

Chapter 9

Complementary measures

9.1 The committee heard evidence of a variety of views on the role of complementary measures in achieving climate change reductions and what these measures should be.

9.2 The Department of Climate Change noted:

Everyone recognises that price is not the only mechanism you use. That is why there is a suite of other complementary measures – for example, the insulation measure that was in the stimulus package.¹

9.3 The draft legislation under consideration does not specifically put in place any complementary measures, although revenue raised by the scheme will be used to fund some initiatives (such as the Climate Change Action Fund). However, the *White Paper* clearly identifies that the government's climate change strategy includes a number of complementary measures. The interaction between the legislation and these measures should therefore be considered.

What are 'complementary' measures?

9.4 In the *White Paper*, the government identifies a number of measures which will complement the scheme in achieving the scheme's goal of reducing emissions. 'While the Scheme will be the primary mechanism to achieve low-cost abatement, additional measures will be needed to assist the transition to a low-carbon economy.'² The principles the government has adopted towards identifying complementary measures are:

- measures should be targeted at market failures not expected to be addressed by the scheme or that impinges on its effectiveness;
- complementary measures should adhere to principles of efficiency, effectiveness, equity, and administrative simplicity;
- complementary measures should be 'tightly targeted' to market failures which are amenable to government action, and in the case of regulatory measures, be guided by best practice regulatory principles;
- complementary measures may be targeted to manage impacts for particular sectors of the economy; and

1 Mr Blair Comley, Department of Climate Change, *Proof Committee Hansard*, 30 March 2009, p. 29.

2 *White Paper*, p. 19-1.

- measures should be implemented by the level of government best able to deliver the measure.³

9.5 According to this approach, a 'complementary' measure may be seen as an activity which either targets a sector not covered by the scheme, or which is intended to improve its effectiveness.

The Government's measures to complement the CPRS

9.6 In the *White Paper*, the Government announced that the main complementary measures it will pursue would include energy efficiency, the Renewable Energy Target, and carbon capture and storage.

9.7 The Committee notes that these measures are not specifically provided for in the exposure draft legislation. However the *White Paper* indicates that some measures will be funded from the sale of permits under the scheme, and to that extent, will be affected by the passage or non-passage of the legislation. For example, the Climate Change Action Fund is expected to have an allocation of \$300 million in 2009-10, rising to \$700 million in 2010-11 and 2011-12, respectively.⁴

9.8 Other complementary measures (such as the Global Carbon Capture and Storage Initiative announced in September 2008, or Energy Efficient Homes package announced in February 2009) are not listed in the *White Paper* budget summary and do not appear to be dependant on the proceeds of sale of permits.

Energy Efficiency Measures

9.9 Several submissions highlighted the role that may be played by energy efficiency initiatives in achieving carbon abatement. For example, the Energy Users Association of Australia noted the role complementary measures, including energy efficiency, can play in mitigating emissions:

In order to reconcile the need for emission reductions with the desire to limit the economic impact, complementary measures may therefore be useful, beyond their commonly accepted role in compensating for market failure.

For this reason, the EUAA suggests that there may be a role for complementary measures including building and product standards to reduce energy demand, energy efficiency programs, and policies to promote low emission electricity production.⁵

9.10 However, whilst providing incentives for energy efficiency was generally supported, some questioned the cost of mandating such schemes. The Housing Industry Association noted:

3 *White Paper*, p. 19-2.

4 *White Paper*, Budget Summary, p. E-1.

5 Energy Users Association of Australia, *Submission 74*, p. 14

...it is vital that any complementary environmental regulation or measures linked to the CPRS be considered in greater detail. In respect to the building products and residential construction industry, there remains a lack of detail on the potential impact for businesses and on the cost of housing... HIA recommends that greater industry consultation be undertaken to assess the potential impact of complementary environmental measures and their interaction with the CPRS on business activity and the cost of supplying new housing product.⁶

9.11 Other submissions argued that more could be done through the introduction of the scheme to promote energy efficiency:

the strategic use of the CPRS auction revenue may be as important in driving emission reductions from energy use as the carbon price signal itself. It will be an extremely important tool and, if used wisely, the Climate Change Action Fund may be as important as the carbon price. The business sector consumes approximately 75 per cent of Australian energy, and therefore it is business that will initially feel the impact of the carbon price and pass it on to consumers, and efforts to improve efficiency of business will pay off in terms of there being less of an inflationary impact of the CPRS. So we believe that a larger proportion of the permit auction revenue needs to go to the Climate Change Action Fund to deliver an additional range of business engagement and emission reduction programs.⁷

9.12 The committee notes that the government has undertaken other initiatives to promote energy efficiency, including through the National Strategy for Energy Efficiency adopted by COAG in October 2009. Given the not insignificant demands being placed on permit revenue from other sources, the committee regards this strategy and other measures as being the best avenue for pursuing energy efficiency goals, rather than through the further hypothecation of permit revenue.

Renewable Energy Target

9.13 Several submissions questioned the compatibility of the Government's proposed increase of the Renewable Energy Target (RET) to 20 per cent of Australia's energy to be sourced from renewable resources by 2020 with the Scheme. Such submissions argued that as the purpose of the Scheme is to impose a price on the emission of carbon, then this should be sufficient to make less carbon intensive forms of energy attractive without imposing an additional obligation on industry. For example, the Australian Industry Group argued:

...it is a comparatively expensive approach to emissions reduction; because it adds an additional layer of costs to business and because there is no current proposal to protect Australia's trade exposed businesses from these additional costs.⁸

6 Housing Industry Association, *Submission 37*, p. 2.

7 Ms Anna Reynolds, Energetics, *Proof Committee Hansard*, 25 March 2009, p. 66.

8 Australian Industry Group, *Submission 90*, p. 3.

9.14 This does not take into consideration the main goal of the RET, which may be seen as development of an industry which will play a critical role in mitigating climate change, rather than bringing down emissions in itself:

The RET is an important transitional measure that will support the development of a domestic renewable power industry and prepare the electricity sector for its contribution to the significant emission reductions needed to tackle climate change. The measure will help ensure that renewable energy technologies can be readily deployed when the price signal under the Scheme makes those technologies more competitive.⁹

9.15 Several submissions and witnesses representing the renewable energy sector supported this goal:

I think a 20 per cent MRET by 2020 is a fair and challenging target and will drive a lot of investment in this sector. And, again, we are seeing that already through the large utilities making investments in this sector.¹⁰

The Renewable Energy Target (RET) is essential to support the immediate deployment of least cost renewable energy technology until the full cost of carbon is reflected in the wholesale electricity market. This is essential to meet the Government's emission reduction objectives.¹¹

9.16 However, one association argued that the RET might advantage renewable technologies already in operation, as opposed to those at an early stage of development:

We are an emerging technology. Wind is a mature technology, so wind is ready to build tomorrow on any site where it can get its hands on turbines and a power purchase agreement. It also will be an early beneficiary of the national renewable energy target. In fact, one of our concerns about the operation of the renewable energy target is that, by the time we are ready to build projects at large scale and deliver large chunks of power, most of the incentives under that scheme will be taken up by existing technologies.¹²

9.17 The RET will promote the development of low emission technologies, and in doing so, could assist in meeting the CPRS target. In doing so, the committee regards the RET as playing an important role in promoting transition to a low carbon economy.

9 *White Paper*, p. 19-4.

10 Dr Michael Ottaviano, Carnegie Corporation, *Proof Committee Hansard*, 23 March 2009, p. 36.

11 Hydro Tasmania, *Submission 62*, p. 4

12 Ms Susan Jeanes, Australian Geothermal Energy Association, *Proof Committee Hansard*, 25 March 2009, p. 42.

Carbon capture and storage

9.18 The committee heard about two forms of Carbon capture and storage (CCS), namely geosequestration and biosequestration.¹³ Both forms could play a significant role in the reduction of carbon emissions. The government has labelled CCS as a 'foundation element' in the Government's climate change strategy¹⁴ and has provided support through the Low Emissions Technology Demonstration Fund. Professor Ross Garnaut noted the opportunities that CCS may offer:

It is not certain that renewables will be the low-cost form of low-emissions energy. If it were the case that geosequestration of carbon dioxide from fossil fuel combustion through carbon capture and storage turned out to be economically successful, then it may very well be that we will be a low-cost producer of energy and competitive in the production of energy intensive goods. We probably are the best located country on earth in relation to geosequestration opportunities, so if that is the way the world goes we are likely to be very competitive. We cannot be certain now which of all these technologies will turn out to be the successful ones, but we are pretty well placed across quite a wide range of them.¹⁵

9.19 However, the committee heard evidence that geosequestration of carbon is still in early stages of development:

Mr Rowley—We do have a reasonable amount of experience in carbon capture and storage. We are the largest carbon capturer in Australia at the moment, so far as I am aware. We captured about a million tonnes of CO₂ at Moomba, when we separated that CO₂ from the stream of sales gas. We have our own views on the costs of capturing carbon and also for storing gas on the ground. It is very dependent on geology and where the operations occur. We would share some of Griffin's concerns around that.

Senator JOYCE—Carbon sequestration, to the best of my knowledge, has not occurred anywhere yet, has it?

Mr Rowley—Certainly not on a commercial basis, but it is certainly occurring, particularly in the North Sea. The Norwegians are doing that ... but that is due to large incentives, or should I say disincentives, from the government for venting CO₂. Again, it is from the gas that has come out of the North Sea that they are basically reinjecting into aquifers.

Senator JOYCE—Is it commercially viable? Anything is possible, but is this commercially viable?

13 Geosequestration is defined as 'injection of carbon dioxide directly into underground geological formations'. Biosequestration is defined as 'the removal from the atmosphere and storage of greenhouse gases through biological processes, such as growing trees and practices that enhance soil carbon in agriculture. *Garnaut Review*, pp 609, 611.

14 *White Paper*, p. 19-4

15 Prof Ross Garnaut, *Proof Committee Hansard*, 23 March 2009, p. 56

Mr Rowley—Our view is that you would need a carbon cost north of \$100 a tonne to make it viable.¹⁶

9.20 The Committee does not expect that sequestration will provide a short term solution to climate change, or that the price imposed on carbon emissions by the scheme alone will be sufficient to see CCS adopted on a large scale in the immediate future.

9.21 Shell Australia proposed that additional government assistance be given to the development of CCS technology:

It is, however, becoming increasingly clear that deployment of CCS technology will not happen sufficiently quickly without an additional policy intervention, as a carbon price alone will not provide a sufficient incentive for the large scale commercialisation of CCS in the timeframe required... In order to accelerate the deployment of CCS, Shell recommends the government provides a greater level of support for CCS demonstration facilities in Australia.¹⁷

9.22 The National Farmers Federation noted the role that agriculture can play in the sequestration of carbon, including through the sequestration of carbon in soils:

When we are talking about agriculture we are talking about a biological system. We acknowledge there is an emissions element of our production system, but there is also a sequestration element. When you are talking about the ability to offset, if there was acknowledgement for the sequestration element that occurs through our production systems, there may be some scope to partially offset those additional costs, but that is not there right now.¹⁸

9.23 The Committee notes that the government has provided support for research into the potential for soil carbon, including biochar, as a means of sequestration of carbon. At this stage, the committee understands that there is doubt about how such approaches might be recognised internationally. The committee supports further investigation of this approach.

9.24 As with energy efficiency measures, the committee notes that there is already significant allocation of revenue from the sale of permits from the scheme. At this stage, the committee would not support the use of permit revenue to support research into CCS technology.

Expanded role for complementary measures

9.25 Several organisations appearing before the Committee opined that the CPRS on its own would not be effective for various reasons. As a consequence, additional

16 Mr Greg Rowley, Santos Ltd, *Proof Committee Hansard*, 24 March 2009,

17 Shell Australia Limited, *Submission 112*, p. 5.

18 National Farmers Federation, *Proof Committee Hansard*, 19 March 2009, p 11.

measures to the CPRS will be required to see significant cuts in emissions. The suggestion that a number of measures may need to be 'bolted onto' the CPRS is closely linked to concern about the cap and voluntary abatement activities.

9.26 For example, Mr Matthew Warren of the Clean Energy Council argued, 'the political and technical uncertainty over deployment of the CPRS makes the deployment of complementary measures even more important.'¹⁹

9.27 Professor Tim Flannery made a similar point:

...other legislative initiatives to go alongside the ETS, and they would include an increased focus on biological carbon and elimination of conventional coal burning, so a shift to CCS or to other technologies, within a reasonable time frame, and that if we do that we will be in a much better position to deal with this very significant threat.²⁰

Committee comment

9.28 As noted in previous chapters, the benefit of a cap and trade scheme is that, unlike a carbon tax, carbon emissions beyond that imposed by the cap will not be allowed. Assuming that the scheme is adequately enforced, total emissions are capped and liable entities are required by law to hold permits for all their emissions. If the cap is set at an appropriate level, the Committee does not see any significant problem with the adoption of measures (such as the Energy Efficient Homes package) which will assist the consumers make the transition to a low carbon economy within that cap.

Greater support for renewable energy

9.29 Other submitters noted that there are a range of climate change related policy objectives which may not be achieved as a result of the CPRS alone. While the CPRS will create incentives for increased investment in renewable energy and other abatement technologies, additional government investment in research, development and deployment of these technologies will also be necessary. Other forms of industry development assistance may also be required.

9.30 Several witnesses and submissions argued that the bills could provide further assistance to promote the development of renewable fuels (in addition to that provided by the RET and setting a price on carbon).

With regard to the allocation of funds raised by the CPRS, the main draft bill goes into considerable detail on how the sectors of the economy that produce greenhouse gases are to be compensated but provides no direction on how the emerging technologies will be assisted.²¹

19 Mr Matthew Warren, Clean Energy Council, *Proof Committee Hansard*, 24 March 2009, p. 61.

20 Prof. Tim Flannery, *Proof Committee Hansard*, 27 March 2009, p. 102.

21 Ms Susan Jeanes, Australian Geothermal Energy Association, *Proof Committee Hansard*, 25 March 2009, p. E39.

9.31 A common theme in such submissions was that the Climate Change Action Fund (see Chapter 6) could be expanded to include further funding for supporting the uptake of renewable energy:

The Federal Government estimates that in the first two years of the scheme the auctioning of permits could bring as much as \$11-12 billion dollars of revenue to the government. The way that the Government distributes the income that it receives from the auctioning of permits will have a significant impact on the rate and efficiency of the transition to a low carbon economy. We strongly urge that permit income be used to reduce energy demand through demand-side efficiency measures, to reduce the emission intensity of energy consumption and to increase the supply of low emission electricity production.²²

But the key advantage in the renewable energy industry is the security of supply. It is about distributed generation and the diversity of jobs that that brings with it across regions and all across Australia. And so there are some great opportunities, I think, to specifically target some projects into places that do need economic assistance in terms of the transition from a carbon economy. Does that mean in some cases picking winners? Well, kind of. I do not believe the government should pick a winner. But I do not have a problem with government attempting to pick a dozen winners all at once. That does not show favouritism; it shows a logical rollout.²³

9.32 Other approaches proposed to improve the take up of renewable technologies were feed in tariffs, although one witness noted that such schemes should not focus only on solar panels.²⁴

Renewable Energy Demonstration Programme

9.33 The Renewable Energy Demonstration Program (REDP) is a \$435 million competitive grants program designed to accelerate the commercialisation and deployment of new renewable energy technologies for power generation in Australia.

9.34 The program provides grants for eligible renewable energy power generation demonstration projects of up to one third of the eligible expenditure on the projects. The grants are expected to be in the range of \$50 million to \$100 million and is targeted at project proposals that are relatively mature and at the stage of commercial demonstration.²⁵

9.35 The committee commends the Government on the REDP and believes such programs will be crucial in fast tracking the successful commercialisation of renewable energy projects.

22 Energy Users Association of Australia, *Submission 74*, p. iii

23 Dr Ray Wills, Western Australian Renewable Energy Association, *Proof Committee Hansard*, 23 March 2009, pp. 46-47.

24 Dr Michael Ottaviano, Carnegie Corporation, *Proof Committee Hansard*, 23 March 2009, p 34.

²⁵ Department of Resources, Energy and Tourism.

Committee comment

9.36 The Committee believes that opportunities for further development in the renewable energy sector should be explored and supported by government, including the commercialisation of research and prototypes. The Committee notes that significant support is already being provided for this sector, including the introduction of an expanded RET and the Renewable Energy Demonstration Program.

Recommendation 5

9.37 The Committee recommends that the Government continues to seek ways to assist the commercial scale development of renewable energy sources and sequestration technology as a priority.

