Introduction

Preparation of this report

On 10 December 2006, the Prime Minister announced the establishment of a joint government–business Task Group on Emissions Trading. The terms of reference are set out below. The Prime Minister asked the Task Group to report by 31 May 2007.

Task Group terms of reference

'Australia enjoys major competitive advantages through the possession of large reserves of fossil fuels and uranium. In assessing Australia's further contribution to reducing greenhouse gas emissions, these advantages must be preserved.

Against this background the Task Group will be asked to advise on the nature and design of a workable global emissions trading system in which Australia would be able to participate. The Task Group will advise and report on additional steps that might be taken, in Australia, consistent with the goal of establishing such a system.'

The Task Group consisted of Dr Peter Shergold (Chair), Mr David Borthwick, Mr Peter Coates, Mr Tony Concannon, Dr Ken Henry, Mr Russell Higgins, Ms Margaret Jackson, Mr Michael L'Estrange, Mr Chris Lynch, Mr John Marlay, Mr Mark Paterson and Mr John Stewart. Brief biographical details of the Task Group members are at Appendix A. The Task Group was supported by a joint government–business secretariat.

On 7 February 2007, the Task Group released an Issues Paper which invited public submissions on key issues relevant to the terms of reference. More than two hundred submissions were received from individuals and organisations. In addition, the Task Group undertook extensive consultations with key stakeholders and relevant institutions. Discussions were also held with governments, private sector groups and individuals in the United States, Canada, the United Kingdom, Belgium, France, Norway and Japan.

The Task Group is grateful for the time and effort invested by individuals and institutions in preparing submissions and in participating in consultations. These have helped form the views set out in this report.

The Task Group has also drawn on the extensive research and analysis on emissions trading undertaken in Australia and elsewhere over the last decade.[1] Where information was not available, the Task Group commissioned new research.

Structure of this report

Chapter 1 provides the global context of the report. It outlines the nature of the climate change challenge and describes the current and future profile of global emissions. Chapter 2 outlines Australia's economic structure and competitive strengths and how these influence its current emissions profile. It also describes the steps that government, at both the federal and state/territory levels, is taking to address

climate change. Chapter 3 identifies a range of policy approaches to reducing greenhouse gas emissions and outlines the benefits of market-based responses. Chapter 4 describes the current state of play in international cooperation on climate change and outlines briefly a number of proposed approaches to global climate change architecture beyond the expiry of the initial Kyoto commitment period in 2012.

The nature and design of a workable global emissions trading system is addressed in Chapter 5. The chapter highlights trends in global carbon markets, identifies key principles of a global trading scheme and a possible pathway to that system, together with supplementary measures to promote international engagement.

Chapter 6 considers the question of whether Australia should introduce domestic emissions trading in the absence of global action and how to protect our key national interests. The proposed elements of a domestic emissions trading scheme for Australia are outlined in Chapter 7. Reflecting the fact that a range of policies will be necessary to address climate change, Chapter 8 discusses possible complementary domestic measures that could be implemented in parallel with an emissions trading system.

Chapter 9 outlines possible implementation and governance arrangements.

This report also includes appendices which provide more detail on various aspects of the subject matter.

Key terms

Two terms are used extensively in this report: greenhouse gases (emissions) and emissions trading.

Greenhouse gases

The key greenhouse gases are: carbon dioxide (CO_2); methane (CH_4); nitrous oxide (N_2O); sulphur hexafluoride (SF_6); hydrofluorocarbons (HFCs); and perfluorocarbons (PFCs). Each of these gases has a different capacity to heat the atmosphere, called their global warming potential. Their impact is represented as the index of the global warming contribution due to atmospheric emission of a kilogram of a particular greenhouse gas compared to a kilogram of carbon dioxide (CO_2) (see Table i.1). Although CO_2 is the least potent of the greenhouse gases, it is the most significant in terms of global warming because it is produced in such large quantities. Throughout this report, emissions are referred to as though they were equivalent to a given volume of carbon dioxide and will be referred to as CO_2-equivalent (CO_2-e). Similarly, reference will be made to terms such as 'carbon price', 'decarbonising' and a 'carbon-constrained world', where 'carbon' generally refers to the six major greenhouse gases.

Table i.1 Global warming potentials

Greenhouse gas	Global warming potential (100 years)
Carbon dioxide (CO_2)	1
Methane (CH_4)	21
Nitrous oxide (N_2O)	310
Sulphur hexafluoride (SF_6)	23,900
Hydrofluorocarbons (HFCs)	140 – 11,700
Perfluorocarbons (PFCs)	6,500 – 9,200

Source: Australian Greenhouse Office, 2006b

Emissions trading

Emissions trading schemes were first developed in the 1960s and 1970s in the United States, motivated partly by dissatisfaction with the cost of the regulatory approaches to pollution control. They were first used to price, with a view to reducing, emissions of nitrogen and sulphur oxides (NO_x and SO_x) in the United States electricity industry.

Schemes trading one or more of the greenhouse gases are currently in operation in the European Union, Norway and Australia (in New South Wales); are being developed in a number of states in the United States; and are proposed for introduction in Canada and New Zealand. Emissions credit trading – where emissions reductions in one location or activity are used to offset emissions elsewhere – was also included in the Kyoto Protocol to provide least-cost options for countries to meet their emissions reduction targets. The Protocol allows, but does not require, developed countries to engage in emissions trading to meet their agreed emissions targets.

The most common type of emissions trading systems are known as 'cap and trade' schemes. Under such a scheme, the government determines limits on greenhouse gas emissions (that is, sets a target or cap) and issues tradable emissions permits up to this limit. Each permit represents the right to emit a specified quantity of greenhouse gas (for example, one tonne of CO_2-e). Businesses must hold enough permits to cover the greenhouse gas emissions they produce each year. Permits can be bought and sold, with the price determined by the supply of and demand for permits. Governments can choose how they wish to allocate permits, for example, by auctioning, grandfathering, benchmarking, allocating to meet specific equity objectives, or any combination of these options (a more detailed discussion of these methodologies is included in Chapter 7).

By placing a price on emissions, trading allows market forces to find least-cost ways of reducing emissions by providing incentives for firms to reduce emissions where this would be cheapest, while allowing continuation of emissions where they are most costly to reduce. This underlines the fact that emissions trading is not an objective in itself, but a means of achieving a certain level of abatement at the lowest cost possible.

Note

1 For example, work undertaken by the Australian Greenhouse Office, the Australian Bureau of Agricultural and Resource Economics and Professor Warwick McKibbin, and the more recent work by the states and territories' National Emissions Trading Taskforce, the Business Council of Australia, the Australian Business Roundtable on Climate Change, the Australian Industry Greenhouse Network, the Electricity Supply Association of Australia and the National Generators Forum.

Executive summary

Introduction

The increasing scientific consensus is that human action is contributing to climate change. Many of the activities that have fuelled the world's economic growth and rising living standards emit a range of greenhouse gases that are damaging to the global environment. Without action, there are likely to be increasingly adverse economic, social and environmental consequences. These risks need to be managed. They require an economic solution.

Climate change is a global challenge. Addressing it will not be easy. The actions of any single country cannot mitigate the consequences for itself of carbon emitted elsewhere. The accumulation of greenhouse gases already in the atmosphere means further climate change is inevitable. Remedial action will not have a speedy effect. Global emissions of greenhouse gases will rise significantly in the decades ahead even if concerted international action were to begin at once. Policies will be needed to assist countries to adapt to the detrimental impact of climate change and – the focus of this report – to reduce future emissions.

The Task Group on Emissions Trading has sought to take a balanced view of the challenges presented. While we have had to consider a range of difficult issues, two threshold decisions were needed.

The first was whether Australia, which makes only a very small contribution to the world's emissions of greenhouse gases, should commit now to a longer-term emissions constraint ahead of a comprehensive global agreement.

For Australia to achieve a substantial reduction of carbon emissions will involve the imposition of costs on this generation to manage the risks confronting the next. Inevitably, rates of economic growth will be lower than would otherwise have been the case. Energy, fuel and other costs will be greater for households. It is imperative that Australians fully understand the consequences of significantly changing, over time, the way in which our economy operates.

The global effort so far has fallen short of what is required. As a model for future cooperation, the Kyoto Protocol has fundamental shortcomings. While there is an urgent need for the international community to take effective action, too many countries have not restrained emissions. Too many of those who have announced restraints are well behind their targets. This underscores the problems of achieving deep emissions cuts using the Kyoto model.

A new, more comprehensive agreement is required. Unfortunately, discussions on a post-2012 international climate change framework have been disappointingly slow. An outcome is likely to be some years away. In the meantime, many countries are taking action at the national, bilateral and regional levels. Over time, this fragmented approach may provide the building blocks for a global response.

Australia has a vital interest in the form of any emerging global response. Given our exposure to the impacts of climate change we want an

approach that is effective. At the same time, it needs to be recognised that Australia's natural resource and fossil fuel–energy endowments, and access to cheap energy, have helped underpin our economic growth and prosperity. Australia needs to proceed carefully in taking on emissions constraints ahead of concerted international action.

However, waiting until a truly global response emerges before imposing an emissions cap will place costs on Australia by increasing business uncertainty and delaying or losing investment. Already there is evidence that investment in key emissions-intensive industries and energy infrastructure is being deferred.

After careful consideration, the Task Group has concluded that Australia should not wait until a genuinely global agreement has been negotiated. It believes that there are benefits, which outweigh the costs, in early adoption by Australia of an appropriate emissions constraint. Such action would enhance investment certainty and provide a long-term platform for responding to carbon constraints. Combined with Australia's existing domestic and international work on technology development and cooperation, including the Asia–Pacific Partnership for Clean Development and Climate, it would position us to contribute further to the development of a truly comprehensive international framework.

The second major decision faced by the Task Group concerned the emissions reduction mechanism to which Australia should commit. The Task Group is firmly of the view that the most efficient and effective way to manage risk is through market mechanisms. An Australian emissions trading scheme would allow our nation to respond to future carbon constraints at least cost.

Emissions trading focuses on the ultimate environmental objective: to reduce emissions in the most efficient manner. Other forms of government intervention would impose a far heavier burden on economic activity. It is better to have the Australian Government set a national framework for reducing greenhouse gases and then let the market set the carbon price. Over time, market responsiveness will drive improved energy efficiency and the development and adoption of new and existing low-emissions technologies.

Emissions trading enables the market – not government – to decide which new or existing technologies will reduce emissions at least cost. Favouring particular technologies over others – picking winners – will increase the costs we impose on ourselves. Emissions trading also encourages the development, for trade, of offsets such as forest plantations ('carbon sinks'). It will help new economic opportunities to emerge.

International carbon markets are expanding as countries adopt emissions trading or other arrangements that introduce a carbon price into their economies. Links are likely to develop between these diverse arrangements, but the pace will be uneven. A way will need to be found to engage developing countries in a manner that allows them to balance their economic growth ambitions with the global imperative to reduce emissions.

Australia has a chance now to design a domestic emissions trading system that is sensitive to our particular economic interests, including the determinants of our international competitiveness, and that will provide further opportunities to engage the international community. The Task Group believes that, subject to administrative constraints, the scheme should be as comprehensive as possible. But ambition needs to be tempered with caution. In the period before there is international agreement, an Australian scheme should not prejudice the competitiveness of our trade-exposed, emissions-intensive industries. Australian business should not be lost to overseas competitors with no reduction in global emissions.

Timely and decisive action is warranted. A long-term aspirational goal should be set for reducing Australia's production of greenhouse gases. Australia should commit early to moving its emissions trajectory onto a path to meet this goal. It should plan rigorously to build an effective trading system, ensure transparency in the design of the scheme, and implement the institutional and regulatory arrangements with calm deliberation. It should also maximise the flexibility for the Australian Government to respond to changing circumstances.

The Task Group believes that an emissions trading scheme should form the principal mechanism to achieve emissions-reduction goals. But it is not a panacea. Complementary measures will be required as part of a comprehensive mitigation strategy. A trading scheme combined with a continued focus on technology cooperation and a concerted international strategy would maximise Australia's contribution to global action. It would also address rising uncertainty in our investment environment and prepare Australia for a carbon-constrained future. At the same time, given the extent of climate change under way, action will also be needed to help our society and economy adapt to the reality of climate change.

Key conclusions

Climate change is a global challenge that requires a long-term global solution in order to avoid environmental, social and economic dislocation. Emissions cause damage far beyond the country in which they occur. Once in the atmosphere, their impact is far-reaching and long-lasting. Reducing emissions will require a significant change in both developed and developing economies. It will necessitate a fundamental shift in consumer and business behaviour. The adverse consequences of climate change, and their amelioration, will last for generations. (See Chapter 1.)

Curtailing greenhouse gas emissions will impose a cost both on the global economy and individual nations. Households will pay more for their energy and other products. So will business. Economic growth will be slowed. However, costs can be reduced by the way in which emissions are constrained, the rate at which they are forced below 'business as usual' levels, and success in using energy more efficiently and in making greater use of low-emissions technologies. New economic opportunities will also emerge. (See chapters 1, 2, 6 and 8.)

Addressing climate change is a risk management issue on a global scale. While there are costs in acting now, the consequences of inaction are potentially large for many countries. Given the potential for significant costs arising from climate change in the future, a prudent risk management approach suggests that steps to reduce emissions should be undertaken now. (See Chapter 1.)

The goal of reducing emissions needs to be achieved while maintaining international economic growth and development. Long-term policy solutions need to minimise the cost of abatement. While greater energy efficiency and the more effective use of existing technologies will allow emissions reductions in the short term, new technologies will be the key to achieving an enduring decoupling of economic growth and greenhouse gas emissions. Developed countries should continue to take action to restrain emissions, but they cannot carry the entire burden. Indeed, developing countries are expected to account for more than three-quarters of the projected increase in global emissions to 2030. Global structures need to be found to align the legitimate desire of developing countries to maintain economic growth and energy security with the need to curtail their emissions. (See chapters 1, 4, 5 and 8.)

While a comprehensive global approach to climate change is required, it will be difficult

to reach international consensus in the near future. The current multilateral climate change framework is inherently flawed. It lacks a pathway for developing countries to make substantive emissions commitments and its focus on achieving emissions restraints is too short term. Global emissions in 2010 will be 40 per cent above 1990 levels and rising rapidly, notwithstanding the commitments made by countries under the Kyoto Protocol. Given differences between countries on key issues, negotiations for a post-Kyoto international framework are unlikely to make significant progress unless there is a significant shift in the positions of the major participants. (See Chapter 4.)

In the short to medium term, international action on climate change is likely to be focused on cooperation between countries at the bilateral, regional and plurilateral levels. This is not necessarily a bad thing. The voluntary nature of these arrangements is promoting cooperation on a wide range of issues relevant to energy security, environmental management and economic sustainability. Such arrangements constitute important building blocks for a future global regime, particularly those initiatives that focus on technology cooperation and forest stewardship. Australia has been at the forefront of these efforts through vehicles such as the Asia–Pacific Partnership on Clean Development and Climate, and bilateral agreements such as that recently announced with China on clean coal technology. Australia has also played a major role internationally in seeking to promote initiatives that reduce or offset carbon emissions. Participation in the global effort is enhanced by such arrangements, but there will continue to be significant differences in the scale and type of commitments adopted by individual countries. (See Chapter 4.)

Australia already has an emissions cap that is applicable until 2012. Australia's policy objective has been to meet its Kyoto Protocol target of restraining emissions for the period 2008–12 to 108 per cent of 1990 levels. We are broadly on track to meet that goal. A key contributor has been the impact of reduced emissions from lower rates of land clearing. Policy initiatives implemented by the Australian Government have also contributed, including those designed to promote more efficient use of energy, increase the use of renewable power, and encourage voluntary action on the part of industry. Many Australian businesses have taken a lead in seeking to lower or offset their emissions. As a consequence, Australia is one of the few countries in the world likely to meet its target on the basis of domestic actions alone. (See chapters 2 and 4.)

On balance, there would be benefits in the Australian Government now setting a post-2012 constraint on emissions. Australia accounts for only around 1.5 per cent of world emissions. Any actions to reduce our own emissions will do little to address climate change unless they contribute to developing a global solution. While there is an increasing level of activity within and between nations, at this stage it is unclear what burden-sharing approach will be capable of attracting support from the international community. In the judgment of the Task Group, Australia's commitment to assume a post–2012 constraint would underscore our willingness to help construct a post–Kyoto international framework. We need an approach to climate change that is environmentally effective, economically efficient and equitable, and delivers early and effective engagement between both developed and developing countries, particularly the large emitters. (See chapters 2, 4, 5 and 6.)

Market-based approaches that deliver a price on carbon will achieve greenhouse gas abatement, commensurate with an emissions target, at least cost. The budgetary and economic costs of scaling-up current efforts to achieve more significant reductions in greenhouse gas emissions would be enormous. Regulation places a significant impost on business enterprises. Subsidies risk distorting

economic decision-making. It is better for the Australian Government to establish a long-term aspirational goal and a trajectory to achieve that goal, establish the framework within which the price of carbon will be set, and then allow the market to respond in the most efficient and effective way to the new settings. (See chapters 2, 3 and 7.)

The overriding goal of Australia's efforts should be to lower emissions at least cost. The damage caused by a unit of emissions is the same no matter where it comes from – a uniform carbon price across the economy can harness abatement opportunities wherever they are cheapest. Placing a price on emissions provides an incentive for the discovery and deployment of least-cost abatement opportunities. This should be the key objective. Favouring certain lower-emissions technologies over others places a higher cost on the economy and, consequently, unnecessarily lowers Australian living standards. (See Chapter 3.)

Of the market-based instruments, emissions trading should be preferred to a carbon tax. Emissions trading will ensure that the policy focus remains on the ultimate environmental objective of reducing the output of greenhouse gases. It is also likely to be a central part of the emerging global response to climate change. Incorporating a price cap in the initial phase of the scheme – to limit excessive economic costs – will help build support domestically. But emissions trading – globally or nationally – is not a panacea. Other market failures will persist. There will remain a role for governments in setting regulatory standards, supporting technological innovation and encouraging changes in household behaviour. (See chapters 3, 5, 6 and 8.)

An Australian emissions trading scheme, with a carbon price set by the market, would improve business investment certainty. This is particularly the case for projects with a high degree of carbon risk. There is growing evidence that investments are being deferred due to uncertainty about the future cost of addressing climate change. Without a clear signal on future carbon costs, these investments will not be optimised. There is a risk that a higher carbon profile will be locked in for the life of the capital stock. Emissions trading would improve Australia's business investment environment and strengthen the incentives to develop low-emissions technologies. It would promote the long-term behavioural changes necessary to ensure a smooth transition to a carbon-constrained future. (See chapters 6 and 8.)

For Australia to commit to emissions trading now would place us in advance of most of the world community. Nevertheless, international carbon markets are evolving rapidly. The cost of reducing emissions through regulation and budget-funded programmes has seen an increasing number of governments and businesses seek opportunities to reduce emissions in a more cost-effective manner. European states have adopted full-scale emissions trading and some other national and sub-national governments have announced their intention to do so. Others have introduced carbon pricing through indirect means: in the case of developing countries this has included participation in offsets-based credit trading systems. (See Chapter 5.)

A workable global emissions trading scheme is likely to evolve slowly through a patchwork of linked national and regional schemes. A single comprehensive global emissions trading scheme in which all countries participate under the same rules would deliver least-cost global abatement. Unfortunately, it is unlikely to be achievable in the foreseeable future, not least because of the loss of sovereignty that would be involved. It is more realistic to envisage a global regime emerging through informal and formal linkages between national and regional emissions trading schemes and other arrangements. Engaging developing countries will require a staged approach emphasising flexibility and giving credit

for national efforts to improve energy efficiency or reduce emissions on a sector by sector basis. Recognition of carbon offsets through projects in developing countries will also be important in promoting awareness of future opportunities to reduce emissions. (See chapters 5 and 7.)

It is in Australia's interest to develop a domestic emissions trading scheme that might, over time, be linked to complementary schemes in other countries. Commitment to emissions trading domestically should be used to engage in global policy development in a way that reinforces our objective of a comprehensive global response to climate change, and in a manner that meets our strategic interests. Our early adoption of emissions trading should be accompanied by continuing diplomatic efforts to shape the emerging climate change framework in ways that address both the global challenge and our national interests. We should emphasise the importance of designing emissions trading schemes in a way that will maximise the engagement both of developed and developing countries. (See chapters 5 and 6.)

Deepening the engagement of developing countries in greenhouse gas abatement will require the development of links between emissions trading and a range of other measures consistent with those countries' economic growth and energy security objectives.

We should support an approach that extends recognition of a wide range of activities by developing countries as legitimate contributions to the global climate change effort. We should also seek the development of comprehensive approaches to offsets and carbon sinks, including new approaches to forest stewardship and avoided deforestation. There is considerable scope to integrate such approaches into technology-based and other arrangements, particularly in the Asia–Pacific region. This is a process that will, over time, lead to the knitting together of a comprehensive global regime with a substantive emissions trading component. (see Chapter 5).

An Australian scheme should be tailored to our own needs. It should be national in scope and administration. It should not prejudice the competitive position of our trade-exposed, emissions-intensive industries. It should offer the opportunity to link the Australian scheme to other national or regional schemes as they emerge. (See chapters 5, 6 and 7.)

Introduction of an Australian emissions trading scheme will require careful planning and implementation. The necessary monitoring and regulatory structure must be established. The rules of trade must be unambiguous and transparent. It requires a realistic time frame for adjustment along with a carefully calibrated pathway. It should allow a degree of ongoing flexibility. It should provide the capacity for constraints to be tightened in response to technological breakthroughs or international developments. It should place maximum reliance on market mechanisms to reallocate resources so as to minimise the costs of adjustment and encourage the emergence of new sources of growth and prosperity. (See chapters 6, 7 and 8.)

Australia's medium term emissions trajectory and its long-term aspirational goal must be set with great care while recognising the need for deeper emissions reductions over time. Australia should continue to take a cautious approach to the adoption of targets proposed internationally. This is particularly the case in setting short- to medium-term targets for emissions reductions. Australia has an economic structure and abatement challenge that is different from many other industrialised economies. Australia's natural resource and fossil fuel–energy endowments have helped underpin our economic growth and prosperity. Access to low-cost energy is a source of competitive advantage for Australia, contributing to the development of a range of energy-intensive industries. Inexpensive and

reliable electricity has also been an important component in the high and rising living standards enjoyed by Australian households. The ongoing strength of Australia's economy, and continued population increase, suggest that absolute reductions from current levels may be more costly than for other economies. We need to model carefully the impact of various targets on Australian economic growth and competitiveness before selecting the pathway to long-term emissions reductions. (See chapters 2 and 6.)

An Australian emissions trading scheme needs to take account of the trade-exposed nature of many of our emissions-intensive industries. Many of these industries are already world's best practice in their use of energy and in the management of emissions. They are primarily competing with firms in developing countries that are unlikely to face comparable carbon constraints in the near future. It would be perverse if a poorly conceived domestic policy imposed disproportionate costs on these industries, prejudicing their competitiveness and leading to production shifting offshore without any environmental gain through lower global emissions. (See Chapter 6.)

The inclusion of trade-exposed, emissions-intensive industries in an Australian emissions trading scheme must avoid prejudicing their competitiveness but also provide them with appropriate incentives for abatement. A careful balance needs to be struck. Differential treatment accorded to any sector will increase the aggregate economic costs associated with a given emissions reduction. More of the adjustment burden would be shifted to other industries and to households. The transitional measures necessary to ensure the continued long-term competitiveness of emissions-intensive industries should avoid locking in inefficient abatement choices. (See chapters 3, 6 and 7.)

The key design features of an Australian emissions trading model should be based on a 'cap and trade' model. It should exhibit the following features. (See Chapter 7.)

- **a long-term aspirational emissions abatement goal and associated pathways** to provide an explicit guide for business investment and community engagement
- **an overall emissions reduction trajectory that commences moderately, progressively stabilises, and then results in deeper emissions reductions over time** and:
  - is sufficiently flexible that it can be **periodically recalibrated** by government to changing international and domestic circumstances through regular and transparent reviews
  - provides markets with the ability to develop a **forward carbon price path** to guide business investment decisions and help drive longer-term technology development – markets would be expected to establish a low initial carbon price and a forward price curve that rises over time
- **maximum practical coverage of all sources and sinks, and of all greenhouse gases**
  - with permit liability placed on direct emissions from large facilities and on upstream fuel suppliers for other energy emissions
  - with those sectors initially excluded from the emissions trading scheme subject to other policies designed to deliver abatement
- **initial exclusion of agriculture and land use** from the scheme
  - though agricultural emissions should be brought into the scheme as practical issues are resolved
- **a mixture of free allocation and auctioning of single-year dated emissions permits that:**
  - **provides an up-front, once-and-for-all, free allocation of permits as compensation to existing businesses** identified as likely to

suffer a disproportionate loss of value due to the introduction of a carbon price

  - **ameliorates, through free allocation, the carbon-related exposures of existing and new investments in trade-exposed, emissions-intensive industries** while key international competitors do not face similar carbon constraints, but which also provides ongoing incentives for abatement and adoption of industry best practice
  - **allows for the periodic auctioning of remaining permits**
- **a 'safety valve' emissions fee** designed to limit unanticipated costs to the economy and to business, particularly in the early years of the scheme, while ensuring an ongoing incentive to abate
- **recognition of a wide range of credible carbon offset regimes**, domestically and internationally
- **capacity, over time, to link to other comparable national and regional schemes** in order to provide the building blocks of a truly global emissions trading scheme
- **incentives for firms to undertake abatement in the lead-up to the commencement of the scheme**, including through the purchase of offset credits from carbon plantations, and potentially from other accredited activities
- **revenue from permits and fees to be used, in the first instance, to support emergence of low-emissions technologies and energy efficiency initiatives**
  - the focus might shift more toward households and business as the scheme matures.

Flexibility is vital. The operation of the scheme should be reviewed periodically, initially on a five-yearly basis, to allow calibration of the sequence of short-term emissions caps. Reviews could be more frequent in exceptional circumstances. Before allocation commences, the Government should establish short-term caps and indicative medium-term emissions bands or gateways to provide guidance for the likely path of future caps. At the time of the first review, short-term caps and the gateways might be extended by a further five years. (See Chapter 7.)

Policy towards deployment of low-emissions technologies should be technology neutral, allowing the market to choose the least-cost solutions. Low-emissions technologies – such as clean coal, gas, nuclear, solar, wind, hydro, and geothermal – should compete on an equal basis. The key incentives for commercial deployment of technology will emerge from an emissions trading scheme rather than through additional measures. (See Chapter 8.)

Emissions trading is not a panacea. A comprehensive response will involve complementary measures that address market failures not corrected by the emissions trading scheme. There are strong arguments for complementary policies targeting pre-commercial activities, such as funding for basic and applied research, development and demonstration of low-emissions technology. There will also be a continuing role for policies that improve information, awareness and adoption of energy-efficient vehicles, appliances and buildings. If necessary, households could be assisted to manage better the impact of increased power and fuel costs. (See Chapter 8.)

An Australian approach to reducing emissions must be national and operated by only one level of government. An Australian emissions trading scheme should not be simply added to the current plethora of climate change measures in existence across jurisdictions. Emissions trading represents a fundamental change in the way greenhouse gases are managed. Less efficient government policies need to be phased out. While the Australian Government should implement the emissions trading scheme, a cooperative process across all levels of government to rationalise existing policies will be

critical to achieving maximum effect at minimal cost. A process for rationalising energy policies across jurisdictions needs to be agreed if the costs to Australian businesses and households are to be minimised. (See chapters 8 and 9.)

It will take about four years for Australia to begin full-scale emissions trading. If work were to commence this year, it should be possible to: announce a long-term aspirational goal and to establish an emissions reporting and verification system in 2008; finalise the key design features and establish the legislative basis of the scheme by 2009; establish the first set of short-term caps and allocate permits in 2010; and commence trading in 2011 or, at the latest, 2012. Premature introduction of emissions trading would undermine the stability of the scheme. There are a large number of important steps required before trading should commence. A comprehensive work programme needs to be clearly articulated to adequately prepare business and the community for the changes required. It should focus both on scheme design, including institutional arrangements, and the rationalisation of complementary policies and programmes. Much work remains to be done. It should build on the extensive process of consultation undertaken for this report. (See Chapter 9.)

The challenge of addressing climate change through policies of adaptation and mitigation must not be underestimated. It is highly complex. Prudent risk management is hindered to the extent that the dimensions of global warming, and the adverse impact on future generations, remain uncertain. There are no easy answers. It is clear that there are costs to both action and inaction. Nevertheless, the members of the Task Group have come to a shared conclusion: the adoption of a longer-term emissions constraint and the introduction of an Australian emissions trading scheme offers the least-cost way of reducing the output of greenhouse gases domestically and would make a substantive contribution to a comprehensive solution internationally.

The Task Group believes the key to success is to begin at once, but to proceed with care on the basis of considered and informed decisions.