

Chapter 1

Terms of reference

1.1 On 25 June 2008, the Senate established the Senate Select Committee on Fuel and Energy (the committee) to inquire into and report on the impact of higher petroleum, diesel and gas prices and several related matters.

1.2 The full terms of reference for this inquiry are extensive and can be found at appendix 1. As the terms of reference are broad, the committee has decided to report in stages. This interim report addresses the following part of the inquiry's terms of reference:

- (d) the impact of an emissions trading scheme on the fuel and energy industry, including but not limited to:
 - (i) prices,
 - (ii) employment in the fuel and energy industries, and any related adverse impacts on regional centres reliant on these industries,
 - (iii) domestic energy supply, and
 - (iv) future investment in fuel and energy infrastructure;

Conduct of the inquiry to date

1.3 The inquiry was advertised in *The Australian* and details of the inquiry were placed on the committee's website. The committee invited submissions from a wide range of interested organisations, government departments and individuals, and continued to accept submissions throughout the inquiry. To date, the committee has received 90 submissions, and these are listed at appendix 2.

1.4 The committee held 12 public hearings in Perth, Canberra, Melbourne, Sydney, Brisbane, Wollongong, Mackay and Gladstone. Details of the public hearings including a list of the witnesses who gave evidence are provided in appendix 3.

1.5 The committee also undertook three site visits. On 1 April 2009, the committee visited the Futureworld National Centre for Appropriate Technology's Eco-Technology Centre in Wollongong, New South Wales. The Centre hosts a series of demonstrative displays, which exhibit renewable energy technologies and methods for energy and water conservation. On 6 April 2009, the committee visited Mackay Sugar Limited's Racecourse Sugar Mill in Mackay, Queensland, to observe how waste from sugar production is used as a renewable fuel to generate the energy required to run the mill. The committee also visited the NRG Gladstone Power Station, in Gladstone, Queensland, on 7 April 2009 to gain a practical understanding of the process of power generation and discuss how an emissions trading scheme (ETS) might affect the power station's operations.

1.6 Following the release of the Australian Government's *Carbon Pollution Reduction Scheme: Australia's Low Pollution Future – White Paper* (the White Paper), the committee also decided to pose a number of written 'Questions on Notice' to state and territory governments, regional organisations and local governments, and submitters and witnesses, to determine their views on the White Paper.

1.7 In December 2008, following the release of the Department of the Treasury's modelling report *Australia's Low Pollution Future: The Economics of Climate Change Mitigation*, the committee commissioned an independent consultant, Dr Brian Fisher of Concept Economics, to undertake a peer review of Treasury's modelling. The report, *A Peer Review of the Treasury Modelling of the Economic Impacts of Reducing Emissions* was completed on 30 January 2009, and is available on the committee's website. The findings of this report are discussed at chapter 4.

Background to the inquiry

The Kyoto Protocol

1.8 The Kyoto Protocol, an international agreement setting legally binding greenhouse gas emissions reduction targets for developed countries, was adopted on 11 December 1997, and entered into force on 16 February 2005. While developing countries can sign up to the Protocol, they are not subject to the legally binding targets.¹

1.9 The Protocol allows countries to determine the national policies and measures they implement domestically to meet their emissions target. The Protocol does not dictate the mechanisms that countries must implement to reduce emissions, though it does provide an indicative list of policies and measures for consideration. It also sets out three mechanisms which may assist countries in achieving their targets. The Kyoto mechanisms are:

- The Clean Development Mechanism, which allows a country to implement emission reducing projects in developing countries, or to absorb carbon through afforestation or reforestation, thereby earning the country certified emission reduction credits which can be counted towards meeting its Kyoto target.
- The Joint Implementation Mechanism, which allows a country to implement an emission-reducing or emission-removing project in the territory of another country which is party to the Protocol, and count the emission reduction units towards its own Kyoto target.

1 Nina Markovic and Nick Fuller, *Climate change negotiations*, Parliamentary Library Background Note, 26 August 2008, updated 2 October 2008. (accessed 15 April 2009).

- Emissions trading, which allows countries with unused emissions units² to sell any excess emission capacity, or units, to countries which have exceeded their targets.³

1.10 Australia signed the Kyoto Protocol on 24 April 1998, but did not ratify it until 12 December 2007. Under the Protocol, Australia is committed to reduce its average annual greenhouse gas emissions to 108 per cent of 1990 emissions, over the 2008-2012 commitment period.⁴ Australia is on track to meet that target.⁵

1.11 Negotiations on a successor to Kyoto are due to be completed in late 2009 at the United Nations Climate Change Conference in Copenhagen. To be seen to be 'leading by example', the Rudd Government committed to a 60 per cent reduction below 2000 emissions levels by 2050, and a medium term reduction of between 5 per cent and 15 per cent below 2000 levels by 2020.⁶

1.12 In a further change in approach announced on 4 May 2009, the government committed to a revised medium term emissions reduction target of up to 25 per cent, subject to the action taken by the rest of the world.⁷

Australia's emissions in context

1.13 According to the *Garnaut Climate Change Review: Final Report*, Australia is responsible for about 1.5 per cent of global greenhouse gas emissions.⁸ The bulk of Australia's emissions arise from energy and agriculture.⁹ Professor Ross Garnaut argued that Australia's high per capita levels of emissions from energy use are a result of the country's reliance on coal for electricity generation. He further argued that the high emission output from agriculture is due to the large numbers of sheep and cattle.¹⁰

2 Each country's Kyoto target is expressed as a level of permitted emissions. These emissions are divided into 'assigned amount units'.

3 Parliamentary Library, *The Kyoto Protocol*, Climate Change Web Publication, (accessed 24 November 2008); United Nations Framework Convention on Climate Change, *Emissions Trading*, (accessed 15 April 2009).

4 Parliamentary Library, *The Kyoto Protocol*, Climate Change Web Publication, (accessed 24 November 2008).

5 Australian Government, *Australia's Greenhouse Gas Emissions*, Fact sheet, December 2008, <http://www.climatechange.gov.au/whitepaper/factsheets/index.html> (accessed 25 April 2009).

6 Australian Government, *Carbon Pollution Reduction Scheme: Australia's Low Pollution Future – White Paper*. December 2008, p. iv.

7 Department of Climate Change, 'Strengthening Australia's 2020 carbon pollution target', Fact sheet, May 2009.

8 Professor Ross Garnaut, *Garnaut Climate Change Review: Final Report*, 2008, pp 65 and 291.

9 The energy sector includes stationary energy, transport and fugitive emissions.

10 See Professor Garnaut, *Garnaut Climate Change Review: Final Report*, 2008, chapter 7.

1.14 An alternate view was put to the committee by Mr Daniel Price, the Managing Director of Frontier Economics, who argued 'The reason that Australia is one of the highest per capita emissions countries in the world is that we have very energy intensive industries here'¹¹. The South West Group argued that in considering the emissions profile of Australia, it is necessary to take into account the nature of the economy including exports. Mr Christopher Fitzhardinge, Director of the South West Group, explained:

The other area that I am concerned about is the approach that has been taken to energy policy that ranks Australians as being high energy users when the statistics refer to the embedded energy which is exported. Western Australia is a high user of energy per capita, but that is because 48 per cent of the state's GDP is exported, so what you have is a distortion of the energy landscape by attributing to residents a consumption when in fact there is embedded energy being exported which contributes to the health of Australia.¹²

1.15 In addition, the committee received evidence throughout the inquiry that some of the emissions produced in Australia ultimately contribute to reducing global emissions. These issues are further explored in relation to natural gas in chapter 5 and uranium in chapter 9.

The road to emissions trading

1.16 The committee notes that the ultimate objective in implementing the Carbon Pollution Reduction Scheme (CPRS) is to achieve a reduction in global greenhouse gas emissions. The committee has received a considerable amount of evidence indicating that emissions trading schemes are only as effective as their design allows, and each of the schemes discussed below have had significantly different features. Invariably, criticisms of the CPRS as proposed have not been criticisms of the emissions trading scheme approach in general. Rather they have been focussed on the poor design of the CPRS proposed by the Australian Government. Serious question marks have been raised regarding whether the scheme as proposed will actually contribute to the objective of reducing global greenhouse gas emissions and what its cost will be in terms of job losses, lost investment, the impact on regional areas and Australia's energy security into the future. This is explored further in chapters 3, 5, 6 and 7.

1.17 An ETS is only one of a number of possible approaches to address this objective. A series of alternative mechanisms to achieve emission reductions are discussed in detail in chapter 2.

11 Mr Daniel Price, Managing Director, Frontier Economics, *Committee Hansard*, 2 April 2009, p. 12.

12 Mr Christopher Fitzhardinge, Director, South West Group, *Committee Hansard*, 17 November 2008, p. 89.

1.18 Emissions trading has been the subject of a number of policy processes in Australia over the years. All of these processes have focussed on the adoption of a cap and trade ETS.

1.19 In 2004, the National Emissions Trading Taskforce was established by the states and territories. The taskforce designed an ETS on the assumption that an Australian ETS would be based on a cap and trade approach.¹³ A discussion paper was published in 2006, and following a consultation process, the final report, *Possible design of a national greenhouse gas emissions trading scheme—Final framework report on scheme design*, was released in December 2007.¹⁴

1.20 The Prime Ministerial Task Group on Emissions Trading was established by the Coalition Government in December 2006 and released an issues paper for public comment on 7 February 2007. The *Report of the Task Group on Emissions Trading*, also known as the Shergold Report, was released in May 2007, and outlined a proposed Australian domestic ETS, as well as a set of complementary policies and measures.¹⁵

1.21 The Carbon Pollution Reduction Scheme is the current Australian Government's proposed design for a cap and trade emissions trading scheme.

1.22 When questioned recently about whether the CPRS as proposed in the exposure draft legislation is better than nothing, Professor Garnaut stated:

If there were no changes at all, I can only repeat what I said to Senator Macdonald, that it would be a line ball call, whether it was better to push ahead or say, 'We still want the ETS as the centre of our mitigation effort, but we'll have another crack at it and do a better one when the time is right.'¹⁶

What is emissions trading?

1.23 Under an emissions trading scheme, a level of allowable emissions is set, and then a number of tradeable permits up to that level, are issued. The number of tradeable permits issued is fixed to limit the total quantity of emissions that can be

13 Parliamentary Library, *National Reviews*, Climate Change Web Publication, (accessed 24 November 2008).

14 Dr Martin Parkinson, Secretary, Department of Climate Change, *Senate Standing Committee on Economics Committee Hansard*, 18 March 2009, p. 2.

15 Parliamentary Library, *National Reviews*, Climate Change Web Publication, (accessed 24 November 2008); Dr Parkinson, Department of Climate Change, *Senate Standing Committee on Economics Committee Hansard*, 18 March 2009, p. 2.

16 Professor Ross Garnaut, Senate Select Committee on Climate Policy, *Committee Hansard*, 16 April 2009, p. 56.

produced in a period. These permits can then be traded between emitters subject to certain rules.¹⁷

1.24 Organisations in the sectors included under an ETS will need to hold enough permits to cover their total emissions. Organisations whose emissions exceed the amount of permits they hold must purchase extra permits. Organisations which emit less than the amount of permits they hold can sell their excess permits. Alternatively organisations can hold onto surplus permits, speculating that their value will increase in the future. Organisations and sectors that can relatively efficiently reduce their emissions will then do so, whilst those that cannot reduce their emissions to the same extent may be obliged to buy extra permits. It is anticipated the financial services sector will also speculatively buy and sell permits.

Cap and trade approach

1.25 Under a cap and trade approach, an overarching cap on emissions is fixed, and is progressively reduced over time to achieve a long term emissions target. A number of permits equal to the set cap are created. Emitters then trade permits in a market to purchase additional permits to cover excess emissions, or to sell surplus permits.¹⁸

Current context

1.26 This inquiry has been conducted in the context of a constantly evolving policy environment. A series of key government documents have been released since the establishment of the committee, and the government has changed its approach both in terms of process and policy direction on a number of occasions.

1.27 All of the government's policy documents and announcements on the proposed CPRS up to 5 May 2009 have been taken into account in this inquiry.

1.28 On 17 March 2008, the Minister for Climate Change and Water, Senator the Hon. Penny Wong, announced the Australian Government's timetable for the introduction of emissions trading. Consultations on the design for a green paper were conducted from March to June 2008, culminating in the release of the *Carbon Pollution Reduction Scheme: Green Paper* (the Green Paper) on 16 July 2008. The Green Paper presented the government's initial proposals on the establishment of an Australian ETS.

1.29 Consultation on the Green Paper was undertaken from July to September 2008, and the White Paper was released on 15 December 2008. The White Paper addressed some of the concerns that were raised regarding the Green Paper, and outlined the Australian Government's medium term target to reduce Australia's

17 Leslie Nielson, *Emissions – who is trading what?*, Parliamentary Library Background Note, 15 August 2008, (accessed 15 April 2009).

18 Leslie Nielson, *Emissions – who is trading what?*, Parliamentary Library Background Note, 15 August 2008, (accessed 15 April 2009).

emissions by between 5 per cent and 15 per cent below 2000 levels by 2020. The White Paper is discussed in further detail in chapter 3.

1.30 On 30 September 2008, Professor Garnaut presented the *Garnaut Climate Change Review: Final Report*, which was commissioned by the then federal opposition and state and territory governments in 2007.¹⁹ The review was undertaken to investigate the likely economic and environmental impact of climate change and possible strategies to cut greenhouse gas (GHG) emissions.

1.31 The Department of the Treasury's modelling report *Australia's Low Pollution Future: The Economics of Climate Change Mitigation*, was released on 30 October 2008. This modelling explored the possible impacts of policies to reduce domestic GHG emissions on the Australian economy, based on the assumption of broad global agreement on emissions trading by 2020, and without taking the impact of the current and severe global economic downturn into account. The Treasury modelling is discussed in detail in chapter 4.

1.32 A further 'new' inquiry was referred by the Treasurer, the Hon. Wayne Swan MP on 12 February 2009, asking the House of Representatives Standing Committee on Economics to inquire into 'the choice of an emissions trading scheme as the central policy to reduce Australia's carbon pollution.' This inquiry was cancelled a week later by the Treasurer.

1.33 In the wake of the abandoned House of Representatives inquiry, the Senate Select Committee on Climate Policy was established on 11 March 2009, picking up and expanding on the terms of reference originally referred to the House of Representatives Standing Committee on Economics. The Senate Select Committee on Climate Policy's terms of reference direct it to examine: the choice of emissions trading as the government's central policy, possible complementary measures, emissions reduction targets, the effectiveness of the proposed Carbon Pollution Reduction Scheme itself and other related matters. The Select Committee on Climate Policy is due to report on 14 May 2009.

1.34 On 10 March 2009, the Australian Government released the exposure draft of the Carbon Pollution Reduction Scheme Bill 2009 and related legislation, inviting public comment. The exposure draft of this legislation was referred to the Senate Standing Committee on Economics on 11 March 2009 for inquiry, and the report was presented on 16 April 2009.

1.35 The legislation is due for introduction into Parliament in May 2009, with the stated intention originally to implement the scheme starting 1 July 2010.

1.36 On 4 May 2009, the Prime Minister announced some further changes to the proposed CPRS. These changes included a one year delay in the implementation of

19 Ms Amy Lomas, Assistant Director, Emissions Trading Unit, Department of Treasury and Finance, Western Australia, *Committee Hansard*, 18 February 2009, pp 19-20.

the CPRS, a one year fixed price period and a revised 25 per cent emissions reduction target by 2020 'if the world agrees to an ambitious global deal to stabilise levels of CO2 equivalent at 450 parts per million or lower'.²⁰

1.37 The committee has considered the further changes announced by the government on 4 May 2009 and has concluded that they do not address the fundamental flaws of the scheme identified during this inquiry and outlined in this report.

Scope

1.38 The committee has conducted this inquiry with particular reference to the impact a proposed ETS may have on Australia's fuel and energy industry. This has necessitated an examination of how the government arrived at its current policy position, and how the impact on the fuel and energy industry would flow through the remainder of the economy.

1.39 In that context, the committee also reviewed the government's modelling and assumptions forming the basis of its policy positions.

1.40 As per the terms of reference, the committee focussed on how the scheme is likely to affect regional areas and how Australia's energy security may be affected.

Acknowledgement

1.41 The committee thanks those organisations, government departments and individuals who made submissions and gave evidence at the committee's public hearings. The committee would also like to express its appreciation to those who hosted the committee during its site visits.

Note on references

1.42 References in this report are to individual submissions as received by the committee, not to a bound volume. References to the committee Hansard from 2009 relate to the proof Hansard: page numbers may vary between the proof and the official Hansard transcript.

20 Australian Labor Party, 'A new target for reducing Australia's carbon pollution', Media statement, 4 May 2009.