Chapter 3

Renewable Energy Legislation Amendment (Renewable Power Percentage) Bill 2008

Purpose of the bill

3.1 The purpose of the Renewable Energy Legislation Amendment (Renewable Power Percentage) Bill 2008 is to extend the renewable power percentage targets beyond those currently set out in the Renewable Energy (Electricity) Regulations 2001. While the proposed targets are in line with current government policy, proponents of the bill point out that the administrative process and timeframe announced in December 2007 mean that the targets will not be extended until 2010. The Democrats believe this could result in the renewable energy industry losing momentum and the capacity and continuity of the renewable energy industry put at risk.[1]

3.2 The Mandatory Renewable Energy Target (MRET) scheme, which is underpinned by the regulations, is an additional and complementary policy to an Emissions Trading Scheme (ETS). It is argued that an ETS alone will not enhance renewable energy development. Accordingly, MRET has driven renewable energy investment, requiring electricity retailers and other large purchasers of electricity to collectively source an additional 9 500 gigawatt-hours (GWh) of electricity from renewable sources by 2010.[2]

3.3 The bill further argues that expanding the Mandatory Renewable Energy Target (MRET) from 2008 will create a stable investment environment for the continuing development of renewable energy industry, and that the proposed targets contained in this bill will deliver additional greenhouse emissions abatement of thirty million tonnes above 'business as usual' by 2010.[3]

Provisions of the bill

3.4 The amendments put forward in the bill propose to expand the target by increasing the renewable energy power percentages for the period commencing 1 January 2008 and ending 31 December 2020. The annual renewable energy power percentages and the corresponding GWh targets proposed by the bill are outlined in the following table.[4]

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1 *Explanatory Memorandum*, p. 1.

2 Senator Allison, Second Reading Speech, *Senate Hansard*, 14 February 2008, p. 345.

3 *Explanatory Memorandum*, p. 1.

4 *Explanatory Memorandum*, p. 1.

Table 3.1 – Annual Renewable Energy Targets[5]

Year	Regulated REPP	GWh Target
2008	3.22%	7,300
2009	3.98%	9,300
2010	4.60%	11,000
2011	5.30%	13,000
2012	5.65%	16,500
2013	7.71%	20,000
2014	8.80%	23,500
2015	9.86%	27,000
2016	10.85%	30,500
2017	11.79%	34,000
2018	12.83%	37,500
2019	13.83%	41,000
2020	15.0%	45,000

Current regulations

3.5 The current annual renewable energy power percentage (REPP) targets in the Renewable Energy (Electricity) Regulations 2001 expire after 2008. In subsection 39 (1) of the regulations, the renewable power percentage for 2008 is 3.14 per cent.[6] This is 0.8 per cent lower than the bill's proposed new target for 2008 of 3.22 per cent.

Government energy policy

3.6 The government's election promise on energy was to:

- set a target to reduce greenhouse gas emissions by 60 per cent by 2050;
- consult the energy sector on the implementation of a national emissions trading scheme – to start by 2010; and
- ensure the equivalent of at least 20 per cent of our electricity supply, or approximately 60 000 GWh, is generated from renewable sources by 2020

5 *Explanatory Memorandum,* p. 1; *Renewable Energy Legislation Amendment (Power Percentage) Bill 2008,* p. 2.

6 *Renewable Energy (Electricity) Regulations 2001*, para. 23.

through a national renewable energy target that rolls in all existing state–based targets.[7]

3.7 The government has committed to introducing emissions trading to enable the market to set a price on carbon, encourage innovation and cut emissions. The government contends that emissions trading will help bring renewable technologies into the market over time and that an interim renewable energy target will accelerate their use, driving cost reductions with economies of scale and achieving overall emission reductions at lower cost. As emissions trading matures the government believes that a renewable energy target will no longer be required.[8]

3.8 The Minister for Climate Change and Water, Senator the Hon. Penny Wong, has explained the need for a range of complementary measures to address climate change and reduce greenhouse gas emissions. These measures include an emissions trading scheme and renewable energy target. As the Minister has pointed out:

> …you need a wide range of policy measures to effect the sort of change the government is seeking to implement, which will go forward for many years. So there are a number of measures. The principal ones for which I have responsibility are the introduction of emissions trading, which is a very significant step, and the renewable energy target, which is again a significant step… I indicated I would ask the department, in consultation with those they work with on these rather complex projections, to model … our policies, including the 20 per cent renewable energy target which we have been discussing. I can indicate I anticipate releasing that information in the very near future.[9]

3.9 Modelling by McLennan Magasanik Associates (MMA) commissioned by the Renewable Energy Generators of Australia shows that the broader economic effects of a renewable energy target are minimal. Economic modelling by MMA shows that a 20 per cent renewable energy target operating alongside an emission trading scheme will:

- have a negligible effect on real GDP when compared to a carbon price alone;
- be achieved at a net present value cost of around $600 million between 2003 and 2050 at a low carbon price and around $200 million at a moderate carbon price. That is equivalent to an average total cost of $10-30 for every person over almost 50 years; and

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7 Senator Chris Evans, *Securing a Sustainable Energy Supply for Australia's Future*, Election 2007 policy document, p. 7.

8 Kevin Rudd MP Rudd and Peter Garrett MP, ALP Media Release, *Federal Labor's 20 Per Cent by 2020 Renewable Energy Target*, http://www.alp.org.au/media/1007/msCCloo300.php, 30 October 2007.

9 Senator the Hon. Penny Wong, *Additional Budget Estimates*, Senate Standing Committee on Finance and Public Administration, Senate Hansard, Friday 22 February 2008, pp 49–50.

- a 20 per cent renewable energy target will deliver emission reductions of 342 million tonnes of greenhouse gases between 2010 and 2030 compared to just 219 million tonnes over the same period with a 15 per cent clean energy target.[10]

3.10 The government's recent budget statements show it has provided the Office of the Renewable Energy Regulator with $15.5 million over five years to administer the national Renewable Energy Target until the measure is phased out after 2020. In addition, through its 'Tackling Climate Change - Energy Innovation Fund' the government will expend $150 million over four years on developing clean energy research and development capabilities in Australia. The government is also spending $500 million over seven years in a 'Tackling Climate Change - National Clean Coal Fund' to establish and support a coordinated national strategy aimed at developing technologies that will achieve large scale reductions in greenhouse gas emissions from future coal power generation in Australia. Another $500 million has been allocated over seven years for the 'Renewable Energy Fund' to develop and implement a range of renewable technologies in Australia.[11] The government aims to generate $1.5 billion worth of investment in renewable energy technologies under the Renewable Energy Fund by encouraging the private sector to contribute $2 for every $1 provided by the government.[12]

Renewable Energy

3.11 Renewable energy sources which emit no greenhouse gases include hydro-electricity, wind, solar, biomass, geothermal and tidal and wave power.[13] The following energy sources are eligible renewable energy sources as defined under the legislation pertaining to the *Renewable Energy (Electricity) Regulations 2001*:

- hydro;
- wave;
- tide;
- ocean;

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10 Kevin Rudd MP and Peter Garrett MP, ALP media Release, *Federal Labor's 20 Per Cent by 2020 Renewable Energy Target*, http://www.alp.org.au/media/1007/msCCloo300.php, 30 October 2007.

11 Budget 2008-09, Ministerial Statement, *Climate Change, the Economy, the Environment*, Chapter 4, http://www.aph.gov.au/budget/2008-09/content/ministerial_statements/html/climate_change-05.htm#P259_37068, accessed 14 May 2008.

12 Labor Fact Sheet, Renewable Energy Fund available at: http://www.alp.org.au/download/now/renewable_energy_factsheet_campaign_launch.pdf, accessed on 27 March 2008.

13 *Labor's 2020 target for a renewable energy future*, Election 2007 Policy Document, Kevin Rudd MP, Peter Garrett MP and Senator Chris Evans, October 2007, p. 4.

- wind;
- solar;
- geothermal aquifer;
- hot dry rock;
- energy crops;
- wood waste;
- agricultural waste;
- waste from processing of agricultural products;
- food waste;
- food processing waste;
- bagasse;
- black liquor;
- biomass based components of municipal solid waste;
- landfill gas;
- sewage gas and biomass based components of sewage; and
- any other energy source prescribed by the regulations.

The following energy sources are not eligible renewable energy sources:

- fossil fuels; and
- materials or waste products derived from fossil fuels.[14]

3.12 There are currently 590 operational renewable energy generators at various sites across the country. The generation technologies used by these generators include bagasse, landfill methane, solar, water, wind, sewage methane and other forms of renewable energy as described above.[15] These renewable energy generators would need to increase over time to help offset the effects of increased demand for electricity due to population growth, as well as to meet the government's 2020 target for renewable energy. As Mr Matt Brazier pointed out during the inquiry:

> According to ABARE projections, overall electricity consumption in Australia is forecast to grow by an average of approximately 2 percent per year over the next few decades.[16]

14 *Renewable Energy (Electricity) Regulations 2001*.

15 Australian Greenhouse Office, *Map of operating renewable energy generators in Australia*, http://www.agso.gov.au/renewable/, accessed 12 May 2008.

16 Mr Matt Brazier, *Submission 3*, p. 1.

3.13 Renewable energy currently accounts for less than five per cent of total energy consumption. The production of renewable energy is dominated by wood and woodwaste, bagasse (a waste product from sugar refining) and hydroelectricity (predominantly from Tasmania and the Snowy Mountains). Together these accounted for 92 per cent of renewable energy production in 2005-06. Biofuels, including landfill and sewage gas, as well as solar and wind energy, accounted for the remainder of renewable energy production.[17]

3.14 It is expected that the government's focus on renewable energy will result in a second wave of investment in wind power, despite the two year waiting list for turbines. Mr Paul Curnow, a partner at law firm Baker and McKenzie noted that when the MRET was introduced in 2001 there was a burst of investment which finished when it was clear that the government was not going to extend the scheme, and 'all the wind farms you see in Australia came out of that'.[18]

3.15 While supporting the proposal to extend the MRET targets, concerns were raised during the inquiry about the placement of new wind farms. Dr Andrew Lothian believes that:

> ...wind farms should not be located near Australia's coast because of its high scenic quality, and that there are many suitable inland areas where they could be located. I believe it is the government's role to balance the competing needs for renewable energy (which I strongly support) and the protection of Australia's high scenic quality coast and to guide wind farms to areas where the industry will gain viable winds but not at the expense of Australia's landscape.[19]

Mandatory Renewable Energy Target

3.16 The Mandatory Renewable Energy Target (MRET) commenced on 1 April 2001. The *Renewable Energy (Electricity) Act* 2000 currently requires the generation of 9 500 GWh of extra renewable electricity per year by 2010, enough power to meet the residential electricity needs of four million people. The Office of the Renewable Energy Regulator (ORER) oversees the implementation of the measure.[20]

3.17 To ensure the government achieves its goal of a 20 per cent share for renewable energy electricity supply by 2020 it will increase the MRET from 9 500 GWh to 45 000 GWh in 2020. The Department of Climate Change states that this measure will be phased out between 2020 and 2030 as emissions trading matures and

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17 *Energy in Australia 2008*, Australian Government Department of Resources, Energy and Tourism, February 2008, p. 52.

18 Michael Pelly, 'Renewables get a second wind from Labor', *The Australian*, 7 April 2008, p. 31.

19 Dr Andrew Lothian, *Submission 2*, p. 2.

20 Department of Climate Change, *Mandatory Renewable Energy Target*, http://www.greenhouse.gov.au/renewabletarget/legislation.html, accessed 7 April 2008.

prices become sufficient to ensure that an MRET is no longer required to stimulate development of renewable generation technologies.[21]

3.18 The issue of phasing out MRET was raised during the committee hearings. Senator Eggleston sought a response to the view that mandatory renewable energy targets would become irrelevant as the emissions-trading scheme developed because it would include renewable energy.[22] Mr Mark Lister of Szencorp responded that if an emissions trading scheme was working properly after a transition period then 'potentially the MRET or REC price should tend to zero'.[23]

3.19 The Department estimates the breakdown of the 20 per cent target, assuming a projected electricity demand in 2020 of around 300 000 GWh, as follows:

- renewable energy from power stations existing prior to the introduction of Commonwealth or state and territory mandatory targets is expected to comprise around five per cent of electricity supply in 2020; and
- renewable energy under the new national legislated target of 45 000 GWh in 2020 will deliver the remaining 15 per cent.[24]

3.20 At the Council of Australian Governments (COAG) meeting in December 2007, the Commonwealth and states agreed to work cooperatively, commencing early in 2008, to bring the existing MRET and the various state-based targets into a single, expanded national MRET scheme by early 2009. An implementation plan and interim report on progress was to be put to COAG at its March 2008 meeting. The final design is to be provided to COAG for consideration at its September 2008 meeting.[25]

3.21 The Garnaut Climate Change Review Interim Report notes that the various MRETs are to be subsumed within a Commonwealth MRET requiring 20 per cent of electricity to be drawn from renewable sources by 2020. This review will examine in detail the interaction of the MRET with the proposed ETS and possible paths for phasing out the MRET as an ETS comes to provide sufficient incentives to meet its emissions targets.[26] Professor Garnaut has described the MRET function as doing 'much of the heavy lifting in the early years of an ETS'.[27]

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21 Department of Climate Change, *20% Renewable Energy Target*, http://www.greenhouse.gov.au/renewabletarget/index.html, accessed 7 April 2008.

22 Senator Eggleston, *Proof Hansard*, 12 May 2008, p. E4.

23 Mr Mark Lister, Szencorp Sustainable Development, *Proof Hansard*, 12 May 2008, p. E4

24 Senate Standing Committee on Finance and Public Administration, *Answer to Question on Notice*, Department of Climate Change, Hansard p. F & PA 38, CC11.

25 Department of Climate Change, *20% Renewable Energy Target*, http://www.greenhouse.gov.au/renewabletarget/index.html, accessed 7 April 2008.

26 *Garnaut Climate Change Review Interim Report To The Commonwealth, State and Territory Governments of Australia*, February 2008, p. 51.

27 Matthew Warren, 'Time to price carbon', *Weekend Australian*, 29 March 2008, p. 1.

3.22 The targets set by the MRET scheme are regarded by some in the industry as crucial in underpinning the renewable energy industry. As SOLCO explained:

> The Commonwealth Mandated Renewable Energy Target (MRET) is about developing local capability and capacity so as to enable Australia to achieve this. The target level needs to be able to attract and retain capital. In today's global economy we compete internationally for capital and know-how across the renewable technologies. The target needs to be sufficient to underpin and expand local manufacturing, wholesale, retail and installations of solar photovoltaic (PV) systems. Otherwise, Australia will lose the majority of benefits (economic and environmental) that this booming global renewable industry offers.[28]

How the MRET scheme works

3.23 The Mandatory Renewable Energy Target (MRET) scheme was implemented through the *Renewable Energy (Electricity) Act 2000* (the REEA). The REEA provides the legislative framework for the MRET. The act is supported by the *Renewable Energy (Electricity) Charge Act 2000* and the *Renewable Energy (Electricity) Regulations 2001*. The acts and regulations are administered by the Office of the Renewable Energy Regulator (ORER) which is a statutory agency in the Department of Climate Change which is part of the Prime Minister and Cabinet portfolio.[29]

3.24 The REEA requires electricity retailers and other large buyers of electricity ('liable entities') to collectively source an additional 9 500 GWh per annum of electricity from renewable sources by 2010. This would increase the percentage of renewable energy used in electricity generation from 10.7 per cent in 2000 to 12.7 per cent by 2010. This two per cent target increase was later changed to 9 500 GWh to 'provide more certainty to the market'.[30]

3.25 A key feature of the MRET scheme are renewable energy certificates (RECs) which are created by accredited power stations that generate power from renewable energy sources in excess of a 1997 'baseline' amount. One REC is created for every one megawatt-hour of renewable energy power generated in excess of the baseline. These RECs can be bought and sold.[31]

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28 SOLCO, *Submission 6*, p. 1.

29 Office of the Renewable Energy regulator, Fact Sheet Mandatory renewable Energy Target Overview Version 2 as updated in February 2008 available at http://www.orer.gov.au/publications/pubs/mret-overview-feb08.pdf accessed on 26 March 2008.

30 Department of Parliamentary Library, Bills Digest No. 109 2005-06, *Renewable Energy (Electricity) Amendment Bill 2006*, 27 March 2006, p. 3.

31 Department of Parliamentary Library, Bills Digest No. 109 2005-06, *Renewable Energy (Electricity) Amendment Bill 2006*, 27 March 2006, p. 3.

3.26 The MRET applies nationally, with the majority of electricity retailers and wholesale electricity buyers on liable grids in all states and territories contributing proportionately to increase renewable energy sources. As noted in the MRET fact sheet:

> MRET operates by imposing a legal liability to support renewable energy electricity generation on, generally, large wholesale purchases of electricity. An example of a liable party under the legislation would be an electricity retailer acquiring wholesale electricity to meet retail sale obligations to customers (acquisition of electricity). The liable parties are directly responsible for supporting an increase in the amount of electricity generated from renewable energy sources, which is implemented through the surrender of renewable energy certificates (RECs) in proportion to their acquisitions of electricity. Each REC represents one megawatt hour (MWh) of eligible renewable electricity.[32]

3.27 The REEA requires liable entities to surrender to the Renewable Energy Regulator sufficient RECs to cover their required purchases of electricity generated from renewable sources or otherwise pay a shortfall charge. The number of RECs required to avoid the shortfall charge is calculated as a percentage of electricity purchased, and this has been progressively increased. In 2006, the renewable power percentage (RPP) was 2.17 per cent.

3.28 For instance, if an electricity retailer bought 100 000 megawatt-hours of electricity in 2006, it must have surrendered 2 170 RECs. Liable entities will generally acquire the RECs by purchasing them. If liable entities do not surrender sufficient RECs, the shortfall charge is $40 per megawatt-hour. Thus if the firm in the previous example surrendered only 1 170 RECs for its 2006 purchases, it would have been liable for a charge of $40 000.[33]

Report of the MRET Review Panel

3.29 In 2003, a review panel was commissioned to look at the progress of the MRET scheme. Although the report is now a few years old, some of the information is still relevant, especially in relation to the continuing socioeconomic effects.

3.30 The review found that while the development of a commercially competitive renewable energy industry may have longer term benefits for the national economy, the MRET would operate at a cost.[34] Table 3.2 below shows the predicted economic consequences up to the year 2020.

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32 Office of the Renewable Energy regulator, Fact Sheet Mandatory renewable Energy Target Overview Version 2 as updated in February 2008 accessed at http://www.orer.gov.au/publications/pubs/mret-overview-feb08.pdf on 26 March 2008.

33 Department of Parliamentary Library, Bills Digest No. 109 2005-06, *Renewable Energy (Electricity) Amendment Bill 2006*, 27 March 2006, p. 3.

34 A Review of the Operation of the Renewable Energy (Electricity) Act 2000, *Renewable Opportunities Wider Impacts of the MRET Measure*, Chapter 3, G. Tambling, 2003, p. 32.

Table 3.2—Predicted economic effects of MRET (2003 to 2020)[35]

	2003-2007	2008-2012	2013-2020
Average electricity price impact to end-users ($/MWh)	0.97	1.44	1.23
Investment ($M)	3,690	30	50
Employment—renewable generation (average additional employment per annum)	1900	3100	2500
Employment—fossil fuel generation (average additional employment per annum)	-500	-400	-300
Employment—economy wide (average annual FTE)	-200	-1000	-1000
GDP ($M average per annum)	-38	-260	-325

3.31 The review found that MRET is an implicit subsidy to the renewable energy industry because it transfers financial benefits to the renewable energy industry at the expense of retailers and energy users. Each year, energy retailers and other liable parties are required to surrender RECs obtained at a cost which is passed on to energy users. Costs may be reduced as a consequence of national energy reforms or by efficiency improvements, although this will not prevent the likelihood of increased electricity prices.[36]

3.32 The review also recommended that the timeframe for the MRET scheme be extended from 2010 to 2020 and that a target for electricity generation for renewable sources be set for 2020 at 20 000 GWh.[37] The government has committed to over double this recommendation, setting a renewable energy target of 20 per cent or 45 000 GWh by 2020.

35 A Review of the Operation of the Renewable Energy (Electricity) Act 2000, *Renewable Opportunities Wider Impacts of the MRET Measure*, Chapter 3, G. Tambling, 2003, p. 33

36 A Review of the Operation of the Renewable Energy (Electricity) Act 2000, *Renewable Opportunities Wider Impacts of the MRET Measure*, Chapter 3, G. Tambling, 2003, p. 34.

37 Department of Parliamentary Library, Bills Digest No. 109 2005-06, *Renewable Energy (Electricity) Amendment Bill 2006*, 27 March 2006, p. 5.

3.33 The Department explained that the 45 000 GWh delivered through MRET would not be the only measure aiming at a 20 per cent renewable energy target. That target will include the effects of the 'emissions trading scheme on renewables or other measures that the government may choose to take between now and 2020'.[38]

Alternative measures to MRET

3.34 In his submission to the inquiry, Mr Kevin Cox argued that an alternative measure to increasing MRET targets would be to implement a system providing a 'financial benefit for clean energy generation through the provision of rewards for low consumption of polluting energy'. In other words, consumers who made the least demand on the environment should be rewarded for their restraint.[39]

3.35 Mr Cox pointed out that this could be achieved through:

- placing a surcharge on the price of all energy generation in proportion to the greenhouse emissions created when the energy is produced;
- distributing the money collected from the surcharge as rewards to all consumers in inverse proportion to their net greenhouse emissions from their mains energy consumption; and
- requiring rewards to be spent on approved ways to reduce greenhouse emissions. Existing installations of renewable energy systems can qualify as approved ways.[40]

3.36 Mr Cox argued the approach was equitable because it rewarded those who had already installed systems, those who consumed less energy, and those who invested in ways to reduce greenhouse gas emissions. It also encouraged clean community schemes by enabling investment in neighbourhood feed-in systems and 'to offset their household energy use against their share of the community energy produced'.[41]

Current state and territory schemes

3.37 State governments have introduced or are proposing to introduce their own renewable energy targets:

- Victoria has a legislated target of 10 per cent renewable energy by 2016;
- New South Wales has committed to a legislated 15 per cent renewable energy target by 2020;

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38 Mr Blair Comley, Deputy Secretary, Department of Climate Change, *Additional Budget Estimates*, Senate Standing Committee on Finance and Public Administration, Friday 22 February 2008, p. 54.

39 Mr Kevin Cox, *Submission* 1, p. 2

40 Mr Kevin Cox, *Submission* 1, p. 2

41 Mr Kevin Cox, *Submission* 1, p. 2.

- South Australia has announced a target of increasing renewable energy electricity use to 20 per cent of electricity consumption by 2014;
- Queensland has announced a low emission target of 10 per cent by 2020;
- the ACT has announced a 15 per cent renewable energy target by 2020; and
- Western Australia is reviewing a proposed 15 per cent renewable energy target.[42]

Towards a national renewable energy scheme

3.38 The government notes that having a number of different schemes comes at a cost and increases red tape. At the COAG meetings in December 2007 and March 2008, the Commonwealth and states agreed to work cooperatively to bring the existing MRET and the various state-based targets into a single, expanded national MRET scheme by early 2009. This would provide consistency for investors looking to support the renewable energy industry.

3.39 In February 2008 the Minister for Climate Change and Water announced that a working group established through COAG would implement a national 20 per cent renewable energy target, with design work to be finalised by September, and with legislation introduced early 2009.[43] Implementation in 2010 would provide sufficient time for negotiations to bring the states in line with the Commonwealth scheme.[44]

3.40 As the Secretary of the Department pointed out:

> …the Commonwealth could step in and do this very quickly, but it would need to do a covering-the field legislative approach, which is not going to be warmly welcomed as a sign of cooperation. So we have to work with the states to develop an approach which everybody is going to be happy with. If you think about Queensland, for example, it is not just the RET but also the gas target. Are we going to roll the gas target into the RET? One would not have thought so, but then how does Queensland manage the fact that you have got a RET and the gas target sitting next to one another? How do those things get worked through? How do you treat firms that are in the process of seeking eligibility approval in existing state schemes?
>
> I will be very careful here. It is not out of the question that a particular state could say, 'Yes, we are very happy to have a national renewable energy target as long as exactly the same amount of renewable energy is created in our state as would have been under our previous state-based policy.' If that is the case, you do not need a national renewable target. The whole reason

42 Election 2007 Policy Document, Kevin Rudd MP, Peter Garrett MP and Senator Chris Evans, *Labor's 2020 target for a renewable energy future*, October 2007, p. 14.

43 Senator the Hon Penny Wong, Speech to the Australian Industry Group Luncheon, 6 February 2008, *'Climate Change: A Responsibility Agenda'*, p. 10.

44 *Additional Budget Estimates*, Senate Standing Committee on Finance and Public Administration, Friday 22 February 2008, p. 51.

> for having a national renewable target is so that you are actually able to get some coherence into the whole approach and you are generating using technologies that work well in the places that they are most suited to.[45]

3.41 The government is also committed to initiatives set out in the 2008–09 budget, including encouraging its agencies in the Australian Capital Territory to source ten per cent of their electricity use from renewable energy. Around 50 agencies have already signed up to this agreement, including the Department of the Environment, Water, Heritage and the Arts which is purchasing 100 per cent green power.[46]

Feed in tariffs

3.42 A feed in tariff is an incentive structure provided under legislation to place a legal obligation on utilities to purchase renewable electricity from renewable sources (such as solar photovoltaics, wind power, biomass and geothermal power) at above market rates. This higher price covers the cost disadvantages of adopting renewable energy sources with the rate determined by the method of power generation.[47]

3.43 At the March 2008 meeting, COAG also agreed to consider options for a harmonised approach to renewable energy feed in tariffs in October 2008.[48] The government has recognised that a number of state and territory governments want to introduce solar feed in tariffs where 'solar photovoltaic installations receive a premium price for electricity produced, which is then fed back into the grid'.[49] Because the government wishes to achieve a consolidated and consistent approach across all states to renewable energy policy, it will be working through COAG to develop a consistent national approach to feed in tariffs.

3.44 Not everyone supports the idea of feed in tariffs for renewable energy use. In his submission to the inquiry Kevin Cox argued that:

> The concept of a FIT that gives a high price for renewable energy input into the grid is superficially attractive. It is more appealing than schemes to

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45 Dr Martin Parkinson, Secretary, Department of Climate Change, *Additional Budget Estimates*, Senate Standing Committee on Finance and Public Administration, Friday 22 February 2008, p. 52.

46 Budget 2008-09, Ministerial Statement, *Climate Change, the Economy, the Environment*, Chapter 4, http://www.aph.gov.au/budget/2008-09/content/ministerial_statements/html/climate_change-05.htm#P259_37068, accessed 14 May 2008.

47 Information available at: http://en.wikipedia.org/wiki/Feed-in_Tariff, accessed on 10 April 2008.

48 COAG meeting outcomes available at http://www.coag.gov.au/meetings/260308/index.htm accessed on 27 March 2008.

49 *Labor's 2020 target for a renewable energy future*, Election 2007 Policy Document, Kevin Rudd MP, Peter Garrett MP and Senator Chris Evans, October 2007, p. 16.

> trade carbon or emissions permits because it channels price increases to renewable energy infrastructure. Unfortunately it does not direct investment to the most efficient and effective investment in ways to reduce greenhouse gases.[50]

Support for the bill

3.45 A number of witnesses to the inquiry stressed the importance of bringing forward the implementation of extended targets for renewable energy via the bill. SOLCO pointed out that commencing the extended target from 2008 would 'create certainty and a stable investment environment for the ongoing development of renewable energy industry.' They argued that waiting until 2010 could 'cause the renewable energy industry in Australia to stall' leading to reduction in skilled people working in the industry and 'stalled investment in people, skills, technology and market development'.[51]

3.46 Supporters of the proposed legislation argued that the bill simply put into operation already existing policy aims. Mr Justin Wood pointed out to the committee that:

> 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.[52]

3.47 Conergy argued that existing MRET policy had already seen a reduction in greenhouse gases as well as increasing investment in renewable energy infrastructure. Therefore, expanding the target from 2008 was necessary to ensure the continuation of the industry, and:

> If the target is not expanded until 2010 then a return to 2003 figures may prevail as the industry will be impacted by:
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> - increased pricing to the end user;
> - decreased investment in renewable energy manufacturing; and
> - no continuation of focus on solar energy and as such the momentum with builders decreases.[53]

3.48 Similarly, Mr Kevin Cox argued that bringing forward the target would encourage the renewable energy industry, provide surety to the solar water heating

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50 Kevin Cox, *Submission 1*, p. 1.

51 SOLCO, *Submission 6*, p. 1.

52 Mr Justin Wood, *Submission 7*, p. 5.

53 Conergy Pty Limited, *Submission 9*, p. 1.

industry, 'promote local manufacture and investment through ability to plan, deliver an earlier outcome to emissions reductions before the ETS, and add stimulus for new renewable energy technology development'.[54]

3.49 During the hearings Senator Allison asked the Clean Energy Council what they thought the effect of bringing forward the MRET to 2008 would be and what sort of benefits might accrue to the sector by gaining an extra 18 months or so. Mr Robert Jackson responded:

> At the moment, there is a large degree of uncertainty among my members out there who are trying to build projects. There are projects with planning approvals waiting to go, which at the moment cannot be justified internally within their businesses until we have some certainty on exactly what is going to come out in the legislation, as the election promises get turned into reality. The earlier that starts, the earlier we can start to deliver those projects. There is also uncertainty out in the marketplace with the current Victorian scheme and what that means—whether you can build against that scheme rather than MRET, or how that scheme would be transitioned into MRET. There are issues to do with the uncertainty around that, so anything that assists in overcoming some of those areas of uncertainty would be of great value to the production of these projects.[55]

3.50 Greenbank Australia also supported bringing forward the extended targets proposed by the bill in order to stimulate industry development. Mr John Wayland pointed out to the committee that delaying the bill would mean 'there will not be investment, there will not be critical mass, they will not have built it up and it will be another two years behind if you attract investment into it again'.[56]

3.51 Senator Bushby canvassed Greenbank Australia's position on waiting to extend MRET until the Garnaut inquiry had been completed and an ETS had been formulated. Mr Fiona O'Hehir responded that the renewable energy target was needed now 'to foster and grow our renewable energy industry so that, when we get to 2020, it will be running in parallel with the emissions trading scheme'. She explained that:

> by then, hopefully, clean coal—truly clean, if there is such a thing—and renewable and clean energy will be on a par and so will be able to compete in the marketplace. But currently with renewable energy—with the installing of the product, with the question of what is going to be the next new energy source, with biomass—there are huge numbers of innovating technologies to be developed because we cannot just rely on one source. That is why this bill is so important. If we do not get the support going forward, we cannot help to meet our commitments in 2020.[57]

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54 Greenbank Australia Pty Ltd, *Submission 4*, pp 1–2.

55 Mr Robert Jackson, Clean Energy Council, *Proof Hansard*, 12 May 2008, p. E34.

56 Mr John Wayland, Greenbank Australia Pty Ltd, *Proof Hansard*, 12 May 2008, p. E31.

57 Ms Fiona O'Hehir, Greenbank Australia Pty Ltd, *Proof Hansard*, 12 May 2008, p. E26.

3.52 As Greenbank Australia argued in their submission, the expansion of the MRET needed to begin in 2008 to create a 'stable investment environment for industry to grow'. Their submission stated:

> The Renewable Energy industry has an expectation that the state based schemes will be immediately morphed into the federal 20% target using the existing MRET eligibility criteria. Historically Solar Water Heating has made up 20% of the RECs created and must remain rewarded through these environmental instruments for us to achieve these ambitious new targets... Large projects take years in the pipeline, due to planning, public consultation, environmental impact statements and approvals. Industry desperately needs evidence based policy to give stability particularly as we move to an ETS which will have far reaching, somewhat unknown and sometimes perverse affects and outcomes.[58]

3.53 Doctors for the Environment (DEA) Australia were also keen to support the bill, expressing concerns about climate change on human health and wellbeing. DEA supported the government's goal of achieving 20 per cent renewable energy by 2020 and commended the bill's aim to 'accelerate the implementation of the government's renewable energy commitment, so action commences in 2008 rather than 2010'. They also suggested to the committee that the fixed life of MRET to 2020 might act as a deterrent to renewable energy investment and suggested removing the 2020 completion date for the scheme.[59]

Concerns about the bill

3.54 The inquiry generated concerned responses from a number of witnesses about the effects the bill would have if implemented. One of the main concerns raised was in relation to the disadvantages of amending the MRET scheme prior to knowing the details of the future ETS. As Mr Rob Young from ExxonMobil explained to the committee:

> I would acknowledge that the bill is a genuine attempt to create greater certainty and continuity for those companies that will need to supply or meet the MRET. However, when building stable regulatory frameworks, we believe that it is important that policies not be considered in isolation and that unintended consequences are considered. As such, our more fundamental concern is that setting a mandated target for any particular source of energy is inconsistent with pursuing the development of an emissions trading scheme.[60]

3.55 Dr Brian Fisher, speaking in a private capacity at the hearings, told the committee that MRET could work only in the case of electricity, while an ETS

58 Greenbank Australia Pty Ltd, *Submission 4*, p. 1

59 Doctors for the Environment, *Submission 5*, pp 1–2.

60 Mr Rob Young, ExxonMobil, *Proof Hansard*, 12 May 2008, p. E10.

potentially delivered emissions reductions across the wider economy for those sectors included in the scheme. Dr Fisher argued that:

> …instead of just highlighting electricity as a means of reducing emissions, highlight the entire economy and therefore it must be cheaper to reduce a given amount of emissions from the entire economy than from one sector alone. That is simply what this study says—basically the broader the coverage, the cheaper the cost.[61]

3.56 As well as waiting for the outcome of an ETS there was also support shown for bringing the state and territory schemes into line with future policy in the renewable energy area. ExxonMobil recommended that policy makers ensured that 'existing and proposed policy settings are consistent with the future development of an ETS' and that the current array of energy and fiscal policies at the state and Commonwealth level would undermine the efficacy of any carbon price signal and could be 'a dead weight loss on the Australian economy'.[62] This highlights the need to wait for the outcome of the COAG deliberations with the states and territories on any future Commonwealth renewable energy scheme.

3.57 Senator Webber queried Dr Fisher during the hearings about what the unintended consequences might be of changing the MRET prior to establishing the ETS. Dr Fisher responded that care needed to be taken with any regulatory arrangements before the ETS was designed and implemented. He agreed with the Senator that the 'ETS is going to be one of the most fundamental pieces of economic policy that has happened in this country for a very, very long time and perhaps ever' and that the way other policies interacted with it was 'going to be crucial to its efficiency'. Dr Fisher stated:

> For my money, I would rather see us put as much effort as possible into getting the emissions trading scheme right and then look at what other complementary policies we need after that, rather than get the process around the other way.[63]

3.58 Waiting for the ETS to be established was not the only issue of concern raised during the inquiry. One submission suggested that the bill would not be highly effective simply due to the growth in consumption rates as population increased. Mr Matt Brazier argued:

> The problem of electricity-related GHG emissions is dominated by ongoing consumption growth. The proposed renewable energy power percentage changes: would not reduce greenhouse gas emissions; would defer generation/consumption rates by approximately six years. Clearly the underlying objective of the bill is environmental protection. The aim is presumably to attempt to avert undesirable future consequences of

61 Dr Brian Fisher, Private Capacity, *Proof Hansard*, 12 May 2008, p. E11

62 ExxonMobil, *Submission 8*, p. 2.

63 Dr Brian Fisher, Private Capacity, *Proof Hansard*, 12 May 2008, pp E13-14.

> energy-related emissions. If this is the case then the effect of the proposed changes is merely to make a relatively small change to the timing of when these consequences will occur. While laudable, the question may well be asked if it would be worth the effort… the problem faced by society is not insufficient renewable energy; the problem is ongoing consumption growth. Renewable energy percentage targets cannot compete with modest ongoing consumption growth.[64]

3.59 Another issue of concern raised during the inquiry was that modelling by Access Economics and CRA showed that a mandatory renewable energy target was seen as 'less efficient at achieving a given environmental outcomes' because it forced higher cost renewable energy to be used for electricity generation 'at the expense of exploiting lower cost emissions abatement opportunities elsewhere in the economy'.[65] ExxonMobil's submission claimed:

> In summary to reach an emissions abatement target of 67 Mt CO2e in 2020, the modelling shows that the combined ETS + 20 per cent renewable energy target policy:
>
> • costs Australia $1.8 billion more in 2020 than a pure ETS policy in terms of economic welfare (GNP) losses;
>
> • costs Australia $1.5 billion more in 2020 than the ETS output (GDP) losses;
>
> • results in the loss of 3 600 full time equivalent jobs (FTE) in 2020;
>
> • causes substantial switching away from gas fired generation compared with an ETS in the order of 12.6 TWh per year by 2020;
>
> • results in electricity prices rising by 6 per cent more than would be the case than under an ETS alone – the price rises 24 per cent under the combined policy approach, and by 18 per cent under an ETS that delivers an equivalent emissions abatement.[66]

3.60 While it generally supported the bill, the Clean Energy Council did not necessarily agree with the methodology for extending MRET. They suggested that the 'trajectory target which is in the main bill could be modified'. Mr Jackson argued that:

> There are some words that could be modified to change the end date beyond 2020, out to 2035, again in line with the promises. We would also suggest that we would possibly need to revisit the penalty price and increase that to take account of some of the increases in the costs of technology or of buying the plant. Around the world at the moment there are shortages that have, at least in the short term, driven some price rises.[67]

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64 Mr Matt Brazier, *Submission 3*, pp 2–3.

65 ExxonMobil, *Submission 8*, p. 4.

66 ExxonMobil, *Submission 8*, p. 3.

67 Mr Robert Jackson, Clean Energy Council, *Proof Hansard*, 12 May 2008, p. E32.

3.61 The Department of Climate Change, while generally supporting the intent and direction of the bill in line with government policy, pointed out that successful integration of the current MRET with existing and planned state and territory schemes required resolving differences in approach between those schemes. The profile of annual targets proposed by the bill was only one of the elements that needed to be considered in designing a successful MRET scheme. Overall design would 'be informed by consultations with a wide range of relevant stakeholders, and by expert modelling and analysis of design options'.[68]

3.62 The Department also advised the committee that it recognised the importance of maintaining investor confidence during the design period, were striving towards a timely resolution for designing the scheme, and expected amendments to the current MRET legislation to be in place by mid-2009. The Department informed the committee that the government had committed to ensuring that any projects already accredited under existing state schemes would be eligible under the new national scheme in order to further assist in maintaining investor confidence.[69]

Committee view

3.63 While the committee notes various submitters' concerns about the effects of delaying the implementation of an extended MRET until 2010, the committee agrees that it is premature to extend the scheme until the details of the emissions trading scheme are released. The committee notes that the Department of Climate Change has outlined five steps for an emissions trading scheme (ETS), the third step being that an effective emissions trading scheme needs to:

- be economically responsible;
- provide the right incentives to drive investment in low emission technologies and renewable energy while keeping the total cost as low as possible;
- not undermine the country's competitiveness and provide mechanisms to ensure that operations of energy-intensive trade-exposed firms are not disadvantaged; and
- be complemented by measures like a Mandatory Renewable Energy Target to encourage the domestic development and use of new technologies.[70]

3.64 Therefore, the committee is mindful that the Department is taking renewable energy schemes into account in its formulation of an ETS, and the extended targets proposed by this bill may be inconsistent with those that might be implemented under an ETS. A number of submitters to the inquiry agreed that industry required certainty, including those who supported the bill. In that sense the committee considers it

68 Department of Climate Change, *Submission 11*, p. 2.

69 Department of Climate Change, *Submission 11*, p. 2.

70 Department of Climate Change, *About the ETS*, http://www.greenhouse.gov.au/emissionstrading/about.html, accessed 8 May 2008.

disruptive to industry to introduce the percentage targets proposed by the bill if they then need to be altered again once the ETS is formulated.

3.65 The committee also notes the work being done through COAG to bring the states and territories into a unified commonwealth scheme, and considers that these negotiations need to be finalised before the MRET scheme is amended.

Conclusion

3.66 As the MRET scheme is strongly linked to the proposed ETS, it is premature to amend the renewable energy power percentages without having regard to the wider implications of any pre-ETS alterations. The intent of the bill in promoting renewable energy use is not the main issue of concern of the committee, as this is in line with the government's policy to increase renewable energy use by 2020. Therefore, the committee agrees in general with the intentions of the bill.

3.67 In addition, amending the existing MRET scheme when the government has yet to release details of the emissions trading scheme and related renewable energy schemes is not an optimum approach. To do so could impose obligations on industry, consumers and other stakeholders that may be inconsistent with any aspects of the scheme relating to and promoting the use of renewable energy.

Recommendation

3.68 **As an emissions trading scheme and its implementation mechanisms have yet to be finalised, the committee recommends this bill not be passed.**

Senator Annette Hurley

Chair