Chapter 1

Introduction and conduct of the inquiry

Conduct of the inquiry

1.1 On 13 May 2010 the Senate referred the provisions of three related bills, the:

- Renewable Energy (Electricity) Amendment Bill 2010;
- Renewable Energy (Electricity) (Charge) Amendment Bill 2010; and
- Renewable Energy (Electricity) (Small-scale Technology Shortfall Charge) Amendment Bill 2010

to the Environment, Communications and the Arts Legislation Committee for inquiry and report by 10 June 2010.

1.2 The committee advertised the inquiry in the national press and invited submissions by 24 May 2010. Details of the inquiry were published on the committee's website. The committee also wrote to a number of interested parties to inform them of the inquiry. The inquiry attracted 50 submissions. The names of persons and organisations that made submissions to the inquiry may be found in Appendix 1 to this report.

1.3 A public hearing was held in Canberra on 28 May 2010. The names of witnesses that appeared at the hearing may be found in Appendix 2. The Hansard transcript is available through the internet at www.aph.gov.au/hansard.

Acknowledgment

1.4 The committee thanks the organisations and individuals who made submissions and gave evidence at the public hearing.

The Renewable Energy Target scheme[1]

1.5 The existing Renewable Energy Target (RET) scheme, which was established by the *Renewable Energy (Electricity) Act 2000*, as amended by the *Renewable Energy (Charge) Act 2009*, creates a guaranteed market for electricity generated from renewable sources. The target is for 20 per cent of Australia's electricity to be generated from renewable sources by 2020. The existing RET will be achieved through a series of increasing annual targets, culminating in 2020 with a target of 45 000 gigawatt-hours (GWh) of eligible renewable generation.

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1 Much of this section is drawn from the Explanatory Memorandum.

1.6 The Act requires wholesale purchasers of electricity ('liable entities') to meet a share of a renewable energy target in proportion to their share of the national wholesale electricity market. The Act provides for the creation of Renewable Energy Certificates (RECs) by generators of renewable energy. One REC generally represents one megawatt-hour (MWh) of electricity from an eligible renewable energy source.

1.7 Generators of renewable energy include large-scale installations such as wind farms, geothermal or biomass power plants and small-scale installations such as solar water heaters, rooftop solar panels, small wind turbines and micro-hydro systems.

1.8 Once registered with the Office of the Renewable Energy Regulator (ORER), the RECs are able to be traded, and are sold to wholesale purchasers of electricity (the 'liable entities') who surrender them to ORER to demonstrate their compliance with their individual targets under the scheme. Liable entities thus avoid paying a shortfall charge which is set by a related Act, the *Renewable Energy* (*Electricity) (Charge) Act 2000*.

Purpose of the bills

1.9 The Renewable Energy (Electricity) Amendment Bill 2010 is intended to amend the *Renewable Energy (Electricity) Act 2000* to separate the existing RET scheme into two parts – a Small-scale Renewable Energy Scheme (SRES) and a Large-scale Renewable Energy Target (LRET).[2] The amendments are intended to encourage additional generation of renewable electricity from large-scale installations while continuing to support generation from small-scale installations. The principal amendments and the significant issues surrounding those proposed amendments are discussed later in this report.

1.10 The policy rationale to split the REC market is a concern 'that the inclusion of small-scale technologies and their impact on the REC market is delaying investment in large-scale renewable energy projects.'[3]

1.11 Shortly after passage of the RET legislation through Parliament in August 2009, the REC price fell, leading to uncertainty in the market and a deterrence of potential investment in large-scale renewable energy projects. A COAG review of late 2009 identified several factors affecting the REC price, including:

- the increase in the supply of RECs created by the higher uptake of solar water heaters and heat pumps, driven by Commonwealth and state subsidies, and the expectation that this trend may continue;
- domination of the spot market by small industry players, such as solar water heater providers, who regularly sell RECs for liquidity reasons; and

2 The Hon Mr Gary Gray, MP, Parliamentary Secretary for Western and Northern Australia, *House of Representatives Hansard*, 12 May 2010, p. 3210.

3 *Renewable Energy (Electricity) Amendment Bill 2010*, Explanatory Memorandum, p. 6.

- the perception that there is a large quantity of banked RECs, and that most liable entities will not need to purchase additional RECs to satisfy their obligations for the 2009 calendar year.[4]

1.12 The proposed changes are said to 'provide greater certainty for households, large-scale renewable energy projects and installers of small-scale renewable energy systems such as solar panels and solar water heaters.'[5]

1.13 In addition to the Renewable Energy (Electricity) Amendment Bill 2010, which contains the mechanisms to establish the LRET and the SRES, there are two associated bills. The Renewable Energy (Electricity) (Charge) Amendment Bill 2010 would impose a shortfall charge of $65 per MWh (the *large-scale renewable energy shortfall charge*) on liable entities to encourage compliance with their legal obligations to surrender RECs created within the LRET.

1.14 The Renewable Energy (Electricity) (Small-scale Technology Shortfall Charge) Amendment Bill 2010 would impose a similar shortfall charge of $65 per MWh (the *small-scale renewable energy shortfall charge*) on liable entities to encourage them to comply with the requirement to surrender RECs created within the SRES.

Overview of proposed changes

Large-scale Renewable Energy Target

1.15 It is expected that the LRET will provide most of the expansion in the generation of renewable electricity. The LRET has been set at 41 000 GWh in 2020 (see Figure 1 in chapter 2). The apparent reduction of the target, from the current 45 000 GWh, is a recognition that the separate SRES will account for at least 4000 GWh of generation.

1.16 The large-scale market will operate in much the same way as the existing RET scheme, with large-scale generators receiving Large-scale Generation Certificates (LREC) at a rate of one per MWh generated. Large-scale generators include wind farms, solar arrays, hydroelectricity and other renewable energy generation over a certain size.

1.17 The obligation of liable entities to purchase LRECs creates demand. As the LRET target increases annually, demand for LRECs will also increase over time. The price of LRECs is flexible and determined by market forces. It is expected that higher demand will result in higher LREC prices, which will encourage investment and expansion of large-scale renewable generation.

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4 *Renewable Energy (Electricity) Amendment Bill 2010*, Explanatory Memorandum, p. 6.

5 *Renewable Energy (Electricity) Amendment Bill 2010*, Explanatory Memorandum, p. 2.

1.18 All existing Renewable Energy Certificates, including existing forward contracts and Small-scale Technology Certificates (STCs) created before 1 January 2011 will be included in the LRET market.

1.19 The LRET, including issues associated with its operation, is described in further detail in chapter 2.

Small-scale Renewable Energy Scheme

1.20 The SRES will operate quite differently. Under the SRES, owners of small-scale technologies, including solar water heaters, household photovoltaic (PV) systems and small-scale wind and hydropower systems are eligible to create Small-scale Technology Certificates (STCs) at a rate of one per MWh of electricity generation equivalent. The existing Solar Credits scheme, described in further detail in Chapter 3, continues to operate, meaning that small-scale wind, solar and hydro systems will attract multiple STCs per MWh until 2015.

1.21 The bill establishes a Clearinghouse that will provide a means to trade STCs at the fixed price of $40 (exclusive of GST).[6] STCs can also be sold outside the Clearinghouse using private markets.

1.22 The SRES does not include annual targets, and so it will be a demand-driven, uncapped scheme. As the STC price is fixed, the quantity of STCs produced each year will be determined by the market. Liable entities are obliged to purchase all STCs created annually. However, in order to provide some certainty of the SRES liability in the short term, ORER will forecast STC creation and calculate a firm's liability using the projection. This will provide up to a year's forward notice of the SRES liability, with non-binding estimations published a further two years in advance as a guide for liable entities.

1.23 The SRES, and issues associated with its operation, is described in further detail in chapter 3.

Assistance for emissions-intensive trade-exposed industries

1.24 The existing levels of assistance to Emissions-Intensive Trade-Exposed (EITEs) industries will continue unchanged under the proposed legislation. Partial exemptions of 90 per cent for high emissions intensive industries and 60 per cent for medium emissions intensive industries will apply to the portion of the LRET over 9500 GWh and to the liability under the SRES. The 90 or 60 per cent exemption does not apply to the pre-existing MRET (9500 GWh) unless the price of an LREC appreciates above $40. EITE industries will receive further assistance beyond this price point, however this is contingent upon the passage of the Carbon Pollution Reduction Scheme. Issues associated with assistance measures for EITEIs are described further in chapter 4.

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6 *Renewable Energy (Electricity) Amendment Bill 2010*, Explanatory Memorandum, p. 21.

COAG Review

1.25 The committee notes that the Council of Australian Governments (COAG) is currently undertaking a review of specific renewable energy target issues. The review work, conducted by the COAG Renewable Energy Sub Group has included the release of five discussion papers to facilitate consultation. The five papers cover areas of interest including:

- eligibility of new small-scale technologies and heat pumps;
- self-generation provisions under the expanded national RET scheme;
- support for small-scale off-grid renewable generation;
- treatment of new waste coal mine gas power generation in the RET; and
- treatment of 'Solar Credits' Renewable Energy Certificates under the RET.[7]

1.26 At the 19–20 April 2010 meeting, COAG noted the Commonwealth government's announcement of plans to split the RET into separate large-scale and small-scale components.

> COAG noted the Commonwealth announcement of 26 February 2010 to make significant changes to the Renewable Energy Target (RET) scheme, involving two separate parts – the Small-scale Renewable Energy Scheme and the Large-scale Renewable Energy Target. These changes are intended to address concerns being considered by the COAG Review of Specific RET Issues regarding Renewable Energy Certificate (REC) prices and additional RECs not backed by generation as part of the Solar Credits mechanism. The remaining matters within the scope of the review will be finalised for consideration by COAG at its next meeting.[8]

Impact of scheme on electricity prices

1.27 The majority of the liability arising from the LRET and SRES will accrue to purchasers of retail electricity, in the form of higher prices for electricity. However, modelling of the effects of the scheme provided to the committee suggests that the cost impost resulting from the passage of the proposed legislation will be relatively low (see Table 1). For instance:

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7 Department of Climate Change and Energy Efficiency, *Consultation on Additional Renewable Energy Target Issues*, www.climatechange.gov.au/en/government/submissions/renewable-energy-target/coag-ret-target.aspx (accessed 7 June 2010).

8 Council of Australian Governments, *Communique 19–20 April 2010*, www.coag.gov.au/coag_meeting_outcomes/2010-04-19/index.cfm?CFID=97318&CFTOKEN=96033893#energy (accessed 7 June 2010).

Table 1—Estimated Impact of the Enhanced RET on Retail Electricity Prices[9]

	2010–15		2016–20		2021–30	
	Percentage	$/MWh	Percentage	$/MWh	Percentage	$/MWh
With a 2013 CPRS start date						
Current RET	4.0	4.69	5.1	7.41	3.3	5.40
Enhanced RET	0.2	0.23	0.2	0.31	0.4	0.64
Total	4.2	4.92	5.3	7.72	3.7	6.04
With a 2014 CPRS start date						
Current RET	4.2	4.73	5.2	7.47	3.3	5.42
Enhanced RET	0.2	0.26	0.2	0.31	0.4	0.64
Total	4.4	4.99	5.4	7.78	3.7	6.06

Source: McLennan Magasanik Associates, *Impacts of Changes to the Design of the Expanded Renewable Energy Target*, May 2010.

1.28 The government's commissioned modelling indicates that the proposed changes to the RET scheme would increase retail electricity prices by 23 cents per MWh (or 0.2 per cent) in the period 2010–15, assuming the CPRS is implemented in 2013. This is on top of the price effect of the current RET. Altogether, the amended RET scheme, including the division into the LRET and SRES, is estimated to raise electricity prices by $4.92 per MWh in the period 2010–15, increasing to $6.04 in the period 2021–30.

1.29 Figures provided by the department estimated that this price increase would add approximately $41 to the average household's annual electricity bill in the period 2010–15. Of this amount, only $2 of the increase would be attributable to changes made by the proposed legislation.[10]

1.30 There were differing views about the effect of the Renewable Energy Target on electricity prices. For example, the Australian Aluminium Council disagreed with the department's modelling that indicated declining contract prices for LRECs over the course of the scheme's lifetime:

> Looking particularly at the recent changes announced to RET and their impact on electricity costs, we believe the changes unambiguously increase the cost of the RET policy. The target has been adjusted so that it can only be higher than the previous target; it cannot be lower. The costs per renewable energy certificate will be higher as a result of splitting it into two streams. We are particularly concerned about the difficulty in meeting the large-scale renewable energy target. If that becomes difficult to meet, we

9 Department of Climate Change and Energy Efficiency, tabled document, 28 May 2010; figures based on the McLennan Magasanik Associates' Report to the Department of Climate Change and Energy Efficiency – *Impacts of Changes to the Design of the Expanded Renewable Energy Target*, May 2010.

10 Department of Climate Change and Energy Efficiency, tabled document, 28 May 2010; figures based on the McLennan Magasanik Associates' Report to the Department of Climate Change and Energy Efficiency – *Impacts of Changes to the Design of the Expanded Renewable Energy Target*, May 2010.

> would expect, as others have indicated, that the LRECS, the certificate price, will rise to the level of the penalty charge, which is in the order of $90 per certificate.[11]

1.31 The Energy Supply Association of Australia (ESAA) was also of the opinion that the LREC price would approach the shortfall charge tax-free equivalent of approximately $90.[12] Mr Brad Page, ESAA, noted that the following decades would require major investment in the electricity sector for many reasons, of which the LRET was just one:

> There will undoubtedly be clear elements where you have to build a new line to hook up to a new wind farm. Okay, you can see that. But for much of the rest of the investment it is not easily attributed to any one item or any one change. We are going to need improved digital operation of the networks not just for renewable energy but also to meet a variety of new needs on the demand side, to actually engage consumers better, to give them functionality and to actually let us control the system with less installed capacity. All I am trying to say to you is that it is extremely complicated to unpick exactly what causes every element.[13]

1.32 Mr Page referenced electricity price modelling by Port Jackson Partners projecting electricity price increases in excess of 100 per cent resulting from a range of factors, including the existing RET.[14]

1.33 The Clean Energy Council provided the committee with modelling it had commissioned from ROAM Consulting. Mr Matthew Warren informed the committee that the modelling indicated the net cost of the entire scheme, including the SRES, to be much smaller than the expected increases that would occur anyway:

> We have completed some modelling in March and recently in May, which we will table… This is in relation to the small-scale technology, so the uncapped SRES. The costs to households, where the costs are highest initially, are from 0.6 per cent to two per cent of retail electricity prices. Even with very aggressive sales behind the SRES, it still only increases household electricity bills by about two per cent, according to our modelling…
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> We calculate the net cost by 2020 of the entire scheme as being about six per cent of household power bills, so that will scale up as the scheme scales

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11 Mr Miles Prosser, Australian Aluminium Council, *Proof Committee Hansard*, 28 May 2010, p. 27.

12 Mr Brad Page, Energy Supply Association of Australia, *Proof Committee Hansard*, 28 May 2010, p. 12.

13 Mr Brad Page, Energy Supply Association of Australia, *Proof Committee Hansard*, 28 May 2010, p. 11.

14 Mr Brad Page, Energy Supply Association of Australia, *Proof Committee Hansard*, 28 May 2010, p. 13.

> up. That is much smaller than the power bill increases of up to 40 per cent already being proposed as a result of network and transmission upgrades.[15]

1.34 AGL Energy noted that their own modelling aligned closely with the results of both the MMA report and the modelling commissioned by the Clean Energy Council.[16]

Committee view

1.35 On the balance of evidence provided, the committee considers that the proposed legislation is unlikely to significantly alter the price impact of the Renewable Energy Target. Furthermore, the impacts of the existing scheme already agreed to by the Parliament are in the committee's view minimal and represent an acceptable trade-off in delivering the government's commitment for 20 per cent of Australia's electricity to be generated from renewable sources.

Passage during the winter sittings

1.36 The committee endorses the evidence supporting the need for a swift passage of the bill before the winter recess. As Mr Matthew Warren, Clean Energy Council noted:

> In a sense, we are right at the edge of the road. Without this passage, it is then deferred until after the political election cycle, and there will be another year before it passes. The collateral damage on the industry alone will be significant. Staff will be lost, expertise will be lost and investment confidence will be lost. We have the support of all the major retailers, who are the liable parties in Australia—so Origin, TRU and AGL. They see that we need some sort of investment in new generation capacity in Australia. So it has a material negative impact both on the energy market and the electricity market in Australia and on this industry. It sends a growth industry in reverse if this does not pass.[17]

1.37 The committee is aware that large amounts of investment are waiting on the certainty the legislation can provide and notes that there is broad support from a range of stakeholders.

1.38 The committee makes a recommendation in chapter 4 regarding the timing of the passage of the bills.

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15 Mr Matthew Warren, Clean Energy Council, *Proof Committee Hansard*, 28 May 2010, p. 24.

16 Mr Tim Nelson, AGL Energy, *Committee Hansard*, 28 May 2010, p. 22.

17 Mr Matthew Warren, Clean Energy Council, *Committee Hansard*, 28 May 2010, p. 25.

Report structure

1.39 Over the course of the inquiry, a number of issues were raised in evidence and are discussed in detail in this report. Chapter 2 focuses on the LRET, chapter 3 on the SRES and chapter 4 on assistance measures for EITEs.