs.

There is not means testing for Solar Credits under the legislation.

Solar credits will apply to the first 1.5 kilowatts (kW) of capacity installed. Generation from capacity above 1.5 kW will still be eligible for the standard 1:1 rate of REC creation.

Eligibility requirements are as follows:

- the small generation unit in respect of which the certificates are created is installed at eligible premises between 9 June 2009 and 30 June 2015.
- at the time the small generation unit is installed at the eligible premises, there is no pre-approval or funding agreement in force in respect of the unit under the Solar Homes and Communities Plan (SHCP), the Renewable Remote Power Generation (RRPGP), or the National Solar Schools Program (NSSP) and no financial assistance has been provided in respect of the unit under the SHCP, the RRPGP or the NSSP.
- at the time the small generation unit is installed at the eligible premises, financial assistance under the SHCP, the Photovoltaic Rebate Programme (PVRP), the RRPGP or the NSSP has not been approved or provided in respect of any other small generation unit at the eligible premises
- the small generation unit is a new and complete unit. A system is a complete unit if:
 - the unit is capable of generating electricity in a form that is usable at the eligible premises where it is installed without the need for an additional part or parts to be added to or incorporated into the unit.
 - the unit is wired directly to the eligible premises where the unit is installed so that its output is capable of being metered at the premises or the unit includes a meter that is dedicated to measuring the electricity output of the unit.
- at the time the small generation unit is installed at eligible premises, certificates have not been multiplied in respect of any small generation unit at the premises and:
 - on one occasion only, irrespective of whether the certificates are created for a 1-year, 5-year or 15-year period; and
 - only if the certificates relate to the first 1.5 kW of the rated power output of the unit.

The multiplication for additional RECs under Solar Credits is as follows. REC calculation is detailed on page 10.

Installation Period	Multiplication
9 June 2009 – 30 June 2010	5 x
1 July 2010 – 30 June 2011	5 x
1 July 2011 – 30 June 2012	5 x
1 July 2012 – 30 June 2013	4 x
1 July 2013 – 30 June 2014	3 x
1 July 2014 – 30 June 2015	2 x





Definition of an eligible premises

Regulation 20AA covers the circumstances in which Solar Credits can be claimed. Solar Credits can only be claimed for one small generation unit installed at each 'eligible premises'.

'Eligible premises' is defined in the Regulations to mean any of the following:

- a house (including the land on which the house is located and any outbuildings on the land)
- a townhouse
- a residential apartment
- a shop (including the land on which the shop is located and any outbuildings on the land)
- other premises located at an address

An **outbuilding** is a detached building subordinate to a main building and is not considered to be an eligible premises in its own right.

House

A house is an eligible premises. For a house that is an eligible premises:

- a home office located in the house or in an outbuilding on the land where the house is located; or
- a business operated from the house or in an outbuilding on the land where the house is located;

is not a separate eligible premises.

Townhouse, residential apartment

A townhouse, residential flat, unit or apartment is an eligible premises including those located in a:

- multi-story apartment building; or
- retirement village (this does not include a room in a nursing home, hostel or similar assisted living facility).

For a townhouse, residential flat, unit or apartment that is an eligible premises:

- a home office located in the townhouse, residential flat, unit or apartment; or
- a business operated from the townhouse, residential flat, unit or apartment;

is not a separate eligible premises.

Shop

A shop is an eligible premises (except when located in a house (land or outbuilding), townhouse, residential flat, unit or apartment that is itself an eligible premises – see above). Each shop in a shopping mall or other multi-shop type complex is an eligible premises.





Other premises located at an address

Business premises (eg factories and offices)

Each separate business which is located at an address will be a 'premises located at an address' (except when located in a house (land or outbuilding), townhouse, residential flat, unit or apartment that is itself an eligible premises). Some businesses may be located at an address which covers several numbers in a street (e.g. a factory might be at 42-56 Smith Street). In such a situation, there is only one eligible premises.

Alternatively, some businesses will occupy a separate unit at a single street address, where a different business is carried out in the separate units, (e.g. Unit 2 of 56 Smith Street). Each unit is a separate eligible premises.

Specific types of premises

Each of the following types of businesses are regarded as a single eligible premises:

- a motel, hotel, resort or caravan park (each room/cabin/villa etc in a motel, hotel or resort and each stationary caravan in a caravan park is not a separate eligible premises)
- a nursing home, hostel (each room is not a separate eligible premises)
- a hospital
- a restaurant

Community and educational buildings

The building(s) located at an address where a community group or institution carries out its activities (including the land on which the building is located and any outbuildings on the land) is a single eligible premises (eg a scout hall, guides hall, sporting club, school, church or other religious building). In the situation where the building(s) is or are used by more than one organisation, there is one eligible premises only.

More than one premises located at a single address

Where more than one separate premises (excluding outbuildings) is located at a single address, all of those premises are separate eligible premises. Examples might include a:

- dairy on a farm that is separate to the residential house on the same farm — both premises are eligible premises;
- owner/manager's house that is separate to the rest of a caravan park but at the same address — the house is a separate eligible premises to the caravan park;
- green keeper's house that is separate to the rest of the golf course at the same address — the house and the business premises are separate eligible premises.

To be another 'eligible premises' at a single address, the premises must be clearly separate from the other eligible premises located at the address (e.g. the house). A building is not an eligible premises if it is an outbuilding associated with a house. For example:

- a garage, studio or other small building situated in close proximity to a house which itself is an eligible premises (where a small business may be carried out) is as an outbuilding and not another eligible premises;





- a larger business premises that is not subordinate to a house which itself is an eligible premises, and which more commonly is located further from the house than is usual for a garage or studio, is not an outbuilding and therefore is a separate eligible premises.

Structures that are not eligible premises

The following structures are **NOT** eligible premises:

- street lights, street signs, mobile phone towers, boats, cars and trailers; and
- mobile homes, caravans or similar wheeled vehicles not intended to be permanently attached to the land (these are not defined as eligible premises because they do not remain at a location for a long period of time).

Premises that are not eligible

If you would like clarification regarding the eligibility of a particular premises, please contact the Small Units Team at the OREER via email orer@orer.gov.au. Include in your email as much detail as possible including location, address, boundaries, road access, title information, access to electrical connection and metering, ownership, occupancy, nature of business, maps and other information you may wish to provide.



If a system is not eligible for Solar Credits the system can still create RECs with the standard 1:1 rate of REC calculation.

Step 5: Determine how many RECs your SGU is entitled to

Installations of SGUs are deemed to be eligible for RECs based on rated power output (kilowatt capacity), eligibility for Solar Credits and geographic location or resource availability.

If you would like to determine the approximate number of RECs that your system could receive under the RET the REC Registry contains a Small Generation Unit REC Calculator.

Visit – [Small Generation Unit REC Calculator](#)

Alternatively, to determine the number of RECs for your system is entitled to see:

- Page 12 for REC calculation of small hydroelectric systems and small wind turbines
- Page 13 for REC calculation of small hydroelectric systems and small wind turbines with Solar Credits
- Page 15 for REC calculation of small solar photovoltaic systems
- Page 16 for REC calculation of small solar photovoltaic systems with Solar Credits





Installing additional capacity

If you wish to install additional capacity to an existing system it may be entitled to RECs. Additional capacity is not entitled to the REC multiplier through Solar Credits. To determine the number of RECs the additional capacity may be entitled to insert the rated power output (in kW) for the additional capacity into the Small Generation Unit REC Calculator. Note the number of RECs without Solar Credits in the result.

Step 6: Become a registered person in the online REC Registry

Once you know the number of RECs you are entitled to you will need to become a registered person in the REC Registry, an internet based registry system that:

- maintains various registers (as set in the Act)
- facilitates the creation, registration, transfer and surrender of RECs.

A registered person can create, sell and transfer RECs in the REC Registry. To become a registered person in the REC Registry you will need to:

- a. **Create an account** on the REC Registry. See the **Apply for an Account** link on bottom right of the REC Registry home page.

Visit – [REC Registry](#)

- b. **Complete an Application for Registration** and send it to the ORER.

Visit - [Application for Registration](#)

- c. The ORER will notify you via phone when your Application for Registration has been approved and explain the REC Registry process.
- d. **Pay a \$20 registration fee** to complete the registration process.

Please **DO NOT** send any payment to the ORER with this application form - payment of the \$20 registration fee is made via your account in the REC Registry. The application fee is GST exempt.

Step 7: Create RECs through the REC Registry

Once your application has been approved you are ready to complete the registration process online and create RECs for your SGU installation.

Visit – [REC Registry](#)

The main details required to create RECs include the following:

- Type of system – solar, wind, hydro
- System brand
- System model
- Panel serial numbers (solar only)
- Number of panels (solar only)
- Equipment module serial number (wind and hydro only)
- Resource availability (wind and hydro only)





- Rated power output (in kW)
- Installation date
- Installation address
- Installer's details
- Owner's details

The REC registry contains online help screens and a REC Registry Support Desk to assist in the use of the Registry.

Step 8: Wait while your RECs are validated

Once you have created your RECs, they will be validated by an ORER officer to ensure they have been created correctly. **This can take up to 4 weeks.** When your RECs have passed the ORER validation, they will become 'Registered'. Registered RECs are able to be sold and transferred in the REC Registry, and surrendered either voluntarily or meet a liability under the *Renewable Energy Electricity (Act) 2000*. If the RECs are not correctly created they are failed by ORER. Visit – [REC Registry](#)

Step 9: Find a buyer for your RECs. Sell your RECs and transfer them in the REC Registry



You do not have to sell your registered RECs at all, but if you wish to create RECs for your SGU installation you must create them within 12 months of the date of installation of the system.

If you wish to sell your RECs, it is your responsibility to find a buyer and negotiate the price and other terms of sale. Potential buyers may include:

- electricity retailers who may need to purchase RECs to meet their REC liability
- registered agents for deemed units, who create and trade RECs from SGUs
- traders of RECs

Price and payment date should be key considerations when negotiating the sale of your RECs. You should ensure that:

- you are satisfied with the price and payment date you receive for your RECs
- details are recorded in **writing** before entering any contractual arrangement to sell your RECs.

Once you have found a buyer and negotiated the terms of sale, you will need to transfer the RECs to the buyer through the REC Registry and arrange payment outside the REC Registry. The ORER does not set the price of RECs nor does it get involved in disputes between buyers and sellers. Payment for RECs or the rights to create RECs is a contractual matter between the buyer and seller.

ORER values your feedback. If you have any feedback on how to improve this fact sheet please email ORER orer@orer.gov.au





REC CALCULATION

Calculating RECs for small hydroelectric systems and small wind turbines

The number of RECs that you are eligible to create for your small hydroelectric system or wind turbine is determined by the rated capacity of the system and the number of hours the system can operate at that capacity (resource availability).

To establish how many RECs you may be eligible to create from your system you should undertake the following steps:

1. Establish your resource availability. If you do not know the actual resource availability, then you must claim for the default amount, which is:

- Hydroelectric - 4000 hours/year
- Wind – 2000 hours/year

If you claim for resource availability above the default amount, then you must provide and retain copies of site-specific audit reports and advise the ORER of the name and contact details of the person or company that conducted the audit.

2. Establish the rated output of your system in kilowatts (kW). You can find the rated power output of your system in the specifications provided by the system manufacturer. Please ensure that you use the exact figure that applies to your particular make and model.

3. To calculate the annual number of RECs your system is eligible for you multiply the rated power output (in kW) of your system by 0.00095, multiplied by the resource availability of your system (eg. 8kW x 0.00095 x 4000 (or 2000 for wind) hours/year).

$$\boxed{0.00095} \times \boxed{\text{The rated power output (in kW) of your system}} \times \boxed{\text{Resource availability of the system (hours per annum)}} = \boxed{\text{Annual number of eligible RECs}}$$

4. If your system's rated output is greater than 25 MWh your system (ie. generates more than 25 MWh of electricity) is classified as a power station and you cannot assign RECs to an agent. To apply to ORER to become an accredited power station visit the [power stations page](#) of the ORER website.





5. You have the option of claiming RECs in regular one-year or five-year periods (deeming periods). Multiply the annual number of eligible RECs by one year or five years depending on the period over which you wish to create RECs.
6. If your calculated number of eligible RECs, over a one-year or five-year period, is:
 - a. greater than 1 MWh you must round down the calculated number to the nearest whole number of RECs.
 - b. between 0.5 MWh and 1 MWh you are allowed to round up the calculated decimal number to 1 REC.

Calculating RECs for small hydroelectric systems and small wind turbines with Solar Credits

The number of RECs that you are eligible to create for your small hydroelectric system or wind turbine is determined by the rated capacity of the system and the number of hours the system can operate at that capacity (resource availability).

Systems that are eligible for Solar Credits are able to create additional RECs based upon the calculation methodology below. If you are unsure of eligibility see **Step 4: Determine if your system is eligible for Solar Credits.**

To establish how many RECs you may be eligible to create from your system you should undertake the following steps:

1. Establish your resource availability. If you do not know the actual resource availability, then you must claim for the default amount, which is:
 - Hydroelectric - 4000 hours/year
 - Wind – 2000 hours/year

If you claim for resource availability above the default amount, then you must provide and retain copies of site-specific audit reports and advise the ORER of the name and contact details of the person or company that conducted the audit.

2. Establish the rated output of your system in kilowatts (kW). You can find the rated power output of your system in the specifications provided by the system manufacturer. Please ensure that you use the exact figure that applies to your particular make and model.





3. Establish the multiplied value for your RECs under Solar Credits See **Table 4 – Multiplication for additional RECs under Solar Credits.**

4. To calculate the annual number of RECs your system is eligible for use the formulas below.

Solar credits only apply to the first 1.5 kW of a system.

If the rated power output of the system is **1.5 kW or below** then the following REC calculation applies:

$$\boxed{0.00095} \times \boxed{\text{Rated power output (in kW)}} \times \boxed{\text{Resource availability of the system (hours per annum)}} \times \boxed{\text{Multiplied value in Table 4 – Solar Credits}} \times \boxed{\text{Deeming period}}$$

If the rated power output of the system is **over 1.5 kW** then the following REC calculation applies:

$$\left(\boxed{0.00095} \times \boxed{1.5} \times \boxed{\text{Resource availability of the system (hours per annum)}} \times \boxed{\text{Multiplied value in Table 4 – Solar credits}} \times \boxed{\text{Deeming period}} \right) + \left(\boxed{0.00095} \times \boxed{\text{Total rated power output (in kW) minus 1.5}} \times \boxed{\text{Resource availability of the system (hours per annum)}} \times \boxed{\text{Deeming period}} \right)$$

5. If your system’s rated output is greater than 25 MWh (ie. generates more than 25 MWh of electricity) your system is classified as a power station and you cannot assign RECs to an agent. To apply to ORER to become an accredited power station visit the [power stations page](#) of the ORER website.

6. If your calculated number of eligible RECs, over a one-year or five-year period, is:

- a. greater than 1 MWh you must round down the calculated number to the nearest whole number of RECs.
- b. between 0.5 MWh and 1 MWh you are allowed to round up the calculated decimal number to 1 REC.





Calculating RECs for small solar (photovoltaic) systems

Once you have established that a small solar (photovoltaic) system meets the above eligibility requirements, to calculate how many certificates that may be created for it:

1. Establish your **Zone** by using Table 2, Ratings and Postcode Zones for Small Solar (Photovoltaic) Systems on Page 18 of this document.
2. Once you have established your Zone, look up the corresponding Zone Rating in Table 3, Zone ratings for solar (photovoltaic) Systems on Page 18 of this document.
3. To calculate your system's annual REC entitlement, multiply the Zone Rating by your SGU's rated power output (in kW). You can find the rated power output of your unit in the specifications provided by the manufacturer – please ensure that you use the exact figure that applies to your particular model.

$$\begin{array}{|c|} \hline \text{Zone} \\ \text{Rating} \\ \hline \end{array} \times \begin{array}{|c|} \hline \text{Rated power output} \\ \text{(kW) of your solar} \\ \text{(photovoltaic)} \\ \text{system} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{Annual REC} \\ \text{entitlement} \\ \hline \end{array}$$

4. If your system's annual output is greater than 250 MWh (ie. generates more than 250 MWh of electricity) your system is classified as a power station and you cannot assign RECs to an agent. To apply to ORER to become an accredited power station visit the [power stations page](#) of the ORER website. If it is less than 250 MWh proceed to step 5.
5. Choose the deeming period for which you would like to create RECs: 1-year, 5-years or 15-years, as described in the "Deeming Periods" section above. (Step 2 and 3)

Calculate the REC entitlement for each deeming period by multiplying the Annual REC Entitlement (as calculated in step 3) by the number of years in the deeming period you choose, either 1, 5 or 15.

6. If your calculated REC entitlement, over a one, five or 15 year period, is not a whole number and is:
 - greater than 1 MWh you must round down the calculated number to the nearest whole number of RECs.
 - between 0.5 MWh and 1 MWh you are allowed to round up the calculated decimal number to 1 REC.





Calculating RECs for small solar (photovoltaic) systems with Solar Credits

Systems that are eligible for Solar Credits are able to create additional RECs based upon the calculation methodology below. If you are unsure of eligibility for Solar Credits see **Step 4: Determine if your system is eligible for Solar Credits.**

To establish how many RECs you may be eligible to create from your system you should undertake the following steps:

1. Establish your **Zone** by using Table 2, Ratings and Postcode Zones for Small Solar (Photovoltaic) Systems on page 18 of this document.
2. Once you have established your Zone, look up the corresponding Zone Rating in **Table 3, Zone ratings for solar (photovoltaic) systems** on page 18 of this document.
3. Establish the multiplied value for your RECs under Solar Credits See **Table 4, Multiplication for additional RECs under Solar Credits**
4. Establish the rated output for your unit in the specifications provided by the manufacturer – please ensure you record the exact figure that applies to your particular model.
5. If your system's annual output is greater than 250 MWh (ie. generates more than 250 MWh of electricity) your system is classified as a power station and you cannot assign RECs to an agent. To apply to ORER to become an accredited power station visit the [power stations page](#) of the ORER website. If it is less than 250 MWh proceed to step 6.
6. To calculate the annual number of RECs your system is eligible for use the formulas below.

Solar credits only apply to the first 1.5 kW of a system.





If the rated power output of the system is **1.5 kW or below** then the following REC calculation applies:

$$\boxed{\text{Rated power output (in kW)}} \times \boxed{\text{Postcode Zone Rating}} \times \boxed{\text{Multiplied value in Table 4 – Solar credits}} \times \boxed{\text{Deeming Period}}$$

If the rated power output of the system is **over 1.5 kW** then the following REC calculation applies:

$$\left(\boxed{1.5} \times \boxed{\text{Postcode Zone Rating}} \times \boxed{\text{Multiplied value in Table 4 – Solar Credits}} \times \boxed{\text{Deeming period}} \right) + \left(\boxed{\text{Total rated power output (in kW) minus 1.5}} \times \boxed{\text{Postcode Zone Rating}} \times \boxed{\text{Deeming period}} \right)$$

7. Choose the deeming period you for which you would like to create RECs: 1-year, 5-years or 15-years, as described in the “Deeming Periods” section above. (Step 2 and 3)
8. If your calculated REC entitlement, over a one, five or fifteen year period, is not a whole number and is:
 - greater than 1 MWh you must round down the calculated number to the nearest whole number of RECs.
 - between 0.5 MWh and 1 MWh you are allowed to round up the calculated decimal number to 1 REC.





TABLE 2

Ratings and Postcode Zones for Small Solar (Photovoltaic) Systems

Postcode range			Postcode range			Postcode range			Postcode range		
from	to	zone	from	To	Zone	from	to	zone	from	to	zone
0	799	3	2900	2999	3	4474	4476	1	6251	6254	3
800	869	2	3000	3390	4	4477	4478	2	6255	6270	4
870	879	1	3391	3398	3	4479	4485	1	6271	6315	3
880	1000	2	3399	3413	4	4486	4490	2	6316	6357	4
1001	2356	3	3414	3426	3	4491	4492	1	6358	6393	3
2357	2357	2	3427	3474	4	4493	4499	2	6394	6400	4
2358	2384	3	3475	3514	3	4500	4721	3	6401	6430	3
2385	2393	2	3515	3516	4	4722	4722	2	6431	6431	2
2394	2395	3	3517	3520	3	4723	4723	3	6432	6433	3
2396	2398	2	3521	3524	4	4724	4735	2	6434	6439	2
2399	2399	3	3525	3538	3	4736	4736	1	6440	6441	1
2400	2400	2	3539	3539	4	4737	4824	3	6442	6444	3
2401	2404	3	3540	3549	3	4825	4827	2	6445	6459	4
2405	2407	2	3550	3560	4	4828	4828	3	6460	6467	3
2408	2410	3	3561	3569	3	4829	4829	2	6468	6469	2
2411	2414	2	3570	3570	4	4830	5261	3	6470	6471	3
2415	2536	3	3571	3606	3	5262	5263	4	6472	6474	2
2537	2537	4	3607	3617	4	5264	5270	3	6475	6506	3
2538	2544	3	3618	3622	3	5271	5300	4	6507	6555	2
2545	2557	4	3623	3628	4	5301	5429	3	6556	6573	3
2558	2626	3	3629	3657	3	5430	5450	2	6574	6602	2
2627	2629	4	3658	3684	4	5451	5653	3	6603	6607	3
2630	2630	3	3685	3687	3	5654	5669	2	6608	6641	2
2631	2639	4	3688	3724	4	5670	5679	3	6642	6724	1
2640	2820	3	3725	3731	3	5680	5699	2	6725	6750	2
2821	2842	2	3732	3999	4	5700	5709	3	6751	6797	1
2843	2872	3	4000	4416	3	5710	5722	2	6798	6799	2
2873	2874	2	4417	4417	2	5723	5724	1	6800	6999	3
2875	2876	3	4418	4422	3	5725	5733	2	7000	8999	4
2877	2889	2	4423	4423	2	5734	5799	1	9000	9999	3
2890	2897	3	4424	4426	3	5800	6243	3	-	-	-
2898	2899	3	4427	4473	2	6244	6250	4	-	-	-

TABLE 3

Zone Ratings for Solar (Photovoltaic) Systems

Zone Rating	
1	1.622
2	1.536
3	1.382
4	1.185





TABLE 4

Multiplication for additional RECs under Solar Credits

Installation Period	Multiplication
9 June 2009 – 30 June 2010	5 x
1 July 2010 – 30 June 2011	5 x
1 July 2011 – 30 June 2012	5 x
1 July 2012 – 30 June 2013	4 x
1 July 2013 – 30 June 2014	3 x
1 July 2014 – 30 June 2015	2 x

REC calculation examples

EXAMPLE 1 –SMALL SOLAR PHOTOVOLTAIC SYSTEMS

If you wish to create RECs for a 15-year deeming period for a small solar panel (photovoltaic) system installed by a Clean Energy Council (CEC) – accredited installer on 9 April 2009 in the postcode area of 2315, which has a rated power output of 2.5 kW. To determine eligibility:

- *Is the small solar panel (photovoltaic) system installed within the last 12 months? **Yes***
- *Does the system have a rated output of not more than 100 kilowatts (kW) or a total annual output less than 250 MWh? **Yes***
- *Was the system designed and installed by a person accredited for stand-alone and grid-connected power systems under the Clean Energy Council accreditation scheme? **Yes***

The system meets all of the eligibility requirements, so we can now proceed to calculate the number of RECs it is entitled to create.

1. Look up the postcode in Table 2 to establish your Postcode Zone: **3**
2. Look up the Postcode Zone in Table 3 to establish your Zone Rating: **1.382**
3. Multiply your Zone Rating by the kW capacity to get the annual REC entitlement:
 $1.382 \times 2.5\text{kW} = \mathbf{3.455 \text{ MWh}}$
4. Multiple by 15 years to get the total REC entitlement:
 $3.455 \times 15 \text{ years} = \mathbf{51.825 \text{ MWh}}$
5. Round down the total amount of electricity taken to be generated to the last whole MWh to determine the number of RECs you are eligible to create:
 $51.825 \text{ MWh} = \mathbf{51 \text{ RECs}}$





6. This system is rated at less than 100 kW and has a total annual output of less than 250 MWh per year, it does not need to be accredited as a power station.

EXAMPLE 2 –SMALL SOLAR PHOTOVOLTAIC SYSTEMS UNDER SOLAR CREDITS

If you wish to create RECs for a 15-year deeming period for a small solar panel (photovoltaic) system installed by a Clean Energy Council (CEC) – accredited installer on 3 August 2009 in the postcode area of 2315, which has a rated power output of 4.5 kW. To determine eligibility:

- *Is the small solar panel (photovoltaic) system installed on or after 9 June 2009? **Yes***
- *Is the small solar panel (photovoltaic) system installed within the last 12 months? **Yes***
- *Does the system have a rated output of not more than 100 kilowatts (kW) or a total annual output less than 250 MWh? **Yes***
- *Does the system have a total rated power output of more than 1.5 kW? **Yes***
- *Was the system designed and installed by a person accredited for stand-alone and grid-connected power systems under the Clean Energy Council accreditation scheme? **Yes***
- *Is the system a new and complete unit as defined on page 6? **Yes***
- *Is the system installed at an eligible premises? **Yes***
- *Is there pre-approval or financial assistance for any small generation unit at your address for a Solar Homes and Communities (SHCP), Photovoltaic Rebate Programme (PVRP), Renewable Remote Power Generation (RRPGP) or National Solar Schools Program (NSSP) rebate? **No***

The system meets all of the eligibility requirements, so we can now proceed to calculate the number of RECs it is entitled to create.

1. Look up the postcode in Table 2 to establish your Postcode Zone: **3**
2. Look up the Postcode Zone in Table 3 to establish your Zone Rating: **1.382**
3. Multiply your Zone Rating by 1.5, your chosen deeming period and the multiplied value for Solar Credits Table 4:

$$1.382 \times 1.5 \times 15 \times 5 = \mathbf{155.475 \text{ MWh}}$$

This provides you with the total REC entitlement for the first 1.5 kW of capacity installed





4. Look up your total rated power output. Minus 1.5 from the total rated power output.

$$4.5 \text{ kW} - 1.5 = \mathbf{3 \text{ kW}}$$

5. Multiply this number by the postcode zone rating and the deeming period.

$$3 \text{ kW} \times 1.382 \times 15 = \mathbf{62.19 \text{ MWh}}$$

This provides you with the total REC entitlement for the remainder of the kW capacity installed.

6. Add the REC entitlement for the first 1.5 kW of capacity installed and the REC entitlement for the remainder of the kW capacity:

$$155.475 \text{ kW} + 62.19 \text{ kW} = \mathbf{217.665 \text{ MWh}}$$

7. Round down the total amount of electricity taken to be generated to the last whole MWh to determine the number of RECs you are eligible to create:

$$217.665 \text{ MWh} = \mathbf{217 \text{ RECs}}$$

8. This system is rated at less than 100 kW and has a total annual output of less than 250 MWh per year, it does not need to be accredited as a power station.

EXAMPLE 3 – SMALL WIND TURBINES

If you wished to create RECs on a 5-year basis for a system that has a rating of 2.9 kW and a wind resource availability of 2,000 hours, you must:

1. Multiply 0.00095 by the kW capacity and the wind resource availability:

$$0.00095 \times 2.9 \times 2000 = \mathbf{5.51 \text{ MWh}}$$

2. Multiply the annual electricity output by the number of years:

$$5.51 \times 5 = \mathbf{27.55 \text{ MWh}}$$

3. Round down the total electricity output to the last whole MWh to determine the number of RECs you are eligible to create:

$$27.55 = \mathbf{27 \text{ RECs}}$$

4. This wind turbine has a total annual output of less than 25 MWh, it does not need to be accredited as a power station.





EXAMPLE 4 – SMALL WIND TURBINES UNDER SOLAR CREDITS

If you wished to create RECs on a 5-year basis for a system that has a rating of 2.9 kW and a wind resource availability of 2,000 hours, you must:

1. Multiply 0.00095 by 1.5 by the wind resource availability by the multiplied value by the deeming period.

$$0.00095 \times 1.5 \times 2,000 \times 5 \times 5 = 71.25 \text{ MWh}$$

This provides you with the total REC entitlement for the first 1.5 kW of capacity installed

2. Look up your total rated power output. Minus 1.5 from the total rated power output.

$$2.9 - 1.5 = 1.4 \text{ kw}$$

3. Multiply this number by 0.00095 by the wind resource availability and the deeming period

$$0.00095 \times 1.4 \times 2,000 \times 5 = 13.3 \text{ MWh}$$

This provides you with the total REC entitlement for the remainder of the kW capacity installed.

4. Add the REC entitlement for the first 1.5 kW of capacity installed and the REC entitlement for the remainder of the kW capacity:

$$71.25 \text{ MWh} + 13.3 \text{ MWh} = \mathbf{84.55 \text{ MWh}}$$

5. Round down the total amount of electricity taken to be generated to the last whole MWh to determine the number of RECs you are eligible to create:

$$84.55 \text{ MWh} = \mathbf{84 \text{ RECs}}$$

6. This wind turbine has a total annual output of less than 25 MWh, it does not need to be accredited as a power station.

