

18 April, 2008

Committee Secretary (economics.sen@aph.gov.au)
Senate Economics Committee
Department of the Senate
PO Box 6100
Parliament House
Canberra, ACT 2600

Submission RE: Inquiry into the Renewable Energy Legislation Amendment (Renewable Power Percentage) Bill 2008

Dear Secretary,

I write this submission to **strenuously endorse** the Renewable Energy Legislation Amendment (Renewable Power Percentage) Bill 2008 as raised by Senator Lyn Allison. It is my firm belief that immediate extension of the Mandatory Renewable Energy Target (MRET) is necessary to maintain and expand the Australian renewable energy industry, and thereby serve as a key component of Australia's climate change mitigation response. I note with considerable frustration and continually increasing alarm that this response is woefully lacking, despite the manifest urgency of mitigation and the dire projections for climate change impacts to Australia and the world.

It is worth briefly highlighting the status of recent scientific understanding in the climate change context. Senators will doubtless be aware of the 2007 release of the Intergovernmental Panel on Climate Change's (IPCC) Fourth Assessment Report; in particular I commend the final Synthesis Report and its [Summary For Policymakers](#) as a cogent and compelling initial overview. The fact that 'warming of the climate system is unequivocal' (IPCC 2007, 1) must inform all policy decisions with bearing on climate change mitigation and the emission of greenhouse gases (GHG). And yet the IPCC notes that current mitigation policies will see GHGs *continue* to grow over coming decades (IPCC 2007, 6). The reality is that humanity has not yet fully come to terms with the fundamental threat to our civilisation that climate change represents — we are not taking the steps required to 'avoid dangerous anthropogenic interference in the climate system'.

James Hansen and colleagues at NASA have recently submitted a paper to *Science* that warns the situation is even starker. Whereas most analysis to date has concerned *minimum* stabilisation targets for atmospheric GHG concentrations of 450-550 ppm CO₂-equivalent, Hansen et. al. assert that:

If humanity wishes to preserve a planet similar to that on which civilization developed and to which life on Earth is adapted, **paleoclimate evidence and ongoing climate change suggest that CO₂ will need to be reduced from its current 385 ppm to at most 350 ppm** (emphasis added: Hansen et. al. 2008)

That is, **CO₂ alone must be reduced below current atmospheric concentration levels**. The importance of this research and the weight of its consequences are almost impossible to overstate. Other research groups such as the German Potsdam Institute for Climate Impact Research¹ are drawing similarly alarming conclusions. The implications for policy are clear: humanity *must* act to decarbonise our economies immediately, and act aggressively, urgently, and decisively.

¹ See <http://www.pik-potsdam.de/>

Sadly, these actions are not occurring internationally in anywhere near the degree required; and in Australia, barely at all. This is despite our indisputable responsibility as a current and historical emitter (the *polluter pays* principle) and our clear ability to act (the *ability to pay* principle).

In the period 1990-2005, according to formal submissions to the UNFCCC², Australian GHG emissions excluding land use and forestry changes have *increased* by 25.6% (UNFCCC 2007, 9). Moreover, it is well known that Australia has the infamous dishonour of being the highest GHG emitter per capita among industrialised countries (Turton 2004, 4). Further, **stationary energy³ now accounts for over 50% of total Australian GHG emissions and 89.4% of CO₂** (Department of Climate Change 2008b, 21). The inexorably increasing trend in emissions from this sector is illustrated in the following figure from Australia's most recent GHG inventory, released in February 2008.

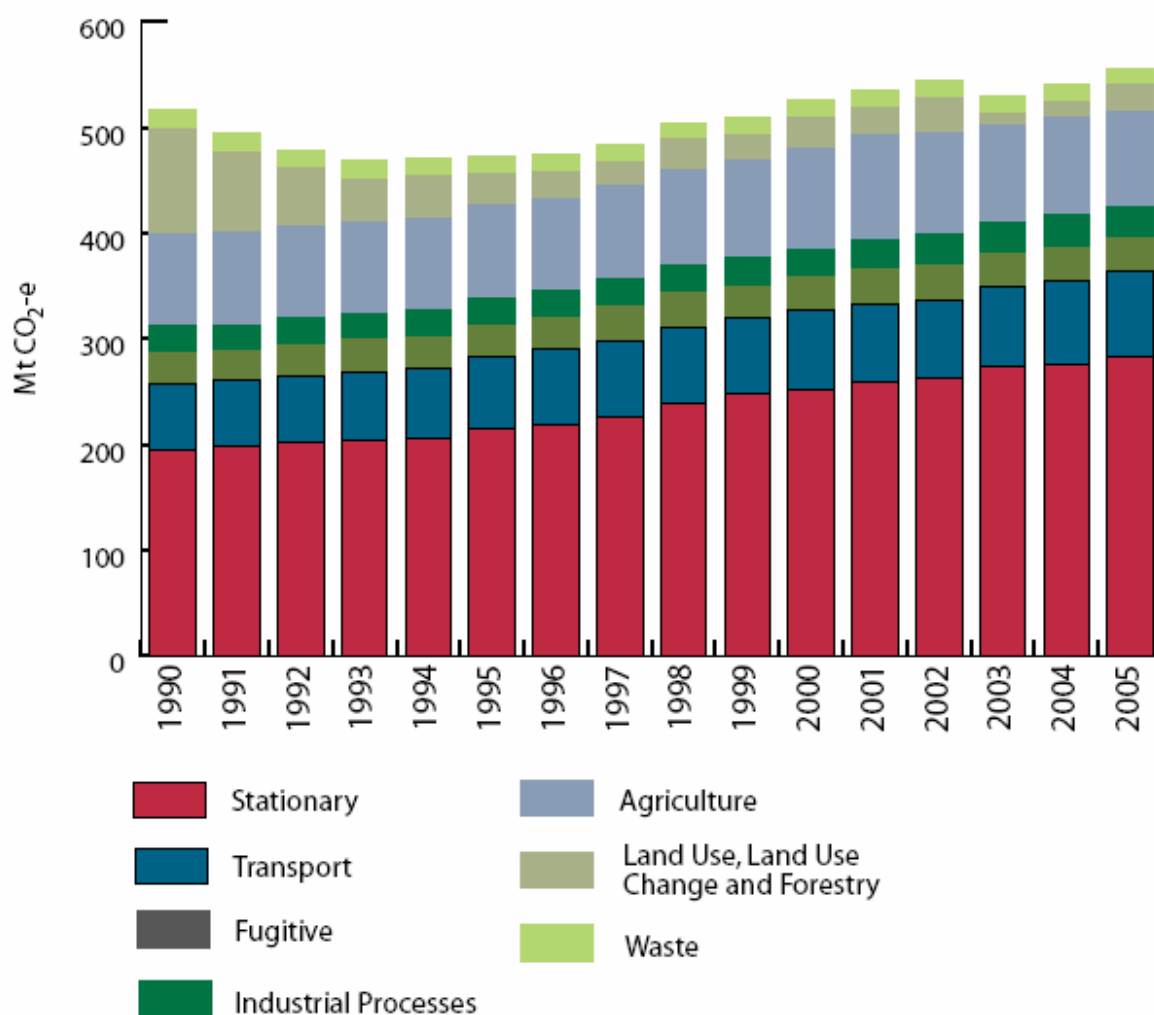


Figure 1 - Trends in CO₂-eq emissions and removals by sector, 1990-2005 (Department of Climate Change 2008b, Fig 2.3, pg. 21)

The above facts have clear and direct implications for MRET because **renewable energy technologies, applied in the stationary energy sector, are the *only means* currently available to achieve zero emissions** at the point of use, and dramatically lower emissions during the production and other lifecycle stages. ‘Clean coal’ and other end-of-pipe dreams will not be available in any useful timeframe. The fact that even the Bush Administration recently withdrew from the flagship

² United Nations Framework Convention on Climate Change, the framework within which the Kyoto Protocol exists.

³ Dominated by electricity generation by the combustion of coal and natural gas.

FutureGEN coal carbon capture and storage programme should leave Senators with severe doubts as to the likelihood of clean coal *ever* becoming reality. Renewable energy technologies ‘are available already and competent simulations have shown that [they] can and should become dominant within the coming 50 years in all energy markets around the world’ (Palz 2006).

Moreover, it is a widely documented fact that incumbent fossil fuel technologies maintain their apparent price advantage only because their very real social and environmental costs — *externalities* — remain unpriced. The 2006 Stern Review famously described this situation as ‘the greatest and widest-ranging market failure ever seen’ (Stern 2006, i). While the proposed Emissions Trading Scheme (ETS) will finally redress this systemic defect and force the internalisation of costs via emission permits, it will not commence operation until 2010 (Department of Climate Change 2008c). Further, by the nature of a continually reducing emissions cap, the ETS will not *initially* generate the sort of investment incentive that will directly result in increased renewable energy penetration. Interim policy instruments are required.

In addition, fossil fuels are the beneficiaries of historical *and current* government subsidy: direct and indirect subsidies to fossil fuel interests (including transport) are estimated to exceed some *\$6 billion* per year (Diesendorf 2007, 290-291). These subsidies and other government policies and regulations⁴ were and remain seminal in the development of the stationary energy sector and fossil fuels’ dominance of it. They are a serious obstacle to any ‘natural’ expansion of renewable energy.

The recently elected Rudd government committed to expand the MRET to achieve a goal of 20% renewable energy supply of national electricity by 2020, equating to 45,000 GWh/year (Department of Climate Change 2008a). This move is a welcome first step toward fostering the expansion of renewable energy and to fulfilling Australia’s GHG emission abatement obligations under the now-ratified Kyoto Protocol. Yet as Senator Allison documents, there has been no accompanying modification to the MRET’s administration to expand its target beyond the current 9,500 GWh/year, and none is planned until 2010. Australia therefore effectively continues to do almost nothing.

This situation is entirely unacceptable, is without merit, and must be remedied immediately. Robust and rapid expansion of the renewable energy sector is immediately required and should be actively supported by government, not least in an effort to ‘level the playing field’ with fossil fuels.

The MRET is a highly effective and efficient policy instrument for doing so. Even the small original target (9,500 GWh/year by 2010) ‘led to an extraordinary boost to investment’ in the renewable energy industry (Hamilton 2007, 108). Yet, as the Tambling Review noted as early as 2003 in its call for expansion,

By 2007, sufficient capacity is expected to have been installed to meet the MRET target of 9500 GWh for 2010. As a consequence, **investment is expected to fall away rapidly**. (emphasis added: Tambling 2003, xvii)

The MRET is already fully subscribed, and further delay to the promised expansion of the target will have detrimental impact on the investment environment for renewable energy. This form of ‘start/stop’ policy implementation is well known to generate strong *disincentives* to investment (Hohmeyer 2006) and will unnecessarily impede and damage the renewable energy industry in Australia at a time when we urgently need the opposite.

⁴ Regulatory environments such as the infrastructural costs associated with connecting more dispersed renewable energy technologies to the electricity grid.

Renewable energy technologies *must* rapidly take a central role in the stationary energy sector if we are to carry our weight in the mitigation of climate change. We know that the coming ETS will inevitably drive this outcome but at a slower initial pace. It is therefore entirely appropriate and logical to provide the desperately needed policy and market signal to strengthen and increase investment in renewable energy. Failure to do so will likely push back by *years* the time at which these systemic changes truly start to occur, and could be immensely damaging to Australian renewable energy businesses. Every year without such a signal perpetuates the existing infrastructure context and permits capital investment decisions to be made that result in yet more coal-fired and other fossil fuel electricity generation in Australia. *The MRET instrument already exists, it already serves a clear and effective function in achieving these aims, and its expansion to 45,000 GWh/year by 2020 has already been committed to.* All that is required are the legislative amendments — as proposed by the Bill in question — to bring the above policy aims into operational reality, *starting as soon as possible in 2008, not sometime in 2010.*

As a deeply concerned Australian citizen, I earnestly urge the Committee to find strongly in favour of the Bill and to recommend it be enacted immediately. We simply have no more time to waste.

Yours sincerely,

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- Department of Climate Change. 2008a. *20% Renewable Energy Target*, 25 February, 2008.
<http://www.greenhouse.gov.au/renewabletarget/index.html> (accessed 17 March, 2008).
- Department of Climate Change. 2008b. *Australia's National Greenhouse Accounts: National Inventory Report 2005 (Revised) - Volume 1*.
<http://www.greenhouse.gov.au/inventory/2005/national-report.html>
- Department of Climate Change. 2008c. *Australian Emissions Trading Scheme (ETS)*.
<http://www.greenhouse.gov.au/emissionstrading/timetable.html> (accessed 18 April, 2008).
- Diesendorf, Mark. 2007. *Greenhouse Solutions with Sustainable Energy*. Sydney: UNSW Press.
- Hamilton, Clive. 2007. *Scorcher: The dirty politics of climate change*. Melbourne: Black Inc. Agenda.
- Hansen et. al. 2008. Target atmospheric CO₂: Where should humanity aim? *Science (pre-print)*.
<http://arxiv.org/abs/0804.1126> (accessed 18 March, 2008)
- Hohmeyer, Olav. 2006. *The German Policy Environment for Renewables: Making the Difference!* In *ISTP Lecture*. Murdoch University, Perth. 13 September, 2006.
- IPCC. 2007. *Fourth Assessment Report, Climate Change 2007: Synthesis Report - Summary for Policymakers*. http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf (accessed 31 January, 2008)
- Palz, Wolfgang. 2006. *The Challenge of Renewable Energy Market Deployment*. World Council for Renewable Energy.
http://www.wcre.de/en/index.php?option=com_content&task=view&id=59&Itemid=17
(accessed 18 November, 2007)
- Stern, Nicholas. 2006. Executive Summary. In *The Stern Review: The Economics of Climate Change*. UK: HM Treasury.
- Tambling, Grant. MRET Review Panel. 2003. *Renewable Opportunities, A Review of the Operation of the Renewable Energy (Electricity) Act 2000. Executive Summary*.
<http://www.mretreview.gov.au/report/index.html>
- Turton, Hal. 2004. *Greenhouse gas emissions in industrialised countries: Where does Australia stand?* The Australia Institute.
- UNFCCC. 2007. *National greenhouse gas inventory data for the period 1990–2005*.
<http://unfccc.int/resource/docs/2007/sbi/eng/30.pdf> (accessed 17 April, 2008)