

# review

## Australasian Emissions Trading Forum

Victorian Dept. of Sustainability  
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Cooperative Research Centre  
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### THE AUSTRALIAN WAY

*For several years now the Australian Government has proclaimed the Kyoto Protocol to be fundamentally flawed and advocated a more comprehensive global approach that more effectively includes the major developing country emitters. Such an approach, it says, is necessary to achieve the significant cuts in emissions that are necessary in the long run.*

*What form this alternative comprehensive global approach would take and how it was to be achieved has not been clear. Now, with the announcement of the Asia-Pacific Partnership for Clean Development and Climate involving Australia, the US, Japan, China, India and South Korea, more has been revealed.*

*The Partnership will be a non-binding cooperative compact the objective of which will be to develop, deploy and transfer cleaner, more efficient technologies and to meet national pollution reduction, energy security and climate change concerns, consistent with the principles of the U.N. Framework Convention on Climate Change. In our first article we consider the new Partnership and raise some questions about how it will operate and how effective it will be in abating global emissions given other technology transfer programs.*

*Turning to the domestic scene, it has been apparent for some time that more and more companies are seeing the fragmented and uncertain state of Australian climate change policy as an impediment to investment, particularly in the critical area of energy infrastructure. In our second article BP Australasia President, Gerry Hueston, points to the lack of corporate leadership in Australia as a key factor constraining effective and coordinated national action on climate change. He proposes a way forward.*

*Our third article by Stuart Frazer looks at the changing situation in New Zealand where a revision to their national emissions inventory has switched them from being a potential exporter of emissions credits to being a likely importer.*

*We conclude with a note outlining a significant milestone that has been reached by the nine north-*

*eastern states of the United States as they move towards a multi-state emissions trading scheme.*

*Two years of intensive effort by state officials under the Regional Greenhouse Gas Initiative (RGGI) has culminated in a comprehensive proposal for a cap-and-trade scheme supported by offset projects and possible international linkages.*

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In August the Australian Government announced the formation of the Asia-Pacific Partnership for Clean Development and Climate to promote the development and transfer of low emission technology. How will it operate and what contribution will it make? **p.2**

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It is time for business to rally around a new settlement on climate change, to deliver real results and to enable the policy framework to continue to evolve and succeed. This is the challenge put to Australian business leaders by BP Australasia President, Gerry Hueston. **p.4**

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#### US States Move Towards ET

The northeastern states of the United States have announced a comprehensive proposal for a regional cap-and-trade program to reduce carbon dioxide emissions from power plants in the region. Key elements of the proposal, developed by state officials under the Regional Greenhouse Gas Initiative, are outlined here. **p.8**

# Technology Transfer, the UNFCCC and the new Asia Pacific Partnership

Tony Beck & Malcolm Gray, AETF

Following their decision not to ratify the Kyoto Protocol, Australia and the US instigated negotiations that led in August to the launch of the Asia-Pacific Partnership for Clean Development and Climate. It is a partnership with four other countries, Japan, China, India and South Korea, to promote the development and transfer of low emission technology.

A Vision Statement<sup>1</sup> (see box) has been released but few operational details appear to have been settled. In particular, no mention is made of the financial or market structures that would be needed to facilitate technology development and transfer on the scale implied by the Vision Statement.

This raises some fundamental questions about how the Partnership will achieve its objectives and what contribution it will make beyond that already being achieved under the established technological transfer programs of the UN Framework Convention on Climate Change (UNFCCC) and through the Kyoto mechanisms.

## Technological Transfer under the UNFCCC and Kyoto Protocol

The UNFCCC has been signed and ratified by over 175 countries, including all the Partnership countries, and entered into force in 1994. Technology transfer

1 See [www.dfat.gov.au/environment/climate/050728\\_final\\_vision\\_statement.html](http://www.dfat.gov.au/environment/climate/050728_final_vision_statement.html)

has been a key element of the Convention since its inception. Article 4.5 states that:

*The developed country Parties and other developed Parties included in Annex II shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention. In this process, the developed country Parties shall support the development and enhancement of endogenous capacities and technologies of developing country Parties. Other Parties and organizations in a position to do so may also assist in facilitating the transfer of such technologies.*

Early in the development of programs to implement Article 4.5 a fundamental problem with the concept of government-managed technology transfer was identified. Most relevant technology is held by private companies and without some form of market incentive governments can do little to ensure its transfer to developing countries.

The UNFCCC process has addressed this fundamental problem in two ways; a focus on sharing information and identifying other impediments to transfer, and the development of market mechanisms under the Kyoto Protocol.

## Information and impediments

The UNFCCC program has involved an extensive program of meetings, workshops and studies of technology transfer issues, and the development of an online Technology Transfer information service and clearing house known as TT:CLEAR<sup>2</sup>. TT:CLEAR provides information about technology transfer, allows direct access to databases, publications, and

## Asia-Pacific Partnership for Clean Development and Climate

### Vision Statement – Key Points

- The objective of the Partnership will be to develop, deploy and transfer cleaner, more efficient technologies and to meet national pollution reduction, energy security and climate change concerns, consistent with the principles of the U.N. Framework Convention on Climate Change (UNFCCC).
- Areas for collaboration may include, but not be limited to: energy efficiency, clean coal, integrated gasification combined cycle, liquefied natural gas, carbon capture and storage, combined heat and power, methane capture and use, civilian nuclear power, geothermal, rural/village energy systems, advanced transportation, building and home construction and operation, bioenergy, agriculture and forestry, hydropower, wind power, solar power, and other renewables.
- The partnership will also cooperate on the development, diffusion, deployment and transfer of longer-term transformational energy technologies that will promote economic growth while enabling significant reductions in greenhouse gas intensities. Areas for mid- to long-term collaboration may include, but not be limited to: hydrogen, nanotechnologies, advanced biotechnologies, next-generation nuclear fission, and fusion energy.
- A non-binding compact will be developed and consideration given to establishing a framework for the partnership, including institutional and financial arrangements and ways to include other interested and like-minded countries.
- The partnership will also help the partners build human and institutional capacity to strengthen cooperative efforts, and will seek opportunities to engage the private sector. We will review the partnership on a regular basis to ensure its effectiveness.
- The partnership will be consistent with and contribute to our efforts under the UNFCCC and will complement, but not replace, the Kyoto Protocol.

case studies and promotes an exchange of views on different technology transfer issues.

Current work on a technology transfer 'framework' covers five key themes and areas for action<sup>3</sup>:

- Technology needs and needs assessments
- Technology information
- Enabling environments
- Capacity-building
- Mechanisms for technology transfer

The UNFCCC's technology transfer programs demonstrate effectively what can and can't be achieved through non-binding, non-market cooperative efforts. Information is being shared, understanding of available technology is being extended, barriers to transfer are being identified and some capacity building is being achieved. But ultimately and understandably such programs are incapable of facilitating the large-scale transfer of advanced technologies that are commercially valuable and held by private companies.

## Market mechanisms

The other stream of technology transfer activity under the UNFCCC-Kyoto framework has involved the development of market incentives, particularly through emissions trading and the Clean Development Mechanism (CDM).

CDM allows for investment in emission-abating projects in developing country KP parties, and the sharing of the resulting emission credits known as Certified Emission Reduction units or CERs.

The projects must achieve real, measurable, and long-term benefits related to the mitigation of climate change; and reductions in emissions must be additional to any that would occur in the absence of the project activity. The project must also contribute to the sustainable development of the host country. Credits can be generated as soon as abatement begins and can continue until the end of the first Kyoto commitment period, 2012.

Many national governments including China, India and South Korea are keen to attract CDM investment and have established Designated National Authorities (DNAs) to facilitate the process.

In approving baseline and monitoring methodologies for different types of projects the CDM Executive Board aims to promote consistency, transparency and predictability and to provide the rigour to ensure that emission reductions are real and measurable. This has proved to be a slow and time-consuming process. The current focus is on bringing transaction costs down through streamlining approval and set up procedures and standardising baseline and emissions accounting methodologies to cover

different categories of technology. So far four 'consolidated' methodologies have been approved to cover:

- Landfill gas activities
- Grid-connected electricity generation from renewable sources
- Fossil fuel substitution in cement manufacture
- Waste gas and/or heat for power generation.

A strength of the CDM concept is the primary role played by private sector participants who undertake most of the planning, implementing, monitoring and verifying the projects. These companies, depending on the nature of their involvement, can gain a share of the value of the emission credits generated thus providing the necessary motivation for transfer of expertise and technology.

The value of the CERs is determined by the international Kyoto emissions market which has developed rapidly since the Protocol came into force. For registered projects where the seller guarantees delivery prices can be up to A\$24 per tonne CO<sub>2</sub>e saved. Where the seller does not take on much risk prices are more commonly in the range A\$6-11.<sup>4</sup>

## Conclusion

The UNFCCC-Kyoto Protocol experience with technology transfer programs raises serious questions about what the new Asia-Pacific Partnership can achieve. If the focus of the Partnership is essentially on information sharing and capacity building, then what additional information sharing and collaboration can be achieved beyond that already occurring through the UNFCCC programs?

If actual technology transfer on a significant scale is the objective, how will the Partnership address the fundamental problem with government-run technology transfer programs; i.e. how to provide incentives to promote the transfer of target technologies held in private hands. Will market mechanisms play a role and if so how will they relate to the market mechanisms under the Kyoto Protocol, particularly the Clean Development Mechanism?

Finally, how will the Partnership activities fit with the ongoing obligations of the member countries under the UNFCCC, particularly those obligations related to technology transfer under Article 4.5 of the Convention.

Stakeholders, including the global community, will view with interest how these issues are dealt with at the inaugural ministerial meeting of the Partnership to be held in Australia late this year.

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2 See TT:CLEAR website <http://ttclear.unfccc.int>

3 See UNFCCC Technology website <http://unfccc/technology/items/2681.php>

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4 Point Carbon, Carbon Market Monitor, July 2005

# Climate Change – Challenge to Australian Business

Gerry Hueston

President BP Australasia



In BP, we publicly acknowledged the need to take precautionary action on Climate Change in 1997, and set a target to reduce greenhouse gas emissions from our operations to 10% below 1990 levels by 2010. At the time, we did not know how to reach the target, but the very fact of its existence permitted – in fact mandated – our managers to find a way. Coupled with an internal emissions “cap and trade” system to ensure efficient capital allocation, this mandate was enough to see us meet the target nine years early in 2001 – and unlock 650 million US dollars of value in the process.

BP continues to develop its emissions abatement programs. But they are just a start and the scale of the challenge means it's time to pick up the pace and accelerate towards our target of sustainable energy use. For this, we need more than individual or voluntary action. We will have to work together. Here, though, we are caught in a Catch-22.

## Catch-22

It is only if government establishes a value for carbon emissions reductions and consistently supports and provides incentives for the development and deployment of new technologies that we can move as fast as we would like to in industry.

But, not all of industry is currently aligned on these objectives and governments are conscious of the political and economic risks of delivering real change on greenhouse policy in the absence of consistent signals from the business community. So to deliver real change on greenhouse policy, we need to target not the Government, but the business community, in order to persuade those who are currently uncertain to unite around a common progressive position on greenhouse.

Recently we have seen the terms of debate about Greenhouse in Australia change dramatically. On 26th July, the Federal Government published the recent Allen Consulting Group's report, *Climate Change Risk and Vulnerability – promoting an efficient adaptation response in Australia* which provides a valuable insight into how early planning could help governments, industries and communities plan for the effects of climate change, adapt to the impacts and exploit any opportunities. Then on 28 July, the Prime Minister announced that Australia was joining a new Asia-Pacific Partnership on Clean Development and Climate, which brings an international context to the technology driven approach adopted in the Government's Energy White Paper.



So the challenge to business has changed. Up until now, as individual businesses and through industry groups such as the Business Council of Australia, we have been focused on what the appropriate policy framework should be. Now, the focus must move to action and delivery within the framework that has been set out. It is time for business to rally around a new settlement on climate change, to deliver real results and to enable the policy framework to continue to evolve and succeed.

## New business position needed

This is the new agenda for greenhouse in Australia for 2006 and beyond. I believe that delivering a positive business response to the Government's framework and uniting the business community around a continued pro-active stance will be the dominant issue for 2006 and beyond. So I will be engaging with our key industry associations to propose that, over the next few years, Australian business adopts a new four point position on Climate Change.

This position states that:

1. The scientific evidence of climate change is sufficient to justify that action be taken now, in a planned way, in order to avoid later, deeper cuts that could seriously damage the economy;
2. We support a long term goal of stabilising global greenhouse gas emissions at today's levels by 2050;
3. We prefer to use a broad-based approach to achieve this goal, including market mechanisms, innovative technology, education and informed and supportive policy development.
4. We support international action, with Australia leading the debate through diplomacy abroad and by example at home.

I believe that this is a modest position and one around which the majority of business can unite. In fact, I can't see how anyone in the business community, setting aside sectional vested interests, can possibly argue against it. I believe it is also an example of how BP can fulfill its obligation to provide leadership on this issue. Globally, we provided leadership by being the first oil company to advocate precautionary action in 1997. I hope today we can provide more leadership, by helping lead the Australian business community to a new settlement on climate change.

## Focus on action

By uniting around this position, we will be able to move the debate forwards into discussing what action to take, not whether or not to take it. Perhaps then we can have a sensible debate about whether tax breaks for travelling extra kilometres in company

cars is really the brightest idea! Or how we can use emissions trading to efficiently allocate capital and deliver good greenhouse outcomes at the lowest cost.

Or whether we could levy lower registration charges on cars with small engines or houses with energy efficient design. Or how we can give distributed renewable electricity a fair-go in the electricity grid so its value can be captured. The list of opportunities is almost endless – and they really are opportunities too.

Opportunities to invest, opportunities to be more efficient, opportunities to manage the risk of future disruptive action by incentivising moderate and timely action now. Opportunities spread right across the business community to invest in energy efficiency and realise immediate financial returns while reducing greenhouse gas emissions. And opportunities for all businesses to develop and roll out existing and new low carbon technologies, not just in the Australian market but to the rapidly emerging markets in our region.

By including the wider business community in the debate, we can ensure that the chosen solutions to rising greenhouse emissions in Australia are fit-for-purpose and address the needs of our economy. It is only through real engagement and leadership that we can achieve the outcomes we need to ensure a prosperous and sustainable future for our industries, our communities and our environment.

## Price signals

To conclude, I believe that climate change is real and it is already happening. We cannot turn the clock back, but there is still time to manage and minimise the impacts. We have the solutions already. The response will differ from site to site, company to company, region to region and nation to nation. But we need to recognise the challenge and take action. I believe business has nothing to fear from taking a more progressive position on climate change. In fact, I believe there is a lot business can gain.

Those gains will only come when we properly value our environment, and the greenhouse gases we are adding to it every day. That will provide the signals needed to invest in and deploy low carbon technologies. And those price signals need to be supported by clear policies that drive the right changes in behaviour.

Making the necessary choices, in policy and investment, will take courage. But the prize - to achieve prosperity and sustainability - could not be greater.

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# A New Zealand Update

## “Uncertain Times”

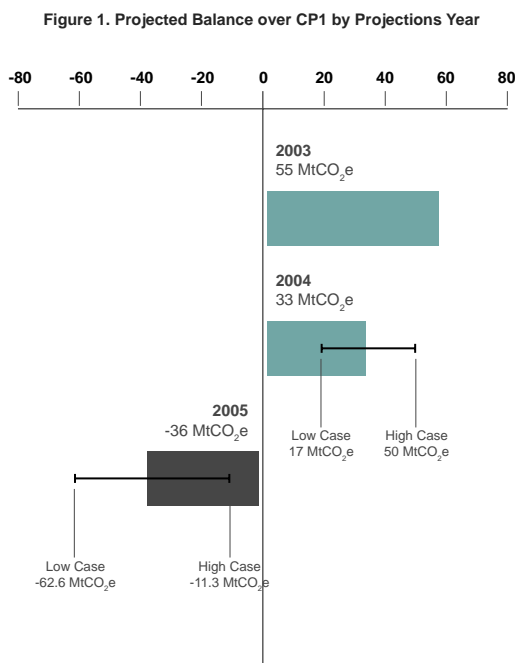
Stuart Frazer, Frazer Lindstrom Limited, NZ

With the Kyoto Protocol in force, New Zealand as a ratifying nation now faces the challenge of reducing its emissions to the 1990 level or taking responsibility for excess emissions. In May of this year, following the release of revised inventory data, this challenge got much harder.

This article outlines the background to the inventory revision resultant policy implications, and potential election impacts.

### Inventory revision

In May 2005, the Ministry for the Environment (MfE) completed revised projections of New Zealand's greenhouse gas emissions. These revised forecasts indicate that New Zealand may fall short meeting of its Kyoto Protocol 1<sup>st</sup> commitment period (CP1) target by 36 million tonnes of CO<sub>2</sub>e. When the Government agreed to ratify the protocol the expected surplus was 55 MT CO<sub>2</sub>e. This forecast was revised downwards to 33 MT CO<sub>2</sub>e in 2004. The projected balance over CP1 by year of forecast is shown in Figure 1.



Source : NZ Ministry for the Environment

Factors contributing to the latest downwards revision include:

- Increased energy related emissions, resulting in part from stronger than expected growth; and
- Reduced forest sinks related to reduced replanting and more significantly a re-interpretation of previously accounted forest sinks credits where forestry was planted in scrub which could meet the definition of forest in the Kyoto Protocol (i.e. the planting was not onto “grassland” and so no net sinks can be claimed).

An independent review of the carbon accounting system has been initiated.

### Policy review

Recognising that the benign context that was the foundation of the current climate change policies has now changed (deficit for CP1 now predicted), in June the Government directed officials to undertake a review of climate change policy settings and objectives and to report back to Cabinet by 31 October 2005.

The purpose of the Climate Change Policy Review is to investigate how New Zealand should respond to the forecast CP1 deficit. It will also give consideration to New Zealand's current high-level climate change goal of reducing emission towards a “permanent downward path by 2012” (this may now be unrealistic).

The review team comprises of officials from Treasury and relevant Ministries (Agriculture & Forestry, Economic Development, Environment and Transport).

The scope of the review covers:

- near term: a strategic level review of the appropriateness, likely effectiveness and costs and benefits of New Zealand's policies (including domestic carbon taxes & emissions trading and use of Kyoto protocol flexible mechanisms – emissions trading, JI and CDM); and
- long term: implications of known information on domestic emission trends for any obligations that New Zealand may choose to adopt beyond 2012.

The output of the review is expected to be advice to the Government on:

- Strategic choices about the direction and emphasis of New Zealand's climate change goals and policies in relation to CP1 obligations; and
- A negotiation mandate and strategy for the NZ delegation attending COP11/MOP1 in Montreal in November.

## Recent policy progress

Recent progress on current price based policies is summarised in Table 1 below.

**Table 1**

<b>Carbon Tax</b>	
May-05	Announcement of initial rate of c-tax at NZ\$15/tCO <sub>2</sub> e to be introduced 1 April 2007 Consultation document on tax design released
<b>Negotiated Greenhouse Agreements (NGAs)</b>	
NGAs provide relief from the carbon tax to major energy users in return for their moving to world's best practice for energy use.	
Apr-05	NGA Review completed with revised "acceleration programme"
Current Status	
Aug-05	<ul style="list-style-type: none"><li>• 2 NGAs signed (NZ Refining Apr-03, OceanaGold Feb-05)</li><li>• 8 firms eligible to negotiate</li><li>• 20+ more applicants expected</li></ul>
<b>Energy Intensive Business (EIB) in Small to Medium Enterprise sector</b>	
Mar-05	Policy introduced to assist EIBs to reduce emissions and mitigate adverse effects of carbon tax through improved energy efficiency
Jul-05	Pilot scheme for demonstration projects
<b>Projects to Reduce Emissions (PRE)</b>	
Second tender round for 6 million carbon credits closed.	
Oct-04	24 projects awarded including wind farms, hydro-energy generation, geothermal-energy generation, bio-energy and landfill gas
Jul-05	Third tender round placed on hold pending Policy Review outcomes

## Election impacts

New Zealand's general election will be held on September 17<sup>th</sup> 2005. Two parties dominate however either is likely to need to form a coalition with a minor party to govern. The main parties' stances are:

➤ The Labour Party in its current role in government has been responsible for developing the current climate change policies. It has initiated the ongoing Policy Review.

➤ The National Party has resurrected itself to become a strong contender in the polls. It has stated that it would **not** introduce a carbon tax. Withdrawal from the Kyoto Protocol is stated to be an option "but not one to be taken lightly".

## Conclusion

With revised emissions forecasts, New Zealand now faces significant near-term challenges to meet its Kyoto Protocol commitments. The Government has responded sensibly by initiating a high level policy review of climate change policy settings and objectives.

With a general election in September and the policy review outcomes due end October, New Zealand's climate change policies are entering uncertain times.

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*For more information on policies refer to the NZ government's web site: [www.climatechange.govt.nz](http://www.climatechange.govt.nz)*

# US States move on Emissions Trading

The nine northeastern states of the United States have announced a comprehensive proposal for a regional cap-and-trade program to reduce carbon dioxide emissions from power plants in the region. The proposal is the culmination of nearly two years of intensive effort and consultation by state officials under the Regional Greenhouse Gas Initiative.

**Program Start Date and 2015 Review** The program will start in 2009. There will be a comprehensive review in 2015 to assess, among other things, program success, price impacts, the role of offsets, viability of additional reductions after 2020, and the extent to which the program has caused increases in imports and associated emissions leakage.

**Reduction Goals** The cap will be implemented in two phases. Emissions will be stabilised at approximately 150 million tons from 2009 through 2015; followed by a 10% reduction between 2015 and 2020.

**Regional Cap Level and Apportionment** The initial regional cap of approximately 150 million tons of carbon dioxide is approximately equivalent to the average emissions of the highest three years between 2000 and 2004. Initial state emissions budgets have been proposed for all participating states based on 2000-2004 emissions, electricity consumption, population, potential emissions leakage, and provision for new sources.

**Allowance Allocations** Decisions on allowance allocations will be mainly left to each state but will be subject to some set aside for a regional Strategic Carbon Fund to support further abatement, and for public benefit purposes. New source set-asides will be created at the discretion of each state.

**Potential Emissions Leakage** The states recognise the potential that a regional carbon constraint may lead to increased electricity imports and associated emissions leakage. The Strategic Carbon Fund will result in emissions reductions in addition to those that will be achieved by the cap. These additional reductions will help to offset potential emissions leakage.

**Offsets** The program will have a robust offsets component covering, in the first instance, abatement projects involving landfill gas, sulphurhexafluoride (SF<sub>6</sub>), afforestation and natural gas/home heating oil/propane end-use energy efficiency projects. Additional offset types will be added to the program over time.

**EU Allowances and CDM Credits** Eligible offsets shall be expanded to include European Union Emissions Trading Scheme allowances and Clean Development Mechanism credits if the price of allowances reaches a set price per ton on a sustained basis.

**Limit on Use of Offsets** The amount of offsets that can be used for compliance in each compliance period will be limited to 50% of the difference between the projected business as usual emissions and the emissions cap.

States and stakeholders will now consider the proposal. Once a final agreement is reached, the proposal will go to the legislatures or regulators in the nine states for approval and enactment.

*For more information see the Regional Greenhouse Gas Initiative [www.rggi.org](http://www.rggi.org)*

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