



Victoria Government Gazette

No. S 157 Thursday 5 July 2007
By Authority, Victorian Government Printer

**VICTORIAN RENEWABLE ENERGY TARGET SCHEME RULES
MADE UNDER THE VICTORIAN RENEWABLE ENERGY ACT 2006
MARCH 2007**

SPECIAL

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Part 1 – Preliminary**1 Purpose**

These Rules are the ‘ESC rules’ for the purpose of the Act and are made by the Commission under Section 113(1) of the Act. These Rules may be referred to as the Victorian Renewable Energy Target Scheme Rules.

2 Date of effect

These Rules take effect on the day that they are published in the Government Gazette.

3 Interpretation

(a) Terms used in the Act have the same meaning when used in these Rules, unless otherwise defined in Rule 3(b).

(b) In these Rules, unless the context otherwise requires:

Act means the Victorian Renewable Energy Act 2006.

auxiliary loss, for a power station or small generation unit, means the amount of electricity used, within the station or unit, for generating electricity.

bioenergy means the energy derived from an energy source mentioned in paragraphs (i) to (s) of the definition of **eligible renewable energy source** in Section 22 of the Act.

biomass means solid or liquid organic matter other than fossilised biomass. Examples of fossilised biomass are coal and lignite.

coastal waters, in relation to a State, has the same meaning as the expression ‘coastal waters of the State’ has in relation to that State under the **Coastal Waters (State Powers) Act 1980** of the Commonwealth or, in relation to the Northern Territory, has the same meaning as the expression ‘coastal waters of the Territory’ under the **Coastal Waters (Northern Territory Powers) Act 1980** of the Commonwealth.

cogeneration means a power generation process that provides electricity and process heat as outputs.

Commission means the Essential Services Commission established under Section 7 of the **Essential Services Commission Act 2001**.

Commonwealth certificate means a certificate within the meaning of Section 5(1) of the **Renewable Energy (Electricity) Act 2000** of the Commonwealth.

energy source methodology means a methodology proposed by the registered person for a relevant power station which the Commission has approved as demonstrating the amount of electricity generated by the power station that is attributable to each energy source used in the power station that is not an eligible renewable energy source.

national electricity market means the interconnected electricity grids in the participating jurisdictions in the National Electricity Rules.

National Electricity Rules has the same meaning as in the National Electricity (Victoria) Law as defined in the **National Electricity (Victoria) Act 2005**.

native forest means a local indigenous plant community:

- (i) the dominant species of which are trees; and
- (ii) containing throughout its growth the complement of native species and habitats normally associated with that forest type or having the potential to develop those characteristics; and
- (iii) including a forest with those characteristics that has been regenerated with human assistance following disturbance; and
- (iv) excluding a plantation of native species or previously logged native forest that has been regenerated with non-endemic native species.

nameplate capacity, in relation to a power station, is an amount measured in MW that:

- (i) for a power station that is in the national electricity market is the nameplate capacity of that power station as registered by NEMMCO; and
- (ii) for a power station that is not in the national electricity market is any rating or capacity measurement that, in the opinion of the Commission, represents the nameplate capacity of the power station.

plantation means an intensively managed stand of trees of native or exotic species, created by the regular placement of seedlings or seed.

regional forest agreement has the meaning given by the Export Control (Hardwood Wood Chips) Regulations 1996 of the Commonwealth.

scheme generation methodology means a methodology proposed by the registered person for a relevant power station which the Commission has approved as demonstrating the amount of electricity generated by the power station that is attributable to scheme capacity.

trading interval has the same meaning as in the National Electricity Rules.

Part 2 – Renewable Energy Certificates

4 Accreditation of Power Stations

4.1 Components of an electricity generation system taken to be a relevant power station

For Section 17(1)(a) of the Act, the Commission will decide which components of an electricity generation system are to be taken to be a relevant power station in accordance with Schedule 1.

4.2 Eligibility for accreditation

For Section 17(3)(b) of the Act, the additional eligibility requirements that a relevant power station must satisfy are:

- (a) a power station that is in the national electricity market must use metering that meets the performance standard required by the National Electricity Rules;
- (b) a power station that is not in the national electricity market must use metering that enables the Commission to determine the amount of electricity generated by the power station;
- (c) for a power station that uses an energy source that is not an eligible renewable energy source to generate electricity or to prepare an eligible renewable energy source within the power station, there must be an energy source methodology;
- (d) for a power station for which a pre-scheme capacity (other than nil) has been determined, there must be a scheme generation methodology; and
- (e) the power station must be operated in accordance with any relevant Commonwealth, State, Territory or local government planning and approval requirements.

Note: For other eligibility criteria, see Act, Section 17(3)(a).

4.3 Energy source methodology and scheme generation methodology

- (a) A registered person may apply to the Commission for provisional approval of a proposed energy source methodology or scheme generation methodology before applying for accreditation of a power station under Section 15 of the Act. The Commission's provisional approval of a proposed methodology must specify that, if an application for accreditation is properly made under Section 15 of the Act, the Commission will approve that methodology if the Commission is satisfied that the information on which the provisional approval was based has not materially changed.
- (b) The Commission may make guidelines in relation to energy source methodologies and scheme generation methodologies.

5 Specifying Pre-Scheme Capacity

5.1 How the Commission specifies pre-scheme capacity

For Section 17(6) of the Act, the Commission will determine a power station's pre-scheme capacity in accordance with Rules 5.2 and 5.3.

5.2 No generation before 1 January 2007

The pre-scheme capacity for a power station that generates electricity for the first time on a commercial basis on or after 1 January 2007 is nil.

5.3 Generation before 1 January 2007

The pre-scheme capacity for a power station that has generated electricity on a commercial basis before 1 January 2007 is equal to the nameplate capacity of the power station on 31 December 2006.

6 Specifying Scheme Capacity

For Section 17(5)(b) and (7) of the Act, the scheme capacity (SC) is the amount of the power station's capacity to generate electricity, in MW, in excess of the power station's pre-scheme capacity calculated using the following formula:

$$SC = NC - PSC$$

where:

NC means the nameplate capacity of the power station.

PSC means the pre-scheme capacity for the power station specified by the Commission.

7 Eligible Renewable Energy Sources

7.1 Criteria for eligible renewable energy sources

For Section 25(2) of the Act, Rules 7.2 to 7.5 limit the meaning of eligible renewable energy sources in Section 22 of the Act.

7.2 General requirements

An energy source is not an eligible renewable energy source unless:

- (a) if use of the source requires approval by a Commonwealth, State, Territory or local government authority, the approval has been given and is current;
- (b) use of the source meets the requirements of any relevant Commonwealth, State, Territory or local government planning and approval process;
- (c) the source is used to generate electricity; and
- (d) electricity generated using the source is used to meet demand directly for electrical energy.

7.3 Special requirements for wood waste

An energy source that is wood waste is not an eligible renewable energy source unless:

- (a) the wood waste is:
 - (i) biomass:
 - produced from non-native environmental weed species; and
 - harvested for the control or eradication of the species, from a harvesting operation that is approved under relevant Commonwealth, State or Territory planning and approval processes;
 - (ii) a manufactured wood product or by-product from a manufacturing process;
Examples
Packing cases, pallets, recycled timber.
 - (iii) waste products from the construction of buildings or furniture, including timber off-cuts and timber from demolished buildings; or
 - (iv) sawmill residue; or

- (b) if wood waste is from a plantation, it is:
 - (i) a by-product or waste product of a harvesting operation (including thinnings and coppicing) approved under relevant Commonwealth, State or Territory planning and approval processes; and
 - (ii) taken from an area that is managed in accordance with all applicable laws, codes and regional forest agreements.

7.4 Special requirements for energy crops

Biomass from a native forest is not an energy crop.

7.5 Special requirements for ocean, wave and tide

Electricity generated from an ocean, wave or tide energy source must be generated within the coastal waters of Victoria or a State or Territory in which an approved interstate renewable energy regime applies.

8 Ineligible energy sources

For Section 25(3) of the Act, the following energy sources are not eligible renewable energy sources and the meaning of energy sources specified in Section 23 of the Act is extended accordingly:

- (a) coal or natural gas;
- (b) coal seam methane, waste coal mine gas and other products derived from coal or natural gas;
- (c) waste heat from cogeneration if:
 - (i) the waste heat is not used for electricity generation; or
 - (ii) the primary fuel source is not an eligible renewable energy source;
- (d) electricity generation from cogeneration using fossil fuels;
- (e) radioactive material (other than an energy source specified in Section 22 of the Act, subject to Rule 7);
- (f) any component of co-firing or wastes that is not bioenergy; and
- (g) any other fossil fuels or waste products derived from fossil fuels.

9 Generation utilising scheme capacity

9.1 Working out electricity generation utilising scheme capacity

For Section 26(4) of the Act, the amount of electricity generated by an accredited power station utilising scheme capacity is to be worked out for each year in accordance with Rules 9.2 to 9.4 by:

- (a) determining the total eligible generation by that power station; and
- (b) determining the quantity of that total eligible generation that is attributable to the scheme capacity of that power station.

9.2 General formula for total eligible generation

The total eligible generation by an accredited power station in a year (TEG) is:

$$\text{TEG} = (\text{TG} - \text{EGAS}) - \text{NEG} - \text{AUX} - (\text{DLEG} \times (1 - \text{MLF}))$$

where:

TG is the total electricity, in MWh, generated at the generator terminals in the year.

EGAS is the amount of electricity, in MWh, generated in the year during any period of suspension of the accreditation of the power station under Division 8 of Part 2 of the Act.

NEG is the amount of electricity, in MWh, generated in the year (excluding any period of suspension of the accreditation of the power station) that is attributable to any energy sources used in generating electricity or preparing fuel that are not eligible renewable energy sources.

AUX is the auxiliary loss, in MWh, in the year (excluding any period of suspension of the accreditation of the power station).

DLEG is the amount of electricity, in MWh, sent out from the generator in the year, measured:

- (a) for a power station in the national electricity market, at the point determined under the National Electricity Rules; or
- (b) in any other case, at the point determined by an authority of the State or Territory where the power station is.

MLF is the marginal loss factor to allow for the amount of electricity lost in transmission networks applied:

- (a) for a power station in the national electricity market, by NEMMCO; or
- (b) in any other case, by an authority of the State or Territory where the power station is.

Total eligible generation may be calculated using different inputs to those set out in the above formula, if the Commission is satisfied that they will produce an equivalent outcome. For example, a measurement of the amount of electricity sent out from the power station at a transmission network connection point may produce the same result as TG–AUX.

9.3 Use of energy sources other than eligible renewable energy sources

If the power station uses an energy source that is not an eligible renewable energy source to generate electricity or to prepare an eligible renewable energy source within the power station, then:

- (a) for the purposes of determining NEG under Rule 9.2, the amount of energy that is attributable to that source is to be converted into an equivalent number of MWh of electricity represented by the energy content of that source;
- (b) for the purposes of determining AUX under Rule 9.2, the auxiliary loss from the system that is attributable to that energy source are to be deducted from the total auxiliary loss proportionately to the proportion of electricity generated from that source; and
- (c) the amounts of NEG and AUX are to be determined in accordance with Rule 9.3 (a) and (b) and the applicable energy source methodology.

9.4 Total eligible generation attributable to scheme capacity

The amount of electricity generated by an accredited power station in a year utilising scheme capacity is:

- (a) if the pre-scheme capacity for the power station is nil, the amount of TEG determined under Rule 9.2;
- (b) if a pre-scheme capacity has been determined for an accredited power station, that part of TEG which is worked out using the applicable scheme generation methodology,

but not exceeding the maximum amount of electricity that could have been generated from the power station's scheme capacity in that year.

9.5 Hydro-electric Generation

For a hydro-electric power station or system that uses pumped storage, the auxiliary losses of the power station or system include the amount of electricity that is used to pump or to raise water before its release for hydro-electric generation.

9.6 Registration of certificates

To avoid doubt, the Commission must decide that a certificate created in respect of generation from a power station is not eligible for registration under Section 41 of the Act unless the Commission is satisfied that the amount of electricity generated by that power station utilising scheme capacity has been determined using:

- (a) metering that complies with the standards determined under Rule 4.2; and
- (b) to the extent applicable, the energy source methodology and the scheme generation methodology for that power station.

9.7 Additional requirements for electricity generation return

For Section 29(2)(e) of the Act, an electricity generation return must include the following information for each accredited power station:

- (a) the year to which the return applies;
- (b) for each eligible renewable energy source used by the registered person to generate the electricity:
 - (i) the amount of electricity that was generated in that year using the eligible renewable energy source;
 - (ii) the number of certificates created by the registered person in respect of the electricity generated in that year using the eligible renewable energy source; and
 - (iii) the number (if any) of Commonwealth certificates created by the registered person in respect of the electricity generated in that year using the eligible renewable energy source;
- (c) the telephone number, fax number and e-mail address (if any) of the power station;
- (d) the person's registration number;
- (e) the power station's identification code;
- (f) any changes during the year to information (even if already given to the Commission) about the following matters for the power station:
 - (i) ownership;
 - (ii) company mergers;
 - (iii) location;
 - (iv) contact details;
 - (v) electricity supply arrangements; and
 - (vi) generation capacity;
- (g) details of any breach of the conditions of a permit, or conviction for an offence, under any State, Commonwealth, Territory or local government law related to operation of the power station; and
- (h) if there was no breach or conviction for the year to which the return applies, a declaration to that effect.

Note: For other information that must also be included in the statement, see Act, Section 29(2).

9.8 [Not used]**10 Small Generation Units****10.1 Meaning of small generation unit**

For the definition of 'small generation unit' in Section 3(1) of the Act:

- (a) a device whose energy source is hydro is a small generation unit if:
 - (i) it has a kW rating of no more than 6.4 kW; and
 - (ii) it generates no more than 25 MWh of electricity each year; and
- (b) a device whose energy source is wind is a small generation unit if:
 - (i) it has a kW rating of no more than 10 kW; and
 - (ii) it generates no more than 25 MWh of electricity each year; and
- (c) a device whose energy source is solar (photovoltaic) is a small generation unit if:
 - (i) it has a kW rating of no more than 100 kW; and
 - (ii) it generates no more than 250 MWh of electricity each year.

10.2 When a certificate may be created

For Section 30 of the Act, certificates may be created for a small generation unit:

- (a) annually; or
- (b) both:
 - (i) on installation – for the first 5 years after installation; and
 - (ii) at the start of each subsequent 5 year period – for the following 5 years if the Commission is satisfied that the unit is still installed and likely to remain functional for the 5 years; or
- (c) if the unit is a solar panel (photovoltaic) system in respect of which no certificates have been created – within 1 year after installation, for a period of 15 years after installation, but no subsequent certificates may be created for the unit even if the unit is installed more than once.

10.3 How many certificates may be created

For Section 31 of the Act, the number of certificates (each representing 1MWh) that may be created for small generation units is to be determined under Rule 10.4, 10.5 or 10.6 as applicable, with the number of certificates worked out for an installation under those Rules to be:

- (a) rounded up to 1 if the amount of electricity generated is at least 0.5 MWh but less than 1 MWh; and
- (b) in any other case – rounded down to the nearest whole number.

10.4 Number of certificates for hydro-electric small generation units

The number of certificates that may be created for a year for a small generation unit that is a hydro-electric system installed after 1 January 2007 is the amount calculated by multiplying 0.00095 by the rated power output of the system, measured in kW, multiplied by:

- (a) 4 000; or
- (b) the number of hours each year of hydro resource availability, demonstrated by a site-specific assessment, if those hours are greater than 4 000.

10.5 Number of certificates for wind small generation units

The number of certificates that may be created for a year for a small generation unit that is a wind turbine installed after 1 January 2007 is the amount calculated by multiplying 0.00095 by the rated power output of the system, measured in kW, multiplied by:

- (a) 2 000; or
- (b) the number of hours each year of wind resource availability, demonstrated by a site-specific wind audit, if those hours are greater than 2 000.

10.6 Number of certificates for solar (photovoltaic) small generation units

The number of certificates that may be created for a year for a small generation unit that is solar (photovoltaic) system installed after 1 January 2007 is the amount calculated by multiplying the zone rating of the system by the rated power output of the system measured in kilowatts-peak (kWp), where:

- (a) the zone rating of the system is the rating mentioned in an item in Part 1 of Schedule 2 for the zone where the system is installed; and
- (b) the zone where the system is installed is the zone mentioned in an item in Part 2 of Schedule 2 for the postcode where the system is installed.

10.7 [Not used]

Part 3 – Acquisitions of Electricity**11 Amount of electricity acquired**

For Section 59(1) of the Act, the amount of electricity acquired under a relevant acquisition is to be measured:

- (a) for an acquisition in the national electricity market:
 - (i) by metering that meets the performance standard required by the National Electricity Rules; and
 - (ii) at the point or points where metering is required for the relevant entity to determine the amount of relevant acquisitions, adjusted by the distribution network loss factor assigned to the metering point under the National Electricity Rules; and
- (b) in any other case – by metering that enables the Commission to determine the amount of electricity acquired at a point or points equivalent to that or those mentioned in Rule 11(a)(ii).

Part 4 – Statements and Surrender of Certificates**12 Annual energy acquisition statement****12.1 Annual energy acquisition statement**

For Section 67(2)(f) of the Act, an energy acquisition statement must set out the following information:

- (a) the year to which the statement applies;
- (b) the date of the statement;
- (c) the relevant entity's calculation, in accordance with Section 64 of the Act, of whether the relevant entity had a renewable energy certificate shortfall for the year;
- (d) the telephone number, fax number and e-mail address (if any) of the relevant entity; and
- (e) any changes during the year to information (even if already given to the Commission) about the following matters for the relevant entity:
 - (i) ownership;
 - (ii) company mergers;
 - (iii) location;
 - (iv) contact details; and
 - (v) electricity supply arrangements.

Note: For other information that must also be set out in the statement, see Act, Section 67(2).

13 [Not used]**Part 5 – Civil Enforcement****14 Shortfall statement**

For Section 70(2)(f) of the Act, a shortfall statement issued by the Commission must set out the following information:

- (a) the year to which the statement applies;
- (b) the telephone number, fax number and e-mail address (if any) of the relevant entity; and
- (c) how the renewable energy certificate shortfall was worked out.

Note: For other information that must also be set out in the statement, see Act, Section 70(2).

Schedule 1 – Components of an Electricity Generation System**1 General**

1.1 Components of an electricity generation system include any of the following, whether or not they are owned by the operator of the system, that are integral to the operation of the system and the generation of electricity:

- (a) any component that operates to transform an eligible renewable energy source into electricity;
- (b) any infrastructure of the system, including buildings, fuel storage areas, fuel handling devices, information technology, instrumentation and controls.

1.2 The components of a supplementary power supply for the system are taken to be components of the system.

Note: To the extent that a supplementary power supply uses energy sources that are not eligible renewable energy sources, the electricity generated is to be excluded in calculating the amount of electricity generated by the power station: see Act, Section 26(5)(a).

1.3 If fuel is processed in the system before it is converted to electrical energy, the fuel processing and delivery components are taken to be part of the power station.

1.4 A long-term storage hydro-electric dam that provides water to more than 1 power station may be treated as interconnected, incorporating each power station that could be affected by release of water from the storage.

1.5 The components of a system are not limited to those mentioned for the system in this Schedule.

2 Bioenergy

2.1 A power station that uses bioenergy may include the following components:

- (a) buildings and stationary infrastructure;
- (b) combustion system, including waste heat boilers;
- (c) combustion or steam turbine;
- (d) compressor;
- (e) control system;
- (f) cooling tower;
- (g) digestion tank;
- (h) feedstock preparation;
- (i) fuel storage, transport and processing system;
- (j) gas cleaning;
- (k) gasifier;
- (l) generator;
- (m) heat recovery system;
- (n) mechanical cleaner;
- (o) oxygen supply;
- (p) particulate removal system;
- (q) pump;
- (r) switchyard and transformer;
- (s) thermal reactor;
- (t) water supply and treatment system.

3 Co-firing

- 3.1** A power station that co-fires fossil fuel and fuel from renewable energy sources includes all the components of the electricity generation process that are fuelled by all energy sources.

4 Fuel cell

- 4.1** A fuel cell may include the following components:

- (a) air filter;
- (b) anode, electrolyte and cathode;
- (c) catalytic converter;
- (d) control system;
- (e) cooling system;
- (f) desulphuriser;
- (g) power conditioner;
- (h) pump;
- (i) steam generator;
- (j) waste heat recovery system;
- (k) water filter.

5 Geothermal electricity generation

- 5.1** A geothermal power station may include the following components:

- (a) control system;
- (b) generator;
- (c) transformer;
- (d) turbine;
- (e) water treatment;
- (f) well;
- (g) working fluid.

6 Hydro-electricity

- 6.1** A hydro-electric power station may include the following components:

- (a) control, telemetering and protection system;
- (b) turbine, generator, associated buildings, transformer and grid connection;
- (c) water channelling infrastructure;
- (d) water discharge;
- (e) water intake;
- (f) water storage or weir;
- (g) for a pumped storage hydro-electric power station – pumping equipment.

7 Ocean, wave and tide

- 7.1** An ocean, wave or tide energy generation system may include the following components:

- (a) the equipment used:
 - (i) to channel or trap water;
 - (ii) to exchange heat; or
 - (iii) to provide for air or water flow;
- (b) generators;
- (c) turbines.

8 Solar electricity generation

8.1 A solar electricity generation system may include the following components:

- (a) device for converting incident solar energy to electrical energy;
Examples:
Photovoltaic panels, solar thermal collectors.
- (b) enabling equipment, including:
 - (i) DC and AC cabling;
 - (ii) energy storage system, including specially designed batteries;
 - (iii) inverter for converting DC output of a generator to AC;
 - (iv) backup power supply;
 - (v) framework and housing for the system;
 - (vi) trackers and sensors;
 - (vii) instrumentation;
 - (viii) control system.

9 Wind

9.1 A wind turbine may include the following components:

- (a) rotor;
- (b) generator;
- (c) control system;
- (d) tower;
- (e) cabling to transformer and other wind turbines;
- (f) battery.

Schedule 2 – Zone Ratings and Postcode Zones for Solar Panel (Photovoltaic) Systems**1 Zone ratings**

Item	Zone	Rating
1	3	1.382
2	4	1.185

2 Postcode zones

Item	Postcodes		Zone
	From	To	
1	3000	3390	4
2	3391	3398	3
3	3399	3413	4
4	3414	3426	3
5	3427	3474	4
6	3475	3514	3
7	3515	3516	4
8	3517	3520	3
9	3521	3524	4
10	3525	3538	3
11	3539	3539	4
12	3540	3549	3
13	3550	3560	4
14	3561	3569	3
15	3570	3570	4
16	3571	3606	3
17	3607	3617	4
18	3618	3622	3
19	3623	3628	4
20	3629	3657	3
21	3658	3684	4
22	3685	3687	3
23	3688	3724	4
24	3725	3731	3
25	3732	3999	4
26	8000	8999	4

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