Chapter 2

Structure of the renewable energy target

Targets under the Australian RET

2.1 The bills increase the current annual renewable energy targets from 9,500 gigawatt-hours (GWh) to 45,000 GWh in 2020. The 45,000 GwH target will then be maintained until 2030. The annual targets will ramp up from January 2010, as shown in Table 2.1. By comparison the current target under MRET is 8,100, but current production is around 10,000 GWh.[1]

Table 2.1: Targets under the RET: gigawatt-hours

2010	12,500	2020	45,000
2011	14,400	2021	45,000
2012	16,300	2022	45,000
2013	18,200	2023	45,000
2014	20,100	2024	45,000
2015	22,000	2025	45,000
2016	26,600	2026	45,000
2017	31,200	2027	45,000
2018	35,800	2028	45,000
2019	40,400	2029	45,000

Source: *Explanatory memorandum*, pp 5-6.

2.2 The targets under both the current MRET and the proposed RET refer to renewable energy in excess of the around 15,000 GWh that was in place in 1997. The total amount of electricity generated by renewable sources in 2020 will therefore be the base 15,000 GWh plus the target 45,000, a total of 60,000. As the total electricity generated in 2020 is projected to be 300,000 GWh, the renewable component will be 20 per cent of the total (Table 2.2). (This represents a significant increase from the 7½ per cent in 2005-06, around four-fifths of which comes from hydro-electric power.[2])

1 Mr Andrew Livingston, Renewable Energy Regulator, *Proof Committee Hansard*, 5 August 2009, p 18. The excess of 10,000 production over the 8,100 GWh target is being 'banked' under the MRET. See paragraph 2.9 for a further discussion of 'banking'.

2 Parliamentary Library, Research Paper, 'The potential for renewable energy to provide baseload power in Australia', p 4.

2.3 This calculation is based on Treasury modelling. The Committee has no grounds to question it as a good point estimate and notes that Treasury comment 'the range of projections for energy demand across different organisations is actually relatively small'. But as with all projections this far out, there is a degree of uncertainty around it.

2.4 It is notable that Treasury's projection has been challenged by submissions arguing that either the total electricity generated would be higher or lower than the 300,000 GWh used in the calculation:

> The 2007 report by Australian Bureau of Agricultural and Resource Economics (ABARE) to the Australian Government Department of Resources, Energy and Tourism, Canberra, projected electricity generation to reach 349,400 GWh in the year 2019-2020. Based on the current RET 2020 target of 45,000 GWh, plus the baseline renewable generation capacity of 15,000 GWh, the total electricity from renewable sources will only be 17.2% of the total. Based on the ABARE projections the RET 2020 target should be a conservative 55,000 GWh to meet the minimum 20% target.[3]
>
> …Australian electricity demand in 2020 will be 260,000GWh, and this suggests that the target in 2020 is [should be] 37,000GWh, not 45,000GWh as expressed in the legislation.[4]

2.5 As noted above, there are provisions for a review, by an appropriately qualified person, of the RET scheme in 2014 to coincide with the proposed strategic review of the CPRS.

Recommendation 1

2.6 The committee recommends that as part of the 2014 review of the RET, the Treasury projection of total electricity demand in 2020 is reviewed and if it is revised up, there be a corresponding increase in the RET to maintain the goal of 20 per cent of electricity being generated from renewable sources in 2020.

2.7 Operating on its own, the RET might see the proportion of electricity generated from renewable sources dropping below 20 per cent through the 2020s as the renewable target is steady but total electricity production, the denominator, is growing. However, by the 2020s it is likely that more renewable energy sources will be self-sustaining and the CPRS will have made them more competitive.

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3 LMS Generation, *Submission 81*, p 9. Calculations by Greg Buckman, *Submission 21*, pp 7-9 reach a similar conclusion.

4 Australian Industry Greenhouse Network, *Submission 59*, p 5.

2.8 The projected composition of electricity from renewable electricity is shown in Table 2.2.

Table 2.2: Composition of electricity generated from renewable sources (GWh)

	Pre-MRET baseline	**2020**
Hydroelectricity	15,000	18,000
Wind		17,000
Geothermal		10,500
Bagasse		3,000
Wood/wood waste		3,000
Municipal solid waste		2,000
Other		6,500
Total		60,000
Memo: total electricity generation		*300,000*
(% from renewables)		*20%*

Sources: read from chart on page 5 of McLennan Magasanik Associates, *Benefits and Costs of the Expanded Renewable Energy Target*, January 2009; *Proof Committee Hansard*, 5 August 2009, pp 5, 17-18.

Banking of RECs

2.9 The RET continues the practice in the MRET of allowing 'banking' of RECs between years. If a liable entity surrenders more RECs than are required to discharge a liability for a given period, the extra RECS are carried forward as a surplus which may be used to acquit future REC liabilities. In effect, these surplus RECS are 'banked' in the REC registry. Similarly, if a liable entity has a REC shortfall for a compliance year, then provided this shortfall is less than 10 per cent of their total liability, this shortfall can be carried over to the following year.

Renewable energy targets in other countries

2.10 Schemes such as the RET are now common overseas, operating in the United Kingdom, Italy, Sweden, Belgium, Canada, China, Japan and 25 states of the USA (including a 33 per cent target for California).[5] In late 2008 the European Union

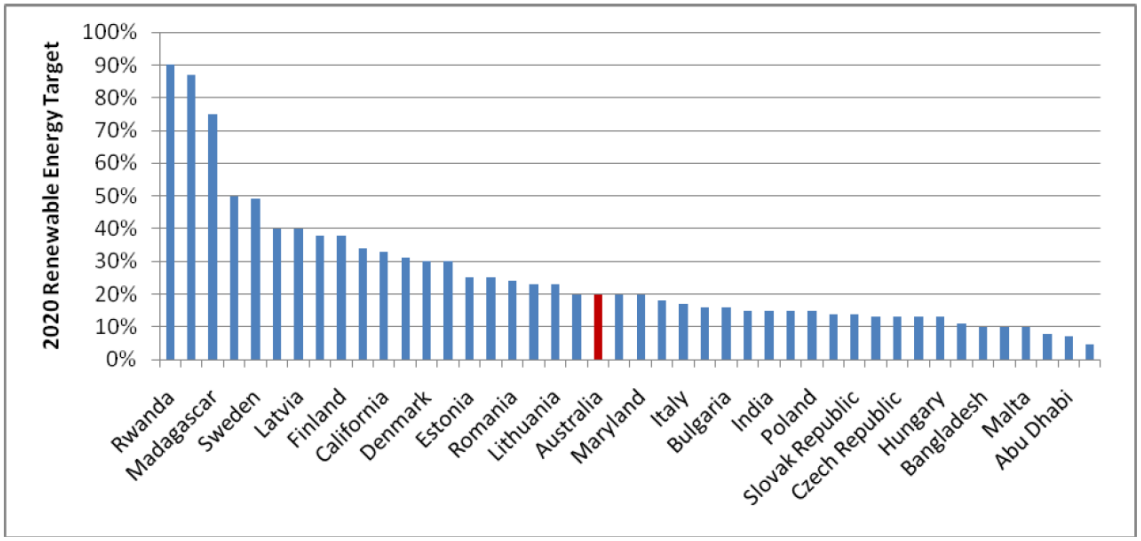
5 Greg Buckman, *Submission 21*, p 5; Department of Climate Change, Answers to questions on notice, August 2009.

agreed on a 20 per cent renewable energy target for 2020.[6] By one count, 'by early 2009 policy targets for renewable energy existed in at least 73 countries'.[7]

2.11 The Australian RET is argued to be lower than that proposed in the United States:

> While the recently proposed Waxman-Markey climate change bill in the USA has a lower 2020 stated target of 17.5% it continues to increase to 25% by 2025 then sustained at 25% out to 2039.[8]

Chart 2.1: Renewable energy targets



Source: Australian PV Association, *Submission 31*, p 4.

2.12 As noted above (Chart 1.1), the proportion of electricity generated from renewable sources in Australia is well below the OECD average. The 20 per cent target would raise it to around the average.

Shortfall charge

2.13 The shortfall charge increases from $40 per megawatt-hour under the MRET to $65 per megawatt-hour under the RET. The level of this penalty will be monitored to ensure it remains an effective incentive for investment in renewable energy. (Very few liable parties have had to pay the shortfall charge under the MRET.[9] This is

6 Vestas, *Submission 129*, p 2.

7 *Renewables Global Status Report: 2009 Update*, The Renewable Energy Policy Network for the 21st Century; http://www.ren21.net/pdf/RE_GSR_2009_Update.pdf.

8 LMS Generation, *Submission 81*, p 9.

9 Hon Greg Combet, Second reading speech, *House of Representatives Hansard*, 2009.

despite the charge sometimes being below the price of a certificate. This may be attributable to some opprobrium attaching to paying the charge, which may be regarded as being a 'fine'.)

2.14 Some submissions express concern that the charge should be kept at an adequate level:

> …the Unit would want to ensure that there is a mechanism in place to ensure the price of not complying remains substantially higher than the price of RECs, so as to provide a real incentive to comply.[10]
>
> An un-indexed penalty as suggested in the draft legislation, based on a projected peak REC price effectively puts a cap on the market price in uncertain economic times…as a minimum, the penalty should be indexed to CPI to reflect the ongoing price increase associated with participation in the scheme.[11]
>
> …it is clear the RET's shortfall charge has not been set [at] a level well above expected maximum RECs prices early in the RET's life and there is therefore a strong case for increasing the shortfall charge or at least indexing it to inflation.[12]
>
> The shortfall price be set at 200% of the REC price, adjusted annually, and shall fall to no less than $40/MWh.[13]

2.15 The Department of Climate Change is confident that even unindexed the charge will be adequate:

> REC prices are expected to peak at close to $70 in the early years…but decline over time as the carbon price delivered through the CPRS increases. As such, the shortfall charge will not need to be indexed over time.[14]

2.16 However, in case they are wrong, there is a provision that:

> The level of the shortfall penalty will be monitored to ensure that it remains effective as an incentive for investment in renewable energy.[15]

Recommendation 2

2.17 The Committee recommends that to underline the shortfall charge's role as a penalty rather than a price ceiling, it be reviewed after any year in which the maximum price for a renewable energy certificate exceeds 80 per cent of the shortfall charge.

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10 Uniting Church, *Submission 79*, p 3.

11 LMS Generation, *Submission 81*, p 9.

12 Mr Greg Buckman, *Submission 21*, p 19.

13 Greenpeace Australia, *Submission 43*, p 2.

14 Department of Climate Change, Answers to questions on notice, August 2009.

15 Mr Blair Comley, *Proof Committee Hansard*, 5 August 2009, p 5.

Is the target too low or too high?

Calls for a higher target

2.18 Some witnesses and submissions called for higher targets:

> … we would like to see the renewable energy target increased to 25 per cent. The projects I talked about before which are already on the table would meet the proposed 20 per cent target, and go further. So we already have in the pipeline, waiting to go, projects that would exceed 20 per cent. We believe that the nation should go for 25 per cent by 2020.[16]

> …the current target of 20% is too low. It does not provide substantive clarity to the market to undertake massive investment in renewable energy technologies which is vital for future employment in Australia. For Australia to make its contribution to avoiding dangerous climate change, we need to undertake a RET target of at least 40% by 2020 with a goal of reaching a 100% renewable energy future.[17]

> …we need to go to 30 per cent and 40 per cent and … not see the 20 per cent target as a ceiling. In the long term, we need to have sustainable energy in Australia and most of that will be renewables.[18]

> …there are good reasons … for a larger target. One of those is that if you look around the world the emissions intensity—the tonnes of CO_2 per megawatt hour for electricity in Australia—are almost double the emissions intensity of the electricity industries of developed countries…[19]

Concerns about baseload power

2.19 Those arguing against there being any RET are effectively arguing for a lower – zero – target. The other concern that leads to calls for a more modest target is that there may be practical limits on increasing the proportion of electricity sourced from renewables as many types of renewable energy do not provide baseload power: that the sun does not shine at night and winds are not always blowing.

2.20 This criticism does not apply to all renewables:

> Geothermal energy is the most likely of the emerging technologies to deliver baseload energy …ocean technologies currently provide a significantly higher degree of predictability than wind energy.[20]

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16 Mr Philip Freeman, Australian Conservation Foundation, *Proof Committee Hansard*, 5 August 2009, pp 76-7.

17 The Wilderness Society, *Submission 76*, p 2. A 40 per cent target for 2020 is also supported by Greenpeace Australia, *Submission 43*, p 2.

18 Dr Muriel Watt, IT Power, *Proof Committee Hansard*, 6 August 2009, p 52.

19 Dr Iain MacGill, Joint Director, Centre for Energy and Environmental Markets, *Proof Committee Hansard*, 6 August 2009, p 83.

20 Emerging Technologies, *Submission 113*, p 3.

2.21 A CSIRO expert explained:

> …geothermal is looked upon as a base load technology. It will be once it gets up and running. It is a renewable that does not have intermittency and variability. Bio-energy is the same. If you have a continuous supply of bio-energy, it is going to be a base load power source. It does not really apply to those. Wind is a different matter. It is a variable resource and it is always going to be a variable resource. Some people say that if you have enough wind farms scattered over a wide enough area added altogether you are going to get close to baseload supply. Of course, that is actually happening in places like Europe, where there is a fairly dense power distribution network and fairly dense generation sites. Usually at some stage there is wind somewhere in the area that helps to reduce that variability, but it is still there…There have been all sorts of proposals in tidal energy in smoothing out that load—by pump storage, for example. At times of really high tidal flow you use that power to pump water uphill and when the tide is turning or not running you let it go downhill and generate electricity from it. So you can smooth it out.[21]

2.22 Renewable energy advocates reject the baseload argument:

> Options for the provision of stable and continuous solar power include actively shifting loads from night to daytime; wide geographical dispersion of solar systems to minimise the effect of cloud; precisely predicting solar energy output using satellite imagery; diversification of energy supply to include all renewables; and energy storage. A future large-scale day-night storage option is the batteries of million of electric cars, which will be able to provide 24 hour storage of Australia's entire electricity production. Pumped hydro (whereby water is pumped uphill during the day and released through turbines at night to provide energy) is an efficient, economical and commercially available storage option. Lakes covering only 50 km^2 (about 2 m^2 per citizen) utilising either fresh water or seawater, would be sufficient to provide 24 hour storage of Australia's entire electricity production. In the longer term, intercontinental high voltage DC transmission will further reduce the need for storage.[22]

2.23 The baseload 'problem' is partly an artefact of current pricing mechanisms:

> Time-of-use tariffs (whereby electricity generation and consumption has a value that varies throughout the day) are important for solar energy, since solar energy production often coincides with high daytime electricity prices driven by demands from industry and air conditioners.[23]

2.24 There was also evidence that the electricity market is adaptable:

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21 Dr Wright, CSIRO, *Proof Committee Hansard*, 5 August 2009, pp 38-9.

22 Professor Andrew Blakers, *Submission 2*, p 5.

23 Professor Andrew Blakers, *Submission 2*, p 7.

> Australia has probably one of the most robust national electricity markets that we have seen and it is very capable of managing variability in supply simply because it manages variability in demand from consumers on a daily basis. It is a matter of the people who have been running the market getting a better understanding of the new supply-side dynamic …and also adjusting our technologies.[24]

2.25 A study by the Parliamentary Library concluded:

> The technology is already available for generating reliable continuous electrical power from some renewables (e.g. biomass). However, the current power capacity is small. Further development in the renewables sector is required before any significant level of substitution of coal-fired power can take place. Research and development into solar thermal, photovoltaic, ocean and geothermal energy indicates very promising prospects for reliable and continuous power from renewables within the next two to four decades.[25]

2.26 Intermittent power sources can still provide baseload power if the power generated can be stored. A problem with storing energy is that it may be 'taxed twice':

> In many of these applications, the electrical energy is effectively 'consumed' twice. In the first instance, at times of low demand, it is converted into whatever stored medium is being used (water pumped into a higher reservoir or, say, heating molten salts). The potential energy in these mediums can then be converted back to electrical energy, often with an efficiency loss in the process. This time-shifted electrical energy is again consumed by a load – but now during a time of excess demand. The current RET legislation does not account for the actuality that the stored electrical energy is not being 'used', in the common sense of the term. For example, under the current legislation, a storage device being 'charged' using overnight wind energy will be considered a load and the sale of electricity to that storage device, where the device is not behind the fence of the generation system, will attract a REC liability…the sale of electrical energy attracts two sets of REC costs, once at the point of original generation, and again at the point of re-generation from its stored medium.[26]

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24 Mr Richards, *Proof Committee Hansard*, 6 August 2009, p 58.

25 Stewart Needham, 'The potential for renewable energy to provide baseload power in Australia', 23 September 2008.

26 Griffin Energy, *Submission 7*, pp 1-2.

Coverage of the RET

Eligible energy sources

The following energy sources are eligible renewable energy sources under the MRET (section 17 of the Act) and are not proposed to be changed in the RET:

(a) hydro;

(b) wave;

(c) tide;

(d) ocean;

(e) wind;

(f) solar;

(g) geothermal aquifer;

(h) hot dry rock;

(i) energy crops;

(j) wood waste;

(k) agricultural waste;

(l) waste from processing of agricultural products;

(m) food waste;

(n) food processing waste;

(o) bagasse;

(p) black liquor;

(q) biomass based components of municipal solid waste;

(r) landfill gas;

(s) sewage gas and biomass based components of sewage;

(t) any other energy source prescribed by the regulations.

Calls for expanded coverage

2.27 There have been calls to expand the coverage of the RET beyond electricity generated from renewable sources:

> …the RET should be expanded to include all eligible energy sources including the use of industrial waste and waste coalmine gases as eligible energy sources.[27]
>
> …the RET scheme should be broadened to include liquid fuels and heat generation.[28]

2.28 Some submissions called for nuclear power to be regarded as renewable.[29] Steel manufacturers called for industrial waste gases to be regarded as renewable.[30] As described below, there are also calls for forest wood and waste mine gas to be included.

2.29 APPEA suggest:

> …the Bill could be amended to allow a combined renewables/gas-based project to provide base load power generation and be eligible to a proportion of a REC (say, 50 per cent) to recognise the synergies of such an approach in facilitating the entry of renewables into base load service.[31]

Calls for narrower coverage

2.30 There are other concerns that coverage is too broad and should be more focused:

> …the Renewable Energy Target should be about shifting how large scale power generation is carried out. While this should include small scale distributed power generation through renewable sources, such as wind power and solar, it should exclude the installation of solar panels and solar hot water systems by households.[32]
>
> In terms of treatment of solar hot water heaters, it is unclear what they are doing there. It is a renewable electricity target. That is the stated intention of the scheme's 20 per cent target. They have added a huge amount of

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27 Ms Maria Tarrant, Director of Policy, Business Council of Australia, *Proof Committee Hansard*, 5 August 2009, p 28.

28 Australian Forest Growers, *Submission 14*, p 2.

29 Robert Gishubl, *Submission 54*, p 1.

30 Bureau of Steel Manufacturers of Australia, *Submission 17*, p 5.

31 APPEA, *Submission 66*, p 6.

32 Uniting Church, *Submission 79*, pp 1-2.

> complexity, they do not generate renewable electricity and they raise all of these other questions…[33]

2.31 Some witnesses wanted eligibility restricted to new projects:

> Another issue…is unrestricted eligibility of pre-1997 projects that were included or built under the mandatory renewable energy target. They will continue to earn RECs until 2030…It reduces the effectiveness of the scheme and creates the potential for windfall profits. We have ways of addressing that such as the use of sunset clauses so that projects can only earn renewable energy certificates for a period of years.[34]

Heat pumps

2.32 The Gas Industry Alliance stressed their opposition to the inclusion of heat pumps:

> …heat pump water heaters should not be part of the RECs scheme…[they] are not a solar product…they do not absorb solar radiation…[35]

2.33 In response, Rheem Australia argued that:

> An annual market of 160,000 solar and heat pump water heater equates to reducing household CO_2 emissions by nearly half a million tonnes per annum… 65% of a heat pump's energy usage comes from renewable sources.[36]

2.34 The Department of Climate Change informed the Committee that:

> Renewable Energy Certificates (RECs) are allocated to both solar and heat pump water heaters according to a methodology that considers the amount of renewable heat energy the water heater can deliver over a 10-year period, netting out any supplementary energy (electricity or gas) used in heating the water. The relative efficiencies of different models of solar water heaters and heat pump water heaters of a similar size is reflected in their RECs allocation.[37]

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33 Dr Iain MacGill, Joint Director, Centre for Energy and Environmental Markets, *Proof Committee Hansard*, 6 August 2009, p 84.

34 Dr Iain MacGill, Joint Director, Centre for Energy and Environmental Markets, *Proof Committee Hansard*, 6 August 2009, p 84.

35 Mr Gregory Ellis, Gas Industry Alliance, *Proof Committee Hansard*, 5 August 2009, p 83. The inclusion of heat pump water heaters is criticised further in the submissions by Bosch, S*ubmission 116* and LMS Generation, *Submission 81* p 4 and by Dr Muriel Watt, IT Power, *Proof Committee Hansard*, 6 August 2009, p 52.

36 Rheem, *Submission 123*, pp 1-2.

37 Department of Climate Change, Answers to questions on notice, August 2009.

Forest wood

2.35 The National Association of Forest Industries wants greater scope for wood waste within the scheme:

> Regulatory barriers restricting the potential for forest and wood residues to be used for renewable energy production should be addressed to enhance Australia's energy security, provide access to the financial benefits of the expanded RET and the CPRS and encourage the commercial application of wood-based renewable energy technologies.[38]

2.36 The Australian Forest Growers argue:

> The present exclusion of heat generation (for both industrial and domestic use) from the RET scheme has prevented recognition of the significant use of waste wood both in mills and processing plants. This affects forest growers, who currently have limited access to markets for waste wood that is a by-product of necessary forest tending.[39]

2.37 Similarly, the paper industry argues:

> Forest biomass and forest residues in Australia are carbon neutral, and therefore should be eligible as a source of renewable energy. No further requirements should be imposed (e.g. regarding alternative uses of the biomass). The use of the biomass should be determined through commercial forces and these should be left to work unencumbered; this approach will encourage greater investment in plantation (and forest) growing and management.[40]

2.38 On the other hand, there are concerns about the burning of wood from native forests counting as renewable energy:

> Is the supply of the source of native forest 'waste' renewable? In other words, are native forests renewable? Given that it takes 80 years to recover carbon and return water catchments to pre-logged status and 200 years to form the hollows for high order birds and animals, such as gliders need, in the complex bio-diversity that is a natural forest, then, no![41]
>
> …the bill encourages deforestation and land-clearing to provide for the burning of wood…the removal of this material deprives forests of vital nutrients to the soil and endangers native species' habitats.[42]
>
> Bioenergy fuelled by wood taken from native vegetation (especially forests) is unsustainable and should be categorically ruled out across Australia.[43]

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38 National Association of Forest Industries, *Submission 94*, p 1.

39 Australian Forest Growers, *Submission 14*, p 2.

40 A3P, *Submission 96*, p 6.

41 Prue Acton, *Submission 55*, p 1.

42 Lawyers for Forests, *Submission 56*, p 1.

Waste mine gas

2.39 Many submissions call for fugitive methane emissions associated with coal mines to be counted as 'renewable' and receive RECs:[44]

> In the current MRET municipal waste gases are eligible and they would seem to me to be no more renewable than waste coalmine gas...[45]
>
> We strongly believe that the use of waste coal mine methane gas for electricity generation is consistent with the objectives of the Australian Renewable Energy (Electricity) Amendment Bill, and that it should be listed as an eligible renewable energy source.[46]

2.40 This view is rejected by some other witnesses and submitters:

> I would be very much against adding any fossil fuel power into a renewable energy target. I think the fossil fuel industry gets a huge amount of support in Australia.[47]
>
> …waste mine gas is not a renewable source and should not be included in the Act. It would be appropriate to make arrangements for existing waste mine gas operations by transitional arrangements under either the CPRS Bill (which could continue the NSW GGAS legislation for a period of five years) or through allocations under the coal industry support stream of the Climate Change Action Fund. In the future coal waste mine gas should be dealt with by conditions of development consents.[48]
>
> Other sources of cleaner energy – gas, coal seam methane could be assisted by a Low Emissions Energy Target (LEET) but they should not be included in the RET firstly because they are not 'renewable' and secondly because their inclusion will effectively water down RET as a market mechanism.[49]

2.41 One concern was that opening up the definition of 'renewable' to include waste mine gas would be a dangerous precedent:

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43 The Wilderness Society, *Submission 76*, p 2. See also Margaret Blakers, *Submission 25*, Harriett Swift, *Submission 48* and Greenpeace Australia, *Submission 43*, p 2.

44 As well as the submissions quoted below the Queensland Resources Council, *Submission 127*, pp 2-3 and GE Energy Australia, *Submission 86*, pp 2-3 argued for the inclusion of these fugitive emissions, as did a confidential submission.

45 Mr Michael Hitchens, Chief Executive Officer, Australian Industry Greenhouse Network, *Proof Committee Hansard*, 5 August 2009, p 44. See also Australian Industry Greenhouse Network, *Submission 59*, p 4.

46 Australian Ethical Investment, *Submission 92*, p 1.

47 Dr Muriel Watt, IT Power, *Proof Committee Hansard*, 6 August 2009, p 68.

48 World Wildlife Fund, *Submission 9*, p 6.

49 Environment Business Australia, *Submission 126*, p 12.

> That would be a single-purpose change to legislation that everybody else would have to comply with, which I think would open up a can of worms for every other participant in the marketplace.[50]

Solar credits

2.42 The 'solar credits' mechanism allows owners of small scale renewable energy systems, such as household solar photovoltaic systems, to earn multiple RECs, as shown in Table 2.3, depending on the installation date. These additional RECs are sometimes referred to as 'phantom RECs'. The multiplier applies to only the first 1.5 kilowatt of rated output, and some submissions called for this to be increased.[51]

Table 2.3: Certificates multiplier for small generation units

9 June 2009 to 30 June 2012	5
1 July 2012 to 30 June 2013	4
1 July 2013 to 30 June 2014	3
1 July 2014 to 30 June 2015	2
From 1 July 2015	1

Source: *Explanatory memorandum*, p 5.

2.43 The Solar Credits scheme is criticised by some witnesses and submitters:

> While the solar credit scheme is endorsed by the council, it will result in the creation of what we call 'phantom RECs' that are produced as part of the multiplier but not actually linked to any clean energy generation. If these additional RECs are not replaced, then the overall target of 45,000 gigawatt hours will not be achieved.[52]

> This Solar Credits element would distort the RET and diminish its efficacy, and should not proceed...if renewable energy is to be subsidised at all it should be in a technology-neutral way that encourages the most cost-effective generation.[53]

> The solar credits scheme introduced to replace the photovoltaic rebate program is seriously flawed and undermines the objectives of the renewable

50 Mr Richards, *Proof Committee Hansard*, 6 August 2009, p 68.

51 Solar-Wind-Systems, *Submission 1*, p 1; Todae, *Submission 5*, p 1; BP Solar, *Submission 63*, p 6; Green Energy Markets, *Submission 100*, p 1; Kyocera Solar, *Submission 105*, p 1; RF Industries, *Submission 106*, p 2 and Conergy, *Submission 44*, p 2 all called for it to be increased to 10kW. CSR called for it to be increased to 5kW; *Submission 47*, p 3. The Australian PV Association and IT Power called for it to be increased to 3kW for residential PV systems; *Submission 51*, p 2 and Dr Muriel Watt, IT Power, *Proof Committee Hansard*, 6 August 2009, p 52.

52 Mr Matthew Warren, Chief Executive Officer, Clean Energy Council, *Proof Committee Hansard*, 5 August 2009, p 67.

53 Australian Industry Group, *Submission 64*, p 6.

energy target. The creation of multiple RECs undermines the amount of renewable energy that has to be generated as a way of meeting the target. It also places householders in a difficult position. Most people who are seeking to install photovoltaics (PVs) want to do so because they believe they are doing something positive for the environment. Under the new scheme, in order to receive any financial incentive they must sell their RECs. This reduces the amount of renewable energy that power generators must install, thus meaning the householder contributes nothing additional to what is required to occur with the renewable energy target. Therefore, the Unit does not support the inclusion of small scale (household) PVs as part of the expanded Renewable Energy Target.[54]

…the proposed REC 'multiplier' for micro-generation, including household PV…creates even greater incentives for early investment in renewable generation, from sources that may or may not be as cost effective when compared to others.[55]

2.44 AGL Energy offers the following suggestion:

…a formula should be considered for the legislation to increase the quantity of RECs required in each year to ensure that 'phantom RECs' do not result in actual renewable generation being lower than that specified in the legislated target.[56]

2.45 Other critics would like the scheme rethought:

With the deeming arrangements and the multiplier for small solar PV installations, I think the first point to make is that this multiplier is no substitute for a well-thought-out, coherent and comprehensive policy framework. It is a sort of jimmy fix and it is not going to do as well as a more coherent and thought-through policy approach.[57]

2.46 In response, the Department of Climate Change explained:

Solar credits will commence from 9 June 2009 and be phased out by 2015-16, recognising that technology costs are going down and the role of CPRS in providing incentives for renewable technologies. The timing of the phase-out by 2015-16 means that Solar Credits will not adversely affect reaching the 20 per cent target by 2020.[58]

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54 Uniting Church, *Submission 79*, p 3.

55 Ausra, *Submission 91*, p 8. See also Moreland Energy Foundation, *Submission 19*, p 2.

56 AGL Energy, *Submission 39*, p 2. A similar idea is put by Mr Philip Freeman, Australian Conservation Foundation, *Proof Committee Hansard*, 5 August 2009, p 77; Mr Kane Thornton, Hydro Tasmania, *Proof Committee Hansard*, 6 August 2009, p 51, Conergy, *Submission 44*, p 2 and CSR, *Submission 47*, p 4.

57 Dr Iain MacGill, Joint Director, Centre for Energy and Environmental Markets, *Proof Committee Hansard*, 6 August 2009, p 84.

58 Department of Climate Change, Answers to questions on notice, August 2009.