

# 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>.

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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.

