

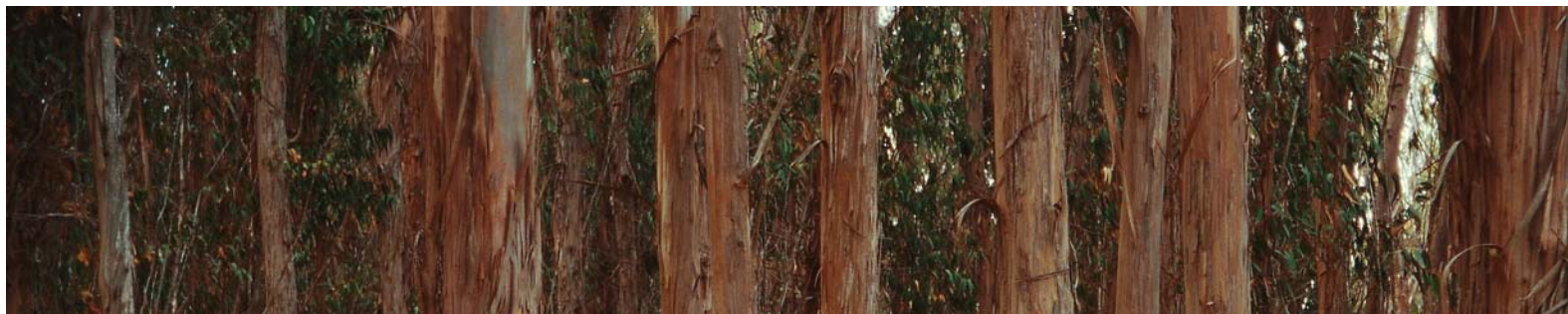


Australian Government
Office of the Renewable Energy Regulator



AUSTRALIA'S RENEWABLE ENERGY CERTIFICATE SYSTEM

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Authors: David Rossiter and Amarjot Singh¹
Office of the Renewable Energy Regulator
Level 4 John Gorton Building
Corner of King Edward Tce and Parkes Place
PARKES ACT 2600, Australia
GPO Box 621, Canberra ACT 2601, Australia
Tel: +61 2 6274 1436, Fax: +61 2 6274 1725

Author for all correspondence: David Rossiter

Abstract

Concern about climate change and concerted international action to reduce greenhouse gas emissions are powerful new drivers for renewable energy.

Australia has progressively adopted a series of policies relating to the climate change issue with the initial *National Greenhouse Response Strategy* of 1992 being added to in 1997 by a suite of policies under the banner *Safeguarding the Future* and developing into the *National Greenhouse Strategy* in 1998. A further policy package was announced in 1999 under the heading *Measures for a Better Environment*. In June 2004 the Government's white paper on energy *Securing Australia's Energy Future* recognised the link between energy generation and greenhouse gas emissions by introducing a further package of measures aimed at low emission technologies and renewables. Together with State and Territory policies Australia now has over 100 policies aimed at the issue of climate change and backed by over A\$1.8 billion of committed funds.

Australia has developed a national tradeable renewable energy certificate system to encourage additional renewable energy in electricity supplies. This paper outlines the objectives of the Renewable Energy (Electricity) Act, its legal framework, describes the tradeable certificate mechanism and summarises the experience of the first five years of operation of the Act.

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Australia's Renewable Energy Certificate System

1. Background and Introduction

On 20 November 1997 the Prime Minister of Australia in his statement "*Safeguarding the Future: Australia's Response to Climate Change*" announced a A\$180 million package of measures designed to improve the greenhouse performance of Australia's highly competitive energy-dependent sectors. The package was designed to stimulate the uptake of renewable energy by encouraging increased support to both supply of and demand for renewable energy. Measures included supporting renewable energy industries to encourage development and creating a market demand for renewable energy.

The package of measures was released immediately prior to the Kyoto negotiations of 1-10 December 1997 at which greenhouse emission reduction targets were to be negotiated by participants. It was stated at that time "that Australia will implement [this package] even if the international community fails to reach agreement at Kyoto."

The package contained twenty four measures and under one of those measures the Australian Government undertook to provide mandatory targets for the uptake of renewable energy in electricity supplies. The measure was summarised at that time as "The Government will work with States and Territories to set a mandatory target for electricity retailers to source an additional two percent of their electricity from renewable sources by 2010." The measure became known as the Mandatory Renewable Energy Target (MRET).

In 1998 the *National Greenhouse Strategy* was signed by the Commonwealth and all States and Territories and it lays out an integrated package of 86 measures to reduce Australia's greenhouse gas emissions. It builds on the earlier 1992 *National Greenhouse Response Strategy* and incorporates the measures from *Safeguarding the Future*. The strategy coordinates activity at all levels of government and within industry. MRET is part of that strategy.

On 31 May 1999, as part of its revised tax package, the Australian Government announced an additional package called "*Measures for a Better Environment*" and committed a further sum of about A\$800 million to support greenhouse abatement programs. These measures are designed to assist Australia in playing its part towards meeting its Kyoto commitments including through increasing the use of renewable energy.

On 15 June 2004, the Australian Government announced its energy policy white paper called "*Securing Australia's Energy Future*" which recognised the link between energy and greenhouse gas emissions and set up a package of measures including over A\$700 million aimed at low emission and renewable energy technologies.

These packages together with previous commitments form a comprehensive and complementary range of measures, which now provide strong support for renewable energy and its development within Australia through market mechanisms, grants and other programs. On 16 February 2005 the Minister for the Environment and Heritage Senator Ian Campbell, in his media release "*Australia leads the way in tackling greenhouse gas emissions*", said the Governments \$1.8 billion climate change package demonstrated its determination to reduce greenhouse gas emissions.

As part of the process of implementation of MRET a major consultation process with stakeholders was commenced in April 1998 by the Australian Greenhouse Office and completed in May 1999. Cabinet approved the proposals from the Final Working Group Report in late 1999 and a Bill was drafted in early 2000. The Bill was submitted to Parliament in the first half of 2000 and following a Senate Inquiry and extensive debate was passed on 8 December 2000. The Renewable Energy (Electricity) Act 2000 (the Act) created a new statutory agency the Office of the Renewable Energy Regulator and created the position of Regulator. The first Regulator was appointed on 12 February 2001 and the Act came into full operation from 1 April 2001.

In 2003, a review of the operation of MRET was conducted in accordance with section 162 of the Act. The review report *Renewable Opportunities* was released on 16 January 2004. On 15 June 2004 the Government released its energy policy white paper – *Securing Australia's Energy Future* – a statement was made on the MRET Review. The statement indicated the MRET would continue to operate and some operational and administrative improvements would be introduced.

This paper outlines the objectives of the Renewable Energy (Electricity) Act, its legal framework, describes the tradeable certificate mechanism and summarises the experience of the first five years of operation of the Act.

2. Objectives and Outline of Act

There are three objectives stated within the Act. They are:

- encourage the additional generation of electricity from renewable energy sources;
- reduce greenhouse gas emissions; and,
- ensure energy sources are ecologically sustainable.

The Act sets up a liability for parties making relevant acquisitions of electricity, generically called liable entities. Relevant acquisitions are typically those purchases of electricity by large buyers who did not generate the electricity themselves, for example electricity retailers.

Liable entities are required to discharge their liability by surrendering Renewable Energy Certificates (RECs) to the Regulator or pay a shortfall charge. This creates a demand for certificates and provides one side of the market.

Renewable energy certificates can only be created by eligible accredited renewable energy generators and are equivalent to one megawatt hour of renewable electricity. A variety of Renewable energy sources are eligible to create RECs under MRET. This creates the supply side of the market. Through the market, liable entities can trade directly or indirectly with certificate producers to acquire certificates to meet their liability.

Large buyers of electricity such as wholesaler purchasers and retailers are collectively required to source an additional 9,500 GWh of their electricity from renewable energy sources by 2010 relative to 1997. This takes Australia from around 16,000 GWh per annum of renewable energy in electricity in 1997 to about 25,500 GWh per annum in 2010, or an increase of about 60% in that period.

The rate of liability is set annually in the Renewable Energy (Electricity) Regulations 2001 (the Regulations) as a percentage of the sum of the relevant acquisitions of electricity. Table 2.1 shows the renewable power percentage (RPP) set from 2001 to 2006 inclusive. For example a wholesale buyer of electricity acquiring 100,000 MWh of electricity in 2005 would be required to surrender 1,640 renewable energy certificates to the Regulator to discharge their liability without paying a

renewable energy shortfall charge. The renewable energy shortfall charge is A\$40 for each REC not surrendered.

Table 2.1 Renewable Power Percentages from 2001 to 2006

Year	Renewable Power Percentage
2001	0.24%
2002	0.62%
2003	0.88%
2004	1.25%
2005	1.64%
2006	2.17%

The rate of liability is determined by the renewable power percentage set in the Regulations and it takes into account annual targets specified in the Act, see Table 2.2, and the anticipated quantity of liable electricity for a given period. The target specified for 2006 is 4,500,000 renewable energy certificates.

**Table 2.2 Annual Additional Renewable Energy Targets for Electricity Supplies
Renewable Energy Target (MWh)**

Year	Renewable Energy Target (MWh)
2001	300,000
2002	1,100,000
2003	1,800,000
2004	2,600,000
2005	3,400,000
2006	4,500,000
2007	5,600,000
2008	6,800,000
2009	8,100,000
2010	9,500,000
2011 - 2020	9,500,000

Note: Target for 2001 was for the nine month period from 1 April 2001 to 31 December 2001.
All other targets apply to full calendar years.

The certificate system gives additional financial benefit to renewable electricity produced by eligible renewable energy generators. This encourages increased demand for renewable energy generation and results in a reduction in greenhouse gas emissions. The accreditation system for renewable energy generators ensures energy sources are ecologically sustainable.

3. Legal Framework

The mandatory renewable energy target is supported through two Acts. They are:

- *The Renewable Energy (Electricity) Act 2000*; and,
- *The Renewable Energy (Electricity) (Charge) Act 2000*.

The former Act (about 100 pages plus about 136 pages of Regulations) details the requirements and provisions to enable the liability and certificate system to operate and the latter Act (about 4 pages) sets the penalty of A\$40/REC for shortfalls in certificate surrender. Both Acts are available at <http://www.orer.gov.au>

The legislation covers matters such as registration of generators, accreditation of power stations, creation of certificates, acquisition of electricity, renewable energy shortfall charge, statements, assessments, objections, reviews, appeals, penalties, audits, registers and the set up of the Office of the Renewable Energy Regulator.

4. Tradeable Certificates

Renewable Energy Certificates can only be created by registered persons for their deemed small generation units and accredited renewable energy power stations generating electricity above the 1997 baseline. Generally, these persons have to register under the Act, apply for power station accreditation and successfully achieve accreditation before they are eligible to create certificates. However for solar water heaters and small generation units (under 10 kW and under 25 MWh per year) registered persons can be deemed to be eligible for a fixed number of certificates for certain types of equipment.

Upon accreditation eligible renewable energy generators are given a unique access code and a password to a central internet based renewable energy certificate registry (www.rec-registry.gov.au) run by the Regulator's office. When eligible power stations have generated electricity above their baseline they may then log on to the registry and create certificates any time after they have generated sufficient electricity to cover the certificates they wish to create. No forward creation of certificates is permitted – generation must occur first.

Renewable energy certificates are marked with a code that indicates amongst other things who created them, what eligible renewable energy source was used and when the certificate was created.

Certificates are known by the year in which they were generated as 2001 or 2002 etc. While certificates can only be created after electricity is generated and they are referenced by the year of generation, they are recorded as a particular 'vintage' based on the time of the creation event. For example electricity may be generated above baseline in 2001 but the certificate might not be created until 2002 – the certificate is then displayed as a certificate for 2001 generation but is a 2002 vintage, having been created in 2002. A 2002 vintage certificate can only be surrendered against a 2002 or later liability whereas a 2001 certificate can be surrendered against a 2001 or any later year of liability.

5. Experience of the first four years of Operation

The Act started full operation on 1 April 2001 about six weeks after the Regulator was appointed and just over three months after the Act was passed by Parliament. The following sections describe the first five years of operation from 1 April 2001 to 31 December 2005.

5.1 Registered Persons

By the end of 2005, the ORER processed 338 applications for registration as a registered person under the legislation. Not all these persons have applied to have power plants accredited at this stage but some have applied for multiple power plants to be accredited. Registration is a simple process requiring some checking by the ORER before acceptance but is a prerequisite to apply for accreditation.

Applications for accreditation of a power station must be made by a registered person and in practice the registration and the application may be received simultaneously. Both of these actions attract fees – A\$20 for registration and a sliding scale fee for an application for accreditation depending on the size and complexity of the power plant. The accreditation and registration fees are set in the Regulations and vary from A\$20 to A\$3,000.

5.2 Applications for Accreditation

By the end of 2005, the ORER had received 254 applications for accreditation of power stations. While some of the applications were clearly from eligible renewable energy sources, insufficient detail of historic performance often slowed the process of approval. This difficulty was recognised by backdating accreditations to the date of receipt of applications where the application was substantially complete at the time of application. Table 5.1 shows how those 254 applications were disposed at the end of 2005.

Table 5.1 Status of Applications for Accreditation at End of 2005

STATUS OF APPLICATION	NUMBER OF APPLICATIONS
Accredited	228
Pending accreditation	22
Rejected or withdrawn	4
Total number of applications to 2005	254

Notes.

1. Pending accreditation includes recent applications being processed and those still requiring additional information.
2. Rejected includes applications that were combined with other applications.

5.3 Accreditations of Power Stations

By the end of 2005, 228 power plants were accredited. They represented seventeen eligible renewable energy sources of the twenty-three described in clause 17 of the Act. Some projects are use hybrid fuels, e.g. wind and solar. Table 5.2 lists the eligible renewable energy sources and the number of accreditations for each source.

Table 5.2 Accredited Power Stations by Eligible Renewable Energy Source at End of 2005

ELIGIBLE RENEWABLE ENERGY SOURCE	NUMBER OF ACCREDITATIONS
Bagasse Co-generation	25
Bagasse Co-generation, Wood Waste	2
Black Liquor	1
Black Liquor, Wood Waste ⁽¹⁾	1
Crop Waste	1
Food And Agricultural Wet Waste	4
Hydro ⁽²⁾	77
Landfill Gas	37
Landfill Gas, Municipal Solid Waste Combustion	1
Photovoltaic	30
Sewage Gas	9
Wind	28
Wind, Photovoltaic	2
Wood Waste ⁽¹⁾	4
Wood Waste ⁽¹⁾ , Crop Waste, Municipal Solid Waste Combustion	1
Wood Waste ⁽¹⁾ , Food And Agricultural Wet Waste, Municipal Solid Waste Combustion	1
Wood Waste ⁽¹⁾ , Municipal Solid Waste Combustion	4
Total number of accreditations to 2005	228

Notes.

1. Wood waste projects used cofiring technology.
2. Hydro includes micro hydro.
3. Small Generation Units and Deemed Units are not included in the above table.

5.4 Small Generators and Solar Water Heaters

Due to the structure of the Act and in order to encourage participation of small generators not all producers of certificates have to become accredited as power stations. Small generators are typically micro hydro, wind or photovoltaic (PV) generators who produce under twenty five certificates and are under 10kW capacity. The MRET Review recommendation numbers 21 and 22 adopted by the Government which has increased the deeming period for PV from 5 to 15 years and the capacity from 10kW to 100kW. This means PV generators under 100kW in capacity and who produce under two hundred and fifty certificates per year are now eligible for registration as deemed small generation units.

Additionally solar water heaters that meet specified conditions can be recognised for the electricity generation they displace. All other eligible renewable energy generators have to produce electricity to receive certificates. Amongst other conditions solar water heaters need to be designed to a certain standard and be listed in the Regulations to the Act. Typically solar water heaters listed in the Act receive between 10 and 35 renewable energy certificates over their life. All the certificates are awarded upon installation of the equipment.

Both small generation units and solar water heaters are entitled to claim deemed numbers of renewable energy certificates to simplify their applications. To further simplify their applications they can also assign their right to create certificates to an agent who may act on their behalf and further reduce the net transaction time and costs.

5.5 Renewable Energy Certificates Created

By the end of 2005, 15,749,644 Renewable Energy Certificates had been created. Table 5.3 lists the number of renewable energy sources created from eligible renewable energy sources.

Table 5.3 Renewable Energy Certificates Created by Eligible Renewable Energy Source at End of 2005

Fuel Type	2001	2002	2003	2004	2005	Grand Total
Bagasse Co-generation	27,742	314,622	293,948	264,180	589,533	1,490,025
Black Liquor	15,971	88,320	96,452	121,665	127,415	449,823
Crop Waste	0	0	0	116	0	116
Food And Agricultural Wet Waste	0	0	3	5,218	24,169	29,390
Hydro	228,805	800,768	3,053,204	1,062,214	1,014,660	6,159,651
Landfill Gas	64,839	187,379	241,153	324,741	363,002	1,181,114
Municipal Solid Waste Combustion	0	1,701	1,245	712	0	3,658
Photovoltaic	459	733	896	1,042	1,110	4,240
S.G.U. - Hydro (Deemed)	0	0	0	0	54	54
S.G.U. - Solar (Deemed)	15	75	3,825	9,867	9,184	22,966
S.G.U. - Wind (Deemed)	0	3	109	185	83	380
Sewage Gas	8,509	24,907	36,787	36,460	40,833	147,496
Solar Water Heater (Deemed)	150,063	472,324	719,905	820,957	958,814	3,122,063
Wind	98,408	207,903	349,816	527,430	1,434,475	2,618,032
Wood Waste	25,095	92,941	110,264	149,611	142,188	520,099
Grand Total	619,906	2,191,676	4,907,607	3,324,398	4,705,520	15,749,107

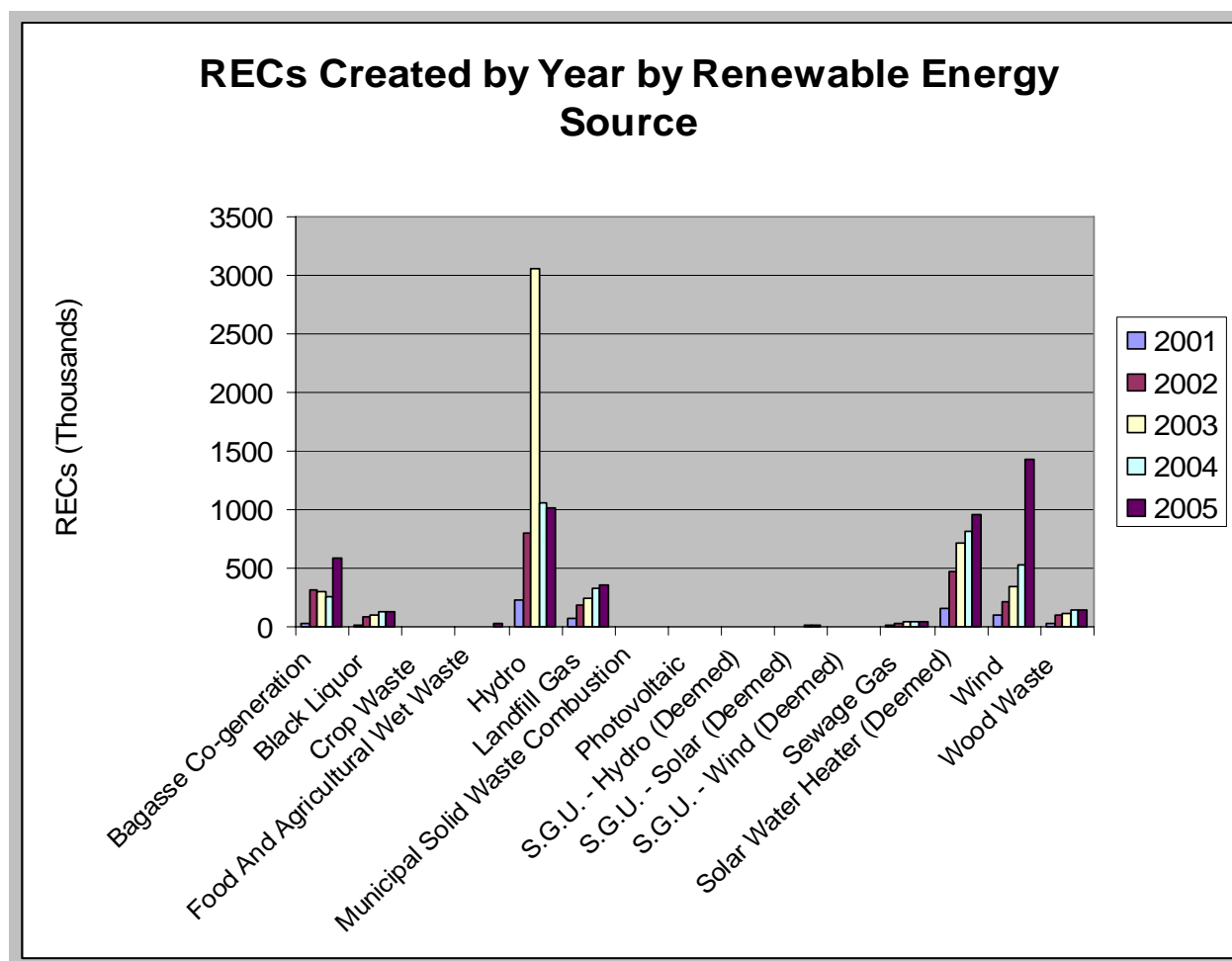
Notes

As at 31 December 2005.

The data shown in Table 5.3 is for the number of RECs created in each year but not all RECs pass validation tests before they can be registered for use. To the end of 2005 1,128,695 RECs had failed their validation audit tests.

Most validation audit failures occur because of minor technical issues often relating to small numbers of RECs within a batch causing the entire batch to fail. This gives an apparently high failure rate for RECs.

Most of failed RECs were re-created in subsequent batches and passed later after correction of any errors. As an example in 2003 one batch of about 850,000 hydro RECs that were incorrectly dated on first creation but were later passed following batch failure and re-creation with corrected dates.



5.6 Surrender of Certificates

For 2006, a target is stipulated in the legislation of 4,500,000 certificates and a renewable power percentage of 2.17% was promulgated for 2006 to raise that number of certificates from the estimated quantity of liable electricity for 2006.

Surrender of certificates is a separate module in the Internet based rec-registry. The surrender module is open between 1 January to 14 February each year, and due to the time zones in Australia, is left on until all time zones had reached midnight local time.

On 14 February 2006, in addition to addressing 2005 liabilities, liable parties are permitted by the Act to provide RECs to redeem any outstanding shortfall charges for the immediately prior three

years. The Act came into force in 2001 and during the 2005 compliance process shortfall charges were reviewed for 2001, 2002, 2003 and 2004.

The number of liable parties with a 2001 compliance year REC shortfall went down from 19 in 2002 to 5 at the end of 2005. At the end of 2005, the 2001 shortfall was 373 RECs, down from 25,842 RECs in 2002. For 2002 compliance year, the number of parties with a REC shortfall was reduced from 8 to 3. For the 2003 compliance year, the number of parties with a REC shortfall was 4. For 2004 compliance year compliance through REC surrender exceeded 99.8%. Over the years the ORER has seen an increase in the number of companies choosing to meet the target by surrendering RECs rather than paying the shortfall charge of \$40/REC.

By 31 December 2005, a total of 5,760,625 RECs were accepted for surrender against 2001, 2002, 2003 and 2004 liabilities

The legislation allows adjustment of the renewable power percentage in future years to take account of any 'overs' and 'unders' in the target achievement. The target for 2006 is 4,500,000 certificates and the renewable power percentage for 2006 has already been set at 2.17% of liable electricity. Any adjustment for 'overs' or 'unders' in the 2005 target achievement will be done through setting of the renewable power percentage for 2007. The renewable power percentage for 2006 must be set by 31 March 2006 or a default mechanism in the Act operates to set the renewable power percentage. The default renewable power percentage for 2006 is the same as the set RPP of 2.17%.

5.7 Annual Statements

The Office of the Renewable Energy Regulator has received annual Energy Acquisition and Shortfall Statements from liable entities from 2001 to 2005 inclusive. The office has also received annual Electricity Generation Returns from eligible parties from 2001 to 2005 inclusive. The process of analysing and verifying statements and returns takes at least six months.

5.8 Review of Act

The *Renewable Energy (Electricity) Act 2000* section 162 requires a review of the operation of the Act before the third anniversary of its commencement. A review was conducted during 2003 and it reported publicly in January 2004. The independent review report called 'Renewable Opportunities' contained thirty recommendations, the first of which recommended the measure should continue.

After considering the report the Government agreed to several of the recommendations and these were announced on 15 June 2004. The changes were designed to strengthen the operation of the measure and included enhanced market transparency, increased opportunities for bioenergy and solar technologies, improved business certainty, and encouraged innovation through recognising emerging renewable electricity generation technologies.

Amendments to the Act to implement several recommendations that the government agreed were tabled in the Australian Parliament for approval. As several of these recommendations will also require an amendment to the Regulations it is expected that these recommendations will come into effect be drafted for Parliament to consider and then implemented.

6. Discussion

This has been the fifth year of operation of the first national renewable energy certificate trading scheme in the world. The MRET Review report “Renewable Opportunities” published on 16 January 2004 indicates that the scheme should ‘continue to operate.’ The Government has adopted many of the recommendations of that report and has stated ‘An MRET with improved efficiency and effectiveness will continue to play a key role in Australia achieving its internationally agreed greenhouse gas emissions reduction target.’² Further a high level of compliance is being achieved and over 99% of parties comply by surrendering RECs.

Several issues have arisen during the period of operation such as the process of accreditation of power plants (particularly setting baselines) and interpretation of the Regulations for some eligible renewable energy sources (particularly wood waste). The issues surrounding wood waste are perhaps peculiar to the Australian situation and the specific wording of the Regulations that resulted from an intensive negotiation process during the Parliamentary debates surrounding the passage of the legislation. However the issues that arose around the accreditation process and the setting of baselines are perhaps of wider interest as they show the level of detail that needs to sit behind the framework legislation at all levels for it to function effectively.³

Baselines

Baselines are required for all power plants under the legislation but they are typically zero for all power plants that first generated electricity after 31 December 1996. Just under half the power plants accredited up to the end of 2005 had zero baselines.

Baselines were calculated for many hydro, landfill gas and bagasse (sugar mill waste) power plants. Two solar photovoltaic power plants had base lines, three wind, municipal solid waste, one sewage gas, one black liquor or food and agricultural waste powered electricity plants required baselines (from the applications submitted). The process of setting baselines commenced in 2002 by field visits to selected plants. Hydro power plants and particularly bagasse power plants baselines took into account a series of complex variables due to the inherent variability of their renewable energy sources. An internal office procedure has been compiled to set baselines in a consistent, replicable and equitable manner for any class of eligible renewable energy source.

A sugar mill is a good example of how a baseline methodology is derived through consultation with the participants. The methodology used was negotiated at workshops with the industry and with independent technical consultants.

The methodology takes into account the annual variability of sugar cane harvest area, crop, yield and fibre content to establish the sugar mill production for a typical 1997 year configured as it was at that time. The methodology is further complicated by the sharing of auxiliary loads between electricity generation plant and sugar processing equipment, the age of the sugar mills (many are around 100 years old and have been incrementally modified), the lack of internal and external metering and the switching of cane between mills to meet peaks in production. Careful attention to the detail of the legislation and the practical operation of the mills has led to a robust and repeatable methodology that is widely accepted within the sugar industry and by other eligible renewable energy source categories as equitable.

²Media release 15 June 2004 by Minister Kemp: “Adding muscle not fat”.

³These issues have been addressed in the MRET Review and the recommendations adopted for implementation by the Government. Currently an Amendment Bill is awaiting Parliamentary approval

Expected Investment

MRET is expected to liberate A\$2 to A\$3 billion of additional investment in renewables and will accelerate the uptake of renewable energy in grid-based electricity and provide a larger base for the development of commercially competitive renewable energy. This investment is in addition to an expected diversion of energy sector investment of about \$4 billion from non-renewable to renewable energy. The total expected investment in renewable energy over the twenty year life of the measure is about A\$6 billion.

Due to the nature of investments needed to create renewable energy certificates it is anticipated that investors will tend to enter the market in the first five or so years of the measure. This will enable investors to amortise these investments over more than ten years.

At this early stage it is difficult to estimate how much investment has been triggered by the MRET since projects often proceed for multiple reasons. However over \$3 billion of investment appears to have already occurred and over \$1 billion further investment appears to be firmly committed.

Many other project proposals have also been mooted representing considerably more investment but not all can proceed. For example one State alone has enough wind farm prospects to exceed the target for 2010 though not all projects would be able to proceed without major power system stability issues.

Trading in the Market

The creation of RECs happens throughout the year and the date for creation and compliance are not uniform events. RECs can be created any time after electricity has been generated. The first year of MRET saw companies understanding the Act and setting up systems to handle RECs. As shown in the table 6.1 both the number of transactions and number of RECs trades has risen sharply.

Table 6.1 Annual Numbers of Transactions and Number of RECs Traded

Year	Number of confirmed Transactions	Number of RECs Traded
2001	12	35,426
2002	405	1,410,952
2003	548	2,668,733
2004	791	5,218,693
2005	1,004	6,934,037

Though many projects have forward sold their output of RECs some spot market activity has occurred. Spot prices in the range of \$23 to \$40 MWh have been reported by third parties to date. But most RECs appear to be bought and sold under forward agreements and price disclosure is not normally available on these trades.

7. Conclusion

The Renewable Energy (Electricity) Act 2000 is operating well with 228 accredited power plants and more than 130,000 solar water heaters and small generation units contributing towards the operation of the measure.

As at 31 December 2005, a total of 5,760,625 RECs had been accepted for surrender against the 2001, 2002, 2003 and 2004 compliance periods. For the 2001, 2002 and 2003 compliance periods, the RECs surrendered by the wholesale electricity purchases were very near to the total REC

surrender target. For the 2004 compliance year more than 99.8 per cent of the 2004 liability was met by REC surrenders. This shows that compliance through REC surrender is at an all time high and forebodes well for the achievement of the expectations of the Act. 2005 compliance year data is still being processed at present and final results are not expected to be available until August 2006. The Act provides for future annual renewable power percentages to be adjusted to accommodate any annual under or over achievement of the annual target expressed in MWh of RECs.

The tradeable renewable energy certificate approach has proven to be an effective way to support the renewable energy generation in Australia and is being increasingly adopted both domestically and internationally to achieve a range of environmental objectives. The Act represents a major change in how additional renewable energy electricity generation is valued in Australia. The industry has responded rapidly and effectively to this change and appears to be well positioned to assist Australia in meeting greenhouse gas emission reduction targets.

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