

# AETF *review*

Australasian Emissions Trading Forum

[www.aetf.net.au](http://www.aetf.net.au)

## Australia vs the Kyoto Protocol

*The entry into force of the Kyoto Protocol will change forever the way the world deals with greenhouse gas emissions and emitters.*

*Some may say that Kyoto only represents a small and imperfect first step towards global emission control but it sends some clear signals to all emitters and governments alike.*

*Firstly it endorses and will reinvigorate the coordinated multilateral approach to the control of global emissions. It confirms the role of the UN as both the main process and driver for ongoing global action.*

*Secondly it secures international emissions trading at the core of on-going global emissions management. Negotiations about what follows Kyoto will, in-effect, be looking at ways to improve, expand and augment the global emissions market initiated under the Kyoto Protocol.*

*Thirdly it signals that emissions will have a price that cannot be avoided. For many emitters this price will be explicit and immediate, for others it will be indirectly paid or payable on account in the future.*

*These Kyoto signals are global in nature and as relevant to Australia as to any Kyoto party—perhaps more so because they are signals that much of the rest of the world is already responding to.*

*In this issue our first article looks at what the Kyoto Protocol will mean for Australia both in terms of threats and opportunities.*

*Among other impacts the advent of Kyoto makes it all the more imperative that Australia addresses its fragmented and uncertain domestic greenhouse policy situation. Our second paper presents the Productivity Commission's arguments for immediate reform in this area.*

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### In this Issue

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Entry into force of the Kyoto Protocol will mean that this UN treaty, its processes and its mechanisms, will set the shape and direction of international climate change policy for the foreseeable future. What this means for Australia can now be considered in more concrete terms. *page 2*

#### Reform of Australia's GH Policy

The Productivity Commission has identified the fragmented and uncertain state of Australia's greenhouse policy as a priority for reform. They advise immediate action to remedy the situation. *page 4*

#### Regulating Geosequestration

Effective and market-compatible regulation will be necessary if geosequestration is to move forward as an acceptable and competitive greenhouse abatement option. Regulatory principles has been established by a multi-jurisdictional working group *page 6*

#### AETF Business Roundtable 2005

**For companies with a particular interest in emissions trading issues and opportunities, membership of the AETF Business Roundtable is now open for 2005.**

**See backpage for more detail.**

The Australasian Emissions Trading Forum is sponsored by the  
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Victorian Dept. of Sustainability and Environment  
State Forests of NSW    and the    NSW Dept. of Energy, Utilities and Sustainability

# What Kyoto will mean for Australia

Tony Beck and Malcolm Gray, AETF

Formal ratification of the Kyoto Protocol by Russia is likely before the end of the year. Ninety days after Russia officially lodges its ratification with the UN the Kyoto Protocol (KP) will enter into force.

Entry into force of the KP will remove much of the uncertainty about the shape and direction of the short and medium term global response to climate change.

There is no doubt now that the mechanisms and processes of the Kyoto Protocol will form the core of that response and the drivers for whatever follows.

## Market mechanisms

Of particular significance is the central role that market mechanisms will play. The Kyoto Protocol is essentially an international cap-and-trade scheme for developed countries augmented with a baseline and credit scheme (the Clean Development Mechanism) for involving developing countries.

For some years now national and multi-national (in the case of the EU) schemes compatible with the Kyoto Protocol have been under development and now provide considerable impetus for the rapid growth of trading under the Protocol. In particular the EU ETS, which covers some 13,000 installations and is formally due to start on 1 January 2005, is already responding to the prospect of a wider market. As can be seen in the chart, total traded volumes in September were over 1.2 million tonnes, up from 140,000 in August. And as an indication of growing maturity, recent prices have tended to be fairly stable at €8.50-9.00.

Also stimulated by the prospect of the KP coming into force is active consideration of market related policies in Japan, Canada, New Zealand and Russia. Whether this leads to domestic emissions trading schemes in each case remains to be seen, but in any case they can still trade at the national level from government to government.

New Zealand has already sold Assigned Amount Units to the Dutch government through the latter's

ERUPT program.

## A 'two' market world?

The upshot of these developments is that we are faced with the prospect of a two market world – one based on the Kyoto framework and the other in the US. However, any suggested symmetry between

these two markets is misplaced. The US 'market', while growing, is partial, fragmented, state-based and relatively undeveloped compared with the market that now exists in the Kyoto world.

## What does this mean for Australia?

Australia is currently not a party to Kyoto Protocol but is committed to meeting its Kyoto target. As described in more detail in a previous article, it would seem to be well within our capacity to meet our Kyoto target and most probably surpass it due to the considerable boost we get from reduced land clearing since 1990.<sup>1</sup>

A surplus of Kyoto compliant credits is a potentially valuable commodity in a sellers market where many parties to the Protocol will need to buy credits to meet their commitments. Current prices in the European market provide one indication of the likely magnitude of that value. The surplus may be worth even more to Australia if it was banked and used to offset our emissions in a post-2012 commitment period when the pressure will be on for Australia to reduce emissions without the benefit of the land-clearing bonus.

But Australia's surplus will not be recognised as Kyoto compliant for any purpose unless Australia is a party to the Protocol.

## Trade impacts

Being a non-party could have other negative implications on the trade front. As the charts show, over three quarters of Australia's merchandise



Source: Pöhl Carbon's Carbon Market Intelligence

<sup>1</sup> Beck & Gray (2003), Kyoto—Threat or Opportunity? *AETF Review* Oct/Nov. 2003

exports go to countries that have ratified or are about to ratify the Protocol. The group of non-ratifiers includes important trade partners that may yet ratify, such as Egypt, and Taiwan that is sympathetic to the Protocol but is preventing from ratifying by its diplomatic status.

As producers among developed KP countries become subject to

emissions constraints and have to bear the cost of meeting those constraints, they are likely to become increasingly sensitive to competition from producers in non-Kyoto parties. Australia may anticipate a trade advantage but an 'anti-dumping' type argument for countervailing duties

or other forms of trade sanction can be expected. KP producers will argue that producers in Australia (and the US) are not bearing the full cost of producing export commodities because there is no cost attached to the resulting greenhouse gas emissions. While the legitimacy of this argument under WTO rules may be debatable it is an argument that can be

expected to be run with increasing vigour and justification as the pricing of emissions becomes the international norm.

In what is perhaps a foretaste of this trend, the EU has announced that it will offer preferential trade conditions to developing countries that put in place progressive environmental and labour policies, including ratifying the Kyoto Protocol.

Australia can counter that it is meeting its Kyoto target but this claim will not be subject to the same external verification procedures and penalties for non-compliance that will apply to Kyoto parties. Nor is it likely to engender much sympathy on close examination as energy and process emissions are still increasing and are only being offset as a result of the historical reductions in land clearing.

It also begs the obvious question: If Australia will meet its target, why does it not ratify?

Trade discrimination is also likely to be an issue in the expanding market for energy and emissions management services in developing countries, especially as these services are likely to be increasingly linked to CDM projects. Developing

countries are going to want to access the additional benefits of generating Kyoto-tradable Certified Emission Reduction (CERs) from major emission reducing projects that can qualify as CDM projects.

Under the CDM procedures parties can authorise legal entities (usually companies) to

participate in a range of implementation activities including monitoring, verification and certification as well as the technical services specific to the project. There are no provisions for explicit discrimination against companies from non-parties but all selection committees and boards will comprise representatives from KP parties making it difficult for companies from non-Protocol parties to

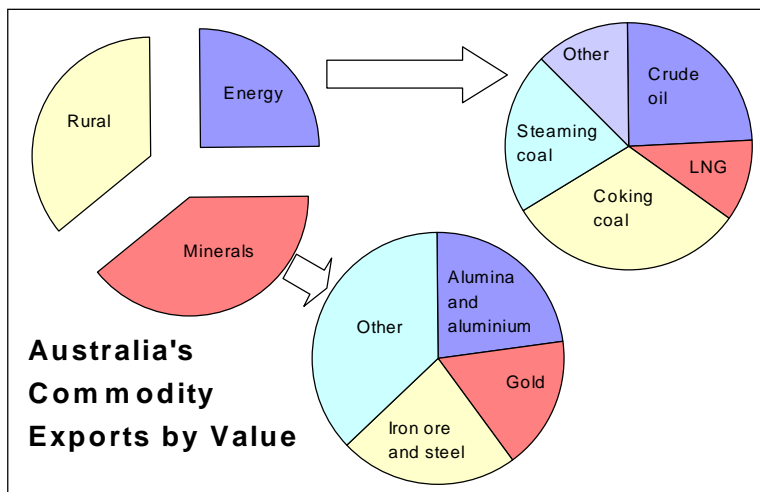
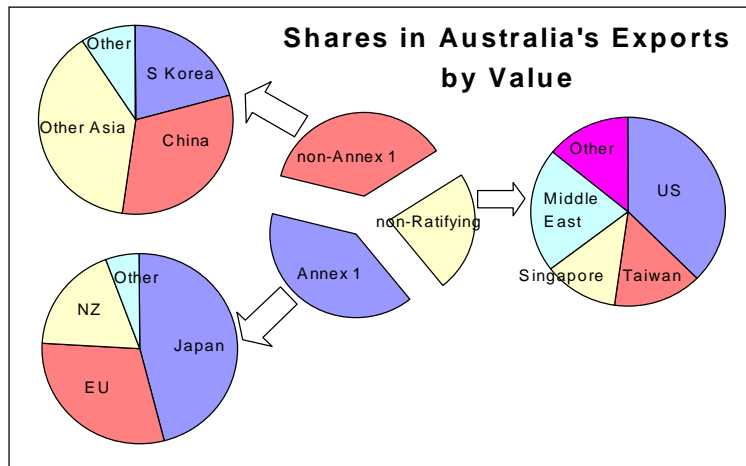
be authorised.

Also of concern for Australian companies looking to participate in CDM projects is the importance of government facilitation in establishing and managing such projects. Without Australian government involvement, Australian companies will

find it difficult to participate in CDM projects unless they can gain 'back door' access via affiliates and branches in countries that are KP parties.

### Emission sensitive exports

A third trade threat to Australia will arise whether or not Australia is a party to the Protocol, although not being a party could close off some opportunity to offset the effects. This threat relates to Australia's exports of products that generate emissions in their



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use. The clearest cases are fossil fuels but other examples include ores and raw materials that are energy intensive in their processing, eg. iron ore and alumina.

Australia's commodity exports, which account for about three quarters of merchandise exports, are heavily weighted towards emission sensitive commodities. Energy commodities account for a quarter of Australia's commodity exports with a further 17% represented by alumina, aluminium, iron ore and steel. These emission sensitive exports are much more important in Australia's trade with ratifiers of the Protocol than with non-ratifiers. Outside Taiwan, Australia's trade with non-ratifiers is dominated by rural and manufactured products.

As countries move to put a price on emissions, either directly or indirectly, so the cost of using emission generating fuels, products and processes will increase relative to lower emitting alternatives. Price response may be modest in the short run but can be expected to increase over time as alternative products and processes are developed.

This threat could be countered if Australia's exporters could provide emission credits to offset the emissions from the use of their product. Australia could have a surplus of such credits that could be 'bundled' with exports, but they would only be Kyoto compliant and therefore useful for this purpose if Australia was a party to the Protocol.

#### **Post-Kyoto policies**

Supporters and critics of the Kyoto Protocol both agree that at best the Protocol is only a first step towards the extensive cuts in emissions that will be necessary if atmospheric concentrations of

greenhouse gases are to be stabilised—calls for a 50-60% cut in emissions by 2050 are now common.

With the Protocol coming into force the role of the UN is strengthened as the forum for negotiating the future of global climate change policy beyond the first Kyoto commitment period. Formal negotiations are due to start next year under the UNFCCC.

What happens beyond 2012 is largely an open book but what is clear now is that the KP will form the starting point for negotiations. No doubt the successes and failures of the Protocol and the experience of parties in the first commitment period will inform this process and changes to the Protocol's approach will result. Nevertheless, the outcome is likely to be an evolution of the Kyoto structure rather than the radical departure that might have occurred had not the Protocol come into force. In particular, a major focus will be on ways to improve, expand and augment the global emissions market initiated under Kyoto.

Under these circumstances it can be expected that those countries living and working with the structures and mechanisms of the Protocol will be in the box seat when it comes to negotiating its successor. Australia will need to be careful it is not sidelined in this process.

*The views expressed in this article are those of its authors. The AETF does not take positions on issues but rather exists to provide a forum for informed debate that can facilitate the exposure of a range of perspectives and views on issues related to emissions trading .*

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## Reforming Australia's approach to Greenhouse

### Productivity Commission recommendations\*

*An influential draft report just published by the Productivity Commission, Review of National Competition Policy Reforms, turns the spot-light on the fragmented and uncertain state of Australia's greenhouse policy and recommends immediate changes. The review was commissioned by the Treasurer, Peter Costello, to establish priorities for the forward reform agenda. The Discussion Draft has been released to encourage further public discussion and input before the Commission finalises its report to Government.*

*This article presents the main arguments put forward by the Commission to justify a new approach.*

The production of energy is a major and growing contributor to Australia's green-house gas emissions. In 2002, electricity generation accounted for 69 per cent of stationary energy emissions and 33 per cent of net national emissions. Moreover, projections suggest that by 2020 greenhouse gas emissions from the stationary energy sector could be 64 per cent higher than the 1990 level.

In this context, the energy sector obviously has a major role to play in greenhouse gas abatement. Indeed, the Australian, State and Territory governments have implemented a broad range of measures that seek to reduce all types of greenhouse



gas emissions, but especially from energy generation.

### Current policies create uncertainty

However, the Parer Review (*Council of Australian Governments (CoAG) Energy Market Review, 2002*) found that these measures are poorly targeted, uncoordinated, and compete with each other — thereby creating uncertainty for the energy sector and the wider economy.

It recommended replacing many of the existing

Federal and State greenhouse gas abatement schemes with an economy-wide emissions trading system. This system would involve capping total emissions, issuing permits to allow holders to release prescribed emission volumes and providing

scope for holders to trade their permits. However, the Parer Review also recommended that energy intensive users in the traded goods sector should be exempt from the operation of the emissions trading system, until Australia's major international competitors introduced similar schemes.

### MCE response

In responding to the Parer Review, the Ministerial Council on Energy (MCE) proposed to work closely with the CoAG High Level Group on Greenhouse in order to address greenhouse gas emissions by the energy sector on a national basis, observing that:

“A holistic, integrated policy approach is required to give energy sector investors reasonable certainty about their greenhouse obligations, while maintaining the international competitiveness of Australian industry. Any abatement measures should be designed to be nationally consistent, and consistent with a future international scheme to the extent this can be predicted, and should utilise market mechanisms where this would be most efficient and effective.”

### Investment jeopardised

As yet, this commitment has not translated into a firm process for dealing with the concerns raised in the Parer Review. According to participants, the evident regulatory fragmentation across jurisdictions is imposing a high compliance burden on energy producers (particularly those operating in more than one jurisdiction).

Moreover, there is considerable uncertainty about future policy directions, including, for example, the role and nature of any carbon tax regime. Several participants contended that such uncertainty (and the lack of coordination across jurisdictions) is impeding investment decision-making and

potentially deterring new investment. For example, the Australian Council for Infrastructure Development considered that:

“Investor appetite for new baseload generation capacity is likely to remain uncertain in the absence of a national bipartisan Greenhouse strategy.”

### Commission recommendations

The Commission strongly endorses the need to reduce regulatory fragmentation and improve certainty about future policies in this area (whatever

the most appropriate responses might be). With significant new expenditure required in the energy sector in coming years, Australia can ill-afford regulatory arrangements that discourage efficient and timely investment. The

Commission also notes that this issue goes beyond the energy sector and ultimately requires an economy-wide (if not global) perspective.

In the Commission's view, the capacity of current CoAG greenhouse processes to address this issue in a timely manner is questionable. For example, there appears to have been very little progress in further developing the National Greenhouse Strategy. (*Report p. 173*)

Accordingly, the Commission recommends that CoAG should immediately take a greater role in addressing fragmentation and uncertainty in relation to greenhouse gas abatement policies. (*Report p.279*) It considers that CoAG should give priority to developing a more effective process for achieving a national approach to greenhouse gas abatement. (*Report p. 173*)

The Commission stops short of endorsing a particular policy approach but highlights the potential role of market instruments, noting that “there is growing recognition in policy circles that the creation of managed markets can reduce the cost of meeting some important environmental and sustainability goals. Recent or mooted initiatives to allow for trade in water and greenhouse gas emissions are cases in point. Again, therefore, incorporation of this area within the mainstream reform agenda would seem highly desirable.” (*Report p.154*)

\* *The full text of the Report, including a complete set of references and assumptions, can be found on the Productivity Commission's website [www.pc.com.au](http://www.pc.com.au). Public hearings on the Report are due to commence in Sydney on 30 November.*



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# Regulating Geosequestration

## Draft Guiding Regulatory Framework\*

*If geosequestration is to fulfil its potential as a major contributor to future emission management, not only must the technical issues be resolved but it must also be acceptable and competitive in future emissions markets. Fundamental to realising this potential is effective and market-compatible regulation.*

*In Australia, a working group under the Ministerial Council for Minerals and Petroleum Resources (MCMPR) has developed draft regulatory guiding principles for carbon dioxide geosequestration. Broader consultation with the community is now taking place on the draft guidelines. Following these consultations Ministers will consider the use of these principles when implementing regulatory frameworks in their respective jurisdictions.*

### Background

At its last meeting in September 2003, MCMPR agreed that all jurisdictions will work together to develop technical and administrative standards to ensure a consistent approach to facilitate international and national geosequestration projects. Council also agreed that all jurisdictions would develop appropriate legislation, assist in developing a community engagement program, and support Australia's participation in international collaboration on geosequestration.

The draft regulatory guiding principles for CO<sub>2</sub> geosequestration followed extensive consultation with industry and research organisations and address the seven key issues that were seen as fundamental to any regulatory framework for CO<sub>2</sub> geosequestration: access and property rights; long term responsibilities; environmental issues; authorisation and compliance; monitoring and verification; transportation issues; and financial issues.

### Defining CO<sub>2</sub> geosequestration

Carbon Dioxide Geosequestration refers to a continuum of activities from the emission of CO<sub>2</sub> through its capture, transport, geological storage/disposal and long term monitoring. In this report, this continuum is simply referred to as 'CO<sub>2</sub> geosequestration' for ease of reference. A CO<sub>2</sub> geosequestration project is structured around four broad stages: capture, transport, injection and post-closure.

### Introduction

The draft regulatory guiding principles deliver a consistent, transparent and flexible basis for the

regulation of CO<sub>2</sub> capture and storage. They have the potential to deliver:

- investment certainty for CO<sub>2</sub> geosequestration projects;
- public confidence that natural resource management, environmental impacts, health and safety issues are adequately addressed;
- increased research, development and transfer of technology; and
- consistency in the application and regulation of CO<sub>2</sub> geosequestration technologies and processes.

The following principles are not intended for R&D, pilot or demonstration projects, rather it is envisaged that these projects will provide valuable information that can be used to review principles within the proposed regulatory framework.

### Regulatory Guiding Principles

These principles aim:

- To be in the best interests of the community in the areas of health, safety, environment, economic consequences and government accountabilities;
- To be based on sound risk management principles; science-based and rigorous, yet practical in approach;
- To be clear and consistent in laying out rights and responsibilities of participants;
- To be efficient (cost-effective) from project proponent, government and community viewpoints;
- To be timely and comprehensive in considering authorisation requests;
- To be adaptable and learning-oriented to profit from experience and future developments in technologies, markets and institutional arrangements;
- To be flexible to allow for future government decisions and possible greenhouse policy measures;
- To have regulation which aims to engender community confidence in geosequestration as a safe and environmentally responsible activity, while providing proponents with the certainty they need to undertake projects; and
- To ensure Australia's national interest lies in

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maintaining the competitiveness of Australian industry.

### ***Access and Property Rights***

- Access to suitable geological structures for CO<sub>2</sub> geosequestration and to surface injection sites should:
  - be based on established legislative and regulatory arrangements, custom and practice;
  - recognise and adequately account for the interests of other stakeholders, including existing and future surface and subsurface rights-holders; and
  - accommodate the likely evolution of multi-user geosequestration infrastructure and facilities.
- Legislation granting surface and subsurface rights for CO<sub>2</sub> geosequestration should:
  - provide certainty to rights-holders of their entitlements and obligations;
  - guarantee security of access over time and in relation to the volume of gas that may be stored; and
  - define the “geosequestration gas” so that it can be legally injected into the storage site.

In granting rights to inject CO<sub>2</sub> into subsurface formations, governments should give due consideration to land use planning issues likely to arise as a consequence of having CO<sub>2</sub> injected into that part of the subsurface.

### ***Long Term Responsibilities***

- Responsibility and associated liabilities should remain with the project proponent until the relevant government is satisfied to a high degree of certainty that:
  - future land-use objectives defined at the time of project approval have been met;
  - the residual risks of leakage and liability are acceptably low; and
  - the ongoing costs associated with the site are acceptably low or are otherwise appropriately managed (for example through financial assurances, instruments and trust funds).
- Following closure, primary responsibility for the site will lie with government, although some residual liability may remain with the proponent.
  - the scope and nature of these residual responsibilities should be resolved upfront to the extent possible, recognising that responsibility depends on individual circumstances of each case. These liabilities should be determined and negotiated with the

proponent on a project-by-project basis.

- there may be a need to manage any residual liability that remains with the proponent e.g. through means such as ongoing indemnities, insurance policies or trust funds.

### ***Environmental Issues***

- Regulation of CO<sub>2</sub> geosequestration should be based on a science-based assessment of the environmental risk, be based on best practice, be nationally consistent and be subject to regular review as new information becomes available.
- Regulation of CO<sub>2</sub> geosequestration should aim to instil community confidence that the environment will be protected, provide industry with the certainty required to undertake projects, avoid overregulation that would unnecessarily impinge on project viability and be based as far as possible on existing regulatory frameworks.

### ***Authorisation and Compliance***

- Existing legislation (Acts, Regulations, guidelines) such as those for chemical manufacturing, electricity generation, pipeline transportation, petroleum and mining exploration and development, environmental aspects, operational health and safety, storage of hazardous waste, that relate to activities under CO<sub>2</sub> geosequestration should be identified along with the parts of that legislation that applies to CO<sub>2</sub> geosequestration; and this existing legislation could be modified and augmented as needed to achieve an integrated CO<sub>2</sub> geosequestration framework.
- National and international consistency should be aimed for in Commonwealth and State legislation relating to CO<sub>2</sub> geosequestration. There should be agreed national protocols and guidelines to be used by all jurisdictions. Commonwealth and State agencies should authorise CO<sub>2</sub> geosequestration activities and ensure compliance in their jurisdictions. A single industry code of conduct throughout Australia should be investigated.

### ***Monitoring and Verification***

For the purposes of monitoring and verification, a regulatory framework should:

- provide for the generation of clear, comprehensive, timely, accurate and publicly accessible information that is used to effectively and responsibly manage environmental, health, safety and economic risks and to ensure that set performance standards are being met; and
- determine to an appropriate level of accuracy the quantity, composition and location of gas captured, transported, injected and stored and the net abatement of emissions. This should include

identification and accounting of fugitive emissions.

### **Transportation**

- The transport of CO<sub>2</sub> in pipelines has many similarities to the pipeline transport of chemical and petroleum products and therefore the same regulatory principles relating to access, safety and environment should apply. However where there are differences these must be recognised.
- Similarly existing legislation should be applied and if necessary modified for the transport of CO<sub>2</sub> by road, rail and sea.

### **Financial Issues**

- Consistent with the need to create and maintain public confidence, all fiscal and regulatory measures must be subject to a least cost approach:
  - regulatory processes should preserve the international competitiveness of Australian industry;
  - where ever practicable established regulatory principles and procedures should be used in preference to introducing new ones; and
  - fiscal burdens imposed on any jurisdiction or industry as a result of regulatory processes or

outcomes should be avoided where ever possible.

- Recognition should be made (e.g. via policy statement) that the capital and operating costs of capture and storage can be substantially incorporated into the existing fiscal system and accounting principles framework on the same basis as existing business expenditure. Where changes need to be made, they should not discriminate against this form of investment.
- It should be recognised that capture and storage technologies enable the generation of national, global and intergenerational public goods. Given that these technologies in their early stages are likely to be marginally commercially viable, consideration may need to be given to how these public goods are incorporated into commercial decision making so as to arrive at nationally optimal levels of investment and timing of new investment.

*\* Written submissions addressing one or more of the key issues are invited closing on 29 November 2004. Roundtable discussions will be held in NSW, Queensland, Victoria and Western Australia. For more information on the consultation process see the Commonwealth Dept. of Industry, Tourism and Resources website [www.industry.gov.au](http://www.industry.gov.au)*

## **Join the AETF Business Roundtable**

The AETF Business Roundtable provides a range of additional services, information and networking for companies that have a particular interest in emissions trading developments and opportunities, and are seeking a more interactive involvement with market participants and policy makers.

The AETF Business Roundtable is now concluding its program of activities for 2004 and is pleased to welcome new members for 2005.

**For more information contact the AETF Coordinators or visit [www.aetf.net.au/BR](http://www.aetf.net.au/BR)**

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