

Committee Secretary
Senate Environment, Communications,
Information Technology and the Arts Committee
Department of the Senate
PO Box 6100
Parliament House
Canberra ACT 2600



19 April 2006

Dear Committee Members

Inquiry into Renewable Energy (Electricity) Amendment Bill 2006

Email: ecita.sen@aph.gov.au

The Australian Business Council for Sustainable Energy (BCSE) is an independent member-based industry association representing the broader sustainable energy industry in Australia. The BCSE has over 260 organisations as members covering renewable, gas and distributed energy generation equipment suppliers and installers, energy retailers and generators and energy service and efficiency providers. The common feature of our membership is their interest in meeting Australia's energy needs with lower greenhouse emissions.

The Mandatory Renewable Energy Target (MRET) and associated Renewable Energy (Electricity) Act (the Act) are matters of considerable importance to many, if not most, of our member companies. With the prospect of State Governments implementing their own renewable energy target schemes, the Act takes on renewed importance as a form of model legislation. Therefore the BCSE is keen to ensure it provides a sound framework for future growth of renewable energy.

The key priority issues of concern to us regarding the Act (besides the inadequate level of the target) are:

1. The impact of the new anti gaming provisions of the Bill upon bio-energy power projects;
2. That there is no provision within the act to ensure that PV systems awarded deemed RECs are installed according to a quality consistent with Australian Standards; and
3. That section 17 of the act is excessively prescriptive in defining qualifying renewable sources in regards to fuel sources derived from biological feedstocks (plant matter).

These concerns and suggested amendments are detailed in the attached pages under the relevant headings. We would also highlight that new investment in renewable energy projects has now effectively stalled as sufficient projects now exist to fully deliver the 9500 GWh target. We have attached an extract of our latest REC Report that illustrates this position.

We hope these suggested amendments attached can be accommodated within the Act and would also like to commend a number of the other amendments already slated for implementation which were the product of the detailed and thorough Tambling MRET Review.

Yours sincerely

Original signed by

Ric Brazzale
Executive Director

1. Anti-gaming provisions

Gaming can be described as the manipulation of resources between power stations for the purposes of creating extra Renewable Energy Certificates (REC) without an increase in electricity generation. The provisions are currently a regulation and are explicitly aimed at interconnected hydroelectricity power stations.

While broadly supportive of the provisions, the industry is seeking to avoid possible unintended consequences of the new provisions on the sugar industry. Due to the unique processing and harvesting demands of the sugar industry it may in the future find itself inadvertently in breach of the relevant Clause of the Act.

Cane transfers between sugar mills (which are renewable generators) are a normal operating practice to ensure the efficient and timely processing of the cane once harvested. The practice is likely to increase over the coming years as the industry restructures to optimise operations and reduce costs to compete internationally. Under the proposed provisions as currently drafted this has the potential to be defined as gaming yet it is clear that such activities would be unrelated to the sole purpose of REC production.

The Explanatory Memorandum (EM) has recently been amended to consider the operational activities of power stations, which is acknowledged by the industry. However to ensure certainty the industry would advocate the word 'equivalent' be removed from paragraph 103 of the EM.

Further the industry is also seeking to have the definition of gaming more explicitly defined in Clause 30D so that it fully reflects the nature of gaming.

For your consideration I commend to you the following amendments to Clause 30D(6) first proposed by the BCSE in October 2002 to the Senate Committee References Inquiry into the Renewable Energy (Electricity) Amendment Bill 2002:

A gaming arrangement is an arrangement to co-ordinate the amount of electricity generated by each power station in the group during the year using the relevant supply ~~in order to~~ when the predominant outcome is to allow more certificates to be created ~~in respect of~~ without an increase in the total electricity generated by the power stations in the group during the year using that supply than would otherwise be able to be created.

These amendments will provide the industry with significantly improved levels of certainty for investment and business operations without an adverse impact on the intent of the provisions.

2. Ensuring solar photovoltaic (PV) systems are installed according to a quality consistent with Australian Standards

Background

Accreditation for solar PV designers and installers was initiated by the Sustainable Energy Industry Association (SEIA) over five years ago and has been continued and developed by the BCSE with industry development funding from the Australian Greenhouse Office (AGO). This important activity has been instrumental in improving the quality of installations and improving customer support industry wide. Australia is considered to be a world leader in the areas of training and accreditation.

An important part of this process has been the general requirement that PV systems receiving financial support under the PV Rebate Program (PVRP) needed to be installed according to Australian Standards. Accreditation under BCSE's scheme has generally been seen as prima facie evidence

that this has occurred. With the eventual phase out of PVRP, the key driver for maintaining industry standards and accreditation under the BCSE scheme will be the marketing and promotional aspects associated with being accredited. In an emerging industry such as PV at present, this may not be sufficient a driver and there is a real risk that the recent progress and gains made in improving standards will not be able to be cemented to support the industry in its future growth.

With the extension of deeming provisions for PV systems to 15 years, the Office of the Renewable Energy Regulator (ORER) will need to have confidence that the PV system has been properly installed and is likely to produce the stated level of power over the next 15 years for which RECs have been deemed.

The need to maintain standards

Although solar PV technology has been around for decades, it is only relatively recently that government support has reduced significant barriers to entry allowing the Australian solar PV industry to grow and emerge from the 'cottage' industry that has characterised it for so long.

Australian Standards particular to remote area power supply (RAPs) systems were only introduced in 1999. Since then a number of these standards have been revised and reissued and other introduced. This work is ongoing and there are two other standards currently under formal review.

The combination of these factors means that maintaining an "industry consistent" approach to design and installation has been and still is a vital but considerable challenge. Many people have entered the industry in order to be involved in an environmental field and find it personally rewarding. Because of this, and the high capital cost of solar systems, competition can be fierce and margins small, with the result that cheaper sub standard installations may be chosen by ill informed customers over adequately sized systems designed to Australian Standards. This can lead to a multitude of supply problems, systems not meeting customer expectations and general loss of customer confidence in solar. BCSE deals with the negative outcomes of these through its accreditation complaints scheme.

To ensure that systems function properly and act to promote the industry, it is imperative that there is a level playing field and all designers and installers are required to design and install to Australian Standards.

Indeed, the ORER will also need to have confidence that systems will be able to supply the prescribed level of power over the 15 year period for which RECs have been deemed.

In the case of SWH systems that are able to earn deemed RECs for a 10 year period there is a requirement that the system meets Australian Standards.

Deeming RECs requiring system to be designed and installed according to Australian Standards

To maintain customer confidence and ensure that systems are designed and installed in accordance to Australian Standards (ie. they are "fit for purpose" and deliver the required output), the BCSE is recommending that where customers seek to obtain deemed RECs then:

Customers will be required to demonstrate to ORER that (i) the system installed has been designed and installed to Australian standards and (ii) the key components (batteries, inverters and modules) comply with Australian standards.

Where the system is installed by a BCSE Accredited designer / installer then this is able to satisfy the ORER requirements. This does not mean that a system needs to be installed by an Accredited installer, however the onus will be in the customer claiming the RECs (or the installer acting on the customers behalf) to demonstrate to ORER that the system has been installed according to Australian Standards.

In this way the PV industry can be confident that Standards are maintained and that consumer confidence and support remains high. Importantly it also ensures that the industry development objectives of MRET are supported and industry capacity and capability is expanded.

3. Overly prescriptive approach to bioenergy

Biomass is very diverse in its nature. There are potentially many other forms of biomass resources that would meet the policy objectives and sustainability criteria, yet may not be listed in Section 17. An example may be high lipid content algae, or cotton ginning wastes (not strictly a crop waste) which are not explicitly listed. As such, forms of sustainable biomass may be unintentionally excluded under the Act.

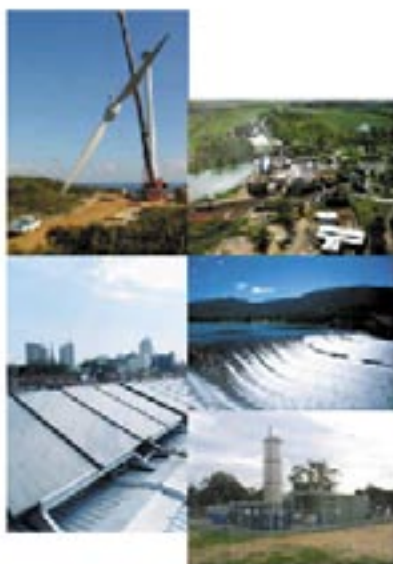
By requiring amendments to the Act every time a new bioenergy technology is developed imposes a considerable degree of inflexibility (an amendment to the Act is a far longer and more involved process than changes to regulations) that will inhibit innovation and potentially increase the cost of the MRET scheme (and any scheme modeled on the Renewable Energy Act) as it artificially restricts the potential supply of renewable energy. This difficulty and the uncertainty it creates may be overcome by providing broad renewable energy categories, and qualifying the compliant forms of bioenergy in the Regulations.

We therefore recommend that the various forms of *eligible renewable energy sources* be consolidated into major categories of: hydro, wind, solar, biomass, ocean and geothermal in Section 17 of the Act.

Fourth year assessment of MRET

The Australian Government's MRET scheme has been extraordinarily successful in developing new renewable electricity generation projects. However, the modest 9,500 GWh target in 2010 has now been effectively met and without further policy support we are witnessing a significant stalling of investment in the sector.

Australian Business Council for Sustainable Energy 2005 REC Report



Includes Renewable Energy Certificate (REC) summary figures, analysis and projections of supply and demand



For BCSE members only

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The BCSE has just released its 2005 REC report which provides an assessment of the Mandatory Renewable Energy Target (MRET) after four years of operation. The report also incorporates an analysis of future supply and demand for RECs and shows that only an additional 150 MW of grid-connected renewable projects are required to meet the target to 2020. As at mid June 2005, 11.0 million RECs had been created for the period 2001 to 2004. Figure 1 shows REC creation and surrender by fuel type. In addition to the RECs created to date, the BCSE estimates an additional 1.4 million RECs are yet to be created for 2003 and 2004 generation, most of these RECS are from hydro. Once we allow for these RECs then the market share by eligible fuel is hydro 47 per cent, solar hot water 18 per cent, wind 12 per cent, bagasse 10 per cent and landfill gas 7 per cent.

When we allow for RECs that could be produced and the level of RECs that have been set aside to meet Retailer Green Power requirements then the total surplus RECs amounts to 6.2 million at the end of 2004. Table 1 includes a summary by generation year.

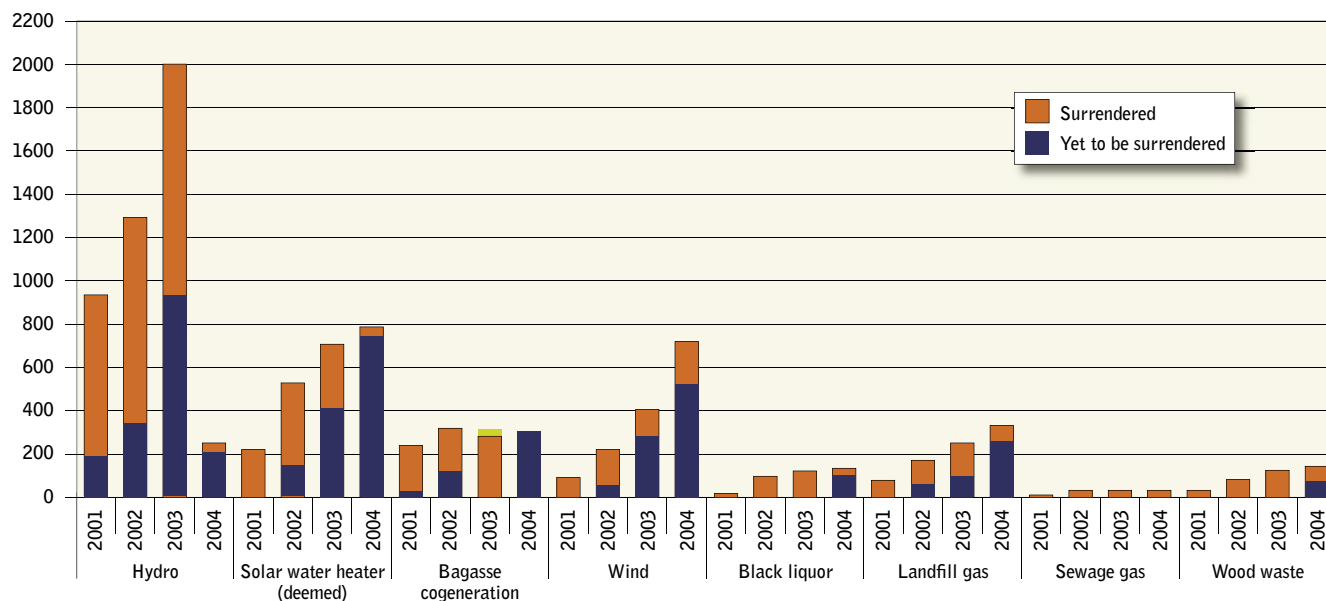
Table 2 lists the power stations that generated the highest number of RECs for 2004. The most RECs were produced by the Woolnorth Bluff Point Wind Farm located in Tasmania. It is important to remember that not all RECs have been created for a number of hydro projects, and these projects may displace a number of the projects listed below.

At mid June 2005 there were 229 power stations accredited to produce RECs (not including SWHs and small generating units). This figure has increased from 202 in mid-June, 2004. The top ten REC-producing companies for 2001–04 combined and their fuel sources are shown in Table 3.

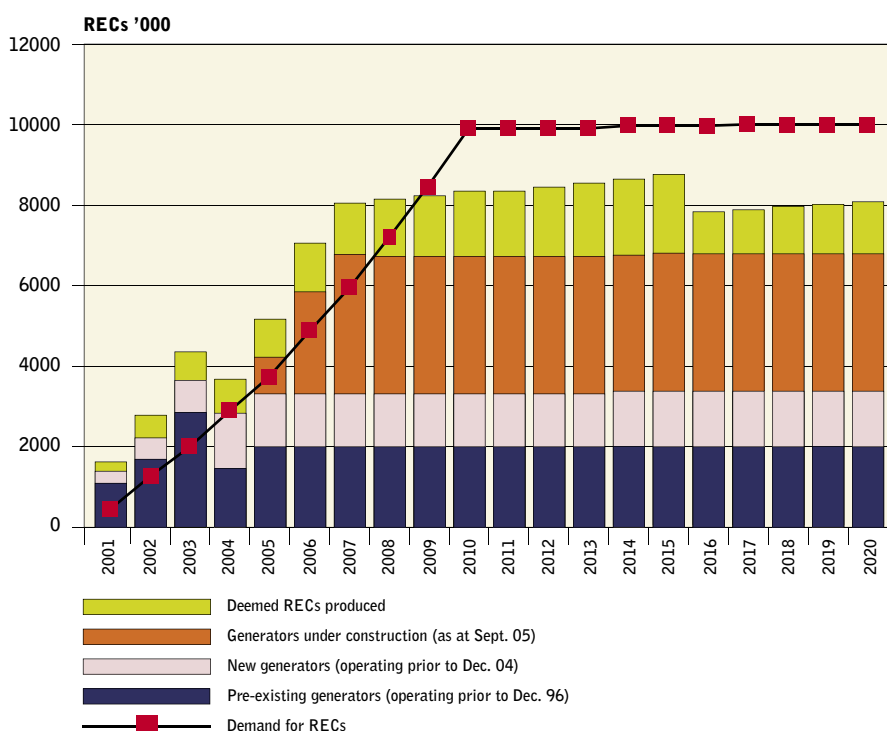
Future supply and demand for RECs

The BCSE's analysis shows that little additional new generation needs to be committed to meet the modest 9,500 GWh target by 2010. Only 200 MW of new generation needs to be built and 50 MW of this will be supported by the Remote Renewable Power Generation Program, leaving only 150 MW to be committed for grid-connected renewables. This level of generation allows for continued modest increases in the level of deemed RECs from the sale and installation of solar water heaters (SWH) and the installation of PV.

In addition to the mandated 9,500 GWh target from 2010 to 2020 we estimate that the level of RECs set aside

Figure 1: RECs by fuel and generation year

Data source: www.rec-registry.com as at mid June 2005

Figure 2: RECs available to meet Demand (without new Project Commitments)

Renewable energy is a proven source of clean electricity and will play an essential role in reducing Australia's greenhouse gas emissions. Renewable energy currently provides 9 per cent of Australia's total electricity generation.

However without future market mechanisms to encourage continued investment in renewables — or other low emission energy for that matter — reducing Australia's greenhouse emissions from stationary energy will be extraordinarily difficult.

Projections by the Australian Bureau of Agriculture and Resource Economics (ABARE) show that by 2010 greenhouse emissions from stationary energy will be 61 per cent higher than 1990 levels and that by 2020 emissions blow out further to 116 per cent higher than 1990 levels. It is imperative Australia takes action to curb its emissions from stationary energy.

Table 1: Supply and demand of RECs to December 2004

GWh ('000 RECs)	2001	2002	2003	2004
Registered — mid June 05	1635	2748	3923	2732
Still to be Registered	—	25	468	923
Total Supply	1635	2773	4391	3655
Demand for RECs	300	1230	1960	2780
Excess Supply	1335	1543	2431	875

Demand for RECs includes Retailer's liability under MRET as well as RECs for Green Power.

to meet Retailer Green Power sales will continue to rise to reach 500,000 by 2020. This means that the total demand for RECs by 2020 will be 10 million per annum.

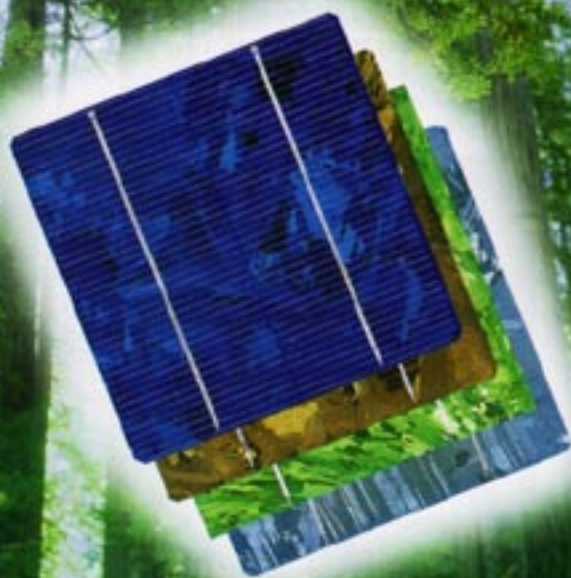
Supply of RECs (excluding new projects)

The BCSE has undertaken a detailed analysis of the RECs created to date and has estimated future RECs by fuel type and by state. We have considered four categories of REC supply into the future. These are:

- Pre-existing generators: there were 7,400 MW of pre-existing renewable

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Table 2: Top 10 REC producers by power station¹ for 2004 generation

	Registered Name	Station	Fuel Source	State	Total 2004	Surrendered 2004
1	Woolnorth Bluff Point Wind Farm Pty Ltd	Woolnorth Wind Farm	Wind	TAS	185,961	185,961
2	Haughton Sugar Company Pty Ltd	Invicta Mill	Bagasse Co-generation	QLD	140,826	140,826
3	Pacific Hydro Challicum Hills Pty Ltd	Challicum Hills Wind Farm	Wind	VIC	140,673	75,088
4	Stanwell Corporation Ltd.	Kareeya	Hydro	QLD	103,158	97,936
5	EDL LFG (NSW)	Lucas Heights I & II LFG Power Plant	Landfill Gas	NSW	98,910	71,288
6	Starfish Hill Wind Farm Pty Ltd	Starfish Hill Wind Farm	Wind	SA	96,035	76,223
7	Visy Pulp and Paper Pty Ltd	Visy Pulp and Paper	Black Liquor	NSW	81,485	75,045
8	Western Power Corporation	Albany	Wind	WA	67,150	13,572
9	Macquarie Generation	Liddell Power Station	Wood Waste	NSW	65,557	15,586
10	Stanwell Corporation Ltd	Barron Gorge	Hydro	QLD	64,144	58,744

Data source: www.rec-registry.com as at mid June 2005.

1. This excludes deemed RECs produced by solar water heaters.

Table 3: Top 10 REC producers by company for 2001, 2002, 2003 and 2004 generation combined

Company Name	Total RECs	Source of RECs
Hydro Tasmania	2,137,030	1,883,153 from 25 hydro stations in Tasmania and 10,569 from Huxley Hill wind project and 243,308 from Woolnorth Wind Farm
Snowy Hydro	1,702,790	All from six Hydro stations in NSW
Haughton/CSR Sugar	1,081,758	All from five bagasse projects in Queensland
Energy Developments	650,851	All from 14 landfill gas sites in various states
Rheem/Solahart	622,875	All derived from solar water heater deemed RECs
Stanwell	589,892	337,086 from four Hydro plants in QLD, 1485 from two sewage gas projects in QLD, 244,943 from two wind projects in Queensland and Victoria and one from a Photovoltaic project in Queensland. 6377 RECs from deemed solar water heaters
Energex	530,164	Largely produced from solar water heater deemed RECs
Western Power	423,339	Around 70,000 generated annually from wind farms located in WA, and 180,000 from solar water heaters over the period 2001-2004
Southern Hydro	409,325	All from four hydro plants in Victoria
Pacific Hydro	384,770	Most RECs generated by two Victorian wind farms with a small amount created from Victorian hydro plant

Data source: www.rec-registry.com as at mid June 2005

energy generators as at 31 December 2006. These generators are expected to be able to produce around 2.0 million RECs on average per annum, which represents renewable energy production about their determined baseline.

- Post 1997 generators: 392 MW of new renewable energy generation projects have been commissioned to 31 December 2004. These generators are able to produce 1.3 million RECs per annum.

- Generators under construction: At December 2004 720 MW of renewable projects were under construction and an additional 220 MW of new projects have been committed in 2005. In total these

projects will be able to produce 3.5 million RECs per annum.

- Deemed RECs: the level of RECs to be produced from deemed SWH and PV are expected to continue to grow, albeit at more modest levels, so that by 2010 around 1.6 million RECs will be able to be produced from these sources.

Figure 2 illustrates how the level of REC generation builds up over the life of the MRET Scheme.

On the basis that no new renewable power generation projects get committed the level of surplus RECs in the market continues to build over the next few years to reach a total surplus of over 13 million RECs by 2008. Figure 2 illustrates how the surplus that is built to 2008 is used to meet the demand for RECs beyond 2010.

By 2020 wind will be the largest contributor of RECs, with 31 per cent market share, followed by hydro (27 per cent), solar water heaters (16 per cent), bagasse (13 per cent), landfill gas (6 per cent), other bioenergy (5 per cent), small generator units (PV and wind) (2 per cent).

The 2005 REC Report includes a detailed summary of RECs created by project since 2001. The report can be downloaded by members from the BCSE website. Members should contact the BCSE office on 03 9349 3077 if they require a password.