



independent competition and regulatory commission

**ACT Greenhouse Gas
Abatement Scheme**
**Compliance and operation of the
Scheme for the 2010 compliance year**
Report 4 of 2011
June 2011

The Independent Competition and Regulatory Commission (the Commission) was established by the *Independent Competition and Regulatory Commission Act 1997* (ICRC Act) to determine prices for regulated industries, advise government about industry matters, advise on access to infrastructure, and determine access disputes. The Commission also has responsibilities under the ICRC Act for determining competitive neutrality complaints and providing advice about other government-regulated activities. Under the *Utilities Act 2000*, the Commission has responsibility for licensing utility services and ensuring compliance with licence conditions.

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Summary of 2010 outcomes

- During 2010, there were 19 entities licensed to supply electricity to retail customers in the ACT.
- All benchmark participants in ACT GGAS in 2010 were licensed electricity suppliers and, as such, were mandatory participants.
- The Commission assessed that all of the ACT benchmark participants met their obligations under the scheme in the 2010 compliance year.
- Fifteen participants surrendered sufficient abatement certificates to meet their greenhouse gas benchmarks.
- Four participants did not supply electricity in the ACT in 2010 and were not required to surrender any abatement certificates.
- No participant elected to carry forward part of their liability to 2011.
- A total of 366,418 NSW greenhouse abatement certificates (NGACs) for generation and demand side activities were surrendered under ACT GGAS in 2010 to the GGAS Registry, administered by IPART as part of its role as scheme administrator.
- No carbon sequestration certificates were surrendered during 2010. In 2009, when they were first recorded, ActewAGL Retail surrendered just under 14,000 carbon sequestration NGACs.
- During 2010, 366,418 NGACs and 181,790 RECs were surrendered or counted towards meeting the greenhouse gas benchmark under the ACT scheme. The total number of NGACs and REC NGAC equivalents (543,006) decreased by 26.9% from the previous year..
- For 2010, the limit on the number of renewable energy certificates (RECs) that could be counted toward the greenhouse gas benchmark was 5.98% of total energy acquisitions by the benchmark participant.
- The number of RECs has quadrupled since 2005, steadily increasing each year from 45,702 in 2005 to 181,790 in 2010. The number of RECs counted, when converted to NGACs, rose by 65.4% in 2010, to 176,882.
- Certificates surrendered from generation activities (355,146 NGACs) made up the greatest proportion of the total number of abatement certificates surrendered in 2010.
- The number of demand side abatement certificates dropped sharply to 10,978 in 2010. This decrease is consistent with the cessation of demand-side abatement energy-efficiency activities in the scheme from mid-2009.
- Of the certificates surrendered in 2010, 65% were generation certificates. The remainder were RECs (33%) and demand side abatement certificates (2%).
- In 2010, all benchmark statements were completed correctly and submitted with their associated audit reports by the due date (18 March).
- Four benchmark participants who supplied small quantities of electricity to the ACT market in 2010 were exempted from the audit requirements.

1 Introduction

1.1 Scheme overview

This is the sixth annual compliance report on the ACT Greenhouse Gas Abatement Scheme (ACT GGAS). It covers the 2010 calendar year.

Legislative framework

ACT GGAS is established through the *Electricity (Greenhouse Gas Emissions) Act 2004*, the *Electricity (Greenhouse Gas Emissions) Regulation 2004*, and statutory instruments made under the Act.¹ The Act commenced on 1 January 2005. The ACT scheme mirrors the NSW Greenhouse Gas Reduction Scheme (NSW GGAS) as it existed in NSW to 30 June 2009.

NSW GGAS is established through the *Electricity Supply Act 1995* (NSW) and is administered by the Independent Pricing and Regulatory Tribunal (IPART). The NSW scheme commenced in January 2003. NSW GGAS and ACT GGAS are, in many respects, operated as a single scheme. Under this arrangement, IPART administers the overall scheme (including management of the scheme registry which tracks creation, ownership and surrender of all certificates)², accredits abatement projects, and monitors and audits the compliance of abatement certificate providers.³

The Independent Competition and Regulatory Commission (the Commission) is the compliance regulator of ACT GGAS.⁴

Like NSW GGAS, ACT GGAS is a baseline and credit emissions trading scheme designed to reduce or offset greenhouse gas emissions associated with the production of electricity. Each eligible abatement certificate represents one tonne of carbon dioxide equivalent (CO₂-e) that has been abated measured against a baseline.

The Commission has a number of functions as regulator. These include:

- determining the greenhouse gas reduction target, or electricity sector benchmark, for the ACT in any given year⁵
- allocating a share of the benchmark to participants based on their market share of electricity sales in the ACT
- ensuring that electricity retailers in the ACT meet legislated targets for offsetting emissions.

In November 2007, the ACT Legislative Assembly amended the *Electricity (Greenhouse Gas Emissions) Act* to extend the ACT scheme from 2012 until 2020. The Assembly also flagged its intention to terminate the scheme upon the commencement of an effective national emissions trading regime.

¹ These are the compliance rule approved by the Minister and key factor annual determinations by the Commission.

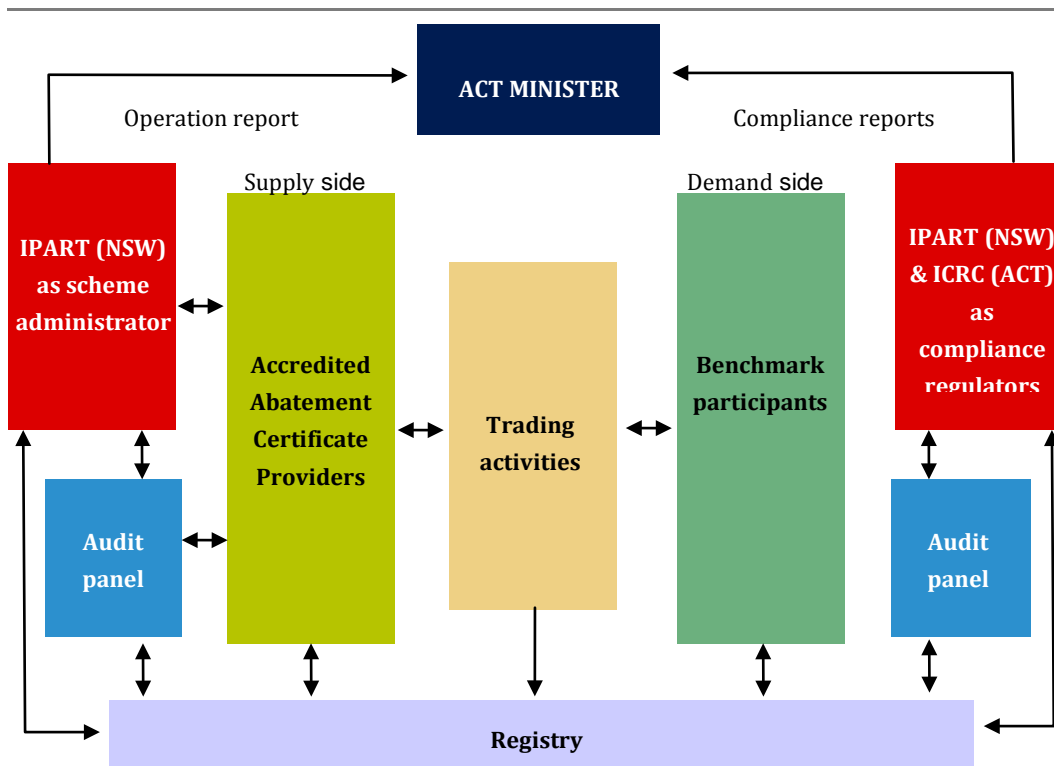
² s.51 (Scheme administrator), *Electricity (Greenhouse Gas Emissions) Act 2004* (ACT)

³ IPART, *Scheme Administrator's report on the Operation of the ACT Greenhouse Gas Abatement Scheme during 2009: Report to Minister*, December 2010; p. 5

⁴ s.49 (The regulator), *Electricity (Greenhouse Gas Emissions) Act 2004* (ACT)

⁵ s.13 (Factors to be determined and notified before beginning of each year), *Electricity (Greenhouse Gas Emissions) Act 2004* (ACT)

Figure 1: Structure of GGAS and key participants



Portfolio policy arrangements

In the ACT, the Environment and Sustainable Development Directorate has policy responsibility for the scheme. Under the current administrative arrangement orders, the Electricity (Greenhouse Gas Emissions) Act falls within the portfolio of the Minister for the Environment and Sustainable Development⁶

Annual reporting

Section 57 of the Electricity (Greenhouse Gas Emissions) Act provides that as soon as possible after 1 March (but before 1 July) in each year, the regulator must prepare and give the Minister a report on the extent to which benchmark participants have complied, or failed to comply, with greenhouse gas benchmarks in the previous calendar year. Without limiting this requirement, the report must contain:

- the name of each benchmark participant and the performance of the participant in relation to the participant's greenhouse gas benchmark
- the total number of abatement certificates surrendered for each kind of certificate
- information on functions delegated under the Act.

In addition, the ACT scheme's administrator, NSW IPART, reports to the ACT Minister on the operation of the ACT GGAS from the scheme administrator's perspective including on compliance

⁶ Administrative Arrangements 2011 (No 1), Notifiable instrument (NI2011-244) made 16 May 2011

of abatement certificate providers accredited under the scheme rules to create certificates, and on projects accredited in the ACT.⁷

1.2 NSW Energy Savings Scheme

During 2008, the NSW Government undertook a review of NSW GGAS in the context of the Federal Government's commitment to develop a national emissions trading scheme. The NSW Energy Savings Scheme (ESS) commenced on 1 July 2009. The ESS subsumed the energy efficiency elements of the NSW GGAS and much of the architecture of GGAS as it relates to electricity generation has been carried forward into the ESS. The ESS and the remaining part of the NSW GGAS will run as parallel schemes in NSW until the NSW GGAS ceases. The ACT is not party to the ESS and the ACT scheme continues to operate as it has since commencement in 2005.

On 24 June 2009, the NSW Greenhouse Gas Benchmark Rule (Demand Side Abatement) No. 3 of 2003 was amended by the NSW Government, effective from 1 July 2009.⁸ The new Rule removed all activity under the Demand Side Abatement (DSA) Rule, with the exception of on-site generation. The creation of new DSA Rule certificates for energy efficiency activities under the scheme ceased from 1 July 2009.⁹

In NSW, energy savings measures are now covered solely by the ESS. The change to the DSA Rule does not in any way affect the requirement for ACT participants to continue to meet benchmark targets. Benchmark participants in the ACT may still surrender demand side abatement certificates created before 30 June 2009 to off-set their greenhouse gas liabilities.

2 Territory greenhouse gas benchmarks

The Electricity (Greenhouse Gas Emissions) Act¹⁰ sets an annual per capita benchmark for greenhouse gas emission reductions by the ACT electricity sector as a whole (Territory greenhouse gas benchmarks). These progressively dropped from 2005 to 2007 and will now remain the same until the end of the scheme in 2020, as follows:

- for the year 2005—7.96 tonnes of carbon dioxide equivalent of greenhouse gas emissions per head of ACT population
- for the year 2006—7.62 tonnes of carbon dioxide equivalent of greenhouse gas emissions per head of ACT population
- for each of the years 2007 to 2020—7.27 tonnes of carbon dioxide equivalent of greenhouse gas emissions per head of ACT population.

⁷ See, e.g., IPART, *Scheme Administrator's report on the Operation of the ACT Greenhouse Gas Abatement Scheme during 2009: Report to Minister*, December 2010. This report should be read in conjunction with IPART's report to the NSW Minister, Compliance and Operation of the NSW Greenhouse Gas Reduction Scheme during 2009, July 2010. The IPART report on the operation of the ACT scheme for the 2010 compliance year has not yet been transmitted.

⁸ The instrument is available from <http://www.greenhousegas.nsw.gov.au/Documents/syn64.asp>

⁹ IPART, *Compliance and Operation of the NSW Greenhouse Gas Reduction Scheme during 2009*, July 2010: p.6

¹⁰ s.7 (Territory greenhouse gas benchmarks), *Electricity (Greenhouse Gas Emissions) Act 2004* (ACT)

2.1 Benchmark determination – key factors

Section 13 of the Electricity (Greenhouse Gas Emissions) Act requires the Commission to make a determination in writing before the beginning of the year (but, if practicable, before the end of November in the previous year), of the following factors:

- the ACT pool coefficient for greenhouse gas emissions
- the ACT electricity demand
- the ACT population
- the electricity sector benchmark.

This determination is a notifiable instrument and is made in accordance with the Electricity (Greenhouse Gas Emissions) Benchmark Compliance Rule. The Rule is approved by the Minister through a notifiable instrument.¹¹

The electricity sector benchmark is translated into annual benchmarks for each benchmark participant. The annual electricity sector benchmark represents the total amount of greenhouse gas emissions allowable for the consumption of electricity in the ACT. Benchmark participants are allocated a share of this benchmark based on the volume of their electricity sales as a proportion of the total ACT electricity demand.

The benchmark for 2010 was 7.27 tonnes of carbon dioxide equivalent (tCO₂-e)per capita. The electricity sector benchmark was set at 2,585,939 tCO₂-e in the Electricity (Greenhouse Gas Emissions) Determination 2009.¹²

The key factors determined since the commencement of the ACT scheme are set out in table 1.

The estimate of electricity demand for the ACT is determined using the methodology developed by IPART. The estimate is based on the medium projections of end-use electricity consumption for NSW and the ACT, as estimated in the TransGrid NSW annual planning report for the compliance year. For 2010, the ACT's share is given as 3.9%.

The Commission estimates the total ACT population based on the estimates made by the Australian Bureau of Statistics in its publication, *Population Projections, Australia*. Data are provided for three main series of projections: series A (high growth), B (medium growth) and C (low growth). In 2005, the Commission used the series B projections to estimate the ACT population. Low-range data were used to estimate the ACT population from 2006 through to 2008. For 2009 and 2010, the high range values were used because those levels were more in line with actual population increases in the ACT.

¹¹ Electricity (Greenhouse Gas Emissions) Benchmark Compliance Rule 2010 Notifiable Instrument NI2010-667

¹² Electricity (Greenhouse Gas Emissions) Determination 2009 Notifiable Instrument NI2009-586 sets out the determined key factors for 2010.

Table 1 Key factors, compliance years 2005 to 2010

Key factor	Compliance year ^a	Factor numbers
ACT pool coefficient for greenhouse emissions (tCO ₂ -e/MWh) ^b	2005	0.913
	2006	0.929
	2007	0.941
	2008	0.954
	2009	0.967
	2010	0.973
Total ACT electricity demand (GWh) ^c	2005	3,123
	2006	2,749
	2007	2,810
	2008	3,118
	2009	3,322
	2010	3,115
Total ACT population (number) ^d	2005	329,900
	2006	325,500
	2007	326,400
	2008	327,300
	2009	345,034
	2010	355,700
Electricity sector benchmark (tCO ₂ -e) ^e	2005	2,626,004
	2006	2,480,310
	2007	2,372,928
	2008	2,379,471
	2009	2,508,397
	2010	2,585,939
Territory greenhouse gas benchmark ^f	2005	7.96
	2006	7.62
	2007	7.27
	2008	7.27
	2009	7.27
	2010	7.27
Renewable power percentage ^g	2006	2.17
	2007	2.70
	2008	3.14
	2009	3.64
	2010	5.98

a Calendar years.

b Levels supplied to ICRC by IPART.

c ACT electricity demand is the projected electricity demand for the compliance year being determined.

d Based on ABS projections: 2005 figures were based on medium growth (series B) projections; 2006 to 2008 figures were based on low growth (series C) projections; 2009 and 2010 figures were based on high growth (series A) projections.

e Product of ACT population and territory greenhouse gas benchmarks.

f Tonnes of CO₂-e of greenhouse gas emissions per head of population; set in s.7 of the Act.

g Percentage of renewable power attributable to total power consumption.

3 Benchmark participants

In ACT, section 9 (Benchmark participants) of the Electricity (Greenhouse Gas Emissions) Act defines three types of “benchmark participants”:

- *retail suppliers*
- *market customers*
- *large customers.*

The ACT scheme does not include provision for benchmark participants who are generators.

The ACT scheme is mandatory for all licensed electricity retail suppliers.¹³ During 2010, there were 19 entities licensed to supply electricity in the ACT. Market customers (other than a retail supplier) are those whose electricity load qualifies as a market load and who supply that electricity to the ACT. There are currently no market customers in the ACT. Large customers can elect to become benchmark participants and manage their greenhouse gas emissions. Any person or customer who is likely to use at least 100 GWh of electricity at one or more sites over a calendar year qualifies as a large customer.¹⁴ No user in the ACT currently operates on a scale large enough to qualify as an elective or large customer. Consequently, all participants in the ACT scheme in 2010 were electricity retail suppliers.

4 Audit and compliance framework

4.1 Greenhouse gas benchmark statements

All benchmark participants must demonstrate compliance with the ACT scheme through the submission to the Commission of an annual greenhouse gas benchmark statement. The statement calculates a benchmark participant’s greenhouse gas benchmark, shortfall and any consequent liability for a greenhouse penalty. As part of the compliance process, benchmark statements must be independently audited. Auditors must be selected from IPART’s Audit and Technical Services Panel.

The Electricity (Greenhouse Gas Emissions) Act requires that the reports be submitted to the Commission by 1 March of the year following the compliance year, or at a later date as set by the regulator. To align with the NSW reporting times, the Commission has agreed to a later submission date, 18 March.¹⁵

Benchmark participants who exceed their greenhouse gas benchmark may abate their liability through the surrender of greenhouse gas abatement certificates (abatement certificates). Benchmark participants, except in compliance years 2007 and 2020, have the option of carrying forward a shortfall of up to 10% of their respective benchmarks to the next compliance year.¹⁶

¹³ s.9 (Benchmark participants), ss.9(1)(a), *Electricity (Greenhouse Gas Emissions) Act 2004* (ACT) defines a benchmark participant as a “retail supplier”. The dictionary defines a “retail supplier” as a person who holds a licence to provide a utility service mentioned in s.6(c) (Electricity services) of the *Utilities Act 2000*.

¹⁴ s.9 (Benchmark participants), ss.9(1)(c), *Electricity (Greenhouse Gas Emissions) Act 2004* (ACT), and s.6 (When person is taken to be large customer) and s.8 (Elections by large customers), *Electricity (Greenhouse Gas Emissions) Regulation 2004*.

¹⁵ *Guide to completing the 2010 annual greenhouse gas benchmark statement for benchmark participants in the ACT*, p.3

¹⁶ s. 12 (Greenhouse shortfalls may be carried forward), *Electricity (Greenhouse Gas Emissions) Act 2004* (ACT)

This was not permitted in 2007 (the first year to meet the target of 7.27 tonnes of CO₂ per capita level) and will not be permitted in 2020 (the final year for which targets have currently been set).

Benchmark participants that do not supply electricity in the ACT during the compliance year are not required to surrender abatement certificates and may demonstrate compliance by completing a declaration.¹⁷

4.2 Audit requirements

The Commission has adopted a stringent approach of requiring audits of all benchmark statements with exemptions given on a case-by-case basis. In exceptional circumstances where the benchmark participant has a very small number of customers and load, the Commission may grant an exemption from the requirement to have the benchmark statement audited. The Commission's *Guide to Completing the 2010 Annual Greenhouse Gas Benchmark Statement for Participants in the ACT* has been amended to provide information on the Commission's policy. For the 2010 compliance year, the Commission exempted four utilities from the audit requirement.

4.3 Penalties

If a benchmark participant does not comply with its allocated benchmark, a penalty is payable to the Territory.¹⁸ The amount payable for the 2010 compliance year is \$13.00 per tonne of carbon dioxide equivalent emitted over and above the allocated benchmark that was not offset by the submission of abatement certificates.

Section 16 of the Electricity (Greenhouse Gas Emissions) Act specifies that the penalty is the amount prescribed by regulation adjusted in accordance with the regulations and may be adjusted in accordance with movements in the All Groups Consumer Price Index (CPI) for Canberra issued by the Australian Statistician.¹⁹

Division 2.2 of the Electricity (Greenhouse Gas Emissions) Regulation 2004 prescribes details of the greenhouse penalty. Section 12 sets the starting penalty at \$10.50 per tonne of carbon dioxide equivalent of greenhouse shortfall (t CO₂-e) with the provision that this is to be adjusted on 1 July 2005 and annually thereafter. Section 13 of the Regulation sets out a formula for adjustment of the penalty in line with the CPI as follows:

13 CPI adjustment to greenhouse penalty—Act, s. 16(3)

- (1) The amount of the greenhouse penalty is to be adjusted on 1 July each year, beginning 1 July 2005, by the following formula and rounded to the nearest half dollar:

$$\text{greenhouse penalty for the previous year} \times \frac{A}{B}$$

- (2) In this section:

A means the sum of the CPI numbers for each quarter of the year previous to the year beginning on 1 July when the adjustment is to be made.

B means the sum of the CPI numbers for each quarter of the year 2 years previous to the year beginning on 1 July when the adjustment is to be made.

¹⁷ "An electricity retailer supplier [i.e. benchmark participant] that has not supplied electricity in the ACT in a compliance year may demonstrate compliance by completing an annual greenhouse gas benchmark statement – form 2" (*Guide to completing the 2010 annual greenhouse gas benchmark statement for benchmark participants in the ACT*, pp.20-21).

¹⁸ s.16 (Greenhouse penalties), *Electricity (Greenhouse Gas Emissions) Act 2004 (ACT)*

¹⁹ In November 2007, s.16 (Greenhouse penalties) of the *Electricity (Greenhouse Gas Emissions) Act 2004 (ACT)* was amended to change the definition of the Consumer Price Index (CPI) to use the figures for Canberra rather than Sydney

A penalty adjustment series from commencement of the legislation in 2004 to 2010 is set out in table 2.

Table 2 ACT Greenhouse Gas Abatement Scheme—greenhouse penalties (by year)

Indexation year	Starting penalty (\$/tCO ₂ -e)	A ^a (index number)	B ^b (index number)	CPI indexation factor (A/B as of 1 July)	Adjusted penalty (\$)	Adjusted penalty (\$ rounded)	Compliance year (calendar)
2004 ^c	10.50	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2004–05	10.50	586.6	573.5	1.023	10.74	10.50	2005
2005–06	10.50	607.7	586.6	1.036	10.90	11.00	2006
2006–07	11.00	625.5	607.7	1.029	11.32	11.50	2007
2007–08	11.50	648.0	625.5	1.036	11.91	12.00	2008
2008–09	12.00	670.1	648.0	1.034	12.41	12.50	2009
2009–10	12.50	684.5	670.1	1.021	12.77	13.00	2010
2010–11	13.00	t.b.d.	684.5	t.b.d.	t.b.d.	t.b.d.	2011

n.a. = not applicable; t.b.d. = to be determined.

a The sum of the CPI numbers for each quarter of the year previous to the year beginning on 1 July when the adjustment is to be made.

b The sum of the CPI numbers for each quarter of the year two years previous to the year beginning on 1 July when the adjustment is to be made.

c Section 12 of the Electricity (Greenhouse Gas Emissions) Regulation 2004 set the starting penalty at \$10.50/tCO₂-e of greenhouse shortfall.

5 Compliance outcomes for 2010

5.1 Benchmark participant compliance outcomes for 2010

Nineteen utilities were licensed to supply electricity in the ACT during 2010 (see table 3). All participants in the ACT GGAS in 2010 were licensed electricity suppliers and, as such, were mandatory participants.

The Commission assessed that all of the ACT benchmark participants met their obligations under the scheme in the 2010 compliance year. Some key features were as follows:

- Fifteen benchmark participants surrendered sufficient abatement certificates to meet their greenhouse gas benchmarks.
- Four benchmark participants did not supply electricity in the ACT in 2010 and were not required to surrender any abatement certificates.
- No benchmark participant elected to carry forward part of their liability to 2011.

Table 3 provides a summary of benchmark participants that either surrendered certificates to meet their 2010 benchmarks or were not required to do so.

Table 3 Benchmark participants' compliance for 2010

Utilities that surrendered sufficient certificates to meet their 2010 benchmark	Utilities not required to surrender certificates in 2010 ¹
ActewAGL Retail Ltd	Australian Power & Gas Pty Ltd
AGL Sales Pty Ltd	Dodo Power & Gas Pty Ltd
AGL Sales (Queensland Electricity) Pty Ltd	Jackgreen (International) Pty Ltd ²
Aurora Energy Pty Ltd	Sanctuary Energy Pty Ltd
Country Energy	
Energy Australia	
Integral Energy Australia	
ERM Power Retail Pty Ltd	
Momentum Energy Pty Ltd	
Origin Energy Electricity Ltd	
Powerdirect Pty Ltd	
Red Energy Pty Ltd	
SUN Retail Pty Ltd	
TRUenergy Pty Ltd	
TRUenergy Yallourn Pty Ltd	

¹ Licensed utilities which did not supply during the 2010 compliance year.

² Jackgreen (International) Pty Ltd was suspended from the National Electricity Market in late-2009 and during 2010. As a licensed electricity supplier, the company is still required to meet all of its statutory and other regulatory obligations including those established in the scheme.

5.2 Regulation of the scheme in 2010

Benchmark participant compliance

In 2010, all benchmark statements were completed correctly and submitted by the due date (18 March).

Delegation of functions

Section 50 (3) provides that the regulator (the Commission) may delegate its regulatory functions to a member of staff or anyone else approved by the Minister.²⁰ No functions were delegated by the Commission in 2010 or in earlier years.

6 Certificates surrendered in 2010

6.1 Types of abatement certificates surrendered

Four types of abatement certificates can be surrendered to offset a greenhouse shortfall:

- *Generation certificates* are created through the generation of electricity in a way that results in reduced greenhouse gas emissions.
- *Demand side abatement certificates* are created from on-site cogeneration activities which reduce electricity consumption from the NEM by the on-site end user. Until 1 July 2009, demand-side abatement activities were also created through activities that reduced, or

²⁰ s.50 (Functions of the regulator), *Electricity (Greenhouse Gas Emissions) Act 2004* (ACT).

increased the efficiency of, electricity consumption. Those activities have now been transitioned into the NSW Energy Savings Scheme.

- *Large user abatement certificates* (LUACs) are non-tradeable certificates that can be created by large electricity customers to claim credit for reducing greenhouse gas emissions from non-electricity related industrial processes at sites that they own and control. There are no elective large users in the ACT (see section 3.5) and, hence, no LUACs have been created.
- *Carbon sequestration certificates* are certificates created through the storing of carbon in forest growth for a guaranteed 100 years.

Generation certificates, demand side abatement certificates, LUACs and carbon sequestration certificates are collectively known as NSW greenhouse abatement certificates (NGACs). IPART regulates the creation and sale of NGACs as part of its role as scheme administrator.

In addition, renewable energy certificates (RECs) created through the generation of electricity using eligible renewable means pursuant to the *Renewable Energy (Electricity) Act 2000* (Cwth) can be counted toward meeting benchmark participants' GGAS obligations.²¹ RECs are converted to NGAC equivalents using the ACT pool coefficient for greenhouse gas emissions expressed as tCO₂-e/MWh. The number of RECs that may be surrendered is determined by the renewable power percentage published each year by the Australian Government Office of the Renewable Energy Regulator. For 2010, the renewable power percentage was 5.98%. The Office of the Renewable Energy Regulator regulates the creation and sale of RECs.

The surrender of NGACs and the counted of RECs is the means by which benchmark participants demonstrate their abatement of greenhouse gas emissions and reach their individual greenhouse gas benchmark levels. One NGAC represents the abatement of 1 tCO₂-e associated with the consumption of electricity in NSW and the ACT:

$$1 \text{ NGAC} = 1 \text{ tCO}_2\text{-e}$$

6.2 Number and types of abatement certificates surrendered in 2010

During 2010, 366,418 NGACs and 181,790 RECs were surrendered or counted towards meeting the greenhouse gas benchmark under the ACT scheme. The total number of NGACs and REC NGAC equivalents (543,006) decreased by 26.9% from the previous year. This in part reflects the reduction in total ACT electricity demand (GWh) projected for the 2010 compliance year. .

The NGACs surrendered comprised generation certificates and demand side abatement certificates. No carbon sequestration certificates were surrendered in 2010.

A breakdown of all the categories of certificates surrendered for the years 2005 to 2010 is provided in table 4.

²¹ *Electricity (Greenhouse Gas Emissions) Act 2004* (ACT), s.19 (Assessment of compliance with greenhouse gas benchmarks) provides for the making of a regulation in relation to renewable energy certificates (RECs); the *Electricity (Greenhouse Gas Emissions) Regulation 2004*, Division 2.3 (Renewable energy certificates) sets out the circumstances in which a REC can be counted towards a greenhouse gas benchmark and provides for a limit on the number of RECs that may be counted. Division 3.3, s.32 (Commonwealth renewable energy scheme) prohibits the creation of a generation abatement certificate in relation to output for which a REC has already been created.

Table 4 Breakdown of abatement certificates surrendered, by compliance year, 2005 to 2010

Compliance year	NSW greenhouse abatement certificates (NGACs)			Renewable energy certificates (RECs) counted (MWh)	RECs converted to NGAC equivalents (tCO ₂ -e)	Total NGACs and NGAC equivalents (tCO ₂ -e)
	Generation certificates (tCO ₂ -e)	Demand side abatement certificates (tCO ₂ -e)	Carbon sequestration certificates (tCO ₂ -e)			
2005	96,336	174,315	0	45,702	41,726	312,377
2006	126,993	15,266	0	65,086	60,465	202,724
2007	268,400	54,697	0	79,893	75,179	398,276
2008	54,575	531,397	0	93,881	89,562	675,534
2009	64,642	557,713	13,857	110,588	106,939	743,151
2010	355,440 ^a	10,978	0	181,790	176,882	543,006
Total to 31 December 2010	966,386	1,344,366	13,857	576,940	550,753	2,875,068

a includes 294 certificates over-surrendered by Momentum Energy and returned to company's current holdings as live certificates.

Source: IPART GGAS registry and benchmark statements from licensed utilities.

Some of the key features from table 4 and figures 2 and 3 are:

- The number of demand side abatement certificates fell by 98% to 10,978 in 2010 from 557,713 in the previous year. This may reflect the cessation of DSA Rule certificate creation for energy efficiency activities under the scheme from 1 July 2009.
- No carbon sequestration certificates were surrendered during 2010. In 2009, when they were first recorded, ActewAGL Retail surrendered just under 14,000 carbon sequestration NGACs.
- The number of generation certificates rose sharply, from 64,642 in 2009 to 355,440 in 2010.
- The number of RECs counted, when converted to NGACs, rose by 65.4% in 2010, to 176,882.

Figure 2 Total number of abatement certificates, 2005 to 2010 compliance years

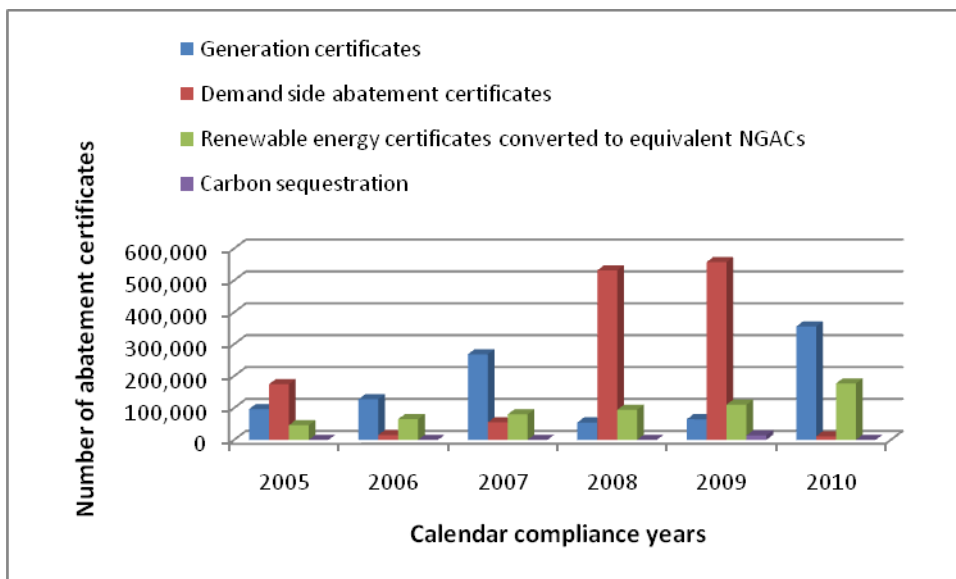
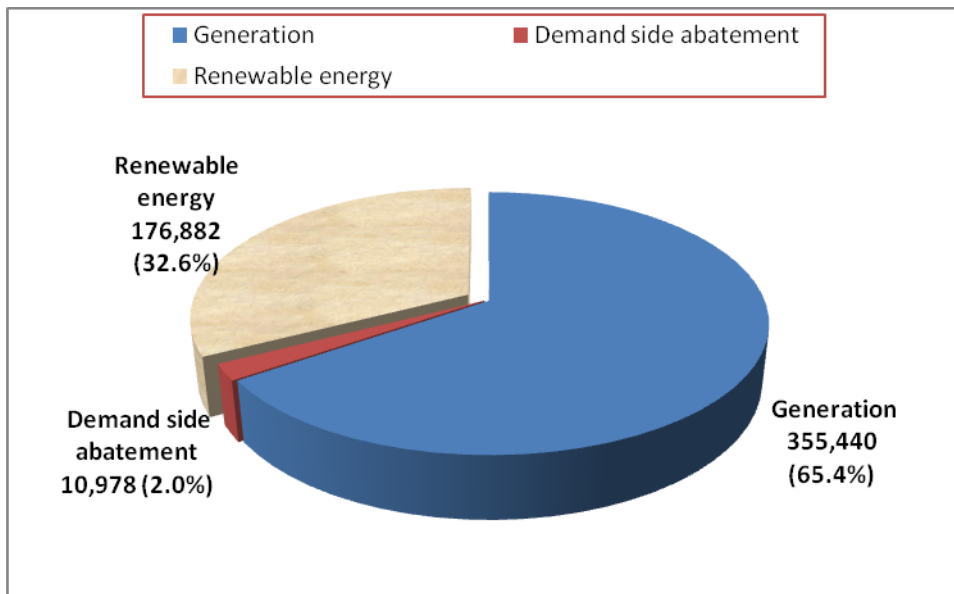


Figure 3 shows that 65% of certificates surrendered in 2010 were generation certificates: RECs(converted to NGAC equivalents) accounted for 33% and demand side abatement certificates for the remaining 2%. No carbon sequestration certificates were surrendered during the year.

Figure 3: Breakdown of abatement certificates (NGACs and converted RECs), number and percentage, 2010 compliance year



Abbreviations and acronyms

ACT	Australian Capital Territory
ACT GGAS	ACT Greenhouse Gas Abatement Scheme
Commission	Independent Competition and Regulatory Commission (ACT)
CPI	consumer price index
DSA	demand side abatement certificates
Electricity (Greenhouse Gas Emissions) Act	<i>Electricity (Greenhouse Gas Emissions) Act 2004 (ACT)</i>
ESS	NSW Energy Savings Scheme
GGAS	Greenhouse Gas Abatement Scheme (ACT) or Greenhouse Gas Reduction Scheme (NSW)
ICRC	Independent Competition and Regulatory Commission
ICRC Act	<i>Independent Competition and Regulatory Commission Act 1997 (ACT)</i>
LUAC	large user abatement certificate
IPART	Independent Pricing and Regulatory Tribunal (NSW)
NGAC	NSW greenhouse gas abatement certificate
NSW GGAS	NSW Greenhouse Gas Reduction Scheme
REC	renewable energy certificate
tCO ₂ -e	tonnes of carbon dioxide equivalent
Utilities Act	<i>Utilities Act 2000</i>