



DEPARTMENT OF ENERGY,
UTILITIES AND SUSTAINABILITY
NEW SOUTH WALES GOVERNMENT

***Extending the NSW Greenhouse Gas
Abatement Scheme***

POLICY PAPER

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1 Introduction

The NSW Greenhouse Gas Abatement Scheme (the Scheme) was one of the first mandatory greenhouse gas emissions trading schemes in the world and is still the only functioning and successful sub-national scheme. The Scheme has created the second largest mandatory carbon market in the world, and the fourth largest, if the voluntary Kyoto project-based mechanisms are included (the Clean Development Mechanism and Joint Implementation).

The International Emissions Trading Association and the World Bank, in their 2006 review of all global carbon markets including the NSW market, found that "...new capital and innovation have entered the carbon markets ever since carbon became a commodity with value."¹

Recent local comment on the Scheme includes: "...one state is quietly fighting climate change through a very simple market-friendly action. It put a price on carbon"² and "The NSW scheme is highly regarded around the world..."³

The Scheme continues to meet the NSW Government's objectives in establishing the Scheme. It has reduced greenhouse gas emissions by providing the incentive for the accreditation of 163 lower emission generators and abatement projects, many of which would not be financially viable in the absence of this incentive. It has provided policy certainty to markets by introducing a price signal for greenhouse gas emission abatement across the National Electricity Market. It has minimised the cost of abatement to NSW consumers and industry, compared to other types of regulatory measures or Government programs.

The NSW Government wants to build on the success to date of the NSW Scheme and believes that the development of a global or national greenhouse gas trading scheme is by far the most preferable policy outcome. The Government will continue to promote such an outcome by calling for national leadership from the Commonwealth Government and by continuing to participate in a range of national and international forums.

In the absence of Commonwealth Government action to create an emissions trading scheme – either through the Kyoto Protocol or a standalone Australian scheme – the NSW Government is developing, with other State and Territory

¹ The World Bank and International Emissions Trading Association, 2006, *State and Trends of the Carbon Market 2006*, p. ii, available at <http://carbonfinance.org/docs/StateoftheCarbonMarket2006.pdf>.

² Nic Frances, "Greener water and light", *The Australian*, 8 June, p.10.

³ Ken Edwards from Nextgen, one of Australia's largest brokers of carbon offsets, quoted in Angus Grigg, "The right climate for hot money", *Australian Financial Review*, 17 June 2006, p. 24.



Governments, a National Emissions Trading Scheme (NETS). The State and Territory governments are planning on the basis of a National Emissions Trading Scheme starting in 2010, with major policy statements due this year and next.

The NSW Government firmly believes that this state-and-territory based coordinated national approach is preferable to individual states taking uncoordinated actions. Nevertheless, the Government wants to ensure that investment in low greenhouse intensity generation and other abatement projects is not threatened by regulatory uncertainty in the short-term.

For this reason, the NSW Government decided to extend the Greenhouse Gas Abatement Scheme from 2012 to 2020 and beyond or until a national emissions trading scheme is established. The Scheme will continue to be extended on a rolling 15 year basis, if agreement on a national emissions trading framework is delayed. The Government has also committed to NSW economy-wide targets to reduce greenhouse gas emissions over the next 20 years and by 2050.⁴

This policy paper sets out how the Government proposes to extend the Scheme until a national emissions trading scheme is established.

⁴ The NSW Government has committed to the following long-term economy-wide greenhouse reduction targets:

- a return to year 2000 greenhouse emission levels in NSW by 2025; and
- a 60% cut in greenhouse emissions by 2050.



2 Towards a National Emissions Trading Scheme

The NSW Government believes that the development of a global or national greenhouse gas trading scheme is the best approach to meet the challenge of climate change. In comparing emissions trading with other technology based alternatives to the Kyoto Protocol, leading market analysts, Point Carbon, found that:

For an agreement to work it is essential that there is a price on carbon, and a value on reductions, thus incentivising private sector investments in new technologies. Currently, the carbon market remains the best option for enabling the transfer to a less carbon-intensive global economy.⁵

In the absence of Commonwealth Government leadership on greenhouse policy, the NSW Government is developing, with other State and Territory Governments, a National Emissions Trading Scheme (NETS). The Governments agreed that the task was to develop an agreed model for such a scheme which would:

- Provide a framework for Australian States and Territories to reduce greenhouse gas emissions and assist in meeting Australia's Kyoto Protocol target;
- Position Australia for a carbon constrained future and emission reductions beyond 2012;
- Allow for consistency with international developments;
- Most likely focus initially on the stationary energy sector, but allow expansion to other sectors or an economy-wide scheme; and
- Minimise the cost of compliance and administration for participants and the Regulator.

The State and Territory Governments have endorsed ten design principles as a basis for further investigation and analysis. These are being further investigated by the National Emissions Trading Taskforce. Key design propositions include:

- A cap and trade approach be used as the basis for scheme design;
- The scheme be national and sector based;
- In setting the cap, consideration be given to the overall national emissions abatement target, and how the abatement responsibility is allocated between sectors covered by the scheme and those outside the scheme;
- The scheme initially cover the stationary energy sector (including electricity, gas and coal);
- The scheme cover all six greenhouse gases under the Kyoto Protocol;

⁵ PointCarbon, 2006, Carbon 2006: Towards a truly global market, p.iv, available from <http://www.pointcarbon.com/>.



- Permit allocation be made on the basis of a mix of administratively allocated and auctioned permits, with both long and short term (annual) permits;
- A penalty should be set to encourage compliance and to establish a price ceiling for the permit market;
- Offsets be allowed;
- Mechanisms be included to address any adverse effects and structural adjustments (including transitional provisions for trade exposed energy intensive industries); and
- Mechanisms be included to allow a transition for participants who have taken early abatement action and new entrants.

In September 2005, the Taskforce released a *Background Paper* for stakeholder consultation, followed by a *Discussion Paper* in August 2006. The Taskforce is working to a timetable that would allow State and Territory Governments to implement a national scheme beginning in 2010, should they agree to do so.

At this stage, Governments have committed to investigate and analyse a possible scheme, and consult with industry, environment and community representatives through the release of the Discussion Paper. State and Territory governments will not make a decision on possible implementation of a national scheme until the investigation, scheme design and consultation phases are complete. More detail on the work of the National Emissions Trading Taskforce is available at <http://www.emissionstrading.nsw.gov.au/>.

In the event that agreement is reached for a National Emissions Trading Scheme to start by 2010 (or before the end of 2012), it will be necessary for the Government to consider the transition from the NSW Scheme to a national scheme. In that event the NSW Scheme will cease and be replaced by the national scheme.

The major reform, of having a carbon price signal where none existed before, is already in place because of the Greenhouse Gas Abatement Scheme.

If it becomes clear that a National Emissions Trading Scheme is not going to be established or will be delayed indefinitely, the Government will conduct a wide-ranging review of the NSW Greenhouse Gas Abatement Scheme. The Scheme will be extended beyond 2012, and the aim of such a review would be to ensure that the extended Scheme continues to meet the Government policy objectives over a longer timeframe than currently anticipated, including addressing a future transition to a National Emissions Trading Scheme if sufficient details of the national scheme were known. On its current timetable, it is anticipated that it would be clear to the National Emissions Trading Taskforce by around 2008 whether a National Emissions Trading Scheme will be established.



3 The Greenhouse Gas Abatement Scheme

The aim of the NSW Greenhouse Gas Abatement Scheme is to reduce greenhouse gas emissions associated with the production and use of electricity and to encourage participation in activities to offset the production of greenhouse gas emissions.

Unlike traditional regulatory measures, the Scheme allows trading of emissions. Emissions trading is a market based mechanism that factors the costs of the impacts of climate change into the decision-making of those who emit greenhouse gases. An emissions trading scheme helps to provide a price signal that internalises greenhouse gas emissions as a business cost, rather than allowing emissions to be freely disposed of to the atmosphere at a zero price.

The common intent of emissions trading, whether as the NSW Greenhouse Gas Abatement Scheme (GGAS) or a National Emissions Trading Scheme (NETS), is to create incentives that enable emissions targets for the covered sectors to be met at the lowest cost to the economy. A well designed scheme can encourage changes in behaviour, increase the uptake of low-emission technologies and drive innovation and investment in long-term greenhouse gas emission reductions.

Appropriately deployed, market mechanisms, regulatory measures and government programs can be complementary. For this reason, the NSW Greenhouse Plan uses a range of different types of measures in a range of sectors of the economy, of which one is the NSW Greenhouse Gas Abatement Scheme.

The ideal emissions trading scheme is as comprehensive as possible in its coverage of the economy. In practice, the application of emissions trading is limited to sectors and facilities with a manageable number of responsible parties who can be readily identified and whose emissions can be monitored and reported with sufficient accuracy to support market trading. Sectoral coverage also needs to avoid excessive transaction costs.

The NSW Scheme establishes annual state-wide greenhouse gas benchmarks for the electricity sector and then requires individual Benchmark Participants (who buy or sell electricity in NSW) to meet their allocation of the mandatory greenhouse gas benchmark, based on their share of the NSW electricity demand.

The *Electricity Supply Act 1995* (NSW) sets a State greenhouse gas benchmark expressed in tonnes of carbon dioxide equivalent (tCO₂-e) per capita. The initial level at the commencement of the Scheme was set at 8.65 t CO₂-e and will progressively drop to 7.27 t CO₂-e in 2007 and then remain at that level until 2012. This represents a per capita reduction of 5% in greenhouse gas

emissions below emissions in the Kyoto Protocol baseline year of 1990. The targets were set to be challenging but achievable, and importantly to put a reasonable carbon price signal in the market to put downward pressure on greenhouse gas emissions from the NSW electricity sector.

Benchmark Participants achieve their individual benchmark by surrendering abatement certificates created from project-based emission reduction activities. The surrender of these certificates effectively offsets a portion of the greenhouse gas emissions associated with their electricity sales or purchases.

Project-based emission reduction activities, from which abatement certificates can be created by accredited abatement certificate providers, include:

- low-emission generation of electricity (including cogeneration) or improvements in emission intensity of existing generation activities (Rule 2 – Generation);
- activities that result in reduced consumption of electricity (Rule 3 – Demand Side Abatement);
- activities carried out by elective participants that reduce on-site emissions not directly related to electricity consumption (Rule 4 – Large User Abatement); and
- the capture of carbon from the atmosphere in forests (Rule 5 – Carbon Sequestration).

The effect of these Rules is that the Scheme covers emissions from the electricity sector and also counts eligible abatement from the waste, industrial processes and fugitive emissions from coal mining sectors and offsets from the forest sequestration.

If a Benchmark Participant fails to surrender enough abatement certificates to meet their mandatory benchmark, then a penalty is payable. Currently the penalty level is set at \$11 per tonne of shortfall.

The Scheme Administrator and NSW Compliance Regulator (the NSW Independent Pricing and Regulatory Tribunal (IPART)) provides more detailed information on the Scheme on its website at:

http://www.greenhousegas.nsw.gov.au/overview/scheme_overview/overview.asp

The ACT Government introduced a Greenhouse Gas Abatement Scheme on 1 January 2005 that mirrors the NSW GGAS. IPART has been appointed the Scheme Administrator for the ACT Scheme and the ACT Compliance Regulator is the ACT's Independent Competition and Regulatory Commission (ICRC).



4 Assessment of Scheme performance

The Government's objectives in establishing the Scheme and designing greenhouse policies include:

- effectiveness in reducing greenhouse gas emissions;
- providing policy certainty to markets; and
- minimising the cost of abatement to NSW consumers and industry.

The Scheme has reduced greenhouse emissions by providing an economic incentive for the development of projects that reduce or offset greenhouse gas emissions. By the end of May 2006 there were 163 projects accredited with the Scheme to create abatement certificates, each representing a tonne of carbon dioxide equivalent.

In the first three years of the Scheme, accredited projects created approximately 24 million abatement certificates representing emissions reductions, abatement or offsets of 24 million tonnes of carbon dioxide equivalent. In 2005, more than 10 million certificates were created by accredited projects. This corresponds to taking about 2 million cars off the road or offsetting their emissions – as many cars as there are in Sydney.

The generation sector dominates creation of abatement certificates, with activities accredited under the Demand Side Abatement Rule steadily increasing and accounting for around 20 per cent of certificates created in 2005.

Projections of the supply and demand for Greenhouse Abatement Certificates, undertaken by the Scheme Administrator, suggests that there is a need for a significant amount of new and additional abatement projects to meet the future demand for abatement certificates. The extension of the Scheme beyond 2012 is designed to maintain the incentive to invest in such projects.

The Scheme has provided policy certainty to markets by introducing a price signal for greenhouse gas emission abatement across the National Electricity Market and to a certain extent to some other sectors through their eligibility to create offsets.

All generators are, to a varying degree, affected by this price signal, either because they sell abatement certificates or because they are, and will continue to be, competing with generators that sell abatement certificates. Prudent investors should now include carbon prices in their own business cases and the comparative costs of their competitors. Consequently, the Scheme has significantly reduced the risk and uncertainty about whether and when greenhouse emissions would be priced into operational and investment decisions in the National Electricity Market.

Some uncertainty remains about whether a National Emissions Trading Scheme will proceed, when and in what form. A key objective of the NSW Government in announcing the extension of the Scheme beyond 2012 is to continue to provide certainty to investors in low emission generation and other abatement projects, whether or not a national scheme proceeds.

Compared to other types of regulatory measures or Government programs, the Scheme minimises the cost of abatement by introducing a carbon price signal across all fuels and technologies in the electricity sector and in some other sectors. One of the reasons to move to a national cap and trade scheme is to improve cost effectiveness by making the price signal more proportional to total emissions than is possible under a baseline and credit scheme.

5 Extension of the Scheme

New South Wales is committed to a national emissions trading scheme to provide a national, market-based signal for emissions reduction. The NSW Government's aim is to replace the NSW Greenhouse Gas Abatement Scheme with a National Emissions Trading Scheme.

The NSW Government considers it reasonably likely that a decision to establish a National Emissions Trading Scheme will have been made well before the current end of the Greenhouse Gas Abatement Scheme in 2012, with implementation possible from as early as 2010. The decision to extend the Scheme until a national emissions trading scheme is established removes the biggest uncertainty for investors by ensuring that there will be no gap between the state and national schemes, while also ensuring minimal overlap between schemes.

Major amendments to the Scheme's design at this time may create confusion about the Government's commitment to a National Emissions Trading Scheme, given that any amended rules may only apply for a short period, if ever. For this reason, the NSW Government proposes to extend the Scheme for the time being without major amendments.

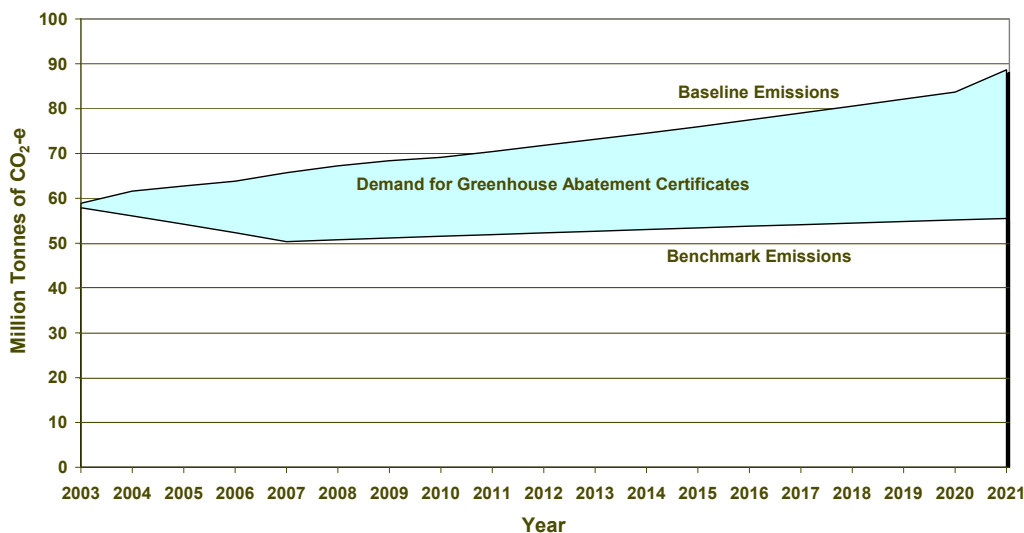
This is an interim measure to provide continuity for investors in abatement and in the emissions trading market. The Government will conduct a more comprehensive review of the Scheme if it becomes clear that agreement on a National Emissions Trading Scheme has not been achieved or its implementation will be delayed beyond the end of 2012. The aim of such a review would be to ensure that the extended Scheme will continue to meet the Government policy objectives over a longer timeframe than currently anticipated.

In 2012 the State Greenhouse Gas Benchmark is due to be set at 7.27 tonnes CO₂-e per capita. Should the Scheme operate in its current form beyond 2012 it will create an increasing requirement for abatement because the demand for electricity in NSW typically grows faster than population.⁶ This is shown in Figure 2 below. The rising demand for abatement will progressively strengthen the incentive to invest in low emission generation and other abatement projects.

⁶ The abatement requirement is determined by the difference between baseline emissions and target emissions, the Electricity Sector Benchmark. Baseline emissions are determined each year by multiplying the total electricity purchased by the NSW pool coefficient. The target emission level or the Electricity Sector Benchmark is calculated by multiplying total State of NSW population by the State Greenhouse Gas Benchmark, expressed in emissions per capita. Therefore, the abatement requirement will grow if electricity purchases grow faster than population.

The Government's preferred position is that the actual benchmark beyond 2012 will be set by the National Emissions Trading Scheme. If it becomes clear that agreement on a National Emissions Trading Scheme will not be achieved or its implementation will be delayed beyond the end of 2012, the actual benchmark to apply post-2012 will be determined following a more comprehensive review of the Scheme.

Figure 1: Projections of benchmark and baseline emissions, and demand for Greenhouse Abatement Certificates (excluding the ACT)



The NSW Government is also proposing some minor adjustments to the Scheme's enabling legislation to improve its efficiency, integrity and transparency. These amendments, if implemented would:

- allow the release of aggregated historical information on certificate creation, transfers and ownership, to improve market transparency;
- allow abatement certificate providers to apply to the Scheme Administrator to vary or revoke conditions of their accreditation, along similar lines to the current provisions allowing applications for accreditation including the provision to allow charging of additional fees, on a cost recovery basis, for investigating applications;
- provide broader discretion to exclude from an abatement certificate provider's accreditation any abatement undertaken to satisfy another purpose or obligation, to exclude double counting of abatement. This would complement the current exclusion from accreditation of abatement which has been or will be counted in another mandatory scheme;

- change the final date for submission of the annual report by the Compliance Regulator from 30th June each year to 31st July each year, to assist fuller reporting as creation of Greenhouse Abatement Certificates in the previous calendar year can be reported up to 30th June of the following year; and
- increase the penalty from its current level of \$11.50 to \$15.50 in four equal steps of \$1 each starting in 2010, plus CPI adjustments for inflation of both the original level and the increases, to maintain the incentive to abate by keeping the penalty above reasonably expected prices of abatement certificates over the period of the extended Scheme.

6 Next Steps

The Government:

- introduced legislation in October 2006 to extend the Scheme to 2020 and beyond and to set the benchmark for emissions at no more than the current State Greenhouse Gas Benchmark of 7.27 tonnes CO₂-e per capita for each year beyond 2012;
- will continue to lead the development of the National Emissions Trading Scheme; and
- will conduct a wide-ranging review of the NSW Greenhouse Gas Abatement Scheme if it becomes clear that a National Emissions Trading Scheme is not going to be established or will be delayed indefinitely.

