

## Appendix 2

### Response to recent comments on the CEEM Draft Report

*“The NSW Greenhouse Gas Abatement Scheme: An analysis of the NGAC Registry for the 2003, 2004 and 2005 Compliance Periods”:*

The Centre for Energy and Environmental Markets (CEEM) at the University of NSW has been undertaking research into the design and implementation of the NSW Greenhouse Gas Abatement Scheme since it was first proposed in 2001. Some 20 or more papers and presentations assessing the scheme are available on the CEEM website [www.ceem.unsw.edu.au](http://www.ceem.unsw.edu.au).

Our most recent report, *“The NSW Greenhouse Gas Abatement Scheme: An analysis of the NGAC Registry for the 2003, 2004 and 2005 Compliance Periods”* has just been released. As with all CEEM reports, it is released in draft form and we seek corrections and comments from interested parties.

A number of statements relating to our work were made by the NSW Government in the Legislative Council on the 5<sup>th</sup> June 2007. We welcome this feedback and address these statements below. The statements are in italics and are taken from Hansard.<sup>28</sup>

#### **The Hon. Ian Macdonald:**

*“Since 2003 there has been a reduction of more than 41 million tonnes of greenhouse gas emissions.”*

#### **CEEM Response:**

This statement is not supported by the evidence to date. Actual physical emissions in both NSW and Australia, both in Energy Industries and nationally (excluding LULUCF), have risen rather than been reduced over the life of GGAS. If this statement is instead taken to mean a ‘reduction from what would have happened in the absence of the scheme’ our work demonstrates that this is also not correct. As noted in our report, there are many examples of projects earning NGACs that were commissioned, or the investment was committed, well before the scheme began. Approximately 80% of the certificates for the 2003, 2004 and 2005 periods were created by plant that were performing their ‘low emission activities’ before the scheme began and so these activities can’t be claimed to have reduced emissions again since the GGAS started. In our view, all that can meaningfully be said about the GGAS scheme is that more than 41 million NGACs, representing imputed, hypothetical tonnes of CO<sub>2</sub> abatement have been created under the scheme to date.

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<sup>28</sup> The full Hansard transcript is appended to the end of this document.

**The Hon. Ian Macdonald:**

*“The University of New South Wales Centre for Energy and Environmental Markets report is a draft for comment only—nothing more, nothing less. The report misses the point of the scheme's two primary objectives that I mentioned earlier and makes many inaccurate claims. Let me answer some of those. Almost all emissions trading schemes, such as the European Union Emissions Trading Scheme, allow the use of offsets. There is nothing odd in this. Far from sending a distorted signal to sectors about the cost of carbon, it establishes the cost of carbon abatement across a broader section of the economy.”*

**CEEM Response:**

Most CEEM reports are released as ‘Draft for comment’ and we welcome corrections and comments on our work. Part of the challenge with GGAS, as noted in our report, is that the scheme’s complexity and abstraction makes assessment of its actual performance very difficult. Errors are sometimes made and differences of interpretation are certainly possible. However, in this case we are not clear what “many inaccurate claims” we made.

As noted in our report, we are well aware of the two stated objectives of the scheme: “The stated policy intent is to reduce greenhouse gas emissions created through NSW electricity consumption and to encourage activities that offset these emissions.” (p.7)

Our main point is that a scheme whose first stated intent is to reduce emissions created through NSW electricity consumption but has, to date, seen approximately 70% of the claimed abatement occur in offset activities not related to electricity supply and use in NSW, lacks coherence and credibility. This is adversely impacting the scheme’s ability to drive innovation and change in the NSW electricity sector. While many emissions trading schemes allow offsets, their use is generally intended to play only a supplementary role in meeting the emissions target. The potential distortions from the use of offsets have led to rigorous debate and restrictions in the EU ETS for example.

Furthermore, the use of offsets does not necessarily establish the cost of reducing emissions across a broader section of the economy. Rather, they only establish a ‘rule approval’ price ie. the cost of getting a project through the rules that determine eligibility for certificates. If these ‘offset’ rules don’t properly test additionality, this reduces the opportunities for projects that can genuinely reduce emissions to receive support under the scheme as they are competing against free-riders.

One key challenge, then, is to ensure that such offsets reflect genuine, transparent and credible reductions in emissions compared to what would have happened otherwise – meaning in this context that they have ‘additionality’. The EU ETS allows only CDM/JI offsets which incorporate very strict and transparent tests of additionality. Note that even with these tests, the CDM is finding it challenging to ensure projects deliver real emission reductions.

Finally, even with ‘additional’ offset projects there is a risk that rather than driving the innovation required to reduce emissions in the targeted sector, allowing offsets simply removes the ‘lowest hanging fruit’ in a number of sectors, leaving only the more expensive options available for the deeper cuts almost certain to be required at a later date.

So one possible result of such low-cost offset projects is that there may be inappropriate emissions-intensive investment in the NSW electricity sector. This makes the necessary task of achieving real emissions reductions in the future that much more difficult. Current debate about the possibility of building new coal-fired generation in NSW highlight this problem.

**The Hon. Ian Macdonald:**

*“The New South Wales Government rewarded some projects that were in place before the scheme was operational because we believed that early action taken in offsetting carbon emissions should not have been penalized simply because they were on the wrong side of the start date of the scheme. I make one point very clear: The only pre-1997 projects currently eligible to create certificates are those that participated in the preceding voluntary version of the scheme. So, not just any pre-1997 generation is eligible under the scheme—only the generation that complied with the voluntary scheme. To punish these companies would send the wrong signal that the rest of the community should wait as long as possible to act because there is no advantage in doing the right thing.”*

**CEEM Response:**

We note that the earlier voluntary NSW scheme that preceded GGAS was, itself, controversial and its performance was questioned by reviews including that undertaken by the EPA. Furthermore, while providing a new cashflow to companies for actions taken without any expectation the GGAS would be rewarding them a decade or so later is certainly generous, not giving them that money is hardly a punishment. Rather, this practice risks setting a precedent where companies might now feel justified in claiming to be suffering unjust punishment for not receiving money from new NSW Government programs perhaps a decade after their projects started operation.

Even where projects do represent genuine early action on greenhouse abatement, NSW energy consumers have every right to expect that rewards received under the scheme have some relationship to the efforts taken. For example, the Tower Appin Coal Mine gas project was built more than a decade ago under a Power Purchase Agreement yet is now earning Integral Energy in the order of \$24 million/year through GGAS.

The certificates created in emissions trading schemes serve two functions - providing commercial value to certain projects and organisations, and acting as an accounting tool to quantify emissions. In the GGAS architecture, allowing pre-GGAS generators to create NGACs without having to provide any additional abatement activity focuses only on the first function. As noted above, we question the wisdom of this approach. However, regardless of the degree to which these generators deserved to be rewarded for early action, providing them with such certificates means the second accounting function is distorted – because the rewarded activity had not lead to additional abatement since the GGAS began. This, in turn, distorts the degree to which such certificates can be claimed to reduce per capita emissions compared to pre-GGAS levels.

More generally, pre-existing projects created about 80% of the certificates during the GGAS's first three years of operation, and more than 50% of the first three year's certificates were created by plant built at least 5 years before the GGAS began. Inclusion of pre-existing projects in GGAS reduces the cashflow available to drive deployment of the new low emission technologies required to reduce NSW emissions between now and 2020, and would appear to provide NSW energy users poor value for money in driving emission reductions.

A far simpler way and more credible way to reward projects that take early action would be to have a cap and trade scheme and require emitters to buy emissions permits. Businesses and projects that had taken early action would need to buy less permits and so would be at a competitive advantage.

Finally, the Minister appears to be in error in stating *“I make one point very clear: The only pre-1997 projects currently eligible to create certificates are those that participated in the preceding voluntary version of the scheme.”* To take just one example, Hazelwood power station in Victoria is some forty years old, perhaps the most greenhouse polluting power station in the OECD, did not participate in the earlier voluntary scheme as far as we are aware, yet is an accredited NGAC creator. Over the last three years NSW energy consumers have paid the owners of Hazelwood some \$10 million for their claimed contribution to emissions reductions, a period over which the number of NGACs created by Hazelwood bears little relationship to the change in physical emissions from the plant.

**The Hon. Ian Macdonald:**

*The report also criticised the scheme for allowing certificates to be claimed for supposedly increasing emissions, though this is not the case. The scheme allows certificates to be claimed for producing less greenhouse emissions than the current average of all generation. It does not matter where the power comes from as long as the level of greenhouse gas emissions is reduced. I add that this reduces the overall cost of low emission electricity for consumers in New South Wales.*

**CEEM Response:**

As noted earlier the scheme doesn't define what 'emissions reductions' actually means in practice. The GGAS does not actually assess claimed abatement on the basis of a 'reduction' in the level of greenhouse gas emissions. Instead it assesses projects on the basis of scheme Rules that are sometimes claimed to represent a reduction in emissions from what would have happened otherwise.

As stated in our report, GGAS is awarding considerable NGACs to coal-fired power stations that started operating after the scheme commenced. The GGAS rules assess claimed 'emission reductions' from these power stations on the basis that they have displaced existing NSW power stations, and have a lower emissions intensity (less CO<sub>2</sub> released per kWh produced) than the existing NSW average emissions intensity. However, these power stations were clearly built primarily in response to ongoing growth in demand. Their generation is therefore more adding to, than offsetting, existing generation and hence emissions are very likely to be increasing.

**The Hon. Ian Macdonald:**

*As for other reports relating to the concerns about the integrity of some offset schemes, I assure honourable members that a rigorous framework administered by the Independent Pricing and Regulatory Tribunal supports the New South Wales scheme. That framework requires companies creating certificates from tree planting to ensure trees are not harvested or damaged by bushfires or pests. It also requires that estimation of carbon sequestered is conservative and is subject to requirements for rigorous auditing on a regular basis. If the trees do not remain for 100 years, the company creating these offset credits must make amends by making good the abatement from other forestry activities or pay substantial penalties.*

**CEEM Response:**

We did not suggest that IPART undertakes its task in a less than rigorous fashion. The framework administered by IPART assesses compliance with the GGAS Rules and it is the Rules that don't address whether the projects rewarded with certificates have reduced emissions compared to what would have happened in the GGAS's absence. Our report demonstrates how a wide range of offset projects can earn NGACs for activities that had already happened, or would likely have happened in the absence of the scheme.

In the case of tree planting, GGAS requires that biosequestration projects are maintained for 100 years after which the sequestered carbon may be released into the atmosphere. This implies that removing CO<sub>2</sub> from the atmosphere for only 100 years is equivalent to the very much longer geological sequestration of carbon in fossil fuels such as coal – clearly a much surer form of sequestration. Biosequestration is allowed in the Clean Development Mechanism but in that case the certificates so created must be replaced with some other permanent certificate (ie. not biosequestration) after a maximum of 60 years.

As stated in our report, the GGAS highlights the need for good governance during the design, operation and assessment of policies targeting the reduction of greenhouse gas emissions. This applies equally to other existing and proposed emissions trading schemes such as that outlined in the recently released Prime Minister's Report of the Task Group on Emissions Trading. Good governance includes separation of powers of those that design a scheme, those who operate a scheme and those who assess it. Otherwise conflicts of interest can distort not only the reporting of the scheme's outcomes but also any revision and redesign aiming to improve the scheme. Such conflicts represent a failure in the policy process and scheme design, not a failure of the scheme administrator.

Thus, although the NSW Government should be congratulated for implementing an emissions trading scheme in the absence of Commonwealth Government action, the NSW GGAS has significant flaws that greatly reduce its effectiveness and efficiency. Improvements to the GGAS's design could significantly increase support for innovation and deployment of low emission technologies, and so strategically position NSW for the deeper emissions cuts that will be required in a future carbon constrained world.

Unfortunately the poor performance to date with the NSW GGAS has also been seen in other emissions trading schemes such as the EU ETS. Such Schemes have, to date, generally demonstrated low effectiveness and efficiency, and very adverse equity outcomes – rather than enforcing the 'polluter pays' principle, the schemes more closely follow a 'polluter is paid' approach. Our Centre's work evaluating existing and proposed schemes highlights the key role of governance in all of these failures – policy makers have, to date, largely failed to protect the public interest and instead implemented schemes that make very significant wealth transfers to large polluters.

For more details of this work and related work see [www.ceem.unsw.edu.au](http://www.ceem.unsw.edu.au).

We welcome further feedback from interested parties regarding our GGAS work.



## GREENHOUSE GAS ABATEMENT SCHEME

**The Hon. LYNDA VOLTZ:** My question is addressed to the Minister for Energy. Will the Minister update the House on the success of the State Government's Greenhouse Gas Abatement Scheme [GGAS] in the wake of media reports today?

**The Hon. IAN MACDONALD:** First, let me make one thing perfectly clear: New South Wales is leading the way on greenhouse gas reduction. The Government has filled the vacuum left by Federal Government inaction through the New South Wales greenhouse reduction scheme. It has been a resounding success. The figures speak for themselves. Since 2003 there has been a reduction of more than 41 million tonnes of greenhouse gas emissions. That is the equivalent of removing nine million cars off the road for a year. The primary objectives of this scheme are sound. They are to reduce greenhouse gas emissions for the electricity industry while at the same time encouraging the offset of greenhouse gas emissions. Nic Frances from Easy Being Green was reported in the *Australian* on 8 June 2006 as saying:

One state [New South Wales] is quietly fighting climate change through a very simple market-friendly action. It put a price on carbon.

Ken Edwards from Next-gen, one of Australia's largest brokers of carbon offsets, was quoted in the *Australian Financial Review* on 17 June 2006 as saying:

The NSW Scheme is highly regarded around the world.

Even the Prime Minister's task force, which handed down its report last Friday, recognises the New South Wales scheme and acknowledges that there would need to be a transition process to give due regard to industry participants who have already made significant greenhouse gas reduction investments under the scheme. I regret to say that some media reports today contain a number of factual errors regarding this groundbreaking scheme.

The University of New South Wales Centre for Energy and Environmental Markets report is a draft for comment only—nothing more, nothing less. The report misses the point of the scheme's two primary objectives that I mentioned earlier and makes many inaccurate claims. Let me answer some of those. Almost all emissions trading schemes, such as the European Union Emissions Trading Scheme, allow the use of offsets. There is nothing odd in this. Far from sending a distorted signal to sectors about the cost of carbon, it establishes the cost of carbon abatement across a broader section of the economy.

The New South Wales Government rewarded some projects that were in place before the scheme was operational because we believed that early action taken in offsetting carbon emissions should not have been penalised simply because they were on the wrong side of the start date of the scheme. I make one point very clear: The only pre-1997 projects currently eligible to create certificates are those that participated in the preceding voluntary version of the scheme. So, not just any pre-1997 generation is eligible under the scheme—only the generation that complied with the voluntary scheme. To punish these companies would send the wrong signal that the rest of the community should wait as long as possible to act because there is no advantage in doing the right thing.

The report also criticised the scheme for allowing certificates to be claimed for supposedly increasing emissions, though this is not the case. The scheme allows certificates to be

claimed for producing less greenhouse emissions than the current average of all generation. It does not matter where the power comes from as long as the level of greenhouse gas emissions is reduced. I add that this reduces the overall cost of low emission electricity for consumers in New South Wales.

As for other reports relating to the concerns about the integrity of some offset schemes, I assure honourable members that a rigorous framework administered by the Independent Pricing and Regulatory Tribunal supports the New South Wales scheme. That framework requires companies creating certificates from tree planting to ensure trees are not harvested or damaged by bushfires or pests. It also requires that estimation of carbon sequestered is conservative and is subject to requirements for rigorous auditing on a regular basis. If the trees do not remain for 100 years, the company creating these offset credits must make amends by making good the abatement from other forestry activities or pay substantial penalties. I also point out a clear distinction between the credibility of the voluntary offset market and the products delivered through the New South Wales greenhouse gas reduction scheme. [*Time expired.*]

