

NSW Greenhouse Gas Abatement Scheme

Compliance and Operation of the Scheme during 2004

Report to Minister



IPART

NSW Greenhouse Gas Abatement Scheme

Compliance and Operation of the Scheme during 2004

Report to Minister



Compliance No 19

June 2005

ISBN 1 920987 29 0

This is copyright. The *Copyright Act 1968* permits fair dealing for study, research, news reporting, criticism and review. Selected passages, tables or diagrams may be reproduced for such purposes provided acknowledgement of the source is included.

Inquiries regarding this report should be directed to:

Christopher Spangaro ☎ 02 9290 8419

Margaret Sniffin ☎ 02 9290 8486

Gary Drysdale ☎ 02 9290 8477

Independent Pricing and Regulatory Tribunal of New South Wales

Level 2, 44 Market Street, Sydney NSW 2000

☎ (02) 9290 8400 Fax (02) 9290 2061

www.ipart.nsw.gov.au

All correspondence to: PO Box Q290, QVB Post Office NSW 1230

TABLE OF CONTENTS

1	EXECUTIVE SUMMARY	1
2	OVERVIEW OF THE SCHEME	3
	2.1 Legislative framework	3
	2.2 Structure of the Scheme	5
	2.3 Role of the Tribunal	5
	2.4 Greenhouse gas benchmarks	6
	2.5 Benchmark participants	6
	2.6 Abatement certificate providers	7
3	BENCHMARK PARTICIPANTS	9
	3.1 Compliance outcomes	10
	3.2 Certificates surrendered	11
	3.3 Elective participants for 2005	12
4	ABATEMENT CERTIFICATE PROVIDERS	13
	4.1 Compliance outcomes	13
	4.2 Clarification of application of the Generation Rule and Demand Side Abatement Rule	14
	4.3 Measures to stimulate demand side abatement projects	14
	4.4 Application of the Carbon Sequestration Rule	15
	4.5 Amendment to facilitate accreditation of future projects	16
	4.6 Large User Abatement Certificate Rule	17
5	REGISTRY	19
	5.1 Register of accredited abatement certificate providers	19
	5.2 Register of abatement certificates	21
6	AUDIT FRAMEWORK	23
	6.1 Audit and Technical Services Panel	23
	6.2 Audit activity in 2004	24
	6.3 Amendments to audit documentation	25
	6.4 Developing an international audit standard	26
	6.5 Compliance and monitoring strategy	26
7	FUTURE DEMAND AND SUPPLY OF ABATEMENT CERTIFICATES	27
	7.1 Sources of abatement certificates	28
	7.2 Providing information to potential participants	29
8	COMPATIBILITY AND CONSISTENCY WITH SIMILAR SCHEMES	31
	8.1 Australian developments and schemes	31
	8.2 International consistency	33
ATTACHMENT 1	LEGISLATIVE CHANGES THAT OCCURRED IN 2004	35
ATTACHMENT 2	PROPOSED LEGISLATIVE CHANGES FOR 2005	37
ATTACHMENT 3	THE TRIBUNAL'S FUNCTIONS UNDER THE SCHEME	40
ATTACHMENT 4	GLOSSARY	41

1 EXECUTIVE SUMMARY

The NSW Greenhouse Gas Abatement Scheme (the Scheme) commenced on 1 January 2003. This is the second annual report on the Scheme and covers the 2004 calendar year. Under the Scheme, the Independent Pricing and Regulatory Tribunal (the Tribunal) has two key roles – it accredits abatement projects and administers the Scheme (Scheme Administrator) and it ensures that benchmark participants comply with the Scheme (Compliance Regulator).

In its second year of operation the Scheme has grown and developed. There were 31 benchmark participants in 2004, of whom 23 were compulsory participants. For the 2004 compliance year benchmark participants surrendered over five million certificates. With one exception, all electricity retailers and other benchmark participants reduced or offset their emissions through the surrender of abatement certificates to their benchmark levels or carried forward a small shortfall, within the permitted 10 per cent buffer. One benchmark participant incurred a small penalty for marginally exceeding the 10 per cent carry forward limit. Given that there was a significant rise in the benchmark target between 2003 and 2004, this was a strong performance.

At the end of 2004, there were 93 accredited abatement certificate providers still eligible to create abatement certificates. This represents a significant growth in participation in the Scheme by organisations undertaking activities to reduce emissions or enhance removal of greenhouse gases. Most of the growth in abatement certificate providers has come from electricity generators and this is reflected in the high proportion of certificates created to date from low or reduced emission electricity generation activities.

However, there has also been strong growth in participation in the Scheme by organisations undertaking demand side abatement projects, ranging from energy efficiency improvements in industrial processes to large scale distribution of energy efficient compact fluorescent lamps to households.

In addition, during 2004, the Tribunal accredited the first abatement project involving carbon sequestration in forests. This required extensive, leading edge development of processes and instruments to ensure the integrity and long term security of carbon stocks in accredited forests.

Many of the abatement projects accredited by the Tribunal have benefits beyond the primary benefit of greenhouse gas emissions reduction or carbon sequestration. For example, some forestry sequestration projects have the potential to also assist in addressing salinity, erosion and biodiversity challenges. Demand management projects involving the fitting of low flow showerheads have the additional benefit of reducing water usage.

For the Tribunal, the task of assessing a significant number of applications for accreditation in a rigorous but efficient manner has been a challenge. The robust processes and systems established by the Tribunal at the commencement of the Scheme have proven very effective in ensuring a high level of integrity, while ensuring that accreditation application processing times and costs are minimised.

The lessons learned from the operation of the Scheme to date have fed into the ongoing refinement and development of the Scheme's legislation, Regulation and Rules, as well as the administrative processes and documentation that support the Scheme. The Tribunal will continue to work to refine systems, improve information availability to potential Scheme participants and take proactive steps such as encouraging the grouping of projects by applicants, where appropriate, with a view to minimising the costs of participating in the Scheme.

As in 2003, there were more abatement certificates created than required to meet the obligations of the benchmark participants for compliance in 2004. As abatement certificates are bankable, these are available to meet compliance obligations in future years.

However, the number of certificates required for benchmark participants to meet their benchmark levels will continue to grow as the Scheme unfolds. Abatement projects will continue to be required in the short and medium terms. Changes were made to the Scheme during 2004 to attract abatement certificate providers and the creation of new abatement projects and the Tribunal has been active in encouraging broader participation in the Scheme by eligible parties.

The development of the Scheme to date has seen close collaboration between the Tribunal, as Scheme Administrator and Compliance Regulator, and other agencies with policy responsibilities in the greenhouse area. In particular, the Tribunal has worked closely with the Department of Energy, Utilities and Sustainability on the development and refinement of the legislative and regulatory framework and instruments which underpin the Scheme.

In the coming year the Scheme will continue to develop and grow. From 1 January 2005, the Australian Capital Territory implemented a complementary scheme, placing obligations on electricity retailers in the ACT but also enabling accreditation of abatement projects in the Territory.

The Tribunal has also sought to be active in the exchange of information and ideas with the developers of related schemes both in other Australian jurisdictions and overseas with a view to enhancing the efficiency and effectiveness of its systems and accreditation processes. It recognises that the greenhouse gas challenge requires an international response best addressed in a cooperative and collaborative manner. It will therefore continue to seek to maintain consistency between this Scheme and international protocols and standards, wherever possible.

Under the relevant provisions of the *Electricity Supply Act 1995*, the Tribunal may, with the approval of the Minister, delegate the exercise of its functions under the Scheme to another person or body. From 1 January 2004 to 30 April 2004, the Tribunal delegated its functions as Scheme Administrator to a Committee comprising Dr Tom Parry and Mr James Cox. From 1 May 2004 to the present, the Committee has comprised Mr James Cox and Mr Peter Egger.

2 OVERVIEW OF THE SCHEME

The Scheme is one of the first mandatory greenhouse gas emissions trading schemes in the world. Its objectives are to: reduce greenhouse gas emissions associated with the production and use of electricity; and to develop and encourage activities to offset the production of greenhouse gas emissions.

The Scheme requires NSW electricity retailers and certain other parties, collectively referred to as benchmark participants, to meet mandatory targets for reducing or offsetting the emission of greenhouse gases from the production of the electricity they supply or use.

Benchmark participants can reduce the average emissions intensity of the electricity they supply or use by purchasing abatement certificates and surrendering these to the Tribunal in its capacity as Compliance Regulator. Benchmark participants can also claim credit for the surrender of Renewable Energy Certificates (RECs) under the Commonwealth's Mandatory Renewable Energy Target (MRET).¹

Enforceable annual reduction targets have been set for calendar years 2003 to 2012.

Abatement certificate providers carry out activities that abate greenhouse gases. They can achieve this through demand side abatement - reducing, or increasing the efficiency of, the consumption of electricity; reducing the greenhouse gas intensity of electricity generation; generating low emission intensity electricity; or via carbon sequestration - managing forests so as to capture and retain carbon from the atmosphere.

The Scheme also allows some large electricity customers to claim credit for reducing on-site emissions of greenhouse gases from (non-electricity related) industrial processes at sites which they own and control.

In its role as Scheme Administrator, the Tribunal accredits abatement certificate providers and allows them to create tradable abatement certificates (NGACs). An audit panel assists in ensuring the integrity and validity of the certificates registered within the Scheme. The registry evidences the creation, transfer and ultimate surrender of the abatement certificates. Once surrendered, the certificates cannot be reused. The registry does not provide a trading function, as this is performed by the market separately.

2.1 Legislative framework

The Scheme is created by a legal and technical framework through amendments to the *Electricity Supply Act 1995* (the Act), the *Electricity Supply (General) Regulation 2001* (the Regulation), and five Greenhouse Gas Benchmark Rules² (the Rules) approved by the Minister for Energy and Utilities.

¹ The Office of the Renewable Energy Regulator (ORER) is a statutory authority established to oversee the implementation of the Commonwealth Government's Mandatory Renewable Energy Target.

² The five Rules are: No. 1 - Compliance, No. 2 - Generation, No. 3 - Demand Side Abatement, No. 4 - Large User Abatement Certificates, No. 5 - Carbon Sequestration.

The Act sets out the functions and responsibilities given to the Tribunal to ensure compliance by benchmark participants. It also sets out the functions of the Scheme Administrator, a role to which the Tribunal has been appointed under the Act by the Minister.

The Act was amended in 2002 to establish greenhouse gas benchmarks for the electricity industry, and to encourage activities relating to the reduction of greenhouse gas emissions. The Regulation was amended to support the Act and to make provisions for the operation of the Scheme. The five Rules deal with specific activities within the Scheme and provide the technical detail necessary to apply the Scheme in practice.

Initially, under the Regulation, abatement certificate providers accredited before 30 June 2004 were permitted to create certificates for abatement activity undertaken from 1 January 2003. At the end of 2004, this transitional arrangement came to a close. Applicants for accreditation as abatement certificate providers may now only create abatement certificates from the date they lodge an application with the Scheme Administrator.

Further amendments to the Regulation, the Generation Rule and the Demand Side Abatement Rule during 2004 were primarily directed at increasing the ease and opportunity for accreditation and the creation of abatement certificates. The key implications of the changes for abatement certificate providers are highlighted in section 4 of this report and a brief summary of all the significant changes is provided in Attachment 1. Interested parties are encouraged to review the new Rules in detail directly at the Scheme's website: www.greenhousegas.nsw.gov.au.

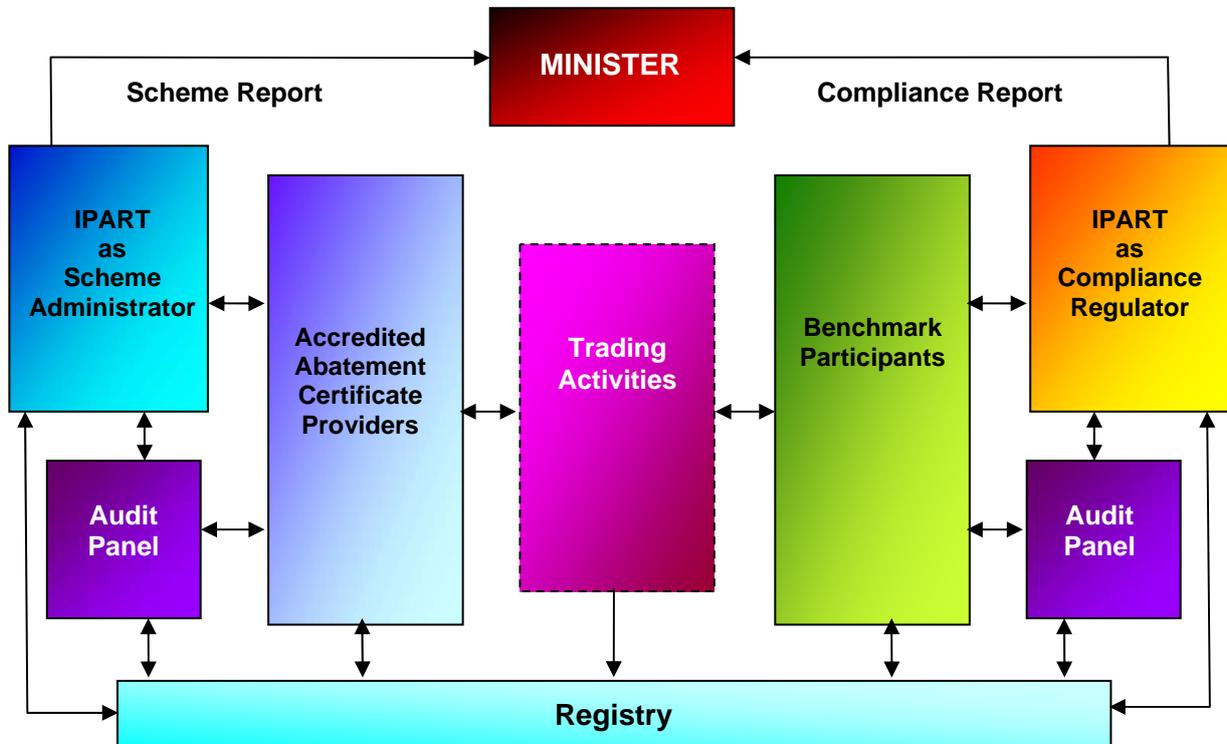
The Department of Energy, Utilities and Sustainability has responsibility for developing the policy framework, consulting on proposed changes to the Rules and implementation of those changes. The Tribunal then applies those Rules in its roles as Scheme Administrator and Compliance Regulator.

Recognising the complexity and detail in the Rules, it is only when the Rules are explored through the implementation of the Scheme that practical difficulties in the Rules become apparent. Through the experience gained by the Tribunal in applying the Act, Regulation and Rules in 2004, a number of proposed amendments and adjustments were suggested for the Scheme. These have been presented to the Department of Energy, Utilities and Sustainability for consideration as policy changes. A brief summary of the significant proposed changes is provided in Attachment 2.

2.2 Structure of the Scheme

Figure 2.1 illustrates the structure of the Scheme and its key participants.

Figure 2.1 Structure of the Scheme and key participants



2.3 Role of the Tribunal

The Tribunal performs the roles of Compliance Regulator and Scheme Administrator. These responsibilities are segregated to ensure the confidentiality of information provided to the Scheme Administrator. The Tribunal's functions in these two roles are described in Attachment 3.

The Tribunal has been able to provide significant input into the clarification and fine tuning of the Act, Regulation and Rules to improve the performance of the Scheme. In addition, the Scheme Administrator has undertaken extensive development and trialling of systems and procedures necessary for the practical operation of the Scheme. The objective is to develop a robust Scheme so that the community can have a very high level of confidence in the abatement registered, while ensuring that transaction costs for participants do not act as an unreasonable barrier to entry.

2.4 Greenhouse gas benchmarks

The Scheme establishes annual per capita benchmarks for greenhouse gas emissions by the NSW electricity sector as a whole (the Electricity Sector Benchmarks). It also establishes rules for converting these electricity sector benchmarks into annual benchmarks, expressed in permitted tonnes of emissions each year, for each benchmark participant.³

The Government has set a State-wide benchmark of reducing greenhouse gas emissions from electricity generation and use in NSW to 7.27 tonnes of carbon dioxide equivalent (tCO₂-e) per capita by 2007. This target is 5 per cent below the equivalent NSW per capita emissions in 1990, which is the baseline measurement year used in the Kyoto Protocol.

To ensure continual progress towards this target, progressively tighter targets have been set for each year leading to the final 2007 level. The 7.27 tCO₂-e benchmark level will then be maintained until at least 2012, with 2008 to 2012 being the first measurement period under the Kyoto Protocol. In 2004, the target was set at 8.31 tCO₂-e per capita.

2.5 Benchmark participants

The Act automatically enforces benchmark targets on all NSW electricity retail suppliers, one market customer, which takes electricity supply in NSW directly from the National Electricity Market, and two generators which supply electricity directly to large customers in NSW. In addition, eight companies which used over 100GWh of electricity in 2004 have elected to manage their own benchmarks. These companies are known as 'elective participants'.

Each benchmark participant is responsible for meeting its share of reducing the NSW electricity sector benchmark. For example, if an electricity retailer sells 5 per cent of total electricity sales in NSW, it is responsible for meeting 5 per cent of the required reduction applied to the NSW electricity sector benchmark. Elective participants, having nominated which company sites are part of the Scheme, must meet the benchmark reduction targets for those sites.

Benchmark participants must submit annual greenhouse gas benchmark statements to the Tribunal confirming their electricity sales or purchases, greenhouse gas benchmark, the abatement certificates surrendered, and any credit sought for the surrender of RECs under MRET.

To standardise and streamline benchmark participants' compliance reports, the Tribunal has developed a reporting template and a guide to completing the template, which are available from the Scheme website. The completed statements are audited to ensure accuracy of the data and the quality of the record-keeping systems that provide that data.

If benchmark participants do not reduce their average emissions to the benchmark level they incur a financial penalty of \$10.50 per tCO₂-e for the amount of the shortfall.⁴ However, a benchmark participant may carry forward a shortfall of up to 10 per cent of their benchmark to the following year without incurring a penalty. If the amount carried forward is not abated in the following year, the benchmark participant will be subject to a penalty at the end of that year.

³ Greenhouse Gas Benchmark Rule (Compliance) No. 1 of 2003.

⁴ This penalty applied for Compliance Year 2004 and is adjusted for inflation.

2.6 Abatement certificate providers

The principal way in which benchmark participants can reduce their per capita emissions is by purchasing NSW greenhouse abatement certificates (known as abatement certificates or NGACs) and surrendering these to the Tribunal when they lodge their compliance reports.

Abatement certificates are created by parties carrying out greenhouse gas abatement projects that are accredited under the Scheme's Rules. Parties are eligible to seek accreditation for demand side abatement activities, reduced or low emission generation or for carbon sequestration. Parties carrying out these activities are referred to as 'abatement certificate providers'.

The Scheme also allows some large electricity customers⁵ to claim credit for reducing on-site emissions of greenhouse gases from (non-electricity related) industrial processes at sites which they own and control. These large users can create Large User Abatement Certificates (LUACs) for these activities. These certificates are not tradeable.

Eligible demand side abatement and carbon sequestration projects must be undertaken in NSW. However, because NSW is part of the National Electricity Market, interstate generators also provide electricity from various fuel sources to NSW customers. Therefore, generation projects from the states connected to the National Electricity Market may apply for accreditation. In 2005, the Scheme will also be extended to include demand side abatement activities undertaken in the ACT, under the ACT Scheme (discussed further in section 8.1.6).

The Rules set out the eligibility criteria and greenhouse gas accounting methods which participants must use to determine how much abatement, and hence how many abatement certificates, each project creates.

⁵ A customer, other than an electricity retailer, who uses 100GWh or more of electricity at a single site, or uses 100GWh or more of electricity at more than one site, at least one of which uses 50GWh or more of electricity in NSW, in any year; that meets the criteria in 73BA of the Regulation.

3 BENCHMARK PARTICIPANTS

There were 31 benchmark participants in 2004 (see Table 3.1), of whom 23 were compulsory participants. All benchmark participants are required to lodge an annual greenhouse gas benchmark statement with the Tribunal by 1 March of the year following the compliance year, or any later date permitted by the Tribunal (section 97CB(1) of the Act). For 2004, this date was extended to 18 March 2005. For subsequent years, the compliance date is also 18 March.

Table 3.1 Benchmark participants

Electricity retailers	Other mandatory participants	Elective benchmark participants
ActewAGL Retail ¹	Delta Electricity ²	Boral
AGL Electricity	Macquarie Generation ²	Carter Holt Harvey Wood Products Australia
AGL Victoria	Tomago Aluminium Co ³	Hydro Aluminium Kurri Kurri
Aurora Energy		Norske Skog Paper Mills Australia
Australian Inland Energy and Water Infrastructure		OneSteel NSW
CitiPower ¹		OneSteel Trading
Country Energy		Orica Australia
Energex Retail		Visy Industries Holdings
EnergyAustralia		
Eraring Energy ⁴		
Ergon Energy (Victoria)		
Ferrier Hodgson Electricity		
Independent Electricity Retail Solutions ^{5 6}		
Integral Energy Australia		
Jackgreen (International) ⁵		
Origin Energy Electricity		
Powercor Australia ¹		
Powerdirect		
SPI Electricity (formerly TXU Electricity)		
Yallourn Energy		

Notes:

- 1 These companies did not directly purchase electricity from the National Electricity Market: other benchmark participants purchased electricity from the National Electricity Market on their behalf.
- 2 Generators prescribed in the Electricity Supply (General) Regulation 2001.
- 3 Registered with the National Electricity Market Management Company (NEMMCO) as a Market Customer, being an electricity customer taking supply directly from the National Electricity Market.
- 4 This participant did not supply electricity under its retail licence in NSW during the compliance year.
- 5 These participants did not purchase or supply electricity (directly under their licences) in NSW during the compliance year and therefore had zero benchmarks.
- 6 This participant obtained a retail supplier's licence for the first time in 2004 and consequently became a benchmark participant.

3.1 Compliance outcomes

The benchmark statement calculates a benchmark participant's greenhouse gas benchmark, shortfall and liability (if any) for a greenhouse penalty. In the majority of cases, the Tribunal requires benchmark statements to be accompanied by an independent audit report carried out by a member of the Scheme's audit panel. Benchmark participants submitting nil returns completed a simplified benchmark statement which does not require an audit. A one-off audit exemption was granted by the Tribunal to Aurora Energy for its 2004 compliance year, due to its negligible load in NSW.

Given that the benchmark targets for 2004 were significantly higher than in 2003, the compliance outcome was pleasing. Specifically, of the benchmark participants in 2004:

- sixteen surrendered sufficient abatement certificates to meet their greenhouse gas benchmark for 2004
- eight benchmark participants chose to take up the option of carrying forward to the following year a shortfall not exceeding 10 per cent of their greenhouse gas benchmark
- six benchmark participants did not directly purchase or sell electricity in NSW and did not need to surrender any abatement certificates
- one benchmark participant incurred a small penalty for not meeting its benchmark, which was as a result of an error in their benchmark statement (see section 3.1.2)
- the four benchmark participants carrying forward shortfalls from 2003, made good their shortfalls.

3.1.1 Benchmark participants carrying forward a shortfall to 2005

Table 3.2 shows the nine benchmark participants that did not meet their 2004 benchmarks and chose to carry forward small shortfalls. The majority of benchmark participants carrying forward a shortfall were elective participants.

Table 3.2 Benchmark participants carrying forward a shortfall to 2005

Benchmark Participant	Greenhouse Shortfall (as % of benchmark)
OneSteel NSW, OneSteel Trading, Orica Australia, Yallourn Energy	< 1%
Aurora Energy, Hydro Aluminium	1% to < 5%
Boral, Carter Holt Harvey	5% to < 9%
Powerdirect	9% to 10%

3.1.2 Penalty payments

The *Electricity Supply Act 1995* imposes a penalty on benchmark participants that fail to comply with their benchmark. Powerdirect Pty Ltd initially indicated that it would carry forward its total shortfall which appeared to fall under the maximum carry forward limit of 10 per cent of its greenhouse gas benchmark. However, when a mistake in its annual benchmark statement was corrected, the shortfall carried forward slightly exceeded the 10 per cent limit. Under the Act, a penalty is automatically applied where a benchmark participant carries forward more than 10 per cent of its greenhouse gas benchmark.

Consequently, Powerdirect became liable for a small penalty of \$21 for the two tonnes of carbon dioxide equivalent which was in excess of the 10 per cent limit.

3.2 Certificates surrendered

The number of NGACs required to meet 2004 benchmarks was more than a four-fold increase compared to 2003. The key reasons for the increase were the reduction in the State Greenhouse Gas Benchmark⁶ and the increase in the NSW pool coefficient⁷ between 2003 and 2004.

Table 3.3 shows that benchmark participants surrendered a total of 5,037,847 NGACs for 2004. Shortfalls of 141,908 NGACs were carried forward to 2005. If no shortfalls had been carried forward in 2003 or 2004, then 5,135,114 tonnes of abatement (as NGACs or LUACs) would have been needed to meet benchmarks for 2004.

Table 3.3 Abatement certificates surrendered in 2003 and 2004¹

	2003	2004
NGACs surrendered to abate a shortfall carried forward from previous year	0	44,643
NGACs surrendered to abate emissions incurred in the compliance year	1,166,866 ²	4,993,204
Total NGACs surrendered for the compliance year	1,166,866	5,037,847
Shortfall attracting a penalty	0	2
Total shortfalls carried forward to next year	44,643	141,908
Total NGACs required to fully meet benchmarks in the compliance year	1,211,509	5,135,114

Notes:

- 1 The data in this table takes account of the RECs surrendered in each compliance year, as outlined in Table 3.4.
- 2 2003 NGACs surrendered figures differ slightly from those reported in 2003 due to a different method of dealing with surplus NGACs offered for surrender.

Table 3.4 provides a breakdown of the type of abatement certificates surrendered in 2003 and 2004.

In addition to surrendering abatement certificates, benchmark participants are permitted to use RECs surrendered under the Commonwealth's MRET. Only RECs associated with electricity purchases in NSW can be counted. RECs are measured in MWh and are therefore not directly equivalent to abatement certificates. To be made equivalent to abatement certificates, the Regulation and the Rules requires that they must be multiplied by the NSW pool coefficient for that year which is measured in tonnes of carbon dioxide equivalent per MWh. The 841,194 RECs counted in 2004, as shown in Table 3.4, equate to 762,122 abatement certificates.

⁶ The target tonnes of carbon dioxide equivalent emissions per capita.

⁷ The NSW pool coefficient is a measure of the average emissions per unit of electricity delivered from generating systems supplying the NSW market. Many factors can impact the calculation of this value including the amount of interstate power import/export and the output of Snowy Hydro, which in turn can be linked to water availability. Although NSW generators are improving their efficiency, the pool coefficient is increasing primarily because an improved methodology is now used to calculate the figure.

Table 3.4 Types of abatement certificates surrendered in 2003 and 2004

Type of Abatement Certificates	2003 ¹		2004	
	Number	%	Number	%
NGACs surrendered –				
Demand Side Abatement	52,692	5	605,734	12
Generation	1,114,174	95	4,432,113	88
Total	1,166,866	100	5,037,847	100
LUACs surrendered	Nil		Nil	
RECs counted	544,518		841,194	

Note:

1 See note 2 from Table 3.3.

In 2003, the RECs counted represented approximately 40 per cent of the total number of abatement certificates required for compliance in 2003. In 2004, the RECs represented 15 per cent of total abatement certificates required for compliance.

3.3 Elective participants for 2005

During 2004, the Tribunal approved applications from six large electricity consumers seeking to manage their greenhouse gas abatement in 2005. Five of these applications were from companies that sought to extend their elections beyond the 2004 compliance year. Two companies had their election applications for 2005 refused because they did not meet the election criteria.

Port Kembla Copper elected to manage its own benchmark in 2003 but did not reapply for the 2004 compliance year because it no longer met the election criteria. Visy changed its election from one subsidiary (Visy Paper) to another (Visy Industries Holdings) due to a change in its electricity purchase arrangements which enabled more of its company sites to be included in the election.

4 ABATEMENT CERTIFICATE PROVIDERS

At the end of 2004, there were 93 accredited abatement certificate providers eligible to create certificates for abatement activity. The Scheme Administrator accredited a total of 116 projects in 2004. Between 27 August 2003 and the end of 2004, a total of 134 individual abatement projects were accredited, and 41 project accreditations cancelled for reasons described below. Table 4.1 sets out the number of projects accredited and the broad areas of abatement focus. For a more detailed breakdown of accreditation applications approved by the Tribunal, by Rule and type, see Table 5.1 of this report.

As occurred in 2003, in 2004 there have been more certificates created than those needed to meet the obligations of the benchmark participants for compliance in 2004. Because abatement certificates are bankable, the additional certificates become available to be surrendered for compliance in future years. The number of certificates required for benchmark participants to meet their benchmark levels in future years will be significantly higher and the need for abatement certificate providers and projects will continue to grow.

Table 4.1 also shows that a number of accredited projects were cancelled in 2004. Where the cancellation occurred at the request of the abatement certificate provider, due for example to a corporate restructure, the project was generally re-accredited under a different corporate entity. The 34 projects cancelled under the Demand Side Abatement Rule were all related to a government agency that ceased acting as an abator following a merger: the projects may be re-accredited in the future under the auspices of a different abator.

Table 4.1 Number of projects accredited in 2003 and 2004

	Generation	Demand Side Abatement	Large Users – non-electricity	Carbon Sequestration
Accredited in 2003 ¹	14	3	1	0
Accredited in 2004 ¹	67	48	0	1
Cancelled ²	7	34	0	0
Total³: 93	74	17	1	1

Notes:

- 1 This represents the number of projects approved by the Tribunal in the calendar year.
- 2 Projects may be cancelled due to a number of reasons including corporate restructure, completion of the project or a change in circumstances for the project.
- 3 This represents accredited projects still entitled to create certificates as at 31 December 2004.

4.1 Compliance outcomes

During 2004 there was a high overall level of compliance. Within the 134 projects accredited, the Scheme Administrator identified only two minor instances of contravention: these related to the conditions of accreditation (s97DD of the Act); and the improper creation of certificates (s97J of the Act). These instances are detailed below.

In August 2004, an audit undertaken to check record keeping and NGAC calculation found that one abatement certificate provider had overcreated NGACs due to an incorrect input factor. The abatement certificate provider agreed to forfeit the incorrectly created certificates, thereby ensuring that the number of abatement certificates in the Scheme remain validly created.

In December 2004, one abatement certificate provider attempted to register more than 110 per cent of its nominated number of NGACs without notifying the Scheme Administrator, as required, one month in advance. A control point in the Registry did not allow this transaction to be completed and notified the Scheme Administrator. The Scheme Administrator contacted the abatement certificate provider to clarify the situation. The abatement certificate provider then formally advised the Scheme Administrator, in writing, of the reasons for the increase in the nominated number of NGACs and the total number proposed to be registered. The Scheme Administrator was satisfied with the reason and allowed the transaction to be completed. The conditions of accreditation for this abatement certificate provider were subsequently amended to reflect the revised nominated number of certificates.

4.2 Clarification of application of the Generation Rule and Demand Side Abatement Rule

The Generation Rule was amended to provide greater clarification to applicants on the treatment and subsequent accreditation of on-site (embedded) generating systems under the Rule. Only that component of the generating system's generation that is physically exported to a registered distribution or transmission system within the National Electricity Market is eligible to create abatement certificates under the Generation Rule. Any component of generation used on-site, via private (un-registered) distribution systems, is ineligible under the Generation Rule but may be eligible for accreditation under the Demand Side Abatement Rule, provided the on-site generating system is located in NSW.

4.3 Measures to stimulate demand side abatement projects

At the end of 2004, there were 17 accredited projects under the Demand Side Abatement Rule. While this represents a significant proportion of the 93 projects with current accreditations under the Scheme, these projects accounted for less than 10 per cent of all NGACs created to date.

In recognition of the low proportion of demand side abatement NGACs registered, the Scheme Administrator has designated specific resources to assist demand side abatement project proponents to become accredited. Emphasis is being placed on better communication with eligible project proponents to assist them in bringing forward their projects for accreditation and to streamline the accreditation process. In particular, the Scheme Administrator is providing guidance to potential project proponents on opportunities to group together eligible activities into larger projects for administrative ease and to reduce transaction costs.

In September 2004 a 'DSA showcase' was held, at which several accredited high profile project proponents provided frank discussion of their projects and their involvement in the Scheme.

In addition to this, and responding to the overall evolution of the Scheme, a range of amendments to the Generation and Demand Side Abatement Rules were made during 2004. The purpose of these changes is to make the Rules easier to implement and to increase the opportunities for accreditation and the creation of abatement certificates.

4.3.1 Compatibility with the Australian Building Greenhouse Rating Scheme

The Rule was amended to make it easier for participants in the Australian Building Greenhouse Rating (ABGR) Scheme to be accredited under the NSW Scheme. This streamlined approach has meant that entire portfolios of buildings may now be accredited as a single project for the purposes of creating NGACs, resulting in significantly lower transaction costs for these projects.

The ABGR is a voluntary national program, administered by the Department of Energy, Utilities and Sustainability, designed to enable office buildings to measure their relative impact on the production of greenhouse gases. 'Star ratings' can be awarded for the base building (central services), a tenancy, or the whole building based on energy-related greenhouse gas emissions, adjusted for climate and for the building's use.

In a joint initiative between the Scheme Administrator and the National Administrator of the ABGR, a self-calculating tool for NGACs has been developed. This 'NGAC calculator' makes it simpler to calculate the value of an ABGR rating in terms of abatement certificates. Due to the robust, independently audited processes of the ABGR, the Scheme Administrator, in general, will accept the metering and record keeping arrangements for officially rated buildings without the need for further audit.

4.3.2 Default Abatement Factors Method

In 2004, the Demand Side Abatement Rule was amended to reduce the evidentiary burden on abatement certificate providers to demonstrate ongoing implementation of their projects under the Default Abatement Factors Method. This method applies to projects that install common energy efficient equipment such as AAA-rated showerheads, compact fluorescent lamps and natural gas hot water systems. An 'Installation Discount Factor' was established to take account of the risk that some items may not be installed or may be removed early. The implementation of projects using the Default Abatement Factors Method has expanded substantially in light of the amendment. To the end of 2004, seven projects have been accredited to use this method with the potential to create in excess of 480,000⁸ NGACs per annum.

4.4 Application of the Carbon Sequestration Rule

In November 2004, the Scheme Administrator accredited the first Sequestration Pool Manager under the Carbon Sequestration Rule. A permanent forestry business, the accreditation received attention both domestically and internationally.

Similar to the 2003 trial accreditations, in 2004 the Scheme Administrator conducted a pilot accreditation program under the Carbon Sequestration Rule. This process was initiated in response to the interest expressed by a number of parties. The first accreditation was a participant in the pilot program and it is anticipated that other participants in the pilot program will be accredited in 2005.

⁸ This number does not include any one-off projects using the Default Abatement Factors Method.

The accreditation framework developed in 2004 for carbon sequestration activities provides flexibility for the applicant, catering for a range of forestry business models. The framework is based upon the owner of carbon rights in relation to eligible forest areas applying to the Scheme Administrator as a Sequestration Pool Manager. If accredited, the Scheme Administrator holds this party liable for compliance with the Carbon Sequestration Rule.

Although the Sequestration Pool Manager must own the rights to the carbon sequestered by an eligible forest, this does not necessarily require the ownership of the land or the forest itself. The Scheme has intentionally provided the flexibility for the Sequestration Pool Manager to enter into any number of arrangements with the land or forest owner.

This framework is recognised as world-leading progress for greenhouse gas schemes of this nature. In applying for accreditation, there is a specific application form under the Carbon Sequestration Rule. To satisfy the permanency arrangement, a legal instrument⁹ is employed to ensure that each NGAC created represents one tonne of carbon that is sequestered for 100 years.

4.5 Amendment to facilitate accreditation of future projects

In October 2004 a major change in the conduct of the Scheme was the amendment in the Regulation to allow parties to seek accreditation for proposed abatement activities or future projects. Previously, the Regulation only allowed existing abatement activities to be accredited by the Scheme Administrator. The amendment facilitates the accreditation of abatement projects that are in the planning stage of development. This accreditation substantially assists projects to move from development to implementation.

Proposed projects can apply for accreditation, subject to meeting eligibility requirements identified in the newly developed *Guide to Applying – Future Projects*. A new application form for future projects has also been developed by the Scheme Administrator.

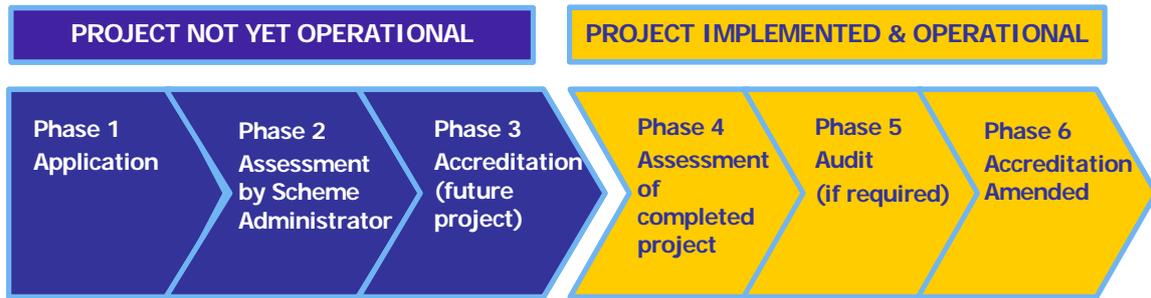
Three future projects were accredited in 2004, with greenhouse gas abatement to be achieved from use of relatively lower greenhouse intensive fuels such as coal seam methane for generation, as well as from the capture and combustion of fugitive methane from waste coal mine gas and landfill gas. In addition, some of these projects will derive further abatement, and hence abatement certificates, from the utilisation of generating system 'waste' heat for cogeneration application.

4.5.1 Future project application process

The application process for accreditation as a future project is similar to applying as an existing project under any of the Scheme Rules. The key difference is the review of the accreditation once the project is implemented. Figure 4.1 depicts the two stage process whereby a project firstly obtains future project accreditation and then once implemented, the accreditation is amended to reflect its implemented (operational) status.

⁹ Known as a 'Restriction on Use' under Section 88E of the *NSW Conveyancing Act 1919*; it facilitates the mechanism for the Scheme Administrator to execute a restriction notice on relevant land titles to ensure or assess the quantum of sequestered carbon as reported by the Pool Manager.

Figure 4.1 Phases of a future project to existing project accreditation process



The future project application criteria are similar to an existing project; the applicant needs to demonstrate the appropriate Scheme Rule and the proposed NGAC calculation methodology. A requirement that distinguishes the application for a future project from that of an existing project is the requirement to submit a project management plan. As the project is not yet implemented, the Scheme Administrator seeks some evidence that the applicant has appropriate management processes to manage the project and its implementation. A future project accreditation does not allow the accredited party to create NGACs and typically requires the accredited party to report milestones as the project progresses towards implementation.

4.5.2 Creating NGACs following implementation of the project

Once the future project is implemented and operational, the Scheme Administrator is formally notified by the participant. This notification is the opportunity to present any differences between the project as described in the original application form and the project as implemented. Depending on the subsequent details provided on the implemented project, the Scheme Administrator will determine if the project is still eligible under the Scheme Rules. At this point (Phase 5 in Figure 4.1), the Scheme Administrator may require components of the project to be audited. Once the Scheme Administrator is confident the implemented project remains eligible, new conditions of accreditation will be issued that allow the accredited party to create NGACs.

4.6 Large User Abatement Certificate Rule

The Large User Abatement Certificate Rule allows elective benchmark participants that qualify as large users to carry out non-electricity related greenhouse gas emission abatement activities. Opportunities to create LUACs under the Scheme arise from:

- increasing the efficiency of on-site fuel use
- switching to lower emission intensity fuels
- abating on-site greenhouse gas emissions from industrial processes
- abating on-site fugitive greenhouse gas emissions.

No new applications for accreditation under this Rule were received in 2004. The Scheme Administrator encourages application related queries, particularly as applications under this Rule are more likely to be unique and specific to an industry. The Scheme Administrator will be looking to identify areas to improve its guidance to applicants under this Rule.

5 REGISTRY

The Scheme Administrator maintains an on-line registry to support the Scheme. In accordance with legislative requirements, the Scheme Administrator maintains the registers of:

- accredited abatement certificate providers
- abatement certificates.

The content of the registers are prescribed by the *Electricity Supply Act 1995 (Sections 97GA and 97GB of the Act)*.

LogicaCMG has been appointed to operate the Registry for three years, until May 2006. The Registry is functioning effectively and efficiently under LogicaCMG's management. The internet address of the Registry is: www.ggas-registry.nsw.gov.au.

Abatement certificate providers, benchmark participants and members of the public may access the Registry. Members of the public may either login as a 'guest' or may register either as an organisation or as an individual, to own certificates.

The Registry is not a trading platform. It tracks the ownership and status of a certificate at any point in time. Where a trade in certificates has occurred outside of the Registry - whether bilaterally, through brokers or through other trading platforms - the Registry records the change in ownership of those certificates.

There is currently no charge for the transfer of certificates on the Registry. There is, however, a \$0.15 charge imposed on the registration of each abatement certificate at the time of creation, payable prior to the certificate being released for transfer or surrender. This charge (under the Act) is to cover the cost of establishing, operating and maintaining the Registry over the life of the Scheme, as well as to partially fund some of the activities of the Scheme Administrator.

5.1 Register of accredited abatement certificate providers

The Scheme Administrator enters the accreditation details of all abatement certificate providers into the Registry. This information is publicly available.

The Scheme is now into its second year and Table 5.1 shows that there has been a strong increase in category A generation¹⁰, category D generation and demand side abatement accreditations, and a slight increase in categories B and C generation accreditations.

Table 5.1 also shows that as a result of the changes to the Regulation in 2004, projects that are not yet operational may now be accredited ie future projects. Some of the projects accredited in 2003 or 2004 have also been cancelled due to various reasons including completion of the project, a corporate restructure so the legal entity no longer exists, or just a change in circumstances for the project which may affect its eligibility to create certificates. Cancelled projects have not been included in Table 5.1.

¹⁰ Under the Generation Rule, generating systems are separated into categories A, B, C and D depending on the characteristics of the system.

Table 5.1 Accreditation applications approved by the Tribunal each year, by Rule and type

Rule	Grouping	Sector	Accredited in 2003	Accredited in 2004 ¹	
Generation	Category A	Biomass		3	
		Hydro		13	
		Landfill gas	9	12	
		Natural gas		2	
		Waste coal mine gas		2	
		Category B	Coal		6
		Category C	Coal		2
			Landfill gas	1	
			Natural gas		2
			Sewage gas		1
		Category D	Biomass		2
			Coal		1
			Landfill gas	4	14 ²
			Natural gas		3
			Sewage gas		
		Waste coal mine gas		4 ³	
Demand Side Abatement	Energy Efficiency	Residential		8	
		Commercial	2	23	
		Industrial	1	12	
		Energy Source Substitution	Commercial		1
		On-Site Generation	Industrial		4
Carbon Sequestration				1	
LUAC Rule	Aluminium	Industrial Process	1		
Totals – per annum⁴			18	116	

Notes:

- 1 Due to the transitional provisions in the Regulation, many of the projects accredited in the first six months of 2004 were entitled to create certificates for abatement in 2003.
- 2 One future project accredited.
- 3 Two future projects accredited.
- 4 Cancelled projects have not been deducted from these numbers. Accordingly, these totals represent the total number of projects accredited and do not reconcile with the number of ongoing accreditations reported in the Executive Summary.

5.2 Register of abatement certificates

Table 5.2 shows the number of 2003 and 2004 vintage certificates registered (which reflect abatement activity undertaken in these years), the certificates that were surrendered to meet 2003 and 2004 compliance obligations and those certificates still available to meet future years' benchmarks.

Table 5.2 Abatement certificates created to date¹

Rule	Registered	Surrendered²	Balance
Demand Side Abatement – 2003 Vintage	345,141	337,084	8,057
Generation – 2003 Vintage	6,317,835	3,637,662	2,680,173
Total for 2003	6,662,976	3,974,746	2,688,230
Carbon Sequestration – 2004 Vintage	166,005	0	166,005
Demand Side Abatement – 2004 Vintage	623,820	321,342	302,478
Generation – 2004 Vintage	4,804,319	1,909,304	2,895,015
Total for 2004	5,594,144	2,230,646	3,363,498
Total – all vintages	12,257,120	6,205,392³	6,051,728

Notes:

- 1 As at 31 May 2005. Total certificates for 2004 will not be available until 1 July 2005.
- 2 For 2003 vintage certificates, this column includes certificates surrendered to meet both 2003 and 2004 year compliance.
- 3 This total includes a surplus 679 certificates offered for surrender to meet 2004 compliance.

Many of the projects accredited in 2003 are entitled to create abatement certificates in future years. Abatement certificate providers have until 30 June 2005 to register certificates for any abatement activity undertaken in 2004, so the total tonnes of carbon dioxide equivalent abated in 2004 will not be known until 1 July 2005.

Table 5.3 shows the total number of certificates (12,257,120) registered in the Scheme for 2003 and 2004 vintage¹¹, separated by Rule and relevant sector, and gives the proportion of certificates registered for each sector. Table 5.3 shows that certificates registered under the Generation Rule dominate the Scheme (over 90 per cent), and certificates registered under the Demand Side Abatement Rule represent just under 8 per cent of the Scheme.

The Registry also tracks the ownership of each certificate over time. The Registry provides a summary of transfer activity undertaken in any month to the public, giving the total number of transfers that month and the total number of certificates involved. It should be noted that the Registry records a transfer as the change in ownership of certificates between any two owners, irrespective of any other relationship that may exist between the parties, such as a subsidiary company transferring certificates to its parent entity.

¹¹ As at 31 May 2005.

Since the Scheme commenced, there have been 200 transfers of certificates between parties, involving more than 8.5 million certificates.¹² Of these transfers, just under 8 million generation certificates were transferred, compared to just over 470,000 demand side abatement certificates and over 136,000 carbon sequestration certificates.

Table 5.3 Source of abatement certificates created¹

Rule	Sector	Number of certificates ²	Percentage of total
Generation	Biomass	19,136	0.156
	Coal	1,120,826	9.144
	Hydro	247,693	2.021
	Landfill gas	4,197,183	34.243
	Natural gas	2,125,085	17.338
	Sewage gas	118,309	0.965
	Waste coal mine gas	3,293,922	26.874
Total for Generation		11,122,154	90.741
Demand Side Abatement	Energy Efficiency – Residential	253,586	2.069
	Energy Efficiency – Commercial	45,886	0.374
	Energy Efficiency – Industrial	59,677	0.487
	Energy Source Substitution	130	0.001
	On-Site Generation	609,682	4.974
Total for Demand Side Abatement		968,961	7.905
Carbon Sequestration		166,005	1.354
Total for Carbon Sequestration		166,005	1.354
Large User Abatement Certificates	Aluminium – Industrial Process	0	0.000
Total for Large User Abatement Certificates		0	0.000
Total		12,257,120	100.0

Notes:

1 As at 31 May 2005.

2 The number of certificates is a total of both 2003 and 2004 vintage certificates.

¹² As at 31 May 2005.

6 AUDIT FRAMEWORK

The audit framework is aimed at assisting in providing assurance that the Scheme is operating in accordance with the relevant legislation and that information provided by Scheme participants is reliable, complete and fairly represented.

The Scheme Administrator has developed a framework which uses independent third party audits to confirm specific elements of participants' compliance (benchmark participants and abatement certificate providers) with the Scheme.

All audits are undertaken by members of the Audit and Technical Services Panel (the Panel), which has 22 members including two new firms appointed during 2004. A list of all members of the Panel is available from the Scheme website.

The key objectives of the audit framework are to:

- support the policy objectives of the legislative framework and Scheme Rules
- minimise the risk of:
 - inappropriate accreditation of abatement certificate providers
 - invalid creation of abatement certificates
 - incorrect calculation of liabilities by benchmark participants
- assist the Compliance Regulator and the Scheme Administrator in monitoring compliance of benchmark participants and abatement certificate providers with relevant legislation and the Rules
- ensure that information provided by Scheme participants is reliable, complete and fairly represented
- support the general transparency and integrity of the Scheme.

6.1 Audit and Technical Services Panel

The Scheme Administrator has established the Panel to undertake audit activities and provide technical services to the Scheme Administrator and participants, as required. Firms may apply to become a member of the Panel at any time and their applications will be assessed against specific selection criteria.¹³

6.1.1 Selection and management of auditors

Audits associated with the accreditation of abatement certificate providers are undertaken by a member of the Panel selected and engaged by the Scheme Administrator. In most cases, the auditor is selected through a competitive tendering process, in consultation with the project proponent.

¹³ A Panel application form and a guide to applying are available from the Scheme website.

For audits of the creation and registration of abatement certificates and the annual greenhouse gas benchmark statements, the auditor is selected and engaged by the Scheme participant. However, such appointments and the ensuing detailed scope of works for the audit are subject to approval by the Scheme Administrator or the Compliance Regulator, as appropriate.

6.1.2 Auditor training and feedback

It is a requirement of the Scheme that all personnel performing audits under the Scheme attend auditor training conducted by the Scheme Administrator. Training is held bi-annually (typically in May and October) based on demand. The training covers fundamental aspects of the Scheme and the audit framework including:

- scope and conduct of audits
- engagement of auditors
- case studies of the audit framework at work
- expectations of the Scheme Administrator.

During 2004, two auditor training sessions were held and 32 new personnel trained.

On 9 August 2004, the Scheme's first auditor feedback workshop was held. The purpose of the workshop was to:

- communicate to the Panel changes to the Scheme audit framework
- provide feedback on the performance of the Panel over the first 12 months of the Scheme and issues identified by the Scheme Administrator
- seek feedback from the Panel on the operation of the audit framework.

The outcomes from the workshop contributed to refinement of the Scheme's *Audit Guideline* (see section 6.3).

6.2 Audit activity in 2004

Table 6.1 provides summary data on the audit activity across the three audit types in 2004.

Table 6.1 Audit activity in 2004

Type of audit	Number of audits	Number of projects covered	Number of Panel members participating
Accreditation of abatement certificate providers	28	47	10
Certificate creation audits	9	21	5
Benchmark statement audits ¹	24	N/A	7

Note:

1 Conducted in the first quarter of 2005.

The Act states that the cost of audits will be borne by the Scheme participant, even in the circumstance where the Scheme Administrator selects and engages the auditor.

For audits undertaken as part of the accreditation process, applicants are advised of the audit costs prior to the conduct of any such audit activity and must lodge the fees with the Scheme Administrator prior to the audit commencing. Scheme participants are offered the choice to either proceed with the audit at that time, ask for another auditor to be selected, or withdraw their application without penalty.

Of the 116 projects accredited by the Scheme Administrator in 2004, 47 were subject to an accreditation audit. The total cost of accreditation audits in 2004 was \$277,458, giving an average of approximately \$5,900 for each of the projects audited.

Certificate creation audits are typically conducted on an annual basis. However, most projects accredited in the first six months of 2004 were subject to an audit of 2003 certificate creation prior to accreditation, as part of the transitional arrangements under the Regulation. As such, relatively few audits of certificate creation were conducted during the 2004 calendar year. Those audits that were conducted tended to be for projects accredited in 2003. As part of the ongoing compliance monitoring process, the Scheme Administrator is managing a large number of certificate creation audits early in 2005, to verify abatement that occurred in 2004.

The audits of benchmark statements covered compliance for the 2004 year, but were conducted in March 2005, to meet the reporting timeframe for benchmark participants. These audits need to be carried out in 2005 in order to capture all activity in the 2004 calendar year.

6.3 Amendments to audit documentation

The *Audit Guideline* is the comprehensive 'rule book' for audits under the Scheme and covers:

- selection and appointment of auditors
- conflict of interest and impartiality requirements
- processes and procedures for the conduct of audits
- assessment of risk and materiality
- reporting guidance including correct procedures for varying levels of assurance, qualifications and negative findings
- ongoing management and enhancement of auditor performance.

In October 2004, the Scheme Administrator released a revised version of the *Audit Guideline*. The revised Guideline reflects practical experience gained implementing the Scheme over the first 12 months of the Scheme operating.

6.4 Developing an international audit standard

In August 2004, the Scheme Administrator's Audit Panel Manager was appointed as Australia's technical expert to the International Standards Organisation (ISO) working group developing ISO 14065 with the working title *Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition*. This document ultimately aims to provide requirements for the bodies that undertake greenhouse gas validation and verification activities. The Scheme Administrator's involvement is recognition of the strengths of the Scheme's audit framework and the leadership provided by the Scheme in this area.

Once the Scheme Administrator has evaluated the final document (which is likely to be released in mid to late 2006), it may be adopted as a means of evaluating potential appointees to the Panel. The principles of the standard are also likely to be included in future amendments to the *Audit Guideline*.

6.5 Compliance and monitoring strategy

As the Scheme matures and the number of accreditations increase, an increasing proportion of the Scheme Administrator's focus will be on monitoring compliance with existing accreditations.

In 2004, the Scheme Administrator commenced the formalisation of the audit framework into a *Compliance and Performance Monitoring Strategy for Abatement Certificate Providers*. This document, scheduled for release in mid 2005, aims to:

- provide transparency in the administration of the Scheme
- assist participants to understand their obligations under the Scheme
- minimise the incidence of invalid creation of abatement certificates
- provide cost effective compliance options
- encourage a culture of compliance among participants.

The strategy will present the means by which compliance is established, outlines the use of audits and discusses the various tools available to the Scheme Administrator to support compliance, such as annual reports and the registry. The different audit regimes which may be imposed on an abatement certificate provider are outlined, together with the criteria for determining when each regime is appropriate.

7 FUTURE DEMAND AND SUPPLY OF ABATEMENT CERTIFICATES

The long term success of the Scheme relies upon a balance between the demand and supply of abatement certificates. The Tribunal has undertaken macro-level analysis to project the likely demand and supply trends.

Figure 7.1 sets out the Tribunal's projections. The Tribunal's analysis suggests that the demand for abatement certificates will rise from 1.2 million in 2003 to almost 20 million per annum by 2012. It is estimated that projects already accredited will result in the supply of up to 10 million abatement certificates per annum continuing through to 2012, leaving a potential shortfall of certificates in forward years unless additional abatement projects are registered with the Scheme.

The excess in supply of NGACs from 2003 to 2005 is bankable and will assist in meeting demand in 2006 to 2007. However, in later years of the Scheme, the supply of abatement certificates may not be sufficient to meet demand unless there is significant growth in the development of additional abatement projects.

Demand for NGACs is expected to rise for two principal reasons:

- as the State greenhouse gas benchmark (the target per capita emissions of greenhouse gases) decreases, benchmark participants are required to further reduce their level of emissions by surrendering abatement certificates
- over time the NSW pool coefficient is expected to rise, increasing the emissions the benchmark participant is required to offset and the number of abatement certificates that will need to be surrendered in order for them to meet their annual benchmarks.¹⁴

The Tribunal's projections use the following assumptions:

- Mid range estimates of electricity demand, State population, and the NSW pool coefficient.
- Projections of distribution loss factors based on the actual average weighted losses from the returns of 2004 benchmark statements.
- The level of RECs¹⁵ counted is anticipated to rise incrementally based on expected increases in electricity demand and the renewable power percentage¹⁶.
- The projection does not take account of the expected growth in the supply of LUACs to be created by elective participants to meet their individual benchmarks. This may take some pressure off the availability of NGACs to other benchmark participants.
- The projection does not take account of the expected increased demand for NGACs resulting from the surrender of NGACs under the ACT Greenhouse Gas Abatement Scheme (see section 8.1.6) or the surrender of NGACs by other parties (on a voluntary basis).

¹⁴ See footnote 7 on p 10 of this report.

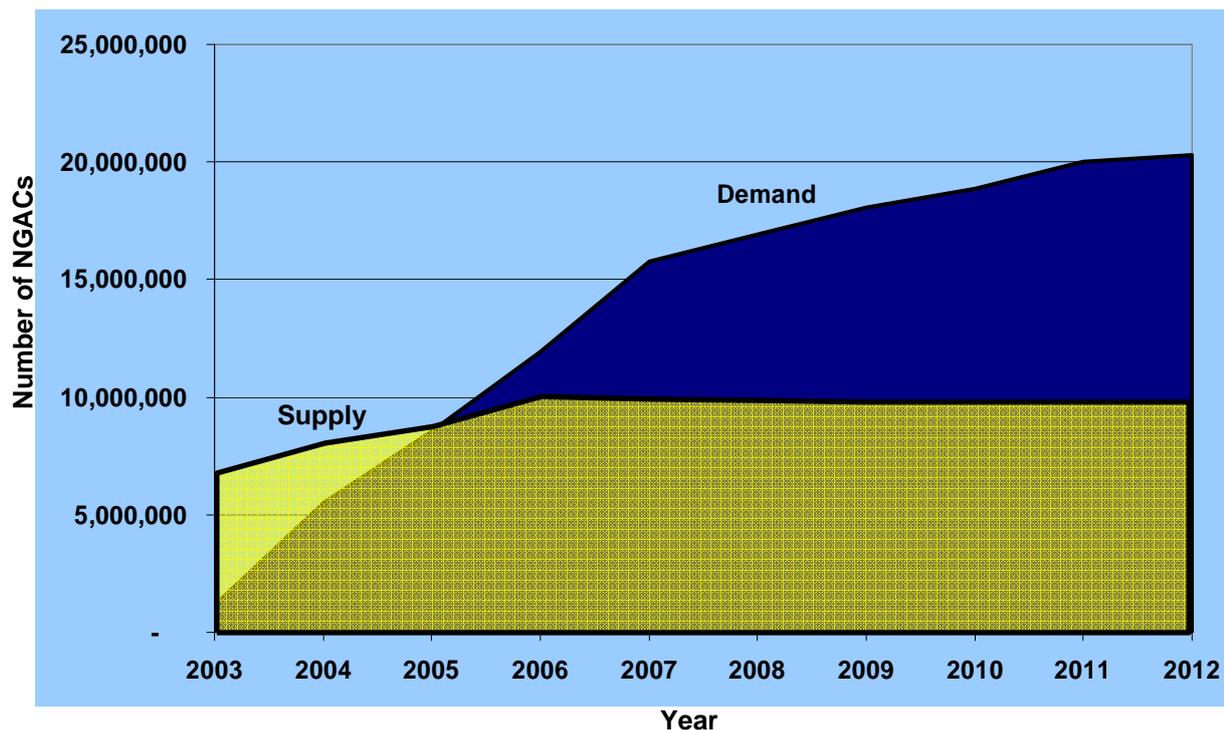
¹⁵ In addition to surrendering NGACs or LUACs, benchmark participants are permitted to use RECs surrendered under a Commonwealth Scheme (*Renewable Energy (Electricity) Act 2000* (Cth)). Only RECs associated with electricity purchases in NSW can be counted.

¹⁶ This is the process for determining the actual number of RECs which must be surrendered each year to discharge a liability, as specified in the *Renewable Energy (Electricity) Regulations 2001* (Cth).

- The projection does not take account for the potential loss of NGACs from projects accredited in the NSW Scheme and also eligible in the Queensland 13% Gas Scheme (see section 8.1.2), creating GECs rather than NGACs.

This projection is sensitive to small movements in some of the key factors used in determining the State greenhouse gas benchmark. The Tribunal therefore cautions persons against making decisions based on these projections and recommends that they rely on their own judgement regarding the future demand and supply of NGACs.

Figure 7.1 Demand and supply of NGACs



7.1 Sources of abatement certificates

The Tribunal anticipates that the supply of abatement certificates will continue to be substantially sourced from generation activities. There are indications to suggest that more small scale generation projects will be proposed because of projected demand and the marginal benefit gained from the sale of NGACs. Investment appears, in part, to be driven by demand from benchmark participants to assist their own compliance needs as well as private companies that see a benefit in entering the NGAC market. This is reflected in the diversity of organisations that are accredited under the Scheme.

Examples of the types of new projects coming forward are generators using alternative waste treatment technologies such as biodigestion¹⁷ treatment of sewage and putrescible waste. In addition, new landfill gas and waste coal mine gas projects have been identified. These projects range in size and will produce between 50,000 to more than 500,000 NGACs per annum once fully implemented.

¹⁷ The process of using bacteria to decompose organic matter, often in an accelerated manner. A typical biodigestion treatment involves using anaerobic bacteria to decompose domestic solid and liquid waste to produce methane gas and various grades of fertiliser.

Growth in supply will also come from demand side abatement projects, which, while often small in size compared to generation projects, have the potential to be expanded as the program grows. A number of adjustments to the Scheme (as set out in section 4.2) should contribute to the growth in demand side activities. Projects accredited using the ABGR method can continue to add properties to their accreditation, increasing their annual abatement accordingly. Projects using the default abatement factors method can also be expanded.

During 2004, the first company was accredited under the Carbon Sequestration Rule and the Tribunal expects significant growth in activity in this area in 2005 and beyond.

7.2 Providing information to potential participants

The success of the Scheme depends on ensuring that potential abatement certificate providers and elective benchmark participants can determine if it is in their economic interest to participate. The Scheme Administrator has established a number of systems to provide potential entrants with as much information as possible. The Scheme Administrator has sought to engage potential abatement certificate providers through a wide range of forums and has run workshops and information sessions to assist potential participants.

Given the likely future requirements of the Scheme, the Scheme Administrator proposes to intensify efforts to actively inform potential participants. The Scheme Administrator intends to:

- undertake further workshops with auditors, benchmark participants and potential abatement certificate providers
- continue to upgrade the website
- develop further case studies to assist potential abatement project proponents
- participate in forums where greenhouse issues are discussed to promote the Scheme and its effective development.

8 COMPATIBILITY AND CONSISTENCY WITH SIMILAR SCHEMES

The NSW Scheme is one of the first greenhouse gas emissions trading schemes in the world to become operational. In assisting to develop and refine the NSW Scheme, the Tribunal has kept abreast of related debates and development work both in other Australian jurisdictions and worldwide. It is already contributing - and is well placed to further contribute - to the development of greenhouse gas abatement strategies and programs in Australia and around the world.

8.1 Australian developments and schemes

A range of national and state-based schemes in Australia have among their objectives reducing emissions and enhancing removal of greenhouse gases. The NSW Scheme has been designed, and continues to be developed, to ensure that there is a clear and transparent interaction with these other schemes as they develop and emerge.

In addition to the schemes discussed below, Commonwealth and state governments are continuing to respond to the issue of climate change with a wide variety of regulatory, voluntary and incentive-based programmes. All state and territory governments are currently investigating the development of a national emissions trading scheme.

Below is a brief description of each of the relevant schemes currently in place and how they interact with the NSW Scheme.

8.1.1 Mandatory Renewable Energy Target (MRET)

This is a national scheme that places a legal liability on wholesale purchasers of electricity to proportionately contribute towards the generation of an additional 9,500GWh of renewable energy per year by 2010. MRET uses RECs to provide incentives for the development of renewable energy sources. RECs are denominated in electricity output (rather than emissions of CO₂-e) and during 2004 were worth significantly more than NGACs in the market.

A REC and an NGAC cannot be created for the same activity (ie if a REC is created for a MWh of output, an NGAC cannot be created with respect to that output), however, where a renewable energy project is also reducing methane emissions, it is possible to create NGACs for the methane emissions that are being avoided.

Benchmark participants can use RECs to assist in their annual compliance obligations under the NSW Scheme (see section 3 of this report for further information on the conversion of RECs to NGACs for compliance purposes).

8.1.2 Queensland 13% Gas Scheme

This scheme commenced on 1 January 2005 and requires Queensland electricity retailers and other liable parties to source at least 13 per cent of their electricity from gas-fired generation. It uses Gas Electricity Certificates (GECs) to mandate a proportion of Queensland's electricity consumption to be gas-fired and thereby reduce greenhouse gas emissions in the State.

GECs are denominated in electricity output (MWh, rather than emissions of CO₂-e) and have initially been priced slightly higher than NGACs. The Queensland Government has commenced developing the administrative processes required to implement the GECs scheme, and it is anticipated that the details of the scheme will be released over the course of 2005.

The Department of Energy, Utilities and Sustainability and the Scheme Administrator are working with the Queensland Government to ensure that the interaction of the GECs scheme and the NSW Scheme is efficient and transparent, and that no 'double-counting' of GECs and NGACs is possible.

8.1.3 Generator Efficiency Standards (GES)

The GES is a long-standing scheme developed by the Australian Greenhouse Office. The objectives are to provide an approach for power generators to voluntarily work towards achieving best practice in terms of efficiency and greenhouse gas emissions intensity. The calculation methodologies and testing procedures prescribed in the GES are used within the NSW Scheme's Generation Rule to assist in determining appropriate baselines and performance improvements for generating systems operating above the NSW pool coefficient. During 2004, a review of the GES Technical Guidelines was commenced. The Scheme Administrator has had some input into this review, and will continue to use the methodologies and approaches prescribed in the GES once the review has been finalised.

8.1.4 Australian Building Greenhouse Rating Scheme (ABGR)

The ABGR provides a consistent and robust approach to evaluating the greenhouse performance of commercial office buildings, and employs a 'star rating' to allow differentiation within the industry.

The NSW Scheme's Demand Side Abatement Rule refers to the ABGR in one of its methodologies, and over the course of 2004 the Scheme Administrator successfully integrated the required NGAC calculations for this demand side abatement methodology into the templates that are used by ABGR assessors. This allows ABGR assessments to instantaneously provide valid NGAC calculations without the need for further analysis or auditing, and has proven to be an efficient and attractive approach for commercial building managers and tenants alike to participate in the NSW Scheme.

8.1.5 Green Power

This scheme was developed by the Sustainable Energy and Development Authority (now incorporated into the Department of Energy, Utilities and Sustainability) and is a national accreditation program that sets stringent environmental and reporting standards for renewable energy products offered by electricity retailers to households and businesses across Australia. This scheme provides a certification mechanism for the provision of zero emissions electricity to consumers across Australia. Organisations who purchase Green Power (usually as a given percentage of their total electricity consumption) cannot claim that initiative as an emissions reduction under the NSW Scheme. Green Power is administered by the Department of Energy, Utilities and Sustainability.

8.1.6 Extension of the NSW Scheme to the ACT

Legislation was passed by the ACT Legislative Assembly during 2004 to effectively enable the NSW Scheme to be extended to the ACT. The Tribunal has been designated as the Scheme Administrator for the ACT and it is intended that, in effect, it will exercise Scheme Administrator functions for the two Schemes in an identical manner. However, the Compliance Regulator for ACT benchmark participants will be the Independent Competition and Regulatory Commission of the ACT.

The ACT Scheme commenced on 1 January 2005 and will enable accredited abatement in the ACT through demand side measures and carbon sequestration activities¹⁸. The Generation Rule already applied to the ACT through its connection to the National Electricity Market.

8.2 International consistency

The NSW Scheme will seek to maintain broad consistency with existing and developing international frameworks such as the European Union Emissions Trading Scheme and the UN's Kyoto Protocol which commences in 2008. Through various working groups and international conferences, the Scheme Administrator communicates with a number of governments, associations, and multinational organisations.

The lessons learned during the implementation of the NSW Scheme are being used by other policy implementers and scheme regulators to accelerate their development of robust and efficient frameworks to achieve the objectives of emissions trading and project-based mechanisms – emissions reductions at least cost.

This communication with international players is also helping the Scheme Administrator (and the Department of Energy, Utilities and Sustainability) to achieve two of its core objectives: to ensure that the NSW Scheme retains a high degree of consistency with the technical approaches used internationally to quantify emissions reductions and remove enhancements; and to learn from the frameworks and structures that are being used elsewhere so that we can continue to improve the efficiency and productivity of our own administrative operations.

¹⁸ The Scheme Administrator is currently investigating how permanency can be assured where ACT land is covered by 99 year leases.

ATTACHMENT 1 LEGISLATIVE CHANGES THAT OCCURRED IN 2004

In June 2004, the Regulation, the Generation Rule and the Demand Side Abatement Rule were amended to make the Scheme easier to implement in practice and also to reflect a number of policy changes. A brief summary of the more significant changes follow.

A1.1 Electricity Supply (General) Regulation 2001

- Abatement certificate providers are now entitled to create abatement certificates from the date they lodge an acceptable application with the Scheme Administrator.
- Parties are now able to seek accreditation for proposed abatement activities or future projects.
- Minor amendments were made concerning separate metering of loads covered by an election to become a benchmark participant.

A1.2 Generation Rule

- Clarification of the definition of export of electricity, in terms of identifying what constitutes an eligible generation activity. Only that component of generation which is physically exported to a registered distribution or transmission system within the National Electricity Market is eligible for creating NGACs under the Generation Rule.¹⁹
- Replacement of the 30 per cent default factor for engine efficiency (used in estimating methane fuel energy content under Equations 13 and 16 of the Rule) with a more conservative 36 per cent default factor, and adding transitional arrangements.
- Recognition of generating systems that digest putrescible waste to manufacture fuel for generation, under Clause 9.5 of the Rule. A new Method 5 calculation methodology has also been added to calculate fugitive methane emissions avoided through use of this fuel type.
- For generating systems also accredited under the Commonwealth's MRET, the requirement to factor in the Marginal Loss Factor in determining the number of NGACs that may be created.

¹⁹ Any component of generation which is 'exported' to a private (un-registered) distribution system, or on-site end user, is ineligible under the Generation Rule. This component of generation may, however, be eligible for accreditation under the Demand Side Abatement Rule, provided the on-site generating system is located within NSW.

A1.3 Demand Side Abatement Rule

- Clarification on the eligibility of ‘nominated’ abators²⁰, where all nomination forms have not yet been received by the project proponent.
- Clarification of which Confidence Factor²¹ should be applied by project proponents using the Project Impact Assessment Method.
- Change to the formula for calculating Confidence Factors under the Metered Baseline Method to account for years in which no abatement occurs.
- Introduction of an Installation Discount Factor to the Default Abatement Factors Method to take account of the risk that some items may not be installed or may be removed early, therefore reducing the evidentiary burden on abatement certificate providers to demonstrate the ongoing implementation of their projects.
- Alterations to the list of Default Abatement Factors in Table 1 of the Rule to more accurately reflect the nature of the devices available in the market.
- Changes to the Generation Emissions Method to achieve greater consistency with the Generation Rule.

²⁰ Under Clause 8.1.1(b) of the Demand Side Abatement Rule, a person may give written permission for another person to create NGACs on their behalf. Under the Rule, this process is known as ‘nomination’ and the document giving written permission is referred to as a ‘nomination form’. This process allows projects implemented at multiple sites (particularly in the residential sector) to be claimed as a single project.

²¹ Under the Project Impact Assessment Method, a Confidence Factor is applied to reflect uncertainty in the calculation of the number of NGACs. In summary:

- where there is no uncertainty (ie savings are directly and continuously metered), a Confidence Factor of 1.0 is applied
- where there is some uncertainty because metered data has been extrapolated across installations or through time, a Confidence Factor of 0.9 is applied
- where no metering occurs, the Confidence Factor is 0.8.

ATTACHMENT 2 PROPOSED LEGISLATIVE CHANGES FOR 2005

The Tribunal instigates changes to the legislative framework for the Scheme through its experience in applying the Act, Regulations and Rules in its roles as Scheme Administrator and Compliance Regulator. A brief summary of the significant proposed changes follows.

A2.1 Amendments to the Electricity Supply Act

The NSW Parliament has passed the *Electricity Supply Amendment Bill 2005* which makes two separate amendments to the *Electricity Supply Act 1995* that will further enhance the effective operation of the Scheme.

A2.1.1 Election to become a benchmark participant

The election criteria for benchmark participants within the Act, prior to amendment, narrowed the interpretation of the Scheme's intent and objectives. In particular, the Act required that the person electing as a benchmark participant purchases the electricity involved. It also limited the companies that may be included in an election to 'related bodies corporate' of the elective participant. In a few instances, this has resulted in election requests being refused and the need for some elective participants to novate²² electricity contracts in order to satisfy the eligibility criteria.

The amendments expand the scope of company structures, including holding companies, which are able to elect to manage their own greenhouse benchmark on behalf of a corporate group. This will deliver important additional benefits to the Scheme by allowing a number of companies to bring to account abatement of greenhouse gas emissions from a wider range of sites than previously possible.

A2.1.2 Voluntary surrender of abatement certificates

The Act previously only provided for benchmark participants to surrender certificates to meet their greenhouse gas benchmark each year. The amendments enable any person registered as the owner of an abatement certificate to surrender that certificate at any time by notice in writing to the Scheme Administrator and provides for cancellation of that certificate on acceptance of the surrender by the Scheme Administrator.

A2.2 Adjustments to the Rules

As further applications for accreditation are received and processed, and the Rules applied, a number of issues have arisen. The Department of Energy, Utilities and Sustainability is currently considering further amendments to the Compliance, Generation, Demand Side Abatement and Carbon Sequestration Rules which are expected to be adopted in mid 2005.

These adjustments to the Rules have also been proposed to improve the performance of the Scheme.

²² Assigning a contract, by agreement, from one party to another, in effect creating a new contract.

A2.2.1 Compliance Rule Amendments

- Capacity to make adjustments to NEMMCO purchases in calculating 'total NEMMCO purchases' and 'total electricity sold', respectively.
- Changing the definition of distribution loss factor to be applied by retail suppliers calculating 'total deemed end user purchases'.
- Provision for the Tribunal to determine an appropriate methodology for the calculation of distribution loss factors to be used in Equation 9 for 'total electricity sold'. The Tribunal has undertaken substantive work on this methodology in 2004, circulating a draft methodology to retail suppliers.
- Clarification of definitions to be consistent with other Rules.

A2.2.2 Generation Rule Amendments

- Clarification of the determination of the NSW Production Baseline for Category C Generating Systems where generation is atypical in the period 1997-2001.
- Clarification of the definition of waste coal mine gas.
- Confirmation of waste coal mine gas as an eligible fuel type under the Method 3 - Fuel Switch Gain calculation methodology.
- Recognition of the additional abatement benefit from the use of landfill gas, sewage gas, fugitive methane from other renewable energy sources, and methane from putrescible wastes, under the Method 3 - Fuel Switch Gain calculation methodology.
- Recognition of generating systems that oxidise (as opposed to digest) putrescible waste under Clause 9.5 and Method 5 of the Rule.

A2.2.3 Demand Side Abatement Rule Amendments

- Inclusion of provisions to allow projects in the ACT to become accredited and create NGACs.
- Clarification of the appropriate NSW pool coefficient to apply for small projects (less than 2000 NGACs per annum) when forward creating certificates.
- Clarification of when it is appropriate for project proponents using the Default Abatement Factors Method to claim the energy source for the project is 'not known'.
- Expansion of the list of Default Abatement Factors in Table 1 of the Rule to reflect improvements in technology.

A2.2.4 Large User Abatement Certificate Rule Amendments

- Extend the eligibility for large user abatement certificate projects to other jurisdictions that have implemented a mandatory greenhouse abatement scheme.
- Provide opportunities for proponents of future projects to seek accreditation ahead of implementation.

A2.2.5 Carbon Sequestration Rule Amendments

- The eligibility criteria will be more clearly defined and expanded to encompass Sequestration Pools of a 'future project' nature.
- Greater detail on the Carbon Sequestration Estimation Methodology required of applicants, including the maximum time period intervals in the estimation.
- More explicit definition of the '70 per cent rule' which relates to the probability of an actual carbon stock equalling or exceeding the estimated value.
- Similar to the other Scheme Rules, new dialogue boxes are proposed which will provide interpretation of the Rule and summary examples of implementation.
- The proposed Rule amendments will more clearly focus on the Carbon Sequestration Pool framework (as described in section 4.3 of this report), including the addition and removal of eligible forest from the Carbon Sequestration Pool.
- The Glossary will be extended to reflect the unique nature of terminology used in the Carbon Sequestration and Carbon Accounting practices.

ATTACHMENT 3 THE TRIBUNAL'S FUNCTIONS UNDER THE SCHEME

The Tribunal has two main functions under the Scheme. The first of these, Compliance Regulator, relate to the Tribunal's current role as Licence Regulator for energy licence holders in NSW. The second, Scheme Administrator, relates to the Tribunal's role administering the Scheme as a whole. These functions are set out in Sections 97H to 97I of the Act.

A3.1 Compliance Regulator functions

The Tribunal conducts certain core functions of the Scheme, such as:

- determining the NSW pool coefficient, which is the average emissions intensity of all electricity supplied to NSW customers in a particular year
- monitoring and reporting to the Minister on benchmark participants' compliance
- imposing penalties on benchmark participants if they fail to meet their benchmarks.

A3.2 Scheme Administrator functions

The Scheme Administrator is appointed by the Minister for Energy and Utilities to oversee the:

- accreditation of abatement certificate providers
- administration of the registry
- auditing of greenhouse gas abatement activities which abatement certificate providers wish to have (or have already) reflected in abatement certificates
- monitoring and reporting to the Minister on abatement certificate providers' compliance with the Scheme Rules and their conditions of accreditation.

The Tribunal is currently the Scheme Administrator, but the Minister may appoint an alternate organisation to perform some or all of the Scheme Administrator's functions.

ATTACHMENT 4 GLOSSARY

Term	Meaning
Abatement Certificate	A certificate represents one tonne of carbon dioxide equivalent (tCO ₂ -e) of greenhouse gas emissions, the release of which into the atmosphere was avoided, or which was removed from the atmosphere by the activity in respect of which it was created.
Abator	The person contractually liable for the energy consumed in the installation or site that is the subject of a greenhouse abatement activity, or the person nominated to be the abator in respect of greenhouse abatement activity by written agreement. This particularly applies for demand side abatement activities.
Abatement Certificate Provider	A person accredited by the Scheme Administrator under one of the Greenhouse Gas Benchmark Rules in respect of an abatement activity.
Accreditation	Authorisation given by the Scheme Administrator to an abatement certificate provider to create abatement certificates in respect of a specified activity, once eligibility against the Greenhouse Gas Benchmark Rules is satisfied.
Benchmark Participant	A person who is required or has elected to comply with a greenhouse gas benchmark.
Carbon Dioxide Equivalent (CO₂-e)	Carbon dioxide equivalent of greenhouse gas emissions means the mass of carbon dioxide measured in tonnes that has the same global warming potential as the gas emissions. Each abatement certificate represents one tonne of carbon dioxide equivalent abated.
Carbon Sequestration	The process of removing carbon from the atmosphere and storing it within an eligible planted forest.
Compliance Year	The period 1 January to 31 December of each year, for which benchmark participants must report compliance by 1 March in the following year, or any later date permitted by the Tribunal.
Demand Side Abatement	Activities that reduce emissions by reducing electricity consumption through increased efficiency of electricity consumption, eligible on-site electricity generation, and substitution of sources of energy for electricity or substitution of electricity for other sources of energy.
Distribution Loss Factor (DLF)	The distribution loss factor is the value of the electrical losses calculated for various points in the electricity distribution network.
Elective Benchmark Participant	An eligible large customer or a person engaged in carrying out a State significant project, who has chosen to manage its own greenhouse gas benchmark, and whose election is in force.
Electricity Sector Benchmark	Total allowable greenhouse gas emissions from the electricity sector in NSW calculated by multiplying the Total State Population by the State Greenhouse Gas Benchmark per head of population for that compliance year. The Electricity Sector Benchmark is announced by the Tribunal by 30 November each year.
Gas Electricity Certificate	The Queensland <i>Electricity Amendment Act 2004 Act No. 50 of 2004</i> requires liable parties to source 13 per cent of electricity purchases above a 1999/2000 baseline from generators using approved forms of gaseous fuels. The unit of measurement is the Gas Electricity Certificate (GEC). The first year of effect is 2005, and the requirement is due to remain until 2020.
Greenhouse Gas	A generic term for gases such as carbon dioxide, methane, nitrous oxide, perfluorocarbon or sulphur hexafluoride, as defined in the Act and the Regulation.

Term	Meaning
Greenhouse Gas Benchmark	This is the individual target which must be met by benchmark participants each compliance year and represents their individual share of the overall emissions target for NSW (the Electricity Sector Benchmark).
Greenhouse Gas Benchmark Rules	These set out how benchmark participants will measure their compliance and how accredited abatement certificate providers are to calculate the number of certificates that they are entitled to create.
Greenhouse Penalty	A benchmark participant who fails to comply with its greenhouse gas benchmark is liable to pay \$10.50 (subject to CPI adjustments) per tonne of carbon dioxide equivalent in respect of excess emissions.
Greenhouse Shortfall	The difference between a benchmark participant's attributable emissions and its individual greenhouse gas benchmark; if the greenhouse shortfall does not exceed 10 per cent of a benchmark participant's greenhouse gas benchmark for that year, it may be carried forward to the following year (except in 2007) and a penalty will not apply.
Kyoto Protocol	The Kyoto Protocol to the United Nations Framework Convention on Climate Change, adopted 11 December 1997 and became operational on 16 February 2005.
Large Customer	A customer under an electricity supply contract, other than a retail supplier, who uses 100GWh or more of electricity at a single site or uses 100GWh or more of electricity at more than one site, at least one of which uses 50GWh or more of electricity in NSW.
LUAC	A Large User Abatement Certificate; a non-tradeable certificate in the NSW Greenhouse Gas Abatement Scheme.
MRET	The Mandatory Renewable Energy Target (MRET). Introduced by the Commonwealth government through the <i>Renewable Energy (Electricity) Act 2000</i> , the MRET places a legal liability on wholesale purchasers of electricity to proportionately contribute towards the generation of an additional 9,500GWh of renewable energy per year by 2010.
NEMMCO	National Electricity Market Management Company; established under the National Electricity Code to operate and manage the National Electricity Market.
NGAC	A NSW Greenhouse Abatement Certificate; a tradeable certificate in the NSW Greenhouse Gas Abatement Scheme.
NSW Pool Coefficient	The average emissions per unit of electricity delivered at transmission nodes for all generating systems supplying the notional NSW pool, as determined in accordance with the Compliance Rule; this factor is announced by the Tribunal by 30 November each year.
Renewable Energy Certificate (REC)	A Commonwealth certificate surrendered under the Mandatory Renewable Energy Target (MRET) that may be brought to account against a benchmark participant's greenhouse gas benchmark in the NSW Greenhouse Gas Abatement Scheme, based on NSW sales.
Retail Supplier	A mandatory benchmark participant under the NSW Greenhouse Gas Abatement Scheme; includes all holders of an electricity retail licence in NSW.
Scheme Administrator	The body administering functions such as accrediting abatement certificate providers, verifying abatement activity and maintaining a registry of certificates; this is the Tribunal, in the first instance.
Scheme Registry	An online registry of abatement certificate providers and abatement certificates.