



## FACT SHEET

# CALCULATING RENEWABLE ENERGY CERTIFICATES (RECs) FOR SMALL SOLAR PANEL (PHOTOVOLTAIC) SYSTEMS<sup>1</sup>

Version 1 as Updated in March 2006

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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 100 kilowatts or a total annual output less than 250 MWh. If a system has an output greater than 100 kilowatts, or annual output of 250 MWh or more, the owner must apply to ORER for the system to become an accredited power station.

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<sup>1</sup> 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

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

1. Establish your Zone by using Table 1, *Postcode Zones for Photovoltaic Systems* on Page 5 of this document.
2. Once you have established your Zone you will be able to establish your Zone Rating for your photovoltaic zone by referring to *Table 2, Zone Ratings for Solar Panel (Photovoltaic) Systems* on Page 5 of this document.
3. To calculate the annual number of RECs your system is eligible, multiply the Zone Rating by the Rated Power output (in kW) of your unit. You can find the rated power output of your unit in the specifications provided by the unit manufacturer. Please ensure that you use the exact figure that applies to your particular model.

$$\boxed{\text{Zone Rating}} \times \boxed{\text{Rated power output (kW) of your Solar (PV) system}} = \boxed{\text{Annual Number of Eligible RECs}}$$

4. If you calculate that you are entitled to more than 250 RECs per year your system is classified as a potential photovoltaic power station and you must apply to the ORER to become an accredited power station. Application forms for power station accreditation are available on the Forms page of the ORER website. A registered person with an accredited power station can create RECs for the eligible electricity generated above the baseline, however, the REC creation cannot be assigned to an agent.

Please note that for a photovoltaic system installed before 14 November 2005 RECs can only be created if the system has a rated output of less than 10 kilowatts, or a total annual output of less than 25 MWh. For systems installed on or after 14 November 2005 systems can have a rated output of not more than 100 kilowatts or a total annual output less than 250 MWh.

5. If the photovoltaic system was installed on or after 1 April 2001 you have the option of creating RECs in regular one-year or by five-year batches. If you installed your photovoltaic system on or after the 31 July 2005 and you have not previously created or assigned the right to your RECs for one or five years you are eligible to create or assign RECs for your photovoltaic system for a one-off 15

year period. For the 15 year option, to apply you must claim your RECs within 12 months of the system's installation date.

The procedure described in Step 3 can be used to calculate the annual REC eligibility. REC eligibility for one year, five years or fifteen years depending on the period over which you wish to create RECs can be calculated by multiplying by 1, 5 or 15.

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 15-year basis for a photovoltaic unit installed on 28 November 2005 that has a rated output or kW capacity of 73.8 kW in the postcode area of 2315, you must:

1. Look up the postcode in Table 1 to establish your Postcode Zone: **3**
2. Look up the Postcode Zone in Table 2 to establish your Zone Rating: **1.382**
3. Multiply your Zone Rating by the kW capacity:

$$1.382 \times 73.8\text{kW} = \mathbf{101.9916 \text{ MWh}}$$

4. Multiple by 15 years:

$$101.9916 \times 15 \text{ years} = \mathbf{1529.874 \text{ MWh}}$$

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:

$$1529.874 \text{ MWh} = \mathbf{1529 \text{ RECs}}$$

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

If you wished to create RECs on a 5-year basis for a photovoltaic unit installed on 22 July 2002 that has a rated output or kW capacity of 5.7 kW in the postcode area of 2315, you must:

1. Look up the postcode in Table 1 to establish your Postcode Zone: **3**
2. Look up the Postcode Zone in Table 2 to establish your Zone Rating: **1.382**
3. Multiply your Zone Rating by the kW capacity:

$$1.382 \times 5.7\text{kW} = \mathbf{7.8774 \text{ MWh}}$$

4. Multiple by 5 years:

$$7.8774 \times 5 \text{ years} = \mathbf{39.387 \text{ MWh}}$$

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:

$$39.387 \text{ MWh} = \mathbf{39 \text{ RECs}}$$

6. This system is rated at less than 10 kW and has a total annual output of less than 25 MWh, it does not need to be accredited as a power station.

**TABLE 1****Ratings and Postcode Zones for Solar Panel (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	4	4427	4473	2	6244	6250	4	-	-	-

**TABLE 2****Zone Ratings for Solar Panel (Photovoltaic) Systems**

Zone	Rating
1	1.622
2	1.536
3	1.382
4	1.185