



FACT SHEET

CALCULATING RENEWABLE ENERGY CERTIFICATES (RECs) FOR SMALL WIND TURBINES¹

Version 1 as Updated in March 2006

The *Renewable Energy (Electricity) Act 2000* (the Act) and the *Renewable Energy (Electricity) Regulations 2001* (the Regulations) allow owners of small generation units (SGUs) to create and sell renewable energy certificates (RECs). RECs are purchased by liable parties, such as electricity retailers, seeking to offset their liability under the Act so that they meet their renewable energy percentage targets. One REC represents one Mega Watt hour (MWh) of renewable energy generation.

Owners of SGUs can either create RECs themselves, or assign their RECs to a registered agent in return for a financial benefit. A list of registered agents can be found from the Publication page of the Office of the Renewable Energy Regulator (ORER) website.

In order to use the REC calculation method provided below, a SGU must be installed on or after 1 April 2001. If the SGU was installed before 1 April 2001 it may still be eligible for RECs as an accredited power station but the owner must apply to the ORER for it to become an accredited power station. Application forms to become an accredited power station are available from the Power Stations page of the ORER website.

The REC calculation method provided below applies to systems with a rated output of not more than 10 kilowatts or a total annual output less than 25 MWh. If a system has an output greater than 10 kilowatts, or annual output of 25 MWh or more, the owner must apply to ORER for the system to become an accredited power station.

¹ Note: The information provided in this document may be subject to change with amendments to the *Renewable Energy (Electricity) Act 2000*, the *Renewable Energy (Electricity) Regulations 2001*, and the administrative processes adopted by the Office of the Renewable Energy Regulator.

CALCULATING RECs FOR SMALL WIND TURBINES

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

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

1. Establish your wind resource availability in terms of hours per year. If you do not know the actual resource availability, then you must claim for the default amount of 2000 hours per year.

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

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

4. If you calculate that you are entitled to more than 25 RECs per year your system is classified as a wind power station and you must apply to the ORER to become an accredited power station. If you are a power station, you cannot assign RECs to an agent.
5. You have the option of claiming RECs in regular one-year or five-year periods. Multiply the annual number of eligible RECs by one year or five years depending on the period you wish to claim RECs.

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

Example 1

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 3,600 hours, you must:

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

$$0.00095 \times 2.9 \times 3600 = \mathbf{9.918 \text{ MWh}}$$

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

$$9.918 \times 5 = \mathbf{49.59 \text{ MWh}}$$

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

$$49.59 = \mathbf{49 \text{ RECs}}$$

4. As a wind resource availability in excess of the default amount has been claimed you must provide and retain copies of a site-specific audit report to support your claim. If you cannot provide such a report then you may only claim for the default amount.
5. 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 2

If you wished to create RECs on an annual basis for a system that has a rating of 2.9 kW and a wind resource availability of 3,600 hours, you must:

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

$$0.00095 \times 2.9 \times 3600 = \mathbf{9.918 \text{ MWh}}$$

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

$$9.918 \times 1 = \mathbf{9.918 \text{ MWh}}$$

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

$$9.918 \text{ MWh equates to } \mathbf{9 \text{ RECs}}$$

4. As a wind resource availability in excess of the default amount has been claimed you must provide and retain copies of a site-specific audit report to support your claim. If you cannot provide such a report then you may only claim for the default amount.
5. This wind turbine has a total annual output of less than 25 MWh, it does not need to be accredited as a power station.