



# EMISSIONS TRADING - CAUTION REQUIRED

**A**s part of the international effort to address issues associated with climate change, many nations have introduced some form of an emissions trading scheme. ACCI has concerns that a similar scheme in Australia could damage economic growth and competitiveness and believes that a number of criteria would first need to be met before such a scheme could be successfully introduced here.

International political and business leaders have mostly stopped debating the merits of climate change science. While acknowledging some uncertainty still exists, they have begun implementing policies which are designed to avoid or adapt to global warming.

National and transnational emission trading schemes (ETS) have become operational over the past decade (albeit with mixed success) and the Kyoto Protocol (Protocol) has now been ratified by the required number of countries and came into force in February 2005.

A number of other changes have occurred during the past 18 months in relation to climate change - namely a European market for carbon has been implemented, some US states are considering developing their own markets and possible US Presidential candidates have stated support for an ETS.

In Australia, both sides of politics have entered into dialogue on which policy instruments better deliver on our Protocol commitments and the Federal Opposition and State Governments have stated support for an ETS.

## EMISSIONS TRADING SCHEME

ACCI maintains that a number of key criteria must be met by any ETS before industry can endorse such a scheme. As with any policy, various options and criteria need to be weighted against the desired outcomes. Policy options that conflict require trade-offs between these competing objectives.

This policy reality makes it necessary to develop an order of merit in which the most important objectives are recognised. ACCI believes that the costs of climate change policy should be fairly distributed throughout the community.

Given the possible distributional impacts on business and

the community in general of dealing with climate change, ACCI has identified six main areas of concern:

- Environmental Outcomes;
- Economic Efficiency;
- Australia's welfare must not be substantially damaged;
- Australian jobs must not be sacrificed;
- Competitiveness of efficient Australia industries must be maintained; and
- Australia should assume a fair share of the burden to reduce greenhouse gas emissions.

ACCI believes that technology will provide the ultimate solution to global warming and as such any ETS should encourage new technologies, the improvement of old technologies and new entrants into the market.

Any ETS must balance issues of complexity, coverage, abatement and technological incentives.

National consistency in an ETS is imperative if economic efficiencies are to be achieved along with environmental goals. Aside from introducing additional complexity, an ad hoc system would encourage firms to move interstate to the lowest cost jurisdiction based on the stringency of emissions regulations. This greatly reduces the economic efficiency of any scheme, depending on size of emission costs relative to other considerations and may encourage increased generation in states that are not covered by the ETS – particularly with a National Energy Market (NEM).

A non-comprehensive ETS increases the costs of abatement, reduces economic efficiency and can create leakage of greenhouse gas emissions. Therefore, ACCI considers a state-based system which does not cover all

jurisdictions, as completely unworkable.

An ETS is generally seen as the most efficient mechanism for reducing greenhouse gases, however this does not take account of other greenhouse gas taxes already present in the economy.<sup>1</sup> It is possible that a permit selling country will have a net welfare loss because the reduced use of the already taxed good may dominate the welfare gain from the permit-trading scheme. Therefore, any government policy must include the effects of pre-existing taxes and the introduction of an ETS, against removing pre-existing taxes on goods and introducing an ETS.

Consequently, if an emissions trading scheme were to be introduced, ACCI would support the Government implementing Recommendation 8.1 of the Parer Review,<sup>2</sup> which calls for the Mandatory Renewable Energy Target, Generator Efficiency Standards, Greenhouse Gas Abatement Program, NSW Electricity Retailer Greenhouse Benchmark and Queensland 13 per cent Gas Scheme to all cease operation.

An ETS can have greater adverse impacts on trade-exposed industries and therefore special compensation may be granted. While the goal of any ETS is to adversely impact emitters and thereby change behaviour, the issue of 'leakages' becomes a serious problem where the ETS coverage is less than global.

Current ACCI policy states "*emission trading is a viable option for abating greenhouse gases but more work needs to be done to develop an appropriate and comprehensive model, taking into account the effect on trade impacted industries and sectors.*"

Australia remains on target to meet its internationally agreed target of 108 per cent of 1990 emissions. Since 1990, Australia's greenhouse gas emissions have increased by 2.3 per cent while greenhouse gas emissions intensity, expressed as emissions per dollar of GDP, has declined from 1.1 to 0.7 kg CO<sub>2</sub>-e.

The economy has also grown by 57.7 per cent or approximately \$306 billion since 1990. However, emissions are projected to increase by 22 per cent on 1990 levels by 2020 reflecting the ongoing growth in emissions from the energy sector.

## TECHNOLOGY AND THE ASIA-PACIFIC PARTNERSHIP ON CLEAN DEVELOPMENT AND CLIMATE

Given the lack of viable alternatives, ACCI supports the Asia Pacific Partnership on Clean Development and Climate (AP6). Countries involved in the partnership include China, the US, Japan, Republic of Korea, India

and Australia. The first AP6 summit was held in Sydney in January 2006.

The importance of including both China and India in actions to address global warming cannot be overstated. Australia, despite being a high per capita greenhouse gas emitter, currently only contributes 1.6 per cent<sup>3</sup> to global greenhouse emissions – a figure expected to decline to 1.1 per cent by 2050.<sup>4</sup> If Australia reduces its emissions to zero, China would in one year replace the entire amount of greenhouse gases saved by Australia.<sup>5</sup>

The partnership seeks to use technological transfers between member countries to address greenhouse gas emissions rather than binding targets. The objective is to decouple economic growth from greenhouse gas emissions using least costly abatement methods. The Australian Government has already announced funding for a number of projects aimed at sustainable energy generation, distribution, storage and consumption.

Australia is presently undertaking a range of programs, external to the AP6 forum, to develop technologies to further reduce Australia's per capita emissions footprint.

The Australian Government has invested \$1.8 billion to address climate change, including \$500 million for low emissions technologies and over \$200 million for renewable energy initiatives.<sup>6</sup> Other types of intervention include Mandatory Renewable Energy Targets (MRET), housing and appliance energy standards and Greenhouse Challenge Plus.

If Australia is to lower greenhouse gases while remaining internationally competitive, coal will still represent a substantial component of electricity generation.

However, methods are being developed which could reduce its impact on the environment. The CSIRO is currently investigating technologies such as Post Combustion Capture (PCC) among others to reduce greenhouse gas emissions:

*"One of the key initiatives being developed by CSIRO's Division of Energy Technology and Energy Transformed Flagship, known as Post Combustion Capture (PCC), can reduce carbon dioxide (CO<sub>2</sub>) emissions by more than 85% from existing coal and gas-fired power stations when coupled with carbon storage."<sup>7</sup>*

Australia has the expertise and technical capacity to play a leading role in exporting technology to developing countries as well as importing greenhouse gas reducing technologies from abroad.

## NUCLEAR ENERGY

The major source of greenhouse gas emissions is the power generation sector where Australia's heavy reliance on coal makes us one of the most per capita pollution intensive countries in the world.

Other countries incorporate a wider range of fuels in their production processes, including nuclear power. Australia is currently the only AP6 country that does not have an existing nuclear power industry.

In the global context, 16 per cent of electricity generation is nuclear-sourced with countries such as France generating up to 78 per cent of their electricity from nuclear plants. In OECD countries, electricity from nuclear generation accounts for some 24 per cent of total generation. Moreover the expanding and dynamic economies such as China and India are also increasingly developing their nuclear generating capacity.

The AP6 summit did not place nuclear technology on the agenda, although the export of uranium to China was briefly mentioned. ACCI has in the past advocated that nuclear power be put on the agenda as a possible solution to lowering greenhouse gas emissions. It is a proven technology that produces greenhouse gas emissions equivalent to alternative energy sources but has the advantage that it can generate base load requirements.

The Australian Government has moved to address this omission by initiating a review into uranium mining, processing and the contribution of nuclear energy in Australia in the longer term. The Review will commence in June 2006 with a draft report to be available for public consultation by November 2006.

ACCI has previously called for nuclear energy to be given serious consideration in Australia's energy debate. We also welcome the broad terms of reference, which cover mining, processing and enrichment.

A report prepared for the Australian Nuclear Science and Technology Organisation entitled *Introducing Nuclear Power to Australia: An Economic Comparison* identifies generating electricity from nuclear power stations relative to coal and gas as cost competitive against a range of alternative options. The paper concluded *"the cost of generating electricity in Australia from the 'nth' copy of a nuclear power station such as the AP1000, including financial provision for managing the spent fuel, radioactive wastes and ultimately decommissioning is cheaper than generating it from coal or Combined Cycle Gas Turbine (CCGT) generation."*

However ACCI does not support Australia signing the

Kyoto Protocol in order to make nuclear energy more economically viable as also noted in the report:

*"The forecast cost of damage to the environment due to the climate change produced by CO<sub>2</sub> from a new Australian coal fired power station is similar in magnitude to the actual cost of generating the electricity. If Australia were to join the Kyoto emissions trading scheme, ETS, then users of electricity who exceed their quota would have to pay sums that are similar in magnitude to the climate change costs that we have calculated."*<sup>8</sup>

Australia can take advantage of our uranium resources without introducing an ETS, for example, through mining and processing uranium for export and importing of spent uranium.

## CARBON TAX

ACCI does not believe that Australia should introduce a carbon tax to address climate change. The setting of a 'tax price' that is equitable and efficient is extremely difficult and is likely to understate or overstate the costs of achieving a certain pre-determined abatement target.

## CONCLUSION

While Australian business remains committed to addressing the issue of climate change, our responses must be proportional to our contribution to the problem.

Australia cannot sacrifice economic growth while new technologies are yet to become available. All energy options - renewables, coal, nuclear and gas must form the basis of Australia's energy future.

If an ETS is introduced into Australia, the appropriateness of a number of pre-existing programs would need to be closely scrutinised.

Careful consideration would need to be given to the implementation of an ETS, particularly its effect on growth, employment and welfare.

ACCI supports government efforts to develop alternative technologies though the leveraging of private sector funds such as the Low Emissions Technology (LET) fund.

Climate change policy requires that Australia take a leading role in securing the capital which will develop the solutions to carbon emissions.

Trade-offs will need to be made if these challenges are to be met but Australia cannot falter at the first hurdle by hurting economic growth, employment or our

competitiveness.

## END NOTES

- <sup>1</sup> Australian Bureau of Agricultural and Resource Economics (2004) “The Welfare Consequences of Emission Trading with Pre-Existing Taxes”, 7th Annual Conference on Global Economic Analysis, Washington, D.C., June 17-19.
- <sup>2</sup> Council of Australian Governments (2002) “Towards a Truly National and Efficient Energy Market”, Energy Market Review, Final Report, Commonwealth of Australia, Canberra.
- <sup>3</sup> Brian Fisher et al (2006) *Technological Development and Economic Growth*, Inaugural Ministerial Meeting of the Asia Pacific Partnership on Clean Development and Climate, ABARE, Research Report 06.1, p14.
- <sup>4</sup> Ibid.
- <sup>5</sup> Minister for Foreign Affairs, Minister for Environment and Heritage (2005) “Asia-Pacific Partnership on Clean Development and Climate”, Joint Media Statement, 11 August.
- <sup>6</sup> Prime Minister of Australia, Minister for Foreign Affairs, Minister for Industry, Tourism and Resources, Minister for Environment and Heritage (2006) “Asia-Pacific Partnership Sets New Path, to Address Climate Change”, Joint Media Statement, 12 January.
- <sup>7</sup> CSIRO (2004) “Energy Technologies Cut Path to Reduced Emissions”, Media Release, 06/04.
- <sup>8</sup> Gittus, John H. Prof (2006) *Introducing Nuclear Power to Australia: An Economic Comparison*, A Report prepared for the Australian Nuclear Science and Technology Organisation, March.