

The Senate

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Environment, Communications,  
Information Technology and the Arts  
References Committee

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**Lurching forward, looking back**

Budgetary and environmental implications  
of the Government's Energy White Paper

May 2005

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# Recommendations

## Recommendation 1

The Committee recommends that the Government, in consultation with energy interest groups and the energy industry, develop a detailed long-term strategy that includes specific CO<sub>2</sub> emissions reduction targets for 2010, 2020 and 2030, with the ultimate goal of reducing greenhouse emissions by at least 60% by 2050 [para. 4.12].

## Recommendation 2

The Committee recommends that the Government set abatement timeframes and raise the abatement targets for projects seeking funding through the Low-Emissions Technology Development Fund [para. 4.17].

## Recommendation 3

The Committee recommends that the Government:

- (i) recognise that geosequestration is one of many options for reducing Australia's CO<sub>2</sub> emissions; and ensure that the greater proportion of the Low Emissions Technology Fund is made available to technologies which can provide emission reductions in the short term;
- (ii) fund only cost and abatement effective research and development on the basis of the principle that the polluter pays; and
- (iii) extend the life of the Low Emissions Technology Fund to cover the timeframe set out for emissions reductions targets, namely a reduction of at least 60% by 2050 [para. 4.26].

## Recommendation 4

The Committee recommends that the Government provide incentives to encourage the uptake of current energy efficiencies, such as by adopting the NSW BASIX energy efficiency scheme on a national basis [para. 4.30].

## Recommendation 5

The Committee recommends that the Government continue to fund the Photovoltaic Rebate Programme (PVRP), and set targets for the installation of stand alone (RAPS) Photovoltaic (PV) energy systems and for grid-connected PV energy systems [para. 4.38].

## **Recommendation 6**

**The Committee recommends that the Government re-examine the projected costs of increasing the MRET to at least 5% by 2010, to 10% by 2020, and 50% by 2050, and if it is not prepared to do this, provide infrastructure grants for renewable energy developments [para. 4.39].**

## **Recommendation 7**

**The Committee recommends that the Government not proceed with the proposed reductions in excise on diesel and petrol in the EWP, unless the decision to impose excise on biofuels and gaseous fuels by 2012 is reversed [para. 4.44].**

## **Recommendation 8**

**The Committee recommends that the Government develop a more comprehensive policy framework that will set stronger market incentives to invest in energy efficiencies and mandate standards for CO<sub>2</sub> abatement with specific, quantifiable and meaningful targets [para. 4.47].**

## **Recommendation 9**

**The Committee recommends that the Government move to review its own operations in order to achieve maximum energy efficiencies and CO<sub>2</sub> abatement prior to 2010 [para. 4.48].**

## **Recommendation 10**

**The Committee recommends that the Government introduce a carbon trading scheme, or at least provide support for the states' carbon trading scheme, and mandate maximum levels of carbon emissions for Australia, according to diminishing benchmarks towards the goal of 60% by 2050 [para. 4.51].**

## **Recommendation 11**

**The Committee recommends that the Government reconsider the benefits of a carbon tax as a tool to reduce carbon emissions in the industrial sector [para. 4.52].**

## **Abbreviations and Acronyms**

|                 |   |
|-----------------|---|
| ACF             | Australian Conservation Foundation                      |
| AEMC            | Australian Energy Market Commission (proposed new body) |
| AER             | Australian Energy Regulator (proposed new body)         |
| ALPGA           | Australian Liquid Petroleum Gas Association Limited     |
| AWEA            | Australian Wind Energy Association                      |
| BASIX           | Building Sustainability Index                           |
| BCSE            | Business Council for Sustainable Energy                 |
| CCGT            | Combined Cycle Gas Turbine                              |
| CCS             | CO <sub>2</sub> Capture and Storage                     |
| CO <sub>2</sub> | Carbon dioxide  |
| COAG            | Council of Australian Governments                       |
| EWP             | Energy White Paper                                      |
| IDGCC           | Integrated Drying Gasification Combined Cycle           |
| IEA             | International Energy Agency                             |
| IPCC            | Intergovernmental Panel on Climate Change               |
| LPG             | Liquid Petroleum Gas                                    |
| MRET            | Mandatory Renewable Energy Target                       |
| PVRP            | Photovoltaic Rebate Program                             |
| REGA            | Renewable Energy Generators Australia Limited           |
| WASEA           | Western Australian Sustainable Energy Association       |



# Chapter 1

## Background to the inquiry

### The Energy White Paper

1.1 On 15 June 2004 the Government released its Energy White Paper (EWP), titled *Securing Australia's Energy Future*.<sup>1</sup> The EWP sets out the Government's strategy for Australia's future energy development. As with White Papers in general, it is a declaration of intent, or a blueprint, of how future energy goals will be met. The Prime Minister has stated that three themes underpin the Government's approach to energy policy: prosperity, security and sustainability.<sup>2</sup>

### Terms of reference and conduct of the inquiry

1.2 On 24 June 2004 the Senate referred this inquiry to the Committee to examine the budgetary and environmental implications of the EWP and report by 2 September 2004. Because of the short timeframe, the Committee determined to write directly to relevant government departments to invite submissions. The Committee received 10 submissions, as listed at Appendix 1.

1.3 In order to explore the issues in more detail, the Committee held three public hearings in Canberra on 4, 5 and 10 August 2004 respectively. A list of individuals and organisations who gave evidence at these hearings is at Appendix 2.

1.4 Because of the timing of the October 2004 federal election, the Committee was unable to complete its inquiry by the end of the 40<sup>th</sup> Parliament and presented an interim report to this effect to the President of the Senate on 2 September 2004.<sup>3</sup>

1.5 On 8 December 2004, the Senate referred the inquiry back to the Committee for report by 10 March 2005, giving the Committee the power to consider and use the records of the previous inquiry. The reporting date was extended on 9 February 2005 to 18 April 2005.

1.6 The inquiry was again publicised on the parliamentary website and a range of organisations was contacted to invite submissions. The Committee received a further 11 submissions, also listed at Appendix 1.

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1 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future* (EWP), 2004.

2 EWP, Prime Minister's Foreword, p. iii.

3 Senate Environment, Communications, Information Technology and the Arts References Committee, *Budgetary and environmental implications of the Government's Energy White Paper: Interim Report*, September 2004.

1.7 In order to explore the issues raised by these submissions in more detail, the Committee held a public hearing in Canberra on 18 March 2005. A list of those who gave evidence at that hearing is at Appendix 2.

### **Outline of the report**

1.8 Chapter 2 provides an overview of the EWP and the Government's key initiatives.

1.9 Chapter 3 examines key issues raised in submissions and evidence.

1.10 In Chapter 4 the Committee presents its conclusions and recommendations.

### **Acknowledgements**

1.11 The Committee wishes to express its appreciation for the cooperation of all witnesses to its inquiry, whether by making submissions, by personal attendance at a hearing or by giving both oral and written evidence.

### **Notes on references**

1.12 References in this report are to individual submissions as received by the Committee rather than a bound volume of submissions. References to Committee Hansard are to the proof Hansard: page numbers may vary between the proof and the official Hansard transcript.

# Chapter 2

## The Energy White Paper

Three themes – prosperity, security, and sustainability – underpin the government's approach to energy policy. The Australian Government has undertaken a comprehensive review of its energy policies and approaches, and has developed a long-term framework to ensure our energy advantage is utilised for the benefit of all Australians.<sup>1</sup>

2.1 Thus the Prime Minister in the foreword to the EWP explained the direction of the Government's energy policy. This chapter gives an overview of the EWP and key initiatives that were announced in it, including an explanation of some relevant developments since June 2004.

### Development and overview of the EWP

2.2 The EWP was developed by the Energy Task Force, a whole-of-government process involving officers from the Department of Prime Minister and Cabinet (PM&C); the Department of the Treasury; the Department of the Environment and Heritage (DEH); the Department of Transport and Regional Services (DOTARS); and the Department of Industry, Tourism and Resources (DITR).

2.3 Ms Kathleen Mackie from DEH told the Committee:

The task force looked at a wide range of issues affecting energy policy: developing our energy resources, energy markets, in terms of both electricity and gas, transport fuels, fuel excise reform, energy efficiency, energy security, and climate change. We also looked at air quality impacts, the impacts of energy development projects and innovation in the energy sector.<sup>2</sup>

2.4 The EWP does not contain any major shifts in policy direction. However, it does provide significant excise cuts on fossil fuels. It also introduces several new initiatives, as outlined below. In essence, the EWP seeks to further develop Australia's energy resources and secure Australia's fossil-fuel energy sector, as indicated early in the document:

Developing Australia's abundant low-cost energy resources is a key to our future prosperity. Australia is the world's fourth largest producer, and largest exporter, of coal. We supply 8 per cent of the world trade for liquefied natural gas, and possess 40 per cent of the world's low-cost uranium reserves. Our known oil reserves are significant, but are projected

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1 EWP, Prime Minister's Foreword, p iii.

2 Ms Kathleen Mackie, Department of Environment and Heritage, *Committee Hansard*, 4 August 2004, p. 1.

to decline in the absence of new discoveries. Australia has significant wind and solar resources, and limited large hydro resources. Investment committed on energy projects under development in Australia totalled \$11.1 billion at April 2004 and a further \$38.8 billion in investment is under consideration ...<sup>3</sup>

2.5 The then Minister for the Environment and Heritage, the Hon Dr David Kemp MP, said:

Australia has a rich and unique resource base. It is important that we capitalise on these natural assets to satisfy our growing energy needs by driving costs down, while moving strongly to reduce the levels of greenhouse gas from energy use.<sup>4</sup>

2.6 Australians spend about \$50 billion on energy each year, and energy resources provide \$24 billion a year in export income. The EWP states that the Government has put in place a range of policies to:

- attract investment in the efficient discovery and development of our energy resources for the benefit of all Australians
- deliver a prosperous economy while protecting the environment and playing an active role in global efforts to reduce greenhouse emissions
- encourage development of cleaner, more efficient technologies to underpin Australia's energy future
- develop effective and efficient energy markets that deliver competitively priced energy, where and when it is needed into the future
- minimise disruptions to energy supplies and respond quickly and effectively when disruptions occur
- establish an efficient energy tax base, restricting fuel excise to end use and applying resource rent taxes to offshore projects
- ensure Australia uses its energy wisely.<sup>5</sup>

### **Major policy considerations**

2.7 The EWP states that the most influential factors in Australian policy-making on energy issues are the following:

- Australia is well endowed with energy (particularly coal, gas and uranium);
- Australia's energy is competitively priced;
- Australia is a major exporter of energy and energy-intensive products;

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3 EWP, p. 3.

4 The Hon Dr David Kemp, Minister for the Environment and Heritage, *MRET: adding muscle, not fat*, media release K121, 15 June 2004.

5 EWP, p. 2.

- 
- energy resources contribute significantly to government revenue;
  - energy sector investments are typically large and long-lasting;
  - Australia's energy use is emissions-intensive; and
  - Australia is a 'small global player'.<sup>6</sup>

### **Key initiatives**

2.8 Initiatives in the EWP include measures which are claimed to promote low-emissions technology, support renewable energy, increase energy efficiency, enhance investment in resource development and promote energy market reform. They include:

- a complete overhaul of the fuel excise system to remove \$1.5 billion in excise liability from businesses and households in the period to 2012-13
- the establishment of a \$500 million fund to leverage more than \$1 billion in private investment to develop and demonstrate low-emission technologies
- a strong emphasis on the urgency and importance of continued energy market reform
- the provision of \$75 million for Solar Cities trials in urban areas to demonstrate a new energy scenario, bringing together the benefits of solar energy, energy efficiency and vibrant energy markets
- the provision of \$134 million to remove impediments to the commercial development of renewable technologies
- incentives for petroleum exploration in frontier offshore areas as announced in the 2004-05 budget
- new requirements for business to manage their emissions wisely
- a requirement that larger energy users undertake, and report publicly on, regular assessments to identify energy efficiency opportunities.<sup>7</sup>

2.9 Administration of these initiatives is to be spread across various portfolios, as Ms Mackie from DEH told the Committee:

Energy is a cross-cutting issue of national significance with important environmental implications.... While the task force process was whole of government, the implementation of the measures falls to specific agencies. In the case of some measures, the implementation is shared between two or more portfolios.<sup>8</sup>

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6 EWP, pp. 41-43.

7 EWP, p. 3. Further details on some of these initiatives were provided in fact sheets published by the Department of the Prime Minister and Cabinet, and are referred to throughout this chapter.

8 Ms Kathleen Mackie, Department of Environment and Heritage, *Committee Hansard*, Canberra, 4 August 2004, p. 2.

2.10 Ms Mackie also told the Committee that new measures in the EWP 'take direct account of environmental impacts in three key ways':

The first is through the emphasis on the need for investment to meet energy demand, which is forecast to grow by around 50 per cent in the next 15 years, by recognising that investment in the energy sector needs to respond to climate change. The second way is by support to the business sector through keeping energy prices competitive—for example, through the fuel excise credit reforms—balanced by a requirement that business play its part in meeting environment challenges through managing air pollution. The third way is through measures to facilitate the development of energy resources, which are complemented by measures to address the environmental impacts of major energy projects. So the approach focused on the long term—the 20- to 30-year horizon—and looked at an energy policy which would meet demand for energy and maximise the benefits from our energy resources but also position us to meet environment challenges.<sup>9</sup>

2.11 Relevant initiatives are briefly discussed below under the following headings:

- low emission technology;
- renewable energy support;
- energy efficiency measures (Chapter 6 of the EWP);
- Australia's approach to climate change (Chapter 8 of the EWP);
- developing Australia's energy resources (Chapter 2 of the EWP);
- energy market reform (Chapters 3 and 4 of the EWP); and
- fuel excise reform (Chapter 5 of the EWP).

### ***Low emission technology***

2.12 The Government considers that 'increasing the range and lowering of the cost of low-emission technologies will bring the achievement of long-term emission reductions within reach'<sup>10</sup>. The EWP refers to 'a wide range of technologies being developed that could significantly reduce the greenhouse signature of energy production and use'.<sup>11</sup> The EWP acknowledges that some of these technologies are 'relatively mature', such as wind; some are 'commercially available but developing rapidly', such as solar, and others are less developed, such as hot rocks and carbon capture.<sup>12</sup>

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9 *Committee Hansard*, 4 August 2004, p. 2.

10 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Low-emission Energy Technologies*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_1.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_1.pdf).

11 EWP, p. 143.

12 EWP, p. 143.

2.13 The EWP is supportive of geosequestration, which is the process of capturing carbon dioxide produced by electricity generation or other industrial processes and storing it deep underground.<sup>13</sup> The EWP states that such technologies 'could substantially lower emissions from coal and gas electricity generation' and notes that 'some of the basic technology for achieving this exists'.<sup>14</sup> It also notes that international collaboration on geosequestration is 'an important element of the US-Australia Climate Action Plan'.<sup>15</sup> The paper acknowledges, however, that 'significant challenges remain' and that demonstrating the commercial application of such technologies 'is likely to be expensive and take at least ten years'.<sup>16</sup>

2.14 In promoting lower emissions technology, several new measures were announced in the EWP:

- the establishment of the Low Emission Technology Development Fund;
- the establishment of the 'Solar Cities: a Vision for the Future' program;
- addressing impediments to distributed generation; and
- support of Greenhouse technology projects.

2.15 Each of these is briefly outlined below.

#### *Low Emissions Technology Development Fund*

2.16 The Government is to provide \$500 million, which it anticipates will facilitate at least \$1 billion in private sector investment, in developing and deploying low-emission technologies with long-term abatement potential. Eligible technologies need to be able to reduce greenhouse emissions by at least 2 per cent, at realistic rates of long-term uptake, and be commercially available by 2020-2030.<sup>17</sup> Technologies can include renewable and fossil-fuel supply as well as energy efficiency in both the stationary and transport sectors.

2.17 The fund will be delivered through competitive rounds commencing in 2006. Each round will be preceded by a public statement of the Government's assessment of challenges and opportunities.<sup>18</sup>

2.18 When questioned about the likely breakdown of grants from that fund, Mr McGlynn from DEH told the Committee in August 2004 that guidelines for the

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13 EWP, p. 143.

14 EWP, p. 143.

15 EWP, p. 143.

16 EWP, p. 143.

17 EWP, p. 144.

18 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Low-emission Technology Funds*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_2.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_2.pdf).

program were still being 'developed and finalised', but that there was a range of 'obvious' technologies that might qualify:

Fossil fuel combustion combined with geosequestration clearly was one of the possibilities. Hot dry rock technology was clearly a possibility, as was wave power. Potentially some other renewable sources, if they can deal with their intermittency issues and can deal with the need to have a large-scale penetration, may be possibilities. Potentially some intelligent transport applications could be eligible. So there is a whole range of possibilities.<sup>19</sup>

### *Solar Cities trial in urban areas*

2.19 The EWP acknowledges that solar power is 'a zero emissions energy source, in which Australia has developed leading-edge technologies'.<sup>20</sup> The Government states that 'current electricity market arrangements do not appropriately reward these benefits of solar technologies',<sup>21</sup> even though it considers that solar technologies are 'widely used in Australia, and receive significant government support'.<sup>22</sup>

2.20 The Solar Cities trials will involve the allocation of \$75 million to support the uptake in urban areas of solar electricity and hot water 'by a substantial proportion of residents and businesses',<sup>23</sup> as well as energy efficiency technologies. They will also include trialling of more effective energy market signals and will also demonstrate the economic benefits of photovoltaics (PV) in reducing electricity demand during peak times, and reducing the need for distribution infrastructure.

2.21 Trial results are to be monitored for at least five years where the 'impacts upon transmission and distribution costs will be carefully assessed, providing the first empirical evidence of the magnitude of savings'.<sup>24</sup> The Government advises that 'delaying the need for new generation infrastructure reduces costs as well as allowing more time for development of low-emission generation options'.<sup>25</sup>

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19 *Committee Hansard*, 4 August 2004, pp. 8-9.

20 EWP, p. 145.

21 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Solar Cities: A Vision of the Future*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_4.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_4.pdf).

22 EWP, p. 145.

23 EWP, p. 145.

24 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Solar Cities: A Vision of the Future*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_4.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_4.pdf).

25 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Solar Cities: A Vision of the Future*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_4.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_4.pdf).

2.22 When questioned about how funds would be allocated from this program, Mr McGlynn from DEH told the Committee in August 2004 that the guidelines were 'at a fairly preliminary stage' and it would be a 'competitive process in terms of selecting the sites'.<sup>26</sup> He noted that the program was intended to be 'a large urban area program'<sup>27</sup> and that Adelaide was a possible site. It had not been determined who the target group for the program would be. The Committee notes that the Australian Greenhouse Office has since released a consultation document that included draft program guidelines<sup>28</sup> and undertook consultations in December 2004. A trial is to be established in Adelaide and 'at least three other grid-connected urban sites around Australia'.<sup>29</sup>

### *Addressing impediments to distributed generation*

2.23 The EWP states that the Government :

... will continue to ensure national energy markets are responsive to distributed generation (where generation is located close to demand) and demand side management (where energy users receive incentives for reducing use, especially during peak times).<sup>30</sup>

2.24 To this end the Government is to work with states and territories:

... to identify and overcome energy market rules that provide impediments to the uptake of smaller-scale local generation (distributed generation), including renewable energy sources. A report identifying barriers will be presented to COAG by the end of 2005.<sup>31</sup>

### *Greenhouse technology projects*

2.25 The Australian Greenhouse Office was allocated \$230 million to continue support for greenhouse technology projects under programs such as the Remote Renewable Power Generation and Greenhouse Gas Abatement programs.<sup>32</sup> The

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26 *Committee Hansard*, 4 August 2004, p. 20.

27 *Committee Hansard*, 4 August 2004, p. 20.

28 Australian Greenhouse Office, *Solar Cities – Statement of challenges and opportunities*, 2004, released on 3 December 2004. Submissions were sought by 14 January 2005. As at 15 February 2005, the guidelines had not been finalised (*Additional Estimates Committee Hansard*, 15 February 2005, p. 141).

29 Senator the Hon Ian Campbell, Minister for the Environment and Heritage, 'Preparation for Solar Cities under way', *Media Release*, 3 December 2004.

30 EWP, p. 79.

31 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Solar Cities: A Vision of the Future*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_1.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_1.pdf).

32 EWP, p. 31.

2004-05 Budget also included \$27 million for the development and uptake of low emission technology, including through aggregation of smaller scale proposals.<sup>33</sup>

### ***Renewable energy support***

2.26 The Government has stated that it intends to 'continue its extensive and effective support' for renewable energy technologies as an important part of Australia's long-term greenhouse response.<sup>34</sup> As well as promoting low emissions technology as outlined above, key strategies include:

- the Mandatory Renewable Energy Target (MRET);
- the Renewable Energy Development Initiative (REDI);
- intermittent energy storage technologies; and
- wind forecasting.

### ***MRET***

2.27 The EWP states that the Government will continue to support the MRET to 2020. However, the target will not be extended or increased.<sup>35</sup> The Government states that the continued support of the current MRET will provide incentive for over \$2 billion in renewable energy investment, leading to an estimated increase in Australian renewable electricity output of 60 per cent until 2010. The Government has also referred to increasing the MRET's efficiency, by improving the transparency and operation of the market for renewable certificates, to provide greater certainty for investment.<sup>36</sup>

2.28 The EWP notes that an independent report to government, the 2003 Tambling Report,<sup>37</sup> recommended an extension of the MRET from 9500 Gwh by 2010 to 20,000 Gwh by 2020 and beyond, which would provide subsidised pathways for renewable energy. However, the Government rejected that recommendation on the basis that an expansion of the MRET 'would impose significant economic costs through higher

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33 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Low-emission Energy Technologies*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_1.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_1.pdf).

34 EWP, p. 30.

35 EWP, p. 147.

36 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Renewable Energy Support*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_3.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_3.pdf).

37 Mandatory Renewable Energy Target Review Panel, *Renewable Opportunities: A Review of the Operation of the Renewable Energy (Electricity) Act 2000*, (Chair the Hon Grant Tambling), Commonwealth of Australia, 2003.

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electricity prices' and 'would double the current projected cumulative economic cost of MRET to over \$5 billion by 2020 in net present value terms'.<sup>38</sup>

2.29 The EWP states that the Government:

... considers a better path is to build on the successful outcomes of the MRET to more directly promote the development and demonstration of a broader range of low-emission technologies, and more aggressively address the impediments to the uptake of renewable energy.<sup>39</sup>

2.30 The then Minister for Environment and Heritage stated that, rather than following the Tambling Report recommendations, the Government would address technical and regulatory barriers to widespread take-up in order to target support for renewable energy.<sup>40</sup> The Government is to provide \$134 million in new funding to address specific barriers impeding the uptake of renewable energy through the Renewable Energy Development Fund (REDI), Intermittent Energy Storage, and Wind Forecasting,<sup>41</sup> as outlined below.

#### *Renewable Energy Development Initiative (REDI)*

2.31 The Government is to provide \$100 million over seven years, comprising \$50 million new funding and \$50 million from the Commercial Ready Programme, 'to promote strategic development of renewable energy technologies, systems and processes that have strong commercial potential'.<sup>42</sup>

#### *Intermittent energy storage technologies*

2.32 The EWP noted that some important low-emission technologies such as wind and solar produce electricity intermittently, that is, when conditions allow. The Government pledged \$18 million to support development of advanced electricity storage technologies for renewable energy, including batteries, electro-mechanical and chemical storage.<sup>43</sup>

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38 EWP, p. 148.

39 EWP, p. 148.

40 The Hon Dr David Kemp, then Minister for the Environment and Heritage, 'MRET: adding muscle, not fat', *Media release* K121, 15 June 2004.

41 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Renewable Energy Support*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_3.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_3.pdf).

42 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Renewable Energy Support*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_1.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_1.pdf).

43 EWP, p. 148.

### *Wind forecasting*

2.33 The Government also stated that 'up to \$14 million' would be allocated over five years:

... to develop and install systems to provide accurate long-range forecasts for wind output. This will facilitate greater penetration of wind in energy markets and allow for more strategic planning of new wind farms.<sup>44</sup>

2.34 The EWP notes that the Government intends to establish partnerships with state and territory governments and to seek matching private sector funding.<sup>45</sup>

### *Energy efficiency measures*

2.35 Energy efficiency refers to gaining the same or a higher level of useful output using less energy input, and is important in both stationary and transport energy.<sup>46</sup> Energy efficiency improvements in Australia have occurred more slowly than elsewhere, the IEA finding that Australia's improvement rate is less than half that of other countries.<sup>47</sup> The EWP states that this is due partly to impediments that prevent the optimal uptake of energy efficiency, such as market arrangements that do not fully value the benefits from energy efficiency.<sup>48</sup>

2.36 The Government claims that improving energy efficiency opportunities could deliver almost \$1 billion per year in increased GDP. The policy, designed to improve the uptake of commercial energy efficiency opportunities by Australian businesses and households, will focus on the following:

- improving market signals through reform of Australia's energy markets, and demonstrating the benefits of energy efficiency through 'Solar Cities' trials
- continuing to develop and update minimum energy performance requirements for widely used appliances and residential and commercial buildings, building on existing programs
- providing information to consumers and businesses about the energy performance of appliances and buildings (for example, landlords and building owners will be required to disclose energy performance information to prospective tenants and purchasers)
- encouraging firms to identify and report on energy use and energy efficiency opportunities. Starting in 2006, large energy users (those using over 0.5

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44 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Renewable Energy Support*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_3.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_3.pdf).

45 EWP, p. 148.

46 EWP, p.106.

47 EWP, p.106.

48 EWP, pp. 106-107.

petajoules per annum) will be required to undertake, and report publicly on, a rigorous assessment of energy efficiency opportunities every five years

- requiring large energy resource project proponents and businesses receiving fuel excise credits of over \$3 million per annum to join the Greenhouse Challenge, and report on their emissions and mitigation plans; and
- working with state and territory governments to improve the delivery of existing programs, and continuing to improve the efficiency of government operations.<sup>49</sup>

### *Mandatory energy efficiency assessments*

2.37 Approximately 250 businesses in Australia using more than 0.5 petajoules of energy per year account for more than 60 per cent of total business energy use, and each of these firms uses as much energy as 10 000 average Australian households. All businesses using more than 0.5 petajoules of energy per year will be required to undertake an energy efficiency opportunity assessment every five years and report publicly on outcomes. The Government will provide funding of \$17 million over five years to assist this process.<sup>50</sup>

2.38 Implementation details are to be finalised in consultation with industry with a view to commencement in 2006, based on the following parameters:

- It will apply to all companies using more than 0.5 PJ of energy per year.
- A rolling schedule of assessments will be developed so that around one fifth of businesses will conduct assessments each year.
- Businesses will have a specified time to complete their assessment and prepare a public report. Those reports will be made available, where possible, through the Greenhouse Challenge program's on line reporting system.
- The reports must include details of energy efficiency opportunities (including percentage of energy that can be saved with paybacks up to 4 years), as well as information on the firms' energy performance.
- The assessments will need to be conducted in accordance with specified guidelines to be developed in consultation with industry and other governments. The guidelines will be based on a thorough examination of operations, including a systematic analysis of potential systems rather than just an audit of existing plant. Assessments will be more rigorous than current

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49 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Energy Efficiency Measures*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_5.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_5.pdf).

50 EWP, p. 181.

Level 3 audits under Australian Energy Audits Standards. Assessments will be verified and assessors accredited.<sup>51</sup>

2.39 The EWP also refers to a planned Productivity Commission inquiry to examine the potential economic and environmental benefits from improving energy efficiency.<sup>52</sup> The Productivity Commission received that reference on 31 August 2004 and is due to report by 31 August 2005.<sup>53</sup> The Committee notes that a Draft Report was released by the Productivity Commission on 21 April 2005.<sup>54</sup>

### *Australia's approach to climate change*

2.40 In the EWP the Government advises that it recognises the 'necessity of lowering global greenhouse emissions and that achieving this will require substantive action over the long term'.<sup>55</sup> The Government also notes that any global response must encompass the world's largest emitters. The EWP states that the Government is 'committed to maintaining a strong and internally competitive economy while lowering its greenhouse signature' and to this end 'is committed to meeting its Kyoto target of keeping greenhouse emissions to 108 per cent of 1990 levels by 2008-12'.<sup>56</sup> The Government further advises that it is on track to meet that target and will continue to monitor progress.<sup>57</sup> The EWP also refers to the Government's 'comprehensive strategy' for meeting short and long term greenhouse objectives.<sup>58</sup>

2.41 The EWP claims:

Abatement measures already taken through partnerships with government, industry and the broader Australian community are expected to deliver annual emissions abatement of some 67 million tonnes by 2008-12 – the equivalent of taking all of Australia's cars, trucks and buses off the road.<sup>59</sup>

2.42 The EWP states that more than \$1 billion has been allocated for greenhouse gas abatement, the major elements of the strategy being as follows:

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51 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Mandatory Energy Efficiency Assessments*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_6.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_6.pdf).

52 EWP, p. 181.

53 Terms of reference are available at <http://www.pc.gov.au/inquiry/energy/tor.html>. The Productivity Commission held hearings in November 2004.

54 See Productivity Commission, *Energy Efficiency: Draft Report*, April 2005, available at <http://www.pc.gov.au/inquiry/energy/index.html>.

55 EWP, p. 137.

56 EWP, p. 138.

57 EWP, p. 138.

58 EWP, p. 131.

59 EWP, p. 138.

- Minimum Energy Performance Standards for appliances, equipment and buildings will deliver 8.3 Mt of abatement in 2010 as well as more than \$4 billion in net economic benefit over the 2003-2018 period.
- The Greenhouse Challenge programme will deliver 13.2 Mt of abatement in 2010 and has helped more than 700 Australian companies identify and act on emissions abatement opportunities while saving money and increasing product quality.
- The Mandatory Renewable Energy Target will deliver 6.5 Mt of abatement in 2010 and drive over \$2 billion in investment in new renewable energy generation.
- The Greenhouse Gas Abatement programme has allocated over \$100 million to companies to achieve large scale abatement in the 2008-12 period, and will deliver 10.3 Mt of abatement.
- The *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989*, as amended in 2003, sets the international standard for managing synthetic greenhouse gases.<sup>60</sup>

2.43 The EWP also states that the Government's 2004-05 budget 'included a strengthened approach to greenhouse policy' by focusing and integrating measures in five strategic areas:

- positioning Australia to further reduce its greenhouse signature as the economy continues to grow strongly
- engaging internationally to contribute to developing an effective global response to climate change
- addressing the risks, capturing the opportunities and preparing Australia for the impacts of climate change
- building our understanding of the science of climate change and our capacity to measure greenhouse emission trends accurately
- advancing whole of government policy making in this area.<sup>61</sup>

2.44 The EWP notes that the Government refuses to ratify the Kyoto protocol 'as it does not provide the effective global framework for meeting long-term objectives'.<sup>62</sup> The EWP refers to the lack of an 'internationally agreed global regime to contain emissions ... for the period beyond 2012' or of any prospective agreements in current prospect, and accordingly:

... it is premature to impose significant economy-wide costs in order to meet a specific long-term target, such as through an emissions-trading scheme.<sup>63</sup>

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60 EWP, p. 139 and footnote 1. The abatement figures quoted are based on 2003 projections.

61 EWP, p. 139.

62 EWP, p. 139.

63 EWP, p. 140.

2.45 However, the EWP does not seek to quantify a timeframe or give evidence to suggest at what point demonstrable climatic changes may make imposition of costs timely.

2.46 The Government does, however, recognise the need to take some action now and the EWP refers to a strategy 'based on strong practical action':

- Developing a wider range of low-cost low-emissions technologies. Future greenhouse objectives could require significant penetration of low-emission technologies that at current prices would be very expensive. Ensuring a wider and low-priced range of technologies increases future flexibility. In developing these technologies, special attention needs to be paid to the ability to preserve the value of our energy exports.
- Integrating low-emissions supply technologies, energy efficiency and flexible markets, through major demonstrations of how future energy arrangements can deliver economic prosperity with a lower greenhouse signature.
- Facilitating the identification and uptake of commercially attractive abatement options. This reduces the magnitude of any future emissions constraint and enhances the economic capacity to respond to future challenges. It also includes measures that increase the abilities of business and households to understand and manage their greenhouse demand side management.
- Continuing support for facilitating the transition to low-emissions energy sources. This includes direct support for the uptake of new technologies and practices as well as implementing appropriate regulatory and market frameworks that do not discriminate against new technologies.<sup>64</sup>

2.47 The EWP claims that these strategies will enable Australia to 'respond to any long-term emissions constraints that may be required as part of an effective global response to climate change'<sup>65</sup> and 'positions Australia to maintain its position as a leading international supplier of energy resources and technologies, by moving toward leadership in low-emission technologies'.<sup>66</sup> The EWP also states:

Should such an effective global response [to climate change] be in prospect, the government will consider least-cost approaches to constraining emissions.<sup>67</sup>

2.48 Examples of such approaches might include an emissions trading scheme in the longer term. However, the Committee suggests that the potential for large scale research into technologies such as geosequestration (in the hope that they will prove 'least-cost' solutions in the future), must be fully considered prior to diverting public monies away from more proven abatement technologies.

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64 EWP, p. 141.

65 EWP, p. 149.

66 EWP, p. 149.

67 EWP, p. 149.

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### *Developing Australia's energy resources*

2.49 In seeking to attract investment in the efficient discovery and development of energy resources, a Land Access Strategy is to be implemented to ensure efficient, equitable access to land for exploration. The core elements of the 'Resource Exploration Strategy' include:

- coordinating and streamlining administrative processes associated with land access
- providing template regional agreements for native title and heritage protection approvals processes
- encouraging open and effective community engagement strategies
- increasing awareness of the availability of the expedited procedure provisions of the *Native Title Act 1993*
- supporting reform of the *Aboriginal Land Rights (Northern Territory) Act 1976*.<sup>68</sup>

2.50 Three other measures discussed below are proposed to improve Australia's investment competitiveness.<sup>69</sup>

#### *Funding for Geoscience Australia*

2.51 The EWP states that government-provided geoscientific data is important in attracting exploration investment to Australia, in that it reduces risk associated with the early stages of exploration and provides economies of scale in mapping and information dissemination.<sup>70</sup> The Government will provide \$25 million to Geoscience Australia between 2003-04 and 2006-07 for the collection of new seismic data, including in offshore frontier areas, and the preservation of existing data.<sup>71</sup>

#### *Greenhouse Challenge*

2.52 Over four years \$31.3 million will be provided to extend and strengthen the Greenhouse Challenge and related partnership programs. In addition to a new tiered structure allowing committed companies to demonstrate leadership, the EWP imposes the following requirements:

- from 1 July 2006, businesses receiving more than \$3 million per year in fuel excise credits must be members of the Greenhouse Challenge program; and

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68 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Developing our energy resources*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_7.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_7.pdf).

69 EWP, p. 64.

70 EWP, p. 55.

71 EWP, p. 176.

- large energy resource development projects will be required to be members of Greenhouse Challenge.<sup>72</sup>

### *Petroleum Resource Rent Tax (PPRT)*

2.53 The value of pre-appraisal exploration deductions in designated frontier areas when determining liability for the Petroleum Resource Rent Tax (PPRT) has been increased from 100 per cent to 150 per cent.<sup>73</sup> This is designed to encourage exploration in designated offshore areas.

### ***Energy market reform***

2.54 Two chapters of the EWP are devoted to Australia's energy markets: chapter 3 concerning electricity and gas needs, and chapter 4 concerning transport fuel needs. The EWP states:

Significant gains have flowed to consumers and businesses from the decade-long programme of energy market reform, and GDP has been raised by \$1.5 billion.

But the task remains incomplete, and the scale of investment needed to meet future demand means that further reform is urgent.<sup>74</sup>

2.55 The Government acknowledges that the electricity market continues to act as a number of regional markets, and the gas market remain immature. The Government is also concerned about weakness in investment on demand side participation and the take up of embedded generation and renewable energy.<sup>75</sup> The Government has referred to its commitment to take a long-term leadership role, stating that it will collaborate with states and territories to ensure timely delivery of needed reforms.<sup>76</sup>

2.56 The Ministerial Council on Energy committed to a renewed program of reform in the national electricity market in December 2003 for the period to 2006 with responses covering governance, regulation, transmission planning, energy user

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72 EWP, p. 176.

73 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Developing our energy resources*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_7.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_7.pdf).

74 EWP, p. 65.

75 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Moving ahead with energy market reform*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_8.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_8.pdf).

76 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Moving ahead with energy market reform*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_8.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_8.pdf).

participation, and increasing natural gas penetration.<sup>77</sup> The EWP refers to the establishment of two new bodies: the Australian Energy Market Commission (AEMC) and the Australian Energy Regulator (AER). These agencies will over time replace 13 existing bodies (mainly state based), with the aim of providing certainty and stability to energy markets.<sup>78</sup>

2.57 The AEMC is to be the rule-making body responsible for developing the national electricity and gas market. The AER, to be established as a constituent part of the ACCC under Commonwealth legislation,<sup>79</sup> is to be the peak regulatory body, drawing energy markets under a national umbrella. The AEMC will be established under state law. Existing bodies will retain their functions until the AEMC and AER become fully operational.<sup>80</sup>

2.58 In order for the AEMC and AER to be effective regulatory bodies, all states and territories must enact legislation to recognise them. To date, only South Australia has taken steps towards this end. There also remains a question over the constitutionality of the Commonwealth enacting legislation to set up Federal bodies to regulate the electricity and gas markets which are traditionally state-regulated entities.

### ***Fuel excise reform***

2.59 Chapter 5 of the EWP deals with the fuel excise regime, with major reforms planned to commence on 1 July 2006. The EWP states that '[t]he current excise arrangements are no longer consistent with the principles of good taxation'<sup>81</sup> and that there are inconsistencies and anomalies in the system.<sup>82</sup> The changes aim to 'lower compliance costs, reduce tax on business and remove the burden of excise from thousands of individual business and households'.<sup>83</sup>

2.60 As summarised in a Parliamentary Library research paper, the main changes proposed are:

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77 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Moving ahead with energy market reform*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_8.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_8.pdf).

78 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Moving ahead with energy market reform*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_8.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_8.pdf).

79 Commonwealth legislation to establish the AER was passed in June 2004.

80 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Moving ahead with energy market reform*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_8.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_8.pdf).

81 EWP, p. 93.

82 EWP, p. 95.

83 EWP, p. 93.

- the extension of excise rebates to all off-road business activities and all fuels used in those activities (that is, not just selected activities and fuels)
  - from 1 July 2012, all off-road business use of all fuels will be effectively excise free. Excise relief will be provided, for the first time, to a range of commercial activities, for example, metal and metal products manufacture, infrastructure construction and maintenance, and quarrying. With respect to fuels, off-road business use of petrol, for example, in utility vehicles and four-wheel motorcycles, will be effectively excise-free
  - the measures will be phased in. From 1 July 2008 to 30 June 2012, a credit will be available that is equal to half the excise incurred in all currently-ineligible off-road business activities. A full credit will apply from 1 July 2012
- from 1 July 2006, private and business use of all fuels for electricity generation will be effectively excise-free
- the excise levied on burner fuels—such as heating oil and kerosene—will be effectively removed from 1 July 2006
- relief from excise for all fuels used on-road in large vehicles
  - from 1 July 2006, the partial excise credit, now paid to users of diesel in on-road vehicles weighing 4.5 tonnes gross vehicle mass (GVM) or more, will be extended to users of all excisable fuels
  - the metropolitan boundaries governing eligibility for this credit will be abolished, making all journeys in these vehicles eligible for the credit (the purpose of the boundaries was to cut emissions from heavy diesel vehicles in urban areas by limiting grants to activities outside these areas)
- official declaration that part of the excise on fuels that heavy vehicles use is a road–user charge
  - the partial excise paid on fuels used in heavy vehicles will be declared an official, road-user charge from 1 July 2006 (this charge will be set consistent with future determinations of the National Transport Commission).
- The estimated revenue foregone from the proposals is about \$100 million in 2006–07, \$350 million in 2008–09, and \$310 million by 2012–13, bringing the total to about \$1.5 billion over the entire period.
- The Government will also abolish the Petroleum Products Freight Subsidy Scheme.<sup>84</sup>

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84 Richard Webb, Parliamentary Library, Department of Parliamentary Services, *Energy White Paper: fuel excise grants reform*, Research Note No. 11, 10 August 2004.

# Chapter 3

## Key Issues

The Federal Government's Energy White Paper ... fails to account for the true costs of conventional energy generation. The Paper does not regard key aspects of Australia's national interest including achieving a diverse energy mix, use of indigenous renewable sources, energy security and deep cuts to our greenhouse gas emissions by 2050.<sup>1</sup>

3.1 As with most issues which involve the sometimes competing aims of industry and the environment, opinion on the EWP has been strongly divided. The Coal Association,<sup>2</sup> the National Farmers Federation,<sup>3</sup> and the Energy Supply Association of Australia<sup>4</sup> commended the EWP on its release, seeing the economic benefits for their industries and for the future of Australia's fossil fuel resources. The Business Council of Australia was supportive of the EWP on the basis that it 'would go a long way towards delivering long-term energy security and competitive energy costs for Australia'.<sup>5</sup>

3.2 Professor Bob Carter, Professor of Geology at James Cook University, expressed strong support for the EWP as 'excellent decisions with strong economic and environmental benefits', and dismissed criticisms:

... other public reaction has consisted of shrill criticism. The criticism rests partly on naked self-interest, and partly on an utterly inadequate understanding of the realities of climate change science and of the art of government for the welfare of all.<sup>6</sup>

3.3 However, numerous other industry bodies and most environmental groups were less supportive of the EWP, seeing the Government's energy policy as another opportunity lost in the development of alternate energy sources and in Australia's global obligation to reduce greenhouse gas emissions.

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1 Hydro Tasmania, *Submission 3*, p. 1.

2 Coal Association, *Energy Statement 2004*.

3 National Farmers Federation, 'Energy statement a major win for farmers', *News release*, NR 61/04, 15 June, 2004.

4 Energy Supply Association of Australia, 'Energy Supply Association welcomes new greenhouse measures', *Media release*, 15 June, 2004.

5 Business Council of Australia, 'BCA welcomes national energy plan' *Media release*, 15 June 2004.

6 Bob Carter, 'Weathering the scaremongers' storms', *The Australian*, 17 June, 2004.

3.4 Professor Ian Lowe, Emeritus Professor of Science, Technology and Society at Griffith University, was equally forceful in his criticism:

The Howard Government's Energy White Paper is a disaster. It does almost nothing to address our urgent energy priorities... Australia's pressing energy issues are a secure supply of transport fuels and reducing greenhouse gas emissions. The White Paper provides no policies to deal with those problems....Instead of providing what the Business Council called "a secure energy future", the Howard Government is lurching backwards into the future with its eyes on the past. History will see this Energy White Paper as a tragic missed opportunity.<sup>7</sup>

### **Overview of submissions to the inquiry**

3.5 The Committee received submissions from the Department of Transport and Regional Services (DoTARS), the Department of Environment and Heritage (DEH) and the Australian Greenhouse Office (AGO). These agencies focussed on issues that relate specifically to changes in fuels, changes to excise arrangements, the reduction of urban pollution from diesel vehicles, environmental impact assessments, marine planning, greenhouse aspects of the EWP (to identify opportunities to reduce greenhouse gas emissions) and renewable energy initiatives.

3.6 However, other submissions, particularly those received in the current parliament, focused on greenhouse gases and renewable energy as key issues that they considered were not adequately addressed by the EWP.

3.7 This chapter discusses the key issues that emerged during this inquiry:

- the impact of renewable energy incentives, including the MRET;
- greenhouse gas emission reductions, including geosequestration and the proposed reduction of fuel excise;
- energy efficiencies, including reduction of energy consumption and carbon trading schemes; and
- research and investment, with particular reference to the Kyoto agreement and research and development.

3.8 The Committee notes that the aim of the Energy Task Force that developed the EWP was to 'assess aspects of energy policy and bring together an integrated, national, long-term approach'.<sup>8</sup> The Department of Environment and Heritage submission continues:

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7 Ian Lowe, 'Energy white paper a missed opportunity', *The Canberra Times*, 18 June 2004.

8 DEH, *Submission 1*, p. 6.

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The primary focus of the process was to ensure that Australia has a sound energy policy footing rather than to develop a new measures package.<sup>9</sup>

3.9 DEH submitted that:

Greenhouse measures are a strong component of the Energy White Paper, and, reflecting the long-term nature of the challenge, focus primarily on reducing the cost of meeting future greenhouse constraints by both promoting low-emissions technology and extending support for renewable energy.<sup>10</sup>

3.10 The EWP, however, was reviewed with some dismay and concern by most submitters, especially those who see the Government's future energy proposals as a blueprint to capitalise on the conventional energy resources of coal and oil at the expense of raising greenhouse gas emissions beyond agreed acceptable levels.

3.11 The Business Council for Sustainable Energy (BCSE) stated that:

... this Energy White Paper signifies that the Federal Government is looking towards carbon capture and storage from coal fired power as the magic pill on greenhouse emissions.<sup>11</sup>

3.12 Greenpeace pointed out that:

... the Government's strategy for reducing greenhouse emissions in the stationary energy sector is dependent on geosequestration proving its viability.<sup>12</sup>

3.13 Furthermore, the EWP is viewed by many as a policy without any clearly defined objectives or pathways by which to reach them. Greenpeace argued:

... a roadmap needs to be developed which sets out how [the agreed emissions] target will be achieved.<sup>13</sup>

3.14 Generally most of the submitters concerned about the EWP claimed that it does little to ensure that Australia's energy industry will be able to reduce the emissions of greenhouse gases by 2020, or indeed, by 2010. They argued that the escalating emissions of greenhouse gases across the world need addressing immediately if the effects of global warming are to be minimized.

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9 DEH, *Submission 1*, p. 6.

10 AGO section of the DEH, *Submission 1*, p. 8.

11 BCSE, *Submission 17*, p. 1.

12 Greenpeace Australia Pacific, *Submission 16*, p. 4.

13 Greenpeace Australia Pacific, *Submission 16*, p. 4.

3.15 According to the BCSE, the longer the delay in starting the process to reduce emissions, the greater the financial and social costs will be<sup>14</sup> when international pressure ultimately forces Australia to act.<sup>15</sup> Renewable Energy Generators Australia Ltd (REGA) warned that these costs will start to escalate once investment incentives for renewable energies are lost, soon after 2007.<sup>16</sup>

### **Impact of renewable energy resources**

#### ***MRET: "The cost of a cappuccino every three months"*<sup>17</sup>**

3.16 The EWP, as discussed in chapter 2, states that the MRET will remain fixed to the year 2020 at 9,500GWh of additional renewable energy generation above the 1997 levels.<sup>18</sup> The EWP rejected the Tambling Report's recommendation that the target be increased to 20,000 GWh by 2020 and beyond:

This target, while providing a subsidised growth path for renewable energy, would impose significant economic costs through higher electricity prices. The Review estimated that implementing its recommendations would double the current projected cumulative economic cost of MRET to over \$5 billion by 2020 in net present value terms. The Australian Government does not believe these costs can be justified.<sup>19</sup>

3.17 The Prime Minister defended the Government's decision not to expand the MRET:

Expanding MRET would impose substantial new costs on the economy and would benefit too few technologies. A better path is to directly promote the development and demonstration of a broader range of low emission technologies and tackle the impediments to the uptake of renewable energy.<sup>20</sup>

3.18 This approach received adverse comment when the EWP was released, and was seen as having significant negative economic, social, environment and health impacts on Australia. For example, the Clean Energy Crisis Meeting Group argued:

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14 BCSE, *Submission 17*, p. 1.

15 The Australian Institute, *Geosequestration*, Discussion Paper 72, p. xii, September 2004, p. xii, website, 31 March 2005 at: <http://www.tai.org.au>

16 REGA, *Submission 12*, p. 2, REGA, *Submission 4*, p. 2.

17 BCSE, *Submission 17*, p. 2.

18 EWP, pp. 26 & 147.

19 EWP, p. 148.

20 The Hon John Howard, Address to National Press Club, 15 June 2004.

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The failure to increase the [MRET], the only measure that drives industry growth for the renewable energy industry, defies international trends, is out of step with community expectations and signals the end of growth for the clean energy industry in Australia.<sup>21</sup>

3.19 Several submissions disagreed with the Government's assessment of the cost of increasing the MRET after 2010. For example, the ACF stated that:

... most studies, except those commissioned by the mining and coal industry and those quoted by the Federal government, indicate only small costs for increasing renewable energy targets. For example McLennan Magasanik Associates forecast that costs due to an increase in target size in 2010 are projected to be some \$180 million per annum with a 5% renewable target. In addition, as the size of the renewable energy industry increases, the costs of renewable energy decrease significantly.<sup>22</sup>

3.20 Hydro Tasmania also disagrees with the Government's assessment, arguing:

The 2003 Charles River Associates Report found that a 5% MRET target would have no change on GDP or employment. The Government's commissioned McLennan Magasanik Associates 2003 Report found that a 5% target would result in an increase in GDP of [only] 0.08%.<sup>23</sup>

3.21 Hydro Tasmania also analysed the cost of the increased MRET proposed in the Tambling Report, and concluded that:

... [it] will result in residential electricity price increases of only 0.5% per year above the current target costs... It is estimated that there would be approximately a \$5 increase per quarter on the average household electricity bill representing an increase of just over 3% per annum (not 27% as claimed by Senator Abetz).<sup>24</sup>

3.22 The Committee notes the results of the study commissioned by REGA and conducted by Charles River Associates to assess the industry and economy-wide impacts of different levels of MRET:

The study found that electricity prices would rise 1% under a 5% MRET (relative to the current MRET) and 2.1% under a 10% MRET. These

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21 Clean Energy Crisis Meeting Group, *Joint response to the Prime Minister's Energy White Paper*, WWF Australia, URL: [http://www.wwf.org.au/News\\_and\\_information/Features/feature10\\_p2.php](http://www.wwf.org.au/News_and_information/Features/feature10_p2.php)

22 ACF, *Submission 15*, p. 20.

23 Hydro Tasmania, *Submission 3*, p. 3. See also BCSE, *Submission 17*, p. 2,

24 Hydro Tasmania, *Submission 3*, p. 3.

percentage increases are small relative to those seen in the wholesale contract market for electricity over recent years.<sup>25</sup>

3.23 The BCSE suggested a series of initiatives designed to achieve significant reductions in emissions, one of which states:

[By] increasing the level of the MRET so that renewable energy's share of electricity generation actually increases, (rather than declining as it will do under current policy), [t]he BCSE estimates that, based on a pass through of \$40/MWh, a target of a real 5% increase in renewables' market share by 2010 would only result in a \$1.53MWh increase in the price of electricity. For the average household electricity bill this would work out to little more than the cost of a cappuccino every three months.<sup>26</sup>

3.24 A number of submissions argue strongly that the MRET must be increased immediately in order that the momentum of investment in renewable energies is maintained beyond 2007; without MRET support investment in renewable industries will rapidly stall. REGA warns that the industry:

... is now looking to overseas markets, as it expects that investment in new domestic projects will either slow down dramatically or cease once the MRET's incentives expire over the next two years.<sup>27</sup>

3.25 On the other hand, the submission from a couple in Victoria applauded the Government's retention of the current MRET, claiming that wind energy should not be encouraged, given the environmental and social damage the industry has done in their neighbourhood.<sup>28</sup>

3.26 The Committee notes that the EWP fails to heed the advice from its own review panel on renewable energies to increase the MRET in the decade 2010 to 2020.

### ***Greenhouse gas emission reductions***

3.27 The Committee notes that more than one organisation expresses concerns that the EWP cannot deliver reductions in greenhouse emissions required to prevent climate change. Greenpeace, for example, referred to Australia's Chief Scientist Dr Robin Batterham calling for a reduction of 50–75% in greenhouse gas emissions by the year 2050,<sup>29</sup> and argued:

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25 REGA, *Submission 4*, p. 3.

26 BCSE, *Submission 17*, p. 2.

27 REGA, *Submission 12*, p. 2.

28 Mr Ian and Mrs Trixy Allott, *Submission 9*, p. 1.

29 Greenpeace Australia Pacific, *Submission 16*, p. 2.

It appears likely that net greenhouse emissions will continue to increase under the measures in the energy white paper. They will certainly not put us on a pathway to delivering the deep cuts in greenhouse emissions necessary to protect Australia from climate change.<sup>30</sup>

*Geosequestration: the 'magic pill' on greenhouse emissions?*

... the BCSE is concerned that this Energy White Paper signifies that the Federal Government is looking towards carbon capture and storage from coal fired power as the magic pill on greenhouse emissions.<sup>31</sup>

3.28 The Committee notes that most submissions saw problems in the Government's principal reliance on the capture of greenhouse gases from coal-fired generators for reducing CO<sub>2</sub> emissions. Greenpeace argued that geosequestration cannot be applied to current power stations and that furthermore, there appears to be no certainty that future coal-burning power generators can be built to capture greenhouse gas emissions, let alone transport and store the gases cheaply and safely.<sup>32</sup> The EWP itself refers to 'significant challenges':

... in separating carbon during electricity generation processes, combining carbon dioxide capture and storage in an electricity generation context, ensuring long-term storage and meeting competitive requirements for reliability and cost. Demonstrating the commercial applicability of these technologies is likely to be expensive and take at least 10 years.<sup>33</sup>

3.29 The BCSE also argued that geosequestration will be costly, and warned: To be placing all our eggs in this particular basket seems to be an incredibly risky gamble.<sup>34</sup>

3.30 Greenpeace was similarly concerned about the risk of relying on geosequestration to reduce greenhouse gas emissions:

... the Government's dependence on geosequestration is a high risk strategy given the significant risk that it could fail to achieve one or more of technical, commercial or environmental viability and does not follow a prudent risk management approach, which would employ a suite of abatement measures.<sup>35</sup>

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30 Greenpeace Australia Pacific, *Submission 16*, p. 3.

31 BCSE, *Submission 17*, p. 1.

32 Greenpeace Australia Pacific, *Submission 16*, p. 18.

33 EWP, p. 143.

34 BCSE, *Submission 17*, p. 1.

35 Greenpeace Australia Pacific, *Submission 16*, pp. 4 & 18.

3.31 Similarly, AusWEA submitted:

The EWP's focus on fossil-generation is accompanied by the belief in the future of carbon capture and sequestration technologies to abate these CO<sub>2</sub>e emissions. However, these technologies are unproven in the context of stationary energy generation, and their costs widely disputed. They are also not expected to be developed and available for implementation until the middle of the next decade – by which time Australia's levels of greenhouse emissions will be significantly higher. Conversely, the immediate role that commercially available renewables can play in the overall reduction of greenhouse gases is being denied through the exclusion of a future for this industry.<sup>36</sup>

3.32 The Committee was told that there is not a single operational coal-fired power plant in the world, even at pilot level, that sequesters its greenhouse emissions.<sup>37</sup>

3.33 The ACF doubts the ability of geosequestration to deliver the necessary greenhouse gas reductions. Even if coal-based carbon capture and storage proves environmentally, technologically and economically viable:

... an independent report [The Australian Institute, Discussion Paper 72, September 2004] assessing its role in Australia's energy future estimates it may only reduce Australia's electricity emissions by less than 2.5% to 2030. It found that extensive energy efficiency improvements, combined with use of gas and renewable energy, could reduce electricity sector emissions to 2030 by more than ten times as much as geosequestration alone.<sup>38</sup>

3.34 The ACF is also concerned about the problems of waiting for the geosequestration difficulties to be overcome:

... while geosequestration may have a role in reducing Australia's emissions in the longer term, waiting for its large-scale application still means that in order to meet strong climate protection targets, Australia's emissions would have to be reduced by unrealistically large amounts in future decades.<sup>39</sup>

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36 Australian Wind Energy Association, *Submission 5*, p. 1. Professor Ian Lowe also argued in June 2004, 'The rhetoric is I think dishonest. It suggests that coal, that geosequestration of carbon is a proven technology you can rely on, whereas wind and solar are unproven. In fact the opposite is the case.' See Professor Ian Lowe, *Energy Statement 2004*, Earthbeat, Radio National, Transcript, Saturday 19 June 2004, available at <http://www.abc.net.au/rn/science/earth/stories/s1135187.htm>.

37 BCSE, *Submission 17*, p. 3.

38 ACF, *Submission 15*, p. 10.

39 ACF, *Submission 15*, p. 10.

3.35 Greenpeace also warned of potential environmental dangers of geosequestration:

Clearly, if the sequestered greenhouse emissions leak back into the atmosphere, then geosequestration will have failed as a climate policy because the leaked emissions will cause more global warming. In addition if the leakage is rapid it can asphyxiate humans and animals in the vicinity.<sup>40</sup>

3.36 Discussion and evidence presented to the Committee on the amount of emission reduction facing Australia in the decades to come if there is further delay in setting reduction targets is explored further in chapter 4.

3.37 The ACF also raised concerns that investment in geosequestration will not occur unless a price is set on greenhouse emissions through either an emissions trading scheme or a carbon levy.<sup>41</sup> This issue is also explored further in chapter 4.

#### *Fuel excise reductions and LPG*

3.38 As discussed in chapter 2, the EWP outlines the Government's proposals to implement a major program of reform to modernise and simplify the fuel excise system.<sup>42</sup> Some explanation on the purpose of the excise credits arrangement was given by DEH:

Fuel excise has been demonstrated not to be a driver of fuel usage. The Bureau of Transport and Regional Economics examined the elasticity of transport fuels and found that it is low – price fluctuations do not have a significant impact on demand... The new measures outlined in the White Paper providing conditional access to excise credits provide an incentive to the owners and operators of high polluting diesel vehicles to have their vehicles tested in accordance with the Diesel NEPM and maintained.<sup>43</sup>

3.39 The Committee notes the removal of \$1.5 billion in fuel excise, in particular on diesel. Given that lowering prices could be expected to increase consumption, concerns were expressed that greenhouse emissions would increase as a direct result. Mr McGlynn from the Australian Greenhouse Office told the Committee:

The analysis looked at a range of issues. The original analysis indicated that there was the potential for those changes to lead to some increase in emissions, and that is why some of the complementary measures that were

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40 Greenpeace Australia Pacific, *Submission 16*, p. 17.

41 ACF, *Submission 15*, p. 22.

42 EWP, p. 93.

43 DEH, *Submission 1*, p. 4.

put into the package were put in place—in terms of air quality, the conditionality for heavy vehicles; in terms of greenhouse, the requirement for large excise users to join the greenhouse challenge.<sup>44</sup>

3.40 The Committee notes that these 'large excise users' (using more than \$3 million of excise credits per year) will be required to demonstrate effective management of their greenhouse gas emissions as a member of the Greenhouse Challenge program<sup>45</sup> - a single point of entry to provide information to industry on energy use and emissions and meant to:

... deliver 13.2 Mt of abatement in 2010 which has helped more than 700 Australian companies identify and act on emissions abatement opportunities while saving money and increasing product quality.<sup>46</sup>

3.41 The Committee appreciates the need to achieve low levels of particulate emissions, and recognises that modern diesel engines and diesel fuels contribute to particulate emission reduction.<sup>47</sup> In relation to vehicle emissions, the Committee heard that the EWP:

... sets out new requirements to encourage the owners and operators of high-emitting, heavy diesel vehicles to reduce exhaust particulate emissions and other pollutants to acceptable levels. It also has incentives to make sure vehicles meet the emission standards set under the diesel national environmental protection measure. Starting from 1 July 2006, heavy diesel trucks and buses will need to satisfy one of five emission performance criteria to establish that the vehicle is not likely to be a high polluter in order for the user to be eligible for excise credits as part of the road user charging arrangements set out.<sup>48</sup>

3.42 In relation to monitoring compliance of diesel vehicles with those emission standards, Ms Mackie from DEH told the Committee:

We looked at increasing the measure, but we decided to go with just these criteria because, over time, diesel fuel is becoming cleaner and the fleet is turning over. So, over time, the problem of the very high emitters in the

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44 Mr Gene McGlynn, Australian Greenhouse Office, *Committee Hansard*, Canberra, 4 August, 2004, p. 4.

45 EWP, p. 147.

46 EWP, p. 139.

47 DEH, *Submission 1*, p. 4.

48 Ms Lynelle Briggs, *Committee Hansard*, Canberra, 5 August, 2004, p. 9.

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diesel fleet is sorting itself out. We wanted to keep this measure relatively simple.<sup>49</sup>

3.43 The Committee notes, however, that while the proposed EWP excise credit system targets the emissions of particulates from the burning of diesel,<sup>50</sup> it does not contribute to CO2 emission reductions.

3.44 The Committee is concerned that, while the 90 000 households across Australia that use heating oil and kerosene<sup>51</sup> for heating will become exempt from current excise, those households using cleaner LPG for heating will incur the new excise that is to be phased in from 1 July 2006.<sup>52</sup>

3.45 The Australian Liquefied Petroleum Gas Association Ltd (ALPGA) was concerned that the EWP outlines proposals to remove the excise on off-road business usage of diesel and petrol in two stages, and thus reduce costs of these fuels to end users. The EWP states:

The changes will lower compliance costs, reduce tax on business and remove the burden of excise from thousands of individual businesses and households... All fuels used off-road for all business purposes will become excise-free over time.<sup>53</sup>

3.46 In response ALPGA argues that:

This policy change will erode the competitive position of LPG across the whole industry and cause an initial loss of 33% of commercial and industrial LPG business as current LPG customers to switch from LPG to other fuels, primarily imported diesel, with a consequent increase in air pollution and greenhouse gases.<sup>54</sup>

3.47 The Committee notes that the ALPGA is currently assisting the Government to create additional policy initiatives to alleviate the impacts that excise reduction on diesel and petrol will have on the LPG industry.<sup>55</sup> The ALPGA seeks to establish a joint industry/government working group to develop a range of positive policy

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49 Ms Kathleen Mackie, Department of Environment and Heritage, *Committee Hansard*, Canberra, 4 August, 2004, p. 34.

50 EWP, p. 103.

51 EWP, p. 99

52 EWP, Table 1, p. 96.

53 EWP, p. 93.

54 ALPGA, *Submission 7*, p. 1.

55 ALPGA, *Submission 7*, p. 1.

solutions, which include, among other initiatives, investigating options for using LPG as an electricity generation fuel and increasing the use of LPG in rural and regional Australia.<sup>56</sup>

3.48 The Committee also recognises that off-road diesel and petrol emissions are significantly higher than the greenhouse gas emissions from liquid petroleum gas,<sup>57</sup> and that using these fuels rather than LPG will contribute to overall increases in greenhouse gas emissions in Australia. Figures supplied by the ALPGA indicate that the rise will be significant; an estimated initial loss in 2008 of about 7.9 petajoules sales of LPG would result in an extra 20,000 tons of CO<sub>2</sub> released into the atmosphere, rising to 80,000 tons per annum by 2012.<sup>58</sup>

3.49 The Committee notes that the BCSE is concerned that the EWP does not acknowledge the role LPG can play in CO<sub>2</sub> emission reduction. One initiative that would reduce emissions at little cost would be:

... encouraging greater use of natural gas in energy generation. [C]ombined cycle gas turbines and gas fired co-generation generate electricity with a third to a half of the emissions from the coal-fired power that is used to generate the vast majority of Australia's electricity. These gas technologies are used in a large number of countries around the world, where they generate substantial quantities of reliable, continuous electricity. There is nothing in the White Paper that encourages the use of natural gas for electricity generation.<sup>59</sup>

### **Energy efficiency**

3.50 The EWP bases much of its proposals to reduce greenhouse gases on energy efficiencies.<sup>60</sup> As shown below, many submissions expressed concern that the EWP will fail to deliver these technologies in time for them to have much impact on abatement levels needed to prevent global warming.

#### ***Reducing Australia's energy consumption***

3.51 As noted in chapter 2, the EWP defines energy efficiency as 'gaining the same or a higher level of useful output, using less energy input',<sup>61</sup> and goes on to say that:

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56 ALPGA, *Submission 7*, p. 2.

57 ALPGA, *Submission 7*, p. 15.

58 ALPGA, *Submission 7*, pp. 10 & 15.

59 BCSE, *Submission 17*, p. 2.

60 EWP, p. 105.

61 EWP, p. 106.

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Energy efficiency is, and will remain, a central element of a cost-effective greenhouse abatement strategy, delivering about 40 per cent of expected energy sector abatement in 2010.<sup>62</sup>

3.52 The Committee notes that the EWP does not define the term 'cost-effective' nor what figure is given to the 'expected' energy sector abatement, as used by the EWP. Without this figure, the 40% abatement claim is not measurable; an important omission, given that energy efficiency is a central element of the Government's abatement strategy.

3.53 Several submissions pointed out that, as Australia delays in facing the problem of escalating greenhouse gas emissions, the cost to rectify the problem in future decades will increase substantially.<sup>63</sup>

3.54 The Committee acknowledges the need for these efficiencies in the energy industry, but has some reservations, in the light of evidence presented during this inquiry, that '40% of expected energy sector abatement' will mean very much in 2010. The ACF, for example, stated that the largest source of emissions is from the energy sector:

... and these emissions are spiralling out of control. Between 1990 and 2010 energy sector emissions are expected to increase by over 40%. The energy sectors' heavy reliance on coal-fired electricity makes Australia the highest per capita emitter of greenhouse gasses in the industrialised world.<sup>64</sup>

3.55 The Committee notes that significant energy efficiencies can be achieved using technologies that are available now, but that there are other factors that need to be addressed for these efficiencies to be realised. This point is explored further in chapter 4.

#### *Carbon trading scheme*

3.56 The EWP mentions briefly the concept of a carbon trading scheme, but only in the context of a possible future strategy:

Australia will not impose significant new economy-wide costs, such as emissions trading, in its greenhouse response at this stage. Such action is premature, in the absence of effective longer-term global action on climate change.<sup>65</sup> ... Should such an effective global response be in prospect, the

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62 EWP, p. 105.

63 Greenpeace Australia Pacific, Submission 16, pp. 4ff; BCSE, *Submission 17*, p. 3; REGA, *Submission 12*, p. 2.

64 ACF, *Submission 15*, p. 8.

65 EWP, p. 25.

government will consider least-cost approaches to constraining emissions. This consideration would encompass the possible introduction of market-based measures (such as an emissions trading scheme) in the longer term, noting the potential for these to lead a better resource allocation and provide industry and individuals with the greatest flexibility in determining how best to respond.<sup>66</sup>

3.57 The Committee notes, however, that the emissions trading scheme was raised in many of the submissions. For example, the ACF stated that:

Direct emission reduction policies such as taxes, emissions trading schemes and emission reduction targets can encourage “learning-by-doing” as companies are forced to undertake actions to reduce emissions that they would not otherwise undertake. As the company gains experience with such actions they can discover ways to bring costs down through the discovery of new products, processes and management systems.<sup>67</sup>

3.58 The Committee notes also that the state Premiers have very recently set in motion the first steps towards developing a carbon trading scheme across Australia.<sup>68</sup> The ACF was quick to comment:

By putting a price on carbon we are sending a signal to the marketplace that continuing to pump greenhouse pollution into the atmosphere is bad for the environment, our health and our economy... A well designed emissions trading scheme will help reduce greenhouse pollution by encouraging industry to reduce emissions and invest in clean technologies such as solar and wind power. It will help unlock Australia's innovative spirit and create thousands of jobs in new clean industries.<sup>69</sup>

3.59 Emissions trading was mentioned in other submissions in relation to the Kyoto Protocol and the concerns expressed about the absence of Australia's ratification.<sup>70</sup> The next section discusses these concerns.

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66 EWP, p 149.

67 ACF, *Submission 15*, p. 12, REGA, *Submission 4*, p. 2. On emissions tax, see also Mr Erwin Jackson, ACF, *Committee Hansard* 18 March 2005, p. 9.

68 *The Australian* newspaper, 31 March 2005.

69 ACF, *Media Release*, 31 March 2005, at:  
<http://www.acfonline.org.au/asp/pages/document.asp?IdDoc=2358>

70 REGA, *Submission 12*, p. 2, Greenpeace, *Submission 16*, pp. 5 & 6.

## ***Research and investment***

### *Kyoto: Opportunities lost*

3.60 Some submissions were critical of the Federal Government's refusal to ratify the Kyoto Protocol on CO<sub>2</sub> emissions, which they argued was an essential step if Australia is to reduce emissions through investment in the renewable energy industry.<sup>71</sup> The Kyoto Protocol's Flexibility Mechanisms established the carbon markets which have created opportunities for investments in emission reduction technologies and abatement projects, investments only available to Kyoto signatories. As REGA pointed out:

This market is already operating, with direct linkage to the European Union's Emissions Trading Scheme. Point Carbon estimates that the value of the global emissions trading market by 2010 will be worth in excess of \$AUS53 billion.<sup>72</sup>

3.61 As noted in chapter 2, the EWP states, however, that the Government is convinced that ratification is not in the national interest:

The Kyoto Protocol does not provide the basis for an effective long-term response as it does not include all of the largest emitters in the world, nor does it include a pathway for addressing developing countries, whose emissions will soon overtake those of industrialised countries.<sup>73</sup>

3.62 Greenpeace questioned the real reason for the government's refusal to ratify:

Greenpeace believes the Kyoto Protocol *does* provide a global framework required for meeting long-term objectives and its effectiveness depends on the political will of governments.

The [Federal] Government equates the Kyoto Protocol with the first commitment period, which is incorrect as the clear intention throughout the Kyoto negotiations has been that there would be subsequent commitment periods with progressively greater emission reduction targets and the involvement of developing countries. The Government is fully aware of this, having been part of the negotiations.

This, combined with the fact that the Government has deliberately sought, during negotiations, to weaken the Protocol and refuses to ratify, despite studies, (including one commissioned by the Government,) which show it would be cheaper for Australia to meet our Kyoto target if we ratified ... lead[ing] Greenpeace to believe that the Government's primary reason for

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71 REGA, *Submission 12*, p. 2.

72 REGA, *Submission 12*, p. 2.

73 EWP, p. 24.

opposing the Kyoto Protocol is because it contains mandatory targets for reducing greenhouse emissions.<sup>74</sup>

3.63 The Committee also notes the ACF's concerns about the lost opportunities in Australia of not ratifying the Kyoto protocols:

Kyoto ratification would ... send a powerful signal across the Australian community, to business and industry, and the international community, that Australia was prepared to act decisively to secure Australia's economic, social and environmental prosperity. Allens Consulting Group recently concluded:

having renounced Kyoto the Commonwealth Government is less able to influence the emerging global framework and, as a major fossil fuel exporting country, to provide some measure of international leadership.<sup>75</sup>

3.64 The Committee also heard that the curbing of projected increases in Australian greenhouse emissions since 1990 was due to the reduction in land clearing over the period. The EWP:

... acknowledges that the reason Australia's greenhouse emissions haven't risen significantly in the period 1990-2002 is because the large increase (34%) in emissions from the stationary energy has been almost completely offset by significant declines in land use emissions. This reduction in land use emissions is a one off saving and does not do anything to address the major sources of greenhouse emissions in Australia – stationary energy and transport.<sup>76</sup>

3.65 A similar view was expressed by the ACF:

The principle reason that Australia is on track to meet the Kyoto target is due to large reductions in emissions from [reduction in] land clearing.<sup>77</sup>

### *Research and development*

3.66 As outlined in chapter 2, the EWP places much importance on research and development, for example, through allocation of \$500 million for the Low Emissions Technology Demonstration Fund for renewable and fossil fuel technologies, \$75

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74 Greenpeace, *Submission 16*, p. 20.

75 ACF, *Submission 15*, p. 17.

76 Greenpeace, *Submission 16*, p. 10.

77 ACF, *Submission 15*, p. 8.

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million for the Solar Cities project, \$14 million for wind forecasting and \$100 million for the Renewable Energy Development Initiative.<sup>78</sup>

3.67 However, the Committee notes that many submissions were very critical of the EWP's emphasis on research and development. For example, the ACF stated:

The government's approach thus far has been to concentrate on research and development. R&D into new technologies is required, but this should not be used as an excuse for delay on other fronts.<sup>79</sup>

3.68 The BCSE was also clearly concerned that the EWP avoids facing the issue of emission reduction and instead resorts to research,<sup>80</sup> leading to delay, and warned:

Delay has its costs, which was the one of the most important findings from the recent Avoiding Dangerous Climate Change Conference held recently in Exeter in the UK. The conference reported that a 20 year delay of action could result in required rates of emission reductions 3-7 times greater than that required for a more immediate response to the same temperature target. This kind of 20 year delay is exactly what this Energy White Paper appears to be.<sup>81</sup>

3.69 The BCSE also claims that greater government spending on research and development to lower emissions from energy use is absolutely essential but insufficient.<sup>82</sup> Other submissions also criticised the EWP in that funding for research is, in the end, very costly without the adoption of other, more important, measures. For example, the ACF stated that:

... to reduce greenhouse gas emissions in the most cost-effective way, two broad types of climate policy are required – technology incentives (such as R&D) and direct emission policies (such as targets, emissions trading schemes or carbon levies). Focusing on only one of these options is likely to be very costly, as reiterated by the Intergovernmental Panel on Climate Change, which concluded that, in general, a R&D subsidy by itself does not offer the least-cost approach to reducing carbon emissions.<sup>83</sup>

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78 As summarised in the EWP, p. 3.

79 ACF, *Submission 15*, p. 22.

80 BCSE, *Submission 17*, p. 1.

81 BCSE, *Submission 17*, p. 1.

82 BCSE, *Submission 17*, p. 1.

83 ACF, *Submission 15*, p. 12.

3.70 Given that the EWP proposes that only \$300 million of its \$1 billion budget will be given over to renewable energies<sup>84</sup> and a total of \$700 million will be available for the Low Emissions Technology Development Fund, the Committee noted that some submitters are concerned that the fund will be used to fund fossil fuel technologies.

3.71 The Committee received some suggestions from various groups on ways to address research and investment for Australia's future energy needs. Greenpeace recommended that the Government:

- Remove direct and indirect subsidies which encourage the use of fossil fuels;
- Increase funding for renewable energy, energy efficiency and demand side management;
- Put a price on greenhouse pollution – either through a revenue neutral carbon levy and/or a national emission trading scheme designed to deliver genuine emission reductions, with stringent emission caps reduced over time and which does not exempt any emitters nor grandfather permits to them.<sup>85</sup>

3.72 The Committee acknowledges REGA's comments about research and development of renewable energies:

The heavy reliance on technology development is important but [the government] fails to acknowledge that Australia has already developed world-leading zero emissions technology and it fails to give credit and encouragement to the major achievements of the renewables industry. The White Paper does not solve the problem of getting this technology, or the technology that it proposes to fund, into the Australian electricity market.<sup>86</sup>

3.73 The Western Australian Sustainable Energy Association (WASEA) also supports the claim that the renewable energy industry is well developed and ready to contribute more to the reductions of greenhouse gas emissions:

The White Paper wrongly implies that the Australian renewable energy industry is still at the infancy stage and ignores the fact that we have a world class photovoltaic and solar water heater industry.<sup>87</sup>

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84 EWP, pp. 26 & 31.

85 Greenpeace Australia Pacific, *Submission* 16, p. 5.

86 REGA, *Submission* 4, p. 2

87 WASEA, *Submission* 14, p.2.

3.74 The Committee notes that a submission from Tarwin Valley Coastal Guardians (TVCG) in Victoria pointed out that the claim by the wind industry that sufficient subsidy will create a local manufacturing centre has not proven to be the case, and that the planned production in Portland in Victoria of four bladed wind generators will now go to China.<sup>88</sup>

3.75 TVCG also saw little benefit in the continuation of wind turbine development, citing figures to demonstrate that there are better cost-efficient renewable energy sources than wind energy. TVCG warned that:

... the retail cost of wind energy offered by most suppliers is some 35% more expensive than that of traditional generation.<sup>89</sup>

3.76 REGA pointed out that the Australian industry has not been assured by the Federal Government that it will be able to participate in the opportunities presented through the carbon markets, and that:

The White Paper offers no framework to provide confidence to future investors in either renewable energy projects or fossil fuel projects to calculate what the risks and benefits from future carbon pricing regimes will be.<sup>90</sup>

3.77 The Committee also notes that the BCSE argued that the EWP lacks incentive for investment in the renewable energy industry. There are, according to the BSCE, a number of technologies available now that could achieve significant reductions in emissions from energy without imposing a major impost upon the economy, and:

... the analytical work undertaken in the development of the National Framework indicates that energy consumption in the manufacturing, commercial and residential sectors could be reduced by 20–30% with the adoption of current commercially available technologies with an average payback of four years.<sup>91</sup>

3.78 The Committee notes with some concern the statement from REGA, in arguing the case for supporting renewable energy development in Australia, that:

... the world leading photovoltaic silicon thin film technology developed by the University of New South Wales will now be produced in Germany with the production facility and market entry incentives available there. The White Paper's failure to provide any further incentives to address this level

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88 Tarwin Valley Coastal Guardians, *Submission 8*, p. 2.

89 Tarwin Valley Coastal Guardians, *Submission 8*, p. 2.

90 REGA, *Submission 12*, p. 2.

91 BCSE, *Submission 17*, p. 2.

of competition will see Australia losing jobs and investment in projects here and run the very real risk of buying back our own technology in the future when forced to do so by international climate change obligations and world trade.<sup>92</sup>

3.79 The Committee is aware that this technology is being further developed and marketed in Germany, backed by the German Government, with a target production of 100,000 rooftops by the end of 2005. The International Energy Agency (IEA) states that:

... the EEG [Renewable Energy Sources Act], together with the '100 000 Rooftops Solar Electricity Programme,' are the driving forces for the development of the German PV market.<sup>93</sup>

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92 REGA, Submission 4, p. 3.

93 IEA Photovoltaic Power Systems Programme at <http://www.oja-services.nl/iea-pvps/ar03/deu.htm>.

# Chapter 4

## The High Cost of Delay

4.1 This chapter analyses the evidence from the EWP, from the inquiry and from other respected parties who have taken interest in Australia's energy future in order to make some informed recommendations about the Government's proposed energy policy.

4.2 While the continued use of coal, oil and gas for Australia's future energy needs is the key element of the EWP strategy, the Committee has gathered sufficient evidence to consider that, if adopted as it stands, the EWP is a blueprint for delay in reducing Australia's greenhouse gas emissions and will be directly responsible for the high cost to future generations of Australians - environmentally and economically.<sup>1</sup> For example, the Committee heard from the BCSE, who believe that the technologies that the EWP relies upon for reducing greenhouse gases:

... are not going to be available for 15 years or so, but we still have the challenge of spending \$37 billion on energy infrastructure. How we are going to do that in a way that reduces greenhouse gas emissions is certainly not in the white paper. The white paper seems to be about R&D and technology, which is great—and we do need that—but that is going to deliver outcomes in 15 to 20 years time. There is nothing in place that will deliver emission reductions in the short to medium term.<sup>2</sup>

4.3 The Committee also notes the ACF's concerns:

[The EWP] totally fails to recognise the economic and social benefits that come from early action on climate change and investing in clean energy technologies. For example, if the mandatory renewable target had been expanded to a real five per cent by 2010, it could have created over 12,000 ongoing jobs, mainly in regional and rural Australia.<sup>3</sup>

### The Committee's main concerns

4.4 The Committee considers there are a number of issues of serious concern:

- (a) while the Government acknowledges that greenhouse gas emissions must be reduced if the world is to avoid experiencing catastrophic climate change during the 21<sup>st</sup> century, the plan outlined in the EWP does not go far enough and lacks a viable time-frame for success;

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1 For example, EWP, pp. 30, 143 & 173; Greenpeace Australia Pacific, *Submission 16*, p. 4; BCSE, *Submission 17*, p. 1.

2 Mr Ric Brazzale, BCSE, *Committee Hansard*, 18 March 2005, pp. 34 & 35.

3 Mr Erwin Jackson, ACF, *Committee Hansard*, 18 March 2005, p. 3.

- (b) the Government's energy policy fails to accept the evidence that global warming has already begun and therefore action to reduce emissions needs to be taken immediately;
- (c) Government policy of relying on the hope that geosequestration will eventually be possible and that it will significantly reduce greenhouse gas emissions is not enough to reduce emissions in the near term;
- (d) Government policy of hoping that alternative technologies will be developed to make the burning of Australia's coal less dirty and the production and use of energy more efficient is not enough to reduce emissions in the near term;
- (e) inadequate Government support in developing the renewable energy industry, which will mean that Australia will have to import renewable energy technologies in later decades;
- (f) the Government's claim that the reduction of greenhouse gases through the development of renewable energy sources will be too costly, but ignores evidence to the contrary, and ignores concerns that there will be greater costs to Australia in the future under its policy;
- (g) the EWP proposal to cut diesel excise at a cost to the cleaner LPG industry and to commitments made with the introduction of the GST;<sup>4</sup> and
- (h) the EWP's lack of an effective plan to cut greenhouse pollution, a long term target to boost renewable energy or a long term plan to control the spiralling pollution from the energy and transport sectors.

4.5 These issues are discussed in more detail below.

### ***Greenhouse gas reductions***

4.6 The Committee notes that the EWP acknowledges that greenhouse gas *reductions* are necessary to reduce the amount of global warming that will occur during the 21<sup>st</sup> century. The EWP states:

The balance of scientific opinion is that global emissions of greenhouse gases need to be reduced if changes in climate are to be avoided. Analysis by the Intergovernmental Panel on Climate Change indicates that reductions of some 60 per cent of annual global emissions are required by 2100 to avoid more than doubling pre-industrial levels of greenhouse gases in the atmosphere. ... Even with substantial emission reductions, some climate change is likely to occur.<sup>5</sup>

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4 See footnote 48 below.

5 EWP, p. 132.

4.7 In recognising that the Government is aware that energy production and its use are the major sources of greenhouse emissions within Australia and globally, the Committee notes that the EWP states that:

Addressing human-induced climate change is a major issue for this century. Emissions of greenhouse gases have the potential to raise global temperatures, resulting in deleterious effects to people and the natural world, its land and seascapes, its flora and fauna. Substantial reductions in global greenhouse emissions will be needed to avoid these effects.<sup>6</sup>

4.8 The Committee is, however, aware that other organisations see the problem as more acute. For example, a group from the renewable industry and environmental sectors,<sup>7</sup> representing more than 260,000 Australians and 350 companies, are more concerned than the EWP about the effects of global warming:

The group believes that climate change is arguably the greatest global challenge facing humanity in the 21st century. Climate change will have serious economic, social, environmental and health risks for Australia, including increased droughts, floods and bushfires, the loss of agricultural production and irreparable damage to the Great Barrier Reef.<sup>8</sup>

4.9 The Australian Greenhouse Office notes with some authority that the rate of CO<sub>2</sub> emissions in Australia has increased since 1990, and points to electricity generation in the energy sector as the major contributor:

The energy sector is of key importance to greenhouse action in Australia. More than two-thirds of Australia's total greenhouse gas emissions come from the energy sector. In 2002 energy sector emissions totalled 371 Mt CO<sub>2</sub>-e, accounting for 68% of net national emissions. Stationary energy, or energy from fuel combustion, produced 262 Mt, or 48% of net national emissions. Fugitive emissions from, for example, coal mining and oil and gas production, comprised another 5% (30 Mt) of net national emissions. Total emissions from the energy sector in 2002 were 1% higher than in 2001 and 30% higher than in 1990. By 2020, energy emissions are projected to reach 486 Mt CO<sub>2</sub>-e, an increase of 63% over the 1990 level.

Electricity generation accounted for approximately 69% of stationary energy sector emissions or 33% of net national emissions in 2002. Emissions from electricity generation grew by 41% between 1990 and 2002.

Future demand for energy in Australia is projected to grow rapidly. Forecasts show that in 2020, energy demand will have risen by 60% over the preceding two decades. To meet this demand, an additional 25% of

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6 EWP, p. 23.

7 These organisations include BCSE, AusWEA, REGA, ACF, Greenpeace and WWF Australia.

8 Clean Energy Crisis Meeting Group, *Joint response to the Prime Minister's Energy White Paper*, WWF Australia website 23 March 2005 at: [http://www.wwf.org.au/News\\_and\\_information/Features/feature10\\_p2.php](http://www.wwf.org.au/News_and_information/Features/feature10_p2.php).

generation capacity is likely to be required by 2020, and, by 2030, an additional 52%.<sup>9</sup>

4.10 The Committee is concerned that, with the projected increased demand for energy in the next 45 years, the EWP fails to put in place specific targets and achievable timeframes to meet energy reductions and CO<sub>2</sub> emissions. As stated by Mr Brad Page, CEO of the Electricity Supply Association of Australia:

We need a single greenhouse policy to tell us what we're all trying to achieve over the next 40 to 50 years because the kind of investments we make in this industry, particularly power generators, have lives of 40 to 50 years.<sup>10</sup>

4.11 The Committee agrees with Greenpeace Australia Pacific that:

... the prevention of dangerous climate change requires industrialised countries, including Australia, to reduce greenhouse emissions by 60-80% below 1990 levels by 2050 ... a roadmap needs to be developed which sets out how this target will be achieved.<sup>11</sup>

## Recommendation 1

**4.12 The Committee recommends that the Government, in consultation with energy interest groups and the energy industry, develops a detailed long-term strategy that includes specific CO<sub>2</sub> emissions reduction targets for 2010, 2020 and 2030, with the ultimate goal of reducing greenhouse emissions by at least 60% by 2050.**

### *Time for action: the evidence*

4.13 The Committee is concerned that the EWP does not acknowledge that any delay in significantly reducing greenhouse emissions will have an increasing effect on climate change. One submission to this inquiry, for example, is particularly critical. The Australian Wind Energy Association (AWEA) states that the EWP goes no further than:

... acknowledging the potential for greenhouse gas emissions to result in climate change impacts... however, these impacts are widely accepted to be occurring now, and expected to increase in frequency and intensity with the ongoing emission of CO<sub>2</sub> gases.<sup>12</sup>

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9 Department of the Environment and Heritage, Australian Greenhouse Office, *Submission 1*, p.7.

10 Mr Ric Brazzle, *Submission 17*, p. 3, quoted from Liz Minchin, 'the dirty state we're in', *The Age*, 14 February 2005.

11 Greenpeace Australia Pacific, *Submission 16*, p. 4.

12 Australian Wind Energy Association, *Submission 5*, p. 1.

4.14 The Committee notes that, despite the connection made in the EWP that carbon dioxide emissions cause global warming,<sup>13</sup> the Minister for Environment and Heritage, Senator Ian Campbell, in a reply to a government question in the Senate in December 2004, did not concede the causal link. He stated that the reduction in rainfall in Australia:

... confirms that climate change is in fact a reality. The reality is that there are significant reductions in the size of the Antarctic icepack. There is significant climate change occurring around the world. There is no longer a question about whether climate change is affecting the world. The real questions are: what is causing it and what are the solutions? The jury is, it is fair to say, scientifically out on both of those big answers. Governments of the world need to work together to ensure that we address what I call the biggest threat to the environment.<sup>14</sup>

4.15 But, by March 2005, the Committee notes, Senator Campbell told the 20-nation energy and environment conference in London that the Australian Government had established a \$500 million fund, as proposed in the EWP to assist in developing carbon abatement technologies, and said that:

The [\$500million] fund was the key component of the Government's \$1.8 billion package of programs to address climate change.<sup>15</sup>

4.16 The Committee is concerned that the Government does not give appropriate weight to the urgency in dealing with the increase of greenhouse gas emissions. Evidence presented to the Committee<sup>16</sup> clearly indicates that action needs to be taken immediately in order to achieve the necessary greenhouse gas reduction targets mentioned in the EWP.

## **Recommendation 2**

**4.17 The Committee recommends that the Government set abatement timeframes and raise the abatement targets for projects seeking funding through the Low-Emissions Technology Development Fund.**

### ***Reliance on the hope of geosequestration***

4.18 In examining the EWP's reliance on the development of geosequestration as a carbon abatement technology, the Committee found it difficult to accept the Government's position. The EWP makes it quite clear, as shown above in chapter 3, that it will be in excess of 15 years before geosequestration will be operating. The Committee notes that experts in the field of carbon capture technologies firmly

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13 EWP, p. 23.

14 *Senate Hansard*, 6 December 2004, p. 33.

15 Minister for the Environment and Heritage, Senator the Hon. Ian Campbell, *Media Release*, 16 March 2005.

16 For example, Greenpeace Australia Pacific, *Submission 16*, p. 10; ACF, *Submission 15*, pp. 3-4.

predict that it would be another decade before geosequestration will have an effect on abatement of carbon emissions because the technology could only be applied in a cost-effective way to coal-burning generators built after the technology is developed.<sup>17</sup>

4.19 Geosequestration, the Committee believes, will not help reduce CO<sub>2</sub> emissions by any significant amount for at least the next 25 years; far too late to contribute to the immediate problem of controlling CO<sub>2</sub> output. The ACF comments:

[Geosequestration] could potentially substantially reduce emissions from particular power stations ... but it takes time for these technologies to work their way into the system. So, unless you actually start shutting down all the coal-fired power stations that we currently have and replace them overnight with geosequestration power stations, you will not get a significant emission reduction in the short or medium term. The estimates suggest that by 2030 you would get about two to three per cent reduction in Australia's electricity sector.<sup>18</sup>

4.20 The Committee also is aware that the EWP focuses on coal geosequestration, as pointed out by the ACF:

The other problem with the government's focus on geosequestration is that it is nearly totally focused on coal. Where is the research and development that is being done on geosequestration and gas? Where is the research and development that is being done on geosequestration and biomass?<sup>19</sup>

4.21 Furthermore, the Committee notes evidence that the development of geosequestration would be costly – around \$50 to capture one tonne of CO<sub>2</sub>.<sup>20</sup> As the ACF stated:

Even if the low-emission technology fund does help to reduce the cost of geosequestration, for example, you have to then basically drive geosequestration onto the market at unrealistically higher rates to achieve those deep cuts in emissions, and that would be extremely economically costly.<sup>21</sup>

4.22 The ACF also goes on to say:

Australia is commenting on IPCC [Intergovernmental Panel on Climate Change]<sup>22</sup> work that is being done on geosequestration. It is playing a fairly active role in that. It is also involved in the Carbon Sequestration

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17 The Australian Institute, *Geosequestration*, Discussion Paper 72, pp. xi and xii, September 2004, p. xii, website, 31 March 2005 at: <http://www.tai.org.au>.

18 Mr Erwin Jackson, ACF, *Committee Hansard* 18 March 2005, p. 16.

19 Mr Erwin Jackson, ACF, *Committee Hansard* 18 March 2005, p. 5.

20 Mr Erwin Jackson, ACF, *Committee Hansard* 18 March 2005, p. 5.

21 Mr Erwin Jackson, ACF, *Committee Hansard* 18 March 2005, p. 13.

22 For description of this organisation see <http://www.ipcc.ch/about/about.htm>.

Leadership Forum, which is a group of smaller countries who are seriously looking at the technology. The bottom line with geosequestration is that what the white paper essentially does is to say, 'Let's assume that it works in 2020 or 2030'. But in order to drive it onto the market, the government would probably have to do something like put on a \$50 a tonne carbon tax in 2030 or 2050. That would be a massive shock to the economy.<sup>23</sup>

4.23 The Committee also notes evidence that geosequestration may not deliver the necessary reductions in greenhouse gas emissions, even if it does become operational in 15 years. Geosequestration by itself cannot meet the reductions necessary for Australia to be on target to reduce its emissions by 15-30%<sup>24</sup> if it is to assist in minimizing global warming. As the Committee heard:

... even if [geosequestration] does work, it cannot be the dominant energy system in the world by the end of the [21<sup>st</sup>] century, simply because it is not a zero emission technology. If you are optimistic you might get 80 to 90 per cent emission reductions from a traditional coal-fired power station, but, if you start building large-scale geosequestration plants all over the world, that 10 per cent emission that you still get would compromise the climate system... [Geosequestration] is not a serious option overall for reducing emissions on the scale that we need.<sup>25</sup>

4.24 The Committee also notes that a Discussion Paper produced by the Australia Institute in September 2004 concludes with:

Over the next two decades, however, a policy that neglects or excludes other low emission technologies, in favour of coal with CCS (CO<sub>2</sub> Capture and Storage), will place Australia on an unnecessary high-cost path to reducing emissions. This is not an economically optimal policy for reducing greenhouse gas emissions from the energy sector.<sup>26</sup>

4.25 Greenpeace argues strongly that, in order to help reduce the escalating greenhouse gas emissions, the Government should make a commitment not to approve any new coal-fired power stations nor to expand or extend the life of existing ones.<sup>27</sup> Furthermore, Greenpeace recommends that the Government:

... should not fund research in areas advocated by the fossil fuel industry, including geosequestration, which, recognising the polluter pays principle, should be funded by the fossil fuel industry.<sup>28</sup>

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23 Mr Erwin Jackson, ACF, *Committee Hansard* 18 March 2005, p. 5.

24 Mr Erwin Jackson, ACF, *Committee Hansard* 18 March 2005, p. 2.

25 Mr Erwin Jackson, ACF, *Committee Hansard* 18 March 2005, p. 4.

26 The Australia Institute, *Geosequestration*, Discussion Paper 72, September 2004, p. xii, website, 31 March 2005 at: <http://www.tai.org.au>.

27 Greenpeace Australia Pacific, *Submission* 16, p. 19.

28 Greenpeace Australia Pacific, *Submission* 16, p. 19.

### Recommendation 3

#### 4.26 The Committee recommends that the Government:

- (i) recognise that geosequestration is one of many options for reducing Australia's CO<sub>2</sub> emissions; and ensure that the greater proportion of the Low Emissions Technology Fund is made available to technologies which can provide emission reductions in the short term;
- (ii) fund only cost and abatement effective research and development on the basis of the principle that the polluter pays; and
- (iii) extend the life of the Low Emissions Technology Fund to cover the timeframe set out for emissions reductions targets, namely a reduction of at least 60% by 2050.

#### *The hope of a cleaner burn from coal*

4.27 The Committee notes that, as discussed in chapter 2, the EWP, in introducing the Low-Emission Technology Development Fund at a cost of \$500 million, seeks to invite private investment to:

... demonstrate breakthrough low-emission technologies with significant long-term abatement potential. Eligible technologies need to be able to reduce greenhouse emissions by at least 2 per cent at realistic rates of long-term uptake. Technologies can include renewable and fossil-fuel supply as well as energy efficiency in both the stationary and transport sectors.<sup>29</sup>

4.28 However, the Committee is aware of The Australia Institute's studies, based on investigation of current literature, of the various emissions from different fuel mixes for power generation. From these studies the Committee notes that, by using the Integrated Drying Gasification Combined Cycle (IDGCC) in coal-fired electricity generators, a reduction from 1200 Kg (CO<sub>2</sub> equivalent per Megawatt hour of energy produced) to 900kg can be achieved.<sup>30</sup> HRL Ltd, an Australian owned energy, technology and project development, also claims that, for every single megawatt (MW) hour of electricity produced using IDGCC, 30% less brown coal is used and hence 30% less CO<sub>2</sub> will be emitted.<sup>31</sup>

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29 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Low-emission Energy Technologies*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_1.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_1.pdf).

30 The Australia Institute, *Geosequestration*, Discussion Paper 72, figure 1, September 2004, website, 31 March 2005 at: <http://www.tai.org.au>.

31 For definition and description see HRL website, 31 March 2005, at: <http://www.hrl.com.au/www/45/1001127/displayarticle/1001182.html>.

4.29 The Committee considers that the target of 2% reduction in greenhouse gas emissions hoped for in the EWP's Low-Emissions Technology Development Fund<sup>32</sup> is far too small for the investment of \$500 million. For example, the BCSE claims that the technologies that exist right now - such as using LPG in energy generation, increasing the MRET to encourage further renewable energy input into the energy market, rolling out the NSW BASIX scheme<sup>33</sup> across the nation, and putting in place incentives to encourage energy efficiencies in the manufacturing, commercial and residential sectors - would achieve significant reductions in emissions from energy without imposing a major impost upon the economy. These measures would:

... create a 9% reduction in stationary final energy consumption and a 9% reduction in greenhouse gas emissions from the stationary energy sector.<sup>34</sup>

#### **Recommendation 4**

**4.30 The Committee recommends that the Government provide incentives to encourage the uptake of current energy efficiencies, such as by adopting the NSW BASIX energy efficiency scheme on a national basis.**

#### ***Immediate support for renewable energy technologies***

4.31 The Committee notes that an additional \$100 million, on top of the Low-Emission Technology Development Fund, is proposed to support the development of smaller-scale renewable technologies. The Solar Cities trials, for example, aim to:

... provide working demonstrations of how technology and efficient markets can combine for a sustainable energy future.<sup>35</sup>

4.32 The EWP states that the trials will be monitored for at least 5 years.<sup>36</sup> The Committee is concerned that the \$75 million for the solar cities scheme over five years could be better used instead to continue funding the existing Photovoltaic Rebate Program (PVRP). This scheme has proved very successful:

Over the period 2000–01 to 2003–04, a total of \$28.5 million had been rebated with more than 5300 photovoltaic systems installed providing six megawatts of total capacity of energy available from photovoltaic sources. From 2003–04, the Australian Government extended the life of the initiative to 2004–05 and increased total funding to \$40.4 million. In

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32 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Low-emission Energy Technologies*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_1pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_1pdf).

33 This scheme involves, among other things, a 40% reduction in household greenhouse gas emissions from 2006.

34 BCSE, *Submission 17*, p. 2.

35 EWP, p. 131.

36 EWP, p. 146.

2003-04, the total of rebates paid amounted to over \$4.8 million with just under 1000 photovoltaic systems installed.<sup>37</sup>

4.33 The Committee notes that the PVRP will not receive funding after June 2005.<sup>38</sup>

4.34 As the Committee is aware, the way to develop solar energy and reduce unit costs is to create large-scale deployment, and notes the successes in many developed countries with wind and solar technologies:

... because it is recognised that, with significant deployment, you will get cost reductions. We can at least guarantee that these technologies will be there in five and 10 years time to deliver greenhouse abatement.<sup>39</sup>

4.35 The Committee sees that the MRET is another vital factor in creating greenhouse gas abatement. The Committee, contrary to the Government's claim that implementing an emissions trading scheme and/or expanding the mandatory renewable energy target would lead to higher costs, believes that:

... in fact, it is more likely that the Energy White Paper will ... lead to high costs associated with greenhouse emissions due to its failure to drive technological change in the energy sector cost effectively. This is particularly evident [in] its failure to establish a price on greenhouse emissions and [to] set a long-term emission reduction target.<sup>40</sup>

4.36 Indeed, the Committee believes by increasing the MRET to a 5% target by 2010, and then increasing the MRET further to 10% by 2020, the Government would, as the BCSE suggested, send a signal to industry that it:

... is serious about reducing greenhouse emissions. That then needs to be supported by an emissions trading scheme that puts a price to carbon so we can start to get effective investment in energy infrastructure and we do not build stranded assets. That is an important step but, in itself, it is also not sufficient. We would still need an expansion in the mandatory renewable energy target and some aggressive energy efficiency measures, particularly mandated minimum performance standards for new homes and buildings.<sup>41</sup>

4.37 In response to evidence that supports the need to provide easier entry pathways for new technologies into the energy market, the Committee agrees with the WASEA:

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37 Australian Greenhouse Office, *Annual Report 2003-2004*, p. 36.

38 Additional Estimates, *Committee Hansard*, 15 February 2005, p. 140.

39 Mr Ric Brazzale, BCSE, *Committee Hansard* 18 March 2005, p. 37.

40 ACF, *Submission* 15, pp. 2 & 3.

41 Mr Ric Brazzale, BCSE, *Committee Hansard* 18 March 2005, p. 40.

In better integrating with renewables, [base-load power stations] reduce the overall cost of renewable energy on the system. We also need to see a system that fairly rewards renewable energy for its role in the system.

There are also some techniques that have been used successfully overseas by getting information from the community about what types of technologies they would like to see in the system. Deliberative polling in particular has been used very successfully in Texas. That involves going to the community and explaining to them that there is a requirement to source additional energy to meet the needs of a growing population. If they were involved in the process of deciding where that energy was to come from, we may see an informed community taking the decision to source a percentage of that energy from renewable sources, with a smaller percentage from coal and perhaps a percentage from gas. Those types of measures would be very beneficial in facilitating the uptake of more desirable energy forms.<sup>42</sup>

## Recommendation 5

**4.38 The Committee recommends that the Government continue to fund the Photovoltaic Rebate Programme (PVRP), and set targets for the installation of stand alone (RAPS) Photovoltaic (PV) energy systems and for grid-connected PV energy systems.**

## Recommendation 6

**4.39 The Committee recommends that the Government re-examine the projected costs of increasing the MRET to at least 5% by 2010, to 10% by 2020, and 50% by 2050, and if it is not prepared to do this, provide infrastructure grants for renewable energy developments.**

## *Fuel excise reductions*

4.40 The Committee believes that the proposed tax credit exempting businesses from paying excise on diesel, gas and petrol, will have a significant negative effect on investment and development in low emission, indigenous renewable energy sources. As Tim Colebatch, Economics Editor of *The Age*, argued:

The weakness [of the EWP] is that most of its spending is on a soft-headed, populist tax cut to make it cheaper for business to use and waste energy. The core goal of the policy is to make dirty fuels cleaner. Yet the core spending is just on making dirty fuels cheaper. And while there is a token effort to balance the fossil-fuel and renewable-energy sectors, in reality the policy turns its back on the renewable-energy future to focus on prolonging the fossil-fuel present.<sup>43</sup>

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42 Mr Matthew Rosser, WASEA, *Committee Hansard* 18 March 2005, p. 43.

43 Tim Colebatch, *Cutting greenhouse gases ... and raising them with the other*, *The Age*, 16 June, 2004.

4.41 The Committee is aware of the problems the excise changes will cause the LPG industry. As discussed in chapter 3, the ALPGA clearly demonstrated in their submission and at the public hearing that the EWP policy change will erode the competitive position of LPG across the whole industry.<sup>44</sup> The ALPGA went on to say that:

In addition to the potentially negative financial impacts directly on LPG consumers, a reduction in LPG consumption would have far greater consequences that we believe are inconsistent with the EWP's fundamental objectives. These might include an increase in oil imports, greenhouse emissions and air pollution.<sup>45</sup>

4.42 The Australia Institute's studies reveal that currently operating combined cycle gas turbine (CCGT)<sup>46</sup> production of electricity reduces the CO<sub>2</sub> emissions from 1200 Kg (CO<sub>2</sub> equivalent per Megawatt hour of energy produced) to under 400kg,<sup>47</sup> representing a 60% reduction. The Committee therefore considers that the EWP should take into account the use of LPG in electricity generation in its commitment to reducing CO<sub>2</sub> emissions instead of, as noted in chapter 3, ignoring this promising energy source in power generation.

4.43 The Committee also notes that the proposed reduction of \$1.5 billion in excise on diesel in the EWP does not honour the commitment the Government made when developing the GST legislation, which required that an 'Energy Credit Scheme' would provide incentives to switch to the cleanest fuels.<sup>48</sup>

## Recommendation 7

**4.44 The Committee recommends that the Government not proceed with the proposed reductions in excise on diesel and petrol in the EWP, unless the decision to impose excise on biofuels and gaseous fuels by 2012 is reversed.**

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44 ALPGA, *Submission 7*, p. 1; Mr Phil Westlake, ALPGA, *Committee Hansard* 18 March 2005, pp. 30 & 31.

45 ALPGA, *Submission 7*, p. 1; ALPGA, *Submission 7A*, Powerpoint presentation to the Korean Autogas Conference, 27 May 2004.

46 CCGT is an operation to produce rotational power from gas or liquid fuel turbine to turn an electricity generator, then scavenging the hot gases to generate steam to turn a steam turbine, which in turn powers another electrical generator. See <http://www.premier-power.co.uk/ccgt/process>.

47 The Australia Institute, *Geosequestration*, Discussion Paper 72, figure 1, September 2004, website, 31 March 2005 at: <http://www.tai.org.au>.

48 Letter from Prime Minister, the Hon John Howard, to Senator Meg Lees, the then Leader of the Australian Democrats, 28 May 1999, *Offroad Diesel and like fuels*, p. 7, and *Measures for a Better Environment*, pp. 8 – 13.

## *Energy efficiencies*

4.45 The Committee acknowledges the sorts of benefits<sup>49</sup> that energy efficiencies can deliver in greenhouse abatement, and notes that energy efficient benefits will only occur with proper and deliberate planning. As stated by Mr Phil Harrington, Division Head, International Energy Agency:

Energy efficiency offers enormous benefits for energy security, sustainable development and greenhouse gas abatement. These benefits can be realised at negative or very low cost. But this will only occur under an ambitious and comprehensive policy framework [where the] role of governments [must] offer leadership, establish integrated, comprehensive policy frameworks, set high standards and deal with policy conflicts.<sup>50</sup>

4.46 The Committee considers that the EWP fails to offer government leadership, fails to set high standards and fails to deal with policy conflicts, all of which are necessary for establishing an energy framework necessary to achieve the level of emissions reductions required to prevent catastrophic global warming in this century.

## **Recommendation 8**

**4.47 The Committee recommends that the Government develop a more comprehensive policy framework that will set stronger market incentives to invest in energy efficiencies and mandate standards for CO<sub>2</sub> abatement with specific, quantifiable and meaningful targets.**

## **Recommendation 9**

**4.48 The Committee recommends that the Government move to review its own operations in order to achieve maximum energy efficiencies and CO<sub>2</sub> abatement prior to 2010.**

## *The cost of delay*

4.49 The Committee understands that the issue for the critics of the EWP is that, if action is not taken now, the cleaning up of Australia's greenhouse gases will be more costly and more difficult as we move towards 2020, with a corresponding increase in the warming of the earth's atmosphere. The ACF makes it clear:

In essence, unless additional measures are taken to rein in energy sector emissions Australia's greenhouse emissions will increase substantially over the next couple of decades. In order to contribute to meeting a long-term global target to stabilise the climate after a delay until 2020, Australia's and the energy sector's emissions would need to reverse the upward trend in

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49 As noted in Chapter 3, the EWP does not place specific emissions reduction figures on these efficiencies.

50 Mr Phil Harrington, *Energy Efficiency: The Role of Government in an International Perspective*, International Energy Agency Conference, Tokyo, 19 January 2004, IEA website 31 March 2005 at: [http://www.eccj.or.jp/intnl/03workshop/pdf/3\\_3.pdf](http://www.eccj.or.jp/intnl/03workshop/pdf/3_3.pdf).

emissions and come down by around 2.5% and 3.5% per year respectively to 2050. Such a rapid reduction in emissions would likely be very costly when compared to the around 1.5%/year reduction that would be required if policies and measures were instituted to start reducing those emissions now.<sup>51</sup>

4.50 The Committee notes the latest developments by the states in creating carbon trading schemes, in response to the states' perception of the urgent need to reduce carbon emissions.<sup>52</sup>

### **Recommendation 10**

**4.51 The Committee recommends that the Government introduce a carbon trading scheme, or at least provide support for the states' carbon trading scheme, and mandate maximum levels of carbon emissions for Australia, according to diminishing benchmarks towards the goal of 60% by 2050.**

### **Recommendation 11**

**4.52 The Committee recommends that the Government reconsider the benefits of a carbon tax as a tool to reduce carbon emissions in the industrial sector.**

### **Looking forward**

4.53 The Committee recognises the concerns expressed in many of the submissions that the EWP does not contain effective planning for the future needs of the Australian community in energy supply, gas emission reductions or alternative renewable energy development.<sup>53</sup>

4.54 Energy related emissions are increasing at an alarming rate, yet there are no expressed policies in the Energy White Paper that will address this issue and rein in emissions.<sup>54</sup> The renewable industry and environmental sector group, the Clean Energy Crisis Meeting Group, contends that the EWP:

... fails as a 21st Century response to energy security and climate change. The group agrees that the White Paper contains no effective plan to cut greenhouse pollution, no long term target to boost renewable energy and no

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51 ACF, *Submission 15*, p. 9.

52 As discussed in chapter 3.

53 Greenpeace Australia Pacific, *Submission 16*, pp. 4ff; BCSE, *Submission 17*, p. 3; REGA, *Submission 12*, p. 2.

54 Professor Ian Lowe, *Energy Statement 2004*, Earthbeat, Radio National, Transcript, Saturday 19 June 2004, ABC website 23 March 2005, at: <http://www.abc.net.au/rn/science/earth/stories/s1135187.htm>.

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long term plan to control the spiralling pollution from the energy and transport sectors.<sup>55</sup>

4.55 The Committee is sceptical that the Government's 'business as usual'<sup>56</sup> approach to Australia's future energy needs and the EWP's claimed commitment to greenhouse gas abatement will be as successful as the Government would have Australians believe. Australia remains the highest per capita greenhouse emitter in the developed world. If Australia is to contribute effectively to minimising global warming and regain credibility on the matter in international forums, the Government must mandate rigorous and demonstrable benchmarks for the reduction of greenhouse emissions.

4.56 The Committee has received evidence that some of these measures are available now. However, few of the proponents of those existing technologies believe the current regulatory and policy framework will provide adequate opportunities for significant structural change - change that would pave the way to deep greenhouse cuts - in the energy generation and transport sectors.

4.57 The Committee refers the Government to the recommendations of the Senate Environment, Communications, Information Technology and the Arts References Committee's previous inquiry – *The Heat is on: Australia's Greenhouse Future*, November 2000 – for measures that would significantly reduce Australia's greenhouse emissions.

4.58 The Committee calls on the Government to do more to guarantee future Australian and global standards of living and security by revisiting its energy policy with a view to ensuring Australia plays a leading role in delivering a clean energy future.

**Senator John Cherry**  
**Chair**

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55 Clean Energy Crisis Meeting Group, *Joint response to the Prime Minister's Energy White Paper*, WWF Australia website 23 March 2005 at:  
[http://www.wwf.org.au/News\\_and\\_information/Features/feature10\\_p2.php](http://www.wwf.org.au/News_and_information/Features/feature10_p2.php).

56 ACF, *Submission 15*, p. 14.



# Government Members' Dissenting Report

[The EWP is] a very skilled paper, and I'm sure the government has sweated long and hard over it, because of the difficulty of the issues. But I think there's a very clever piece of wording when the Prime Minister commented on Kyoto, he says that human-induced climate change is one of the major challenges confronting the world this century, and he goes on to say the potential for climate change is real.<sup>1</sup>

As the Prime Minister notes in his foreword to the Energy White Paper, quoted at the head of Chapter 2 of this Report, the Government's approach to energy policy for Australia to meet the challenges posed by human-induced climate change has been underpinned by three themes – prosperity, security and sustainability. The EWP is the outcome of a comprehensive review to provide a long-term framework to ensure that Australia's energy policy will achieve the balance of Australia meeting all its international obligations in ameliorating the effects of global climate change and utilising our energy advantage for the benefit of all Australians.

The emphasis of the EWP is therefore that of action over the long term, in a timeframe that is appropriate for the consideration of both the processes and the effects of climate change. As the Committee heard from Ms Kathleen Mackie of DEH:

The time horizon that we focused on was 20 to 30 years, but it was also to try to establish Australia's energy policy position so as to go beyond that as well.<sup>2</sup>

Nevertheless, the Committee's Report appears to have deliberately misunderstood or ignored this important focus of the EWP, and persistently frames its recommendations in terms of the limited ability of existing and developed technologies to deal with climate change issues. Government Members of the Committee believe that this is a clear indication that this inquiry into EWP was a cynical exercise which sought to promote a particular political agenda while brushing aside opportunities that might be available to Australia. A reasonable reading of the text of this Report would confirm our view of the predetermined nature of this Inquiry – for example, although Chapter 2 of the Report provides a comprehensive and concise overview of the EWP, including in paragraph 2.28 a reference to the Government's rejection of the recommendation of the 2003 Tambling Report to extend the MRET, because "[it] would impose significant economic costs", paragraph 3.26 of the Report then claims

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1 Bob Carter, Radio National, *Earthbeat*, ABC website 7 April 2005, at: <http://www.abc.net.au/rn/science/earth/stories/s1135187.htm>

2 Kathleen Mackie, Assistant Secretary, Policy Development Branch, DEH: Committee Hansard, Wednesday 4 August 2004, p 36.

"the EWP *fails to heed* (our italic) the advice from its own review panel ... to increase the MRET"!

The Government Members of the Committee agree with the Government's long-held position that human-induced climate change is one of the major challenges confronting the world this century (see, for example, David Kemp's speech to Royal Institute of International Affairs, 15 July 2002, <sup>3</sup>) and the EWP is a significant step forward for Australia in addressing these challenges. The EWP takes into account the energy needs for Australia's future, at the same time ensuring that Australia will not contribute to global warming.

Government Members of the Committee believe that the EWP is a well-considered blueprint for the future of Australia's energy needs. It will ensure that, as time goes by, the energy sector will reduce greenhouse gas emissions while maintaining affordable energy outputs to meet the needs of Australian industry and domestic markets. There is real incentive in the EWP for the development of alternate renewable energies as well as scope to continue using fossil fuels for our energy requirements without causing environmental, economic or social disruption.

In particular, we note the Prime Minister's comment that:

The framework [of the EWP] is backed up by substantial new initiatives, including additional incentives to encourage petroleum exploration in frontier areas; a comprehensive reform of fuel taxation to reduce the cost of fuel in business use; innovative trials of solar technology teamed with leading edge efficiency technologies to demonstrate "solar cities" of the future; a fund to generate at least \$1.5 billion in investment to demonstrate low-emission technologies to reduce greenhouse gas emissions from our energy sector; extra effort to back up our world first Renewable Energy Target with new commercialisation assistance for emerging renewable technologies; and a wide ranging effort to ensure the careful, prudent use of our valuable energy resources by industry and the community.<sup>4</sup>

Government Members recognise the concerns expressed in the submissions and by the witnesses to the inquiry about global warming and CO2 emissions. However, we believe that the EWP more than adequately addresses these concerns, therefore we do not support the recommendations contain in this Report.

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3 Chatham House website at [http://www.riia.org/pdf/briefing\\_papers/David%20Kemp%20Climate%Change%Speech%2015%20July%2002.pdf](http://www.riia.org/pdf/briefing_papers/David%20Kemp%20Climate%Change%Speech%2015%20July%2002.pdf)

4 Hon John Howard, Prime Minister's Forward, EWP

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## Comments to Committee Recommendations

### Recommendation 1

**The Committee recommends that the Government, in consultation with energy interest groups and the energy industry, develops a detailed long-term strategy that includes specific CO<sub>2</sub> emissions reduction targets for 2010, 2020 and 2030, with the ultimate goal of reducing greenhouse emissions by at least 60% by 2050. [para. 4.10]**

The EWP makes it clear that the new technologies can be developed through government incentives which will ensure that a broader range of renewables are available on the open market to effect the reduction of greenhouse gases. By increasing the range and lowering the cost of low-emission technologies long-term emission reductions will be brought within reach.<sup>5</sup>

### Recommendation 2

**The Committee recommends that the Government sets abatement timeframes and raises the abatement targets for projects seeking funding through the Low-Emissions Technology Development Fund. [para. 4.15]**

Government members agree in principle to making the Low-Emissions Technology Development Fund as efficient and economically responsible as possible, and agree that review of the abatement timeframes and targets may be appropriate if it proves likely to be effective.

### Recommendation 3

**The Committee recommends that the Government:**

- **recognises that geosequestration is one of many options for reducing Australia's CO<sub>2</sub> emissions; and ensures that the greater proportion of the Low Emissions Technology Fund is made available to technologies which can provide emission reductions in the short term;**

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5 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Low-emission Energy Technologies, website 21 April 2005, at:* [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_1.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_1.pdf)

- **fund only cost and abatement effective research and development on the basis of the principle that the polluter pays; and**
- **extend the life of the Low Emissions Technology Fund to cover the timeframe set out for emissions reductions targets, namely a reduction of at least 60% by 2050. [para. 4.24]**

Government Members consider the EWP has addressed the first point - the establishment of the Low-Emissions Technology Development Fund is designed specifically to develop and demonstrate technologies which can provide emission reductions.

Government Members consider simplistic the recommendation that the polluter pays for research and development. Companies involved in the delivery of Australia's energy who were required to pay for research and development without support from Government would pass these costs on to the consumer. The EWP, through its excise reduction program and support of the development of renewables, aims at reducing energy costs, not increasing them.

The Low Emissions Technology Fund is expected to provide support for demonstrations in the period to 2020, with possibilities for commercial uptake starting in 2020–2030.<sup>6</sup> The Government Members consider that it would be premature to further extend the fund at this time before the results of the scheme are known.

#### **Recommendation 4**

**The Committee recommends that the Government provide incentives to encourage the uptake of current energy efficiencies, such as by adopting the NSW BASIX energy efficiency scheme on a national basis. [para. 4.28]**

Government Members agree that the EWP addresses energy efficiencies, and encourages uptake by:

- improving market signals through reform of Australia's energy markets,
- continuing to develop and update minimum energy performance requirements
- providing information to consumers and businesses about the energy performance of appliances and buildings
- encouraging firms to identify and report on energy use and energy efficiency opportunities.

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6 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Low-emissions Technology Fund, website 21 April 2005, at:* [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_2.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_2.pdf)

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- requiring large energy resource project proponents and businesses receiving fuel excise credits of over \$3 million per annum to join the Greenhouse Challenge
  - working with state and territory governments to improve the delivery of existing programs.<sup>7</sup>

Government members therefore believe that the EWP's approach to the uptake of energy efficiencies will achieve results in accordance with the need to reduce CO<sub>2</sub> emissions.

### **Recommendation 5**

**The Committee recommends that the Government continue to fund the Photovoltaic Rebate Programme (PVRP), and set targets for the installation of stand alone (RAPS) Photovoltaic (PV) energy systems and for grid-connected PV energy systems. [para. 4.36]**

Government Members consider this recommendation superfluous as the Government already supports the development of photovoltaics and has placed photovoltaics in the Market Leadership category, recognising that the technology deserves high government support.<sup>8</sup> The Government has recognised that the demand for this technology in the Asia Pacific region is potentially large,<sup>9</sup> and the Solar Cities trials will address current lack of rewards for the unique characteristics of photovoltaics, and market barriers to energy efficiency.<sup>10</sup>

### **Recommendation 6**

**The Committee recommends that the Government re-examine the projected costs of increasing the MRET to at least 5% by 2010, to 10% by 2020, and 50% by 2050, and if it is not prepared to do this, provide infrastructure grants for renewable energy developments. [para. 4.37]**

Government Members believe this recommendation is also superfluous. The EWP is clear about the Government's position on the MRET – it will remain at current levels.

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7 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Energy Efficiency Measures*, website 21 April 2005, at: [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_5.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_5.pdf)

8 EWP, p.169.

9 EWP, p. 173.

10 EWP, p. 172.

As stated in the EWP,<sup>11</sup> the Government believes that the cost of increasing the MRET cannot be justified.

The Government's position on infrastructure grants for developing renewables is also clear. In the Solar Cities trial program pricing mechanisms will be developed to ensure that consumers will not be worse off during the trial period. Getting these signals right in the market can have important economic and environmental benefits. Delaying the need for new generation infrastructure will reduce costs and allow more time for development of low-emission generation options.<sup>12</sup>

### **Recommendation 7**

**The Committee recommends that the Government not proceed with the proposed reductions in excise on diesel and petrol in the EWP, unless the decision to impose excise on biofuels and gaseous fuels by 2012 is reversed. [para. 4.42]**

Government Members do not support this recommendation. The excise reduction on diesel is part of the Government's overhaul of the excise tax regime. The advent of cleaner diesel fuel and more efficient and cleaner engines will ensure that CO<sub>2</sub> emissions will decline.<sup>13</sup> Excise on biofuels and gaseous fuels is not, in the view of the Government, likely to reduce their use in country areas. Fuel excise has been demonstrated not to be the driver of fuel usage.<sup>14</sup>

### **Recommendation 8**

**The Committee recommends that the Government develop a more comprehensive policy framework that will set stronger market incentives to invest in energy efficiencies and mandate standards for CO<sub>2</sub> abatement with specific, quantifiable and meaningful targets. [para. 4.45]**

Government Senators note that this recommendation is unnecessary as:

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11 EWP, p. 148.

12 EWP, p. 146.

13 Ms Kathleen Mackie, DEH, *Committee Hansard*, Canberra 4 August 2004, p. 34.

14 DEH, *Submission 2*, p. 4.

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...Government incentives will ensure that a broader range of renewables are available on the open market, thereby lowering the cost of low-emission technologies and bringing about long-term emission reductions.<sup>15</sup>

### **Recommendation 9**

**The Committee recommends that the Government move to review its own operations in order to achieve maximum energy efficiencies and CO2 abatement prior to 2010. [para. 4.46]**

Government Members consider that the EWP clearly outlines the Government's plans to attain achievable efficiencies in CO2 abatement, and shows that the current reduction in CO2 emissions is on track to meet the Kyoto target by 2010.

### **Recommendation 10**

**The Committee recommends that the Government introduce a carbon trading scheme, or at least provide support for the States' carbon trading scheme, and mandate maximum levels of carbon emissions for Australia, according to diminishing benchmarks towards the goal of 60% by 2050. [para. 4.49]**

Government members of the Committee believe a carbon trading scheme is unlikely to achieve carbon emissions reductions; the EWP's proposals to assist in the development and demonstration of renewables is a better approach to achieving emission reductions.

Moreover, we note that a carbon trading scheme allowing transfer of carbon credits would work fundamentally to maintain the real level of carbon emission in the developed economies without restraining emission in the developing economies involved in the transfer. In other words such a scheme would more likely work to retard rather than advance the reduction of global emission level.

However, we do note that there may be potential economic benefits in emissions trading, but only when supported by complementary measures and when consistent with the national interest.<sup>16</sup>

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15 Department of Prime Minister and Cabinet, *Securing Australia's Energy Future, Fact Sheet, Low-emission Energy Technologies, website 21 April 2005, at:* [http://www.dpmc.gov.au/publications/energy\\_future/docs/factsheet\\_1.pdf](http://www.dpmc.gov.au/publications/energy_future/docs/factsheet_1.pdf)

16 Senator The Hon. Ian Campbell, Minister for the Environment and Heritage, *Media Release*, 15 April, 2005.

**Recommendation 11**

**The Committee recommends the Government reconsider the benefits of a carbon tax as a tool to reduce carbon emissions in the industrial sector. [para. 4.50]**

Government Members believe that there is no evidence a carbon tax would be an effective response to climate change. Furthermore:

- the introduction of a carbon tax is unnecessary given Australia is on track to meet its Kyoto target,
- a carbon tax would be premature in the absence of effective longer-term global action on climate change,
- a carbon tax would increase costs for Australian homeowners and businesses and would be an attack on Australia's economic growth,
- business would move offshore to avoid a carbon tax, taking Australian jobs with them.

**Senator the Hon. Judith Troeth  
Liberal Party of Australia**

**Senator Tsebin Tchen  
Liberal Party of Australia**

## **Additional Comments by ALP Senators**

On 24 June 2004 the Senate referred to the Communications, Information Technology and the Arts References Committee an inquiry to examine the budgetary and environmental implications of the Energy White Paper.

Labor Senators are of the opinion that, whilst submissions were not received from all groups of stakeholders in the debate, this report accurately reports the evidence presented to the Committee in submissions and hearings.

This report also raises a number of issues that are worthy of debate and further consideration, taking into account both the environmental and economic implications for Australia's long term future.

These issues include:

- Developing a strategy that includes specific CO2 emissions reduction targets beyond the Kyoto period for the long term
- Providing a policy framework that encourages more efficient energy use, demand management, and uptake of more efficient energy technologies
- Greater focus on and support for renewable energy technologies, including photovoltaics
- Re-examining the projected costs of increasing the MRET and extending its life
- Introducing a national emissions trading scheme

Labor Senators on the committee also urge the government to consider:

- Ratifying the Kyoto Protocol on Climate Change
- Increasing MRET to 5% by 2010 and continue to review this target as 2010 approaches
- Establishing a national emissions trading scheme
- Implementing mechanisms to deliver improved energy efficiency
- Establish a greenhouse trigger under the EP&BC Act
- Funding low emissions projects including renewable technologies, including those which allow Australia's coal to be burned more cleanly and efficiently, encourage cleaner transport fuels and bring forward the use and development of Australia's gas resources
- Instigating a national education program to encourage power users to switch to renewable energy sources

- Working with industry organisations to ensure all domestic, commercial and industrial users understand their emissions and can track changes in emissions over time
- Identifying technological, economic and institutional barriers to achievement of greenhouse emission targets, and measures to address those barriers
- Seeking to enhance the National Pollutant Inventory to include information on all industrial sources of greenhouse gases as well as aggregate emissions from all minor sources including domestic, agricultural, commercial and industrial
- Reduce greenhouse emissions from road vehicles by:
  - Maintaining planned excise differentials for alternative fuels
  - Investigating economic incentives to encourage Australians to purchase fuel efficient vehicles
  - Continuing to support fuel efficiency labelling and the Green Vehicles Guide
  - Continuing to work with State and Territory Governments towards improved public transport systems and greenhouse efficient land transport systems

The two other important areas in the energy debate include security and affordability. These issues were not canvassed in full by the vast majority of evidence presented in submissions and hearings, and therefore are not covered in this report.

Labor Senators conclude that this report makes an important contribution in furthering the debate on sustainable energy policy, and that, as stated earlier, raises a number of issues that are worthy of further consideration, taking into account both the environmental and economic implications for Australia's long term future.

**Senator Kate Lundy**  
**Australian Labor Party**

**Senator Stephen Conroy**  
**Australian Labor Party**

**Senator Mark Bishop**  
**Australian Labor Party**

# **Appendix 1**

## **Submissions**

1. Department of Environment and Heritage, including the Australian Greenhouse Office
  - 1a. Department of Environment and Heritage, including the Australian Greenhouse Office (Supplementary Submission)
  - 1b. Department of Environment and Heritage, including the Australian Greenhouse Office (Supplementary Submission)
  - 1c. Department of Environment and Heritage, including the Australian Greenhouse Office (Supplementary Submission)
2. Department of Transport and Regional Services
  - 2a. Department of Transport and Regional Services (Supplementary Submission)
3. Hydro Tasmania
4. Renewable Energy Generators of Australia Ltd
5. Australian Wind Energy Association
6. Department of the Treasury
7. Australian Liquefied Petroleum Gas Association Ltd
8. Tarwin Valley Coastal Guardians
9. Mr Ian and Mrs Trixy Allott
10. Rheem Australia Pty Ltd
11. Edwards Hot Water
12. Renewable Energy Generators Australia Limited
13. Mr Barry and Mrs Natalie Webb
14. Western Australian Sustainable Energy Association

15. Australian Conservation Foundation
16. Greenpeace Australia Pacific
17. Australian Business Council for Sustainable Energy

## Tabled Documents

*Thursday, 5 August 2004 - Canberra*

Indicative approaches to estimating potential costs of a '5% target' tabled by Mr Gene McGlynn of the Australian Greenhouse Office

Renewable electricity generation and total electricity demand in 1997 and forecasts for 2010 tabled by Mr Gene McGlynn of the Australian Greenhouse Office

Securing Australia's Energy Future tabled by the Department of Transport and Regional Services



## **Appendix 2**

### **Public Hearings**

#### ***Wednesday, 4 August 2004 - Canberra***

Ms Kathleen Mackie, Assistant Secretary, Policy Development Branch,  
Department of Environment and Heritage

Mr Gene McGlynn, Branch Head, Energy Efficiency and Community Branch,  
Industry, Community and Energy Division, Australian Greenhouse Office

#### ***Thursday, 5 August 2004 – Canberra***

Ms Lynelle Briggs, Deputy Secretary, Department of Transport and Regional  
Services

Mr Gene McGlynn, Branch Head, Energy Efficiency and Community Branch,  
Industry, Community and Energy Division, Australian Greenhouse Office

Mr Mike Mrdak, First Assistant Secretary, Policy and Research Group,  
Department of Transport and Regional Services

Dr Anthony Ockwell, Assistant Secretary, Policy and Research Group,  
Department of Transport and Regional Services

Mr Phil Potterton, Executive Director, Bureau of Transport and Regional  
Services, Department of Transport and Regional Services

#### ***Tuesday, 10 August 2004 – Canberra***

Mr Colin Brown, Manager, Costing and Quantitative Analysis Unit, Taxation  
Analysis Division, Department of the Treasury

Mr Patrick Colmer, General Manager, Indirect Tax Division, Department of the  
Treasury

Mr Justin Douglas, Manager, Environment and Agriculture Unit, Department of the Treasury

Ms Maryanne Mrakovcic, General Manager, Industry, Environment and Defence Division, Department of the Treasury

Mr David Parker, Acting Executive Director, Revenue Group, Department of the Treasury

***Friday, 18 March 2005 – Canberra***

Mr Ric Brazzale, Executive Director, Australian Business Council for Sustainable Energy

Mr Erwin Jackson, Coordinator, Sustainability Program, Australian Conservation Foundation

Ms Susan Jeanes, Chief Executive Officer, Renewable Energy Generators of Australia

Mr Matthew Rosser, Chair, Western Australian Sustainable Energy Association

Mr Phillip Westlake, Communications Manager, Australian Liquefied Petroleum Gas Association Ltd