



independent competition and regulatory commission

**ACT Greenhouse Gas
Abatement Scheme**
**Compliance and operation of the
Scheme for the 2008 compliance
year**
Report 4 of 2009
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Introduction

This is the fourth annual report on the ACT Greenhouse Gas Abatement Scheme (the Scheme). It covers the 2008 calendar year.

The Scheme was established in the ACT through the *Electricity (Greenhouse Gas Emissions) Act 2004* (the Act) and commenced on 1 January 2005. The Scheme 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 ACT Scheme mirrors the NSW Greenhouse Gas Reduction Scheme (GGAS), which is administered by the Independent Pricing and Regulatory Tribunal (IPART). The NSW Scheme commenced in January 2003. The NSW and ACT schemes are, in many respects, operated as a single scheme. Under this arrangement, IPART administers the overall Scheme and accredits abatement projects, while the Independent Competition and Regulatory Commission (the Commission) is the regulator of the Scheme in the ACT.¹

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 year²
- 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 Act to extend the 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.

NSW Energy Savings Scheme

During 2008, the NSW Government undertook a review of GGAS in the context of the Federal Government's commitment to develop a national emissions trading scheme. In early 2009, the NSW Government announced its intention to establish an energy efficiency scheme which would build on the energy efficiency (demand-side abatement) achievements of GGAS. The Scheme, to be known as the Energy Savings Scheme (ESS), will commence on 1 July 2009 and will continue until 2020 unless replaced by a national scheme. IPART will act as the scheme administrator and compliance regulator as it has done for GGAS. Much of the architecture of GGAS as it relates to electricity generation will be carried forward into the ESS.

The ACT Department of the Environment, Climate Change, Energy and Water is considering the longer-term implications of these changes for the future of the ACT Scheme. The ACT is also separately examining options for a jurisdiction-specific renewable energy target. The

1. Act, s. 49.

2. Act, s. 13.

Commission understands that a review is anticipated for mid-2010 which will determine the efficacy of the ACT joining the NSW ESS in light of any renewable target that is adopted.

Benchmark participants for 2008

The ACT Scheme is mandatory for all licensed electricity retailers.³ During 2008, there were 18 entities licensed to retail electricity in the ACT. The licence of one of these retailers was suspended following its suspension from operating in the National Electricity Market in 2007 and subsequently surrendered in December 2008. An entity whose licence is suspended is still required to meet all of its statutory and other regulatory obligations including, in the case of electricity retailers, to participate in the Scheme.

Under the Scheme, *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.⁴ Currently no user in the ACT operates on a scale large enough to qualify as a large customer.

The Act also provides for *market customers*—that is, customers whose electricity load qualifies as a market load and who supply that electricity to the ACT—to qualify as benchmark participants. There are currently no market customers in the ACT.⁵

Consequently, all participants in the ACT Scheme in 2008 were electricity retailers and, as such, were mandatory participants.

Compliance process

All benchmark participants must demonstrate compliance with the 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 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.⁶

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 per cent of their respective benchmarks to the next

3. Act, s. 9(1)(a) 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*.

4. Act, s. 9(1)(c); Electricity (Greenhouse Gas Emissions) Regulation 2004 s. 8, s. 6(1).

5. Act, s. 9(1)(b).

6. *Guide to completing the 2008 annual greenhouse gas benchmark statement for benchmark participants in the ACT*, p. 3.

compliance year.⁷ This was not permitted in 2007 (the first year to meet the eventual 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 will not be required to surrender abatement certificates and may demonstrate compliance by completing a declaration.⁸

Penalties

If a benchmark participant does not comply with its allocated benchmark, a penalty is payable to the Territory.⁹ The amount payable is currently \$12.00 per tonne of carbon dioxide equivalent emitted over and above the allocated benchmark that was not offset by the submission of abatement certificates.¹⁰

Section 16 of the 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.¹¹

Division 2.2 of the Electricity (Greenhouse Gas Emissions) Regulation 2004 (the Regulation) 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.

A penalty adjustment series from commencement of the legislation in 2004 to 2008 is set out in Table 1.

7. Act, s. 12(1), (6).

8. An electricity retailer supplier that has not supplied electricity in the ACT in a given compliance year may demonstrate compliance by completing an annual greenhouse gas benchmark statement – form 2” (*Guide to completing the 2008 annual greenhouse gas benchmark statement for benchmark participants in the ACT*, pp. 20-21).

9. Act, s. 16(1).

10. Electricity (Greenhouse Gas Emissions) Regulation 2004 s. 12.

11. In November 2007, s. 16(6) of the Act (the section dealing with greenhouse penalties) was amended to change the definition of the Consumer Price Index (CPI) to use the figures relevant to Canberra rather than Sydney.

Table 1: ACT Greenhouse Gas Abatement Scheme—greenhouse penalties (by year)

Indexation year	Starting penalty \$ / per t CO ₂ -e	A ¹	B ²	CPI indexation factor (A/B as of 1 July)	Adjusted penalty	Adjusted penalty (\$ rounded)	Compliance year
2004 ³	\$10.50	n/a	n/a	n/a	n/a	n/a	n/a
2004–05	\$10.50	586.6	573.5	1.023 ⁴	10.74	10.50	2005
2005–06	\$10.50	607.7	586.6	1.036 ⁵	10.90	11.00	2006
2006–07	\$11.00	625.5	607.7	1.029 ⁶	11.32	11.50	2007
2007–08	\$11.50	648.0	625.5	1.036 ⁷	11.91	12.00	2008
2008-09	\$12.00	tbd	648.0	tbd ⁸	tbd	tbd	2009

n/a = not applicable

tbd = to be determined

Notes:

¹the 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

²the 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

³Section 12 of the *Electricity (Greenhouse Gas Emissions) Regulation 2004* sets the starting penalty at \$10.50 per tonne of carbon dioxide equivalent of greenhouse shortfall (t CO₂-e)

⁴as of 1 July 2005

⁵as of 1 July 2006

⁶as of 1 July 2007

⁷as of 1 July 2008

⁸as of 1 July 2009

Compliance outcomes for 2008

The Commission assessed that all of the ACT benchmark participants met their obligations under the Scheme in the 2008 compliance year.

- Thirteen benchmark participants surrendered sufficient abatement certificates to meet their greenhouse gas benchmarks.
- Five benchmark participants did not supply electricity in the ACT in 2008 and were not required to surrender any abatement certificates.
- No benchmark participant elected to carry forward part of their liability to 2009.¹²
- One benchmark participant used the incorrect Compliance Rule and was required to resubmit a corrected benchmark statement and audit report.
- Three audit reports referred to the incorrect Compliance Rule and needed to be resubmitted.

Table 2 provides a summary of benchmark participants’ performance against compliance requirements.

¹². Act, s. 12(1), (6).

Table 2: Benchmark participants' compliance for 2008

Surrendered sufficient certificates to meet 2008 benchmark	Were not required to surrender certificates in 2008
ActewAGL Retail Ltd	Australian Power & Gas Pty Ltd
AGL Sales Pty Ltd	Dodo Power & Gas Pty Ltd
AGL Sales (Queensland Electricity) Pty Ltd	Energy One Ltd
Aurora Energy Pty Ltd	ERM Pty Ltd
Country Energy	Jackgreen Pty Ltd
Energy Australia	
Integral Energy Australia	
Origin Energy Electricity Ltd	
Powerdirect Pty Ltd	
Red Energy Pty Ltd	
Sun Retail Pty Ltd	
TRUenergy Pty Ltd	
TRUenergy Yallourn Pty Ltd	

Certificates surrendered in 2008

Types of abatement certificates surrendered

There are five types of abatement certificate that can be surrendered to offset a benchmark 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 at the user end through activities that reduce, or increase the efficiency of, electricity consumption.
- **Renewable energy certificates** (RECs) are created through the generation of electricity through eligible renewable means pursuant to the *Renewable Energy (Electricity) Act 2000* (Cth).
- **Large user abatement certificates** 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.
- **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, large user abatement certificates, and carbon sequestration certificates are collectively known as NSW greenhouse gas abatement certificates (NGACs). IPART regulates the creation and sale of NGACs as part its role as Scheme administrator.

Other than NGACs, benchmark participants may also surrender RECs to abate their greenhouse gas emissions. RECs are not equivalent to abatement certificates and there is a limit on the number of RECs that may be counted towards a benchmark participant's

greenhouse gas benchmark in any given year.¹³ For 2008, the limit on the number of RECs is 3.14 per cent of total energy acquisitions by the benchmark participant.¹⁴ The Australian Government Office of the Renewable Energy Regulator regulates the creation and sale of RECs. NGACs account for the majority of abatement certificates that are surrendered in the ACT Scheme.

Number of abatement certificates surrendered

A total of 679,853 abatement certificates were surrendered under the ACT Scheme in 2008. These certificates were surrendered to the NSW and ACT Greenhouse Gas Abatement Scheme Registry, administered by IPART as part of its role as Scheme administrator. Out of the NGACs surrendered, only generation certificates, demand side abatement certificates and renewable energy certificates were surrendered to the ACT for the 2008 compliance year. A breakdown is provided in Table 3.

Table 3: Breakdown of certificates surrendered, by compliance year, 2005 to 2008

Year	Abatement certificates (total)	Generation certificates	Demand side abatement certificates	Renewable energy certificates
2005	316,362	96,345	174,315	45,702
2006	207,379	127,027	15,266	65,086
2007	403,024	268,401	54,730	79,893
2008	679,853	54,575	531,397	93,881

Table 3 shows that 78 per cent of certificates surrendered in 2008 were demand side abatement certificates. Renewable energy certificates accounted for 14 per cent of the total and 8 per cent were generation certificates.

Territory greenhouse gas benchmarks

The Act¹⁵ 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.

13. Act, s. 19(2); Electricity (Greenhouse Gas Emissions) Regulation 2004.

14. s. 39 *Renewable Energy (Electricity) Act 2000* (Cth).

15. Act, s.7(1)

Benchmark determination – key factors

Section 13 of the 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.¹⁶

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 2008 was 7.27 tonnes of carbon dioxide (CO₂) equivalent per capita.¹⁷ The electricity sector benchmark was set at 2,379,471 tonnes of CO₂ equivalent in the Electricity (Greenhouse Gas Emissions) Determination 2007.¹⁸

The key factors determined since the commencement of the ACT Scheme are set out in Table 4. 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. The IPART figure for the ACT share used in 2005 was 4.5 per cent of the aggregated demand. In the subsequent years, the Commission obtained details of the ACT's projected demand directly from TransGrid. These data indicate that the ACT's share is 3.9 per cent.

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. As a result, the benchmark determined for the ACT benchmark participants for 2006 was significantly lower than the 2005 benchmark.

¹⁶. Act, s. 61(1); Electricity (Greenhouse Gas Emissions) Benchmark Compliance Rule 2007 (No 2) NI2007-435

¹⁷. Act, s. 7(1)

¹⁸. Electricity (Greenhouse Gas Emissions) Determination 2007 (No 1) Notifiable Instrument NI2007-407

Table 4: Key factors, 2005 to 2008

Key factor	Compliance year	Factor numbers
ACT pool coefficient for greenhouse emissions (tCO ₂ -e/MWh) ²	2005	0.913
	2006	0.929
	2007	0.941
	2008	0.954
Total ACT Electricity Demand (GWh) ³	2005	3,123
	2006	2,749
	2007	2,810
	2008	3,118
Total ACT Population (number) ⁴	2005	329,900
	2006	325,500
	2007	326,400
	2008	327,300
Electricity Sector Benchmark (tCO ₂ -e) ⁵	2005	2,626,004
	2006	2,480,310
	2007	2,372,928
	2008	2,379,471
Territory greenhouse gas benchmarks ⁶	2005	7.96
	2006	7.62
	2007	7.27
	2008	7.27

Notes:

¹Calendar years.

²Levels supplied to ICRC by IPART. The ACT pool coefficient for a year is the simple average of the five 'Annual Pool Values' from previous years, lagged by two years. For example, the ACT pool coefficient for 2008 is the average of the annual pool values for the years 2001 to 2006.

The Act requires the Commission to determine pool coefficients. Because the ACT is included in the notional NSW Pool, it is appropriate that the ACT pool coefficients are same as the NSW pool coefficients determined by IPART. These pool coefficients differ, however, from the emissions factors used in the Commission's Compliance and Performance Reports, which are sourced from the Commonwealth Department of Climate Change publication, *National Greenhouse Accounts (NGA) Factors, November 2008*.

³ACT electricity demand is the projected electricity demand for the compliance year being determined. It is a two-step process based on the medium projected end-use electricity consumption in NSW and the ACT combined as set out in the Transgrid NSW Annual Planning Report for the financial years covering the calendar year, times the estimated proportion of the total attributable to the ACT and an amount of electricity sales corresponding to the total number of NGACs created under the DSA Rule for abatement activities in the ACT for the calendar year two years before the year for which the total ACT electricity demand is being determined.

⁴Based on ABS projections (low range).

⁵Product of ACT population and Territory greenhouse gas benchmarks.

⁶Tonnes of CO₂ equivalent of greenhouse gas emissions per head of population and set in section 7 of the Act.

Regulation of the Scheme in 2008

In 2008, most benchmark statements were completed correctly. All but one benchmark participant submitted their statements by the due date, 18 March. The secretariat was able to obtain the benchmark statement upon request.

Three benchmark statements were submitted using a distribution loss factor (DLF) different to the default DLF set in the Electricity (Greenhouse Gas Emissions) Benchmark Compliance Rule 2008. One benchmark participant and their auditors used the Electricity (Greenhouse Gas Emissions) Benchmark Compliance Rule 2007 (No.2), which resulted in the over-surrender of NSW greenhouse gas abatement certificates (NGACs). Two benchmark participants used their own calculation to determine a DLF. This resulted in a DLF that was more conservative than the default DLF and the surrender of more NGACs than would have been surrendered had they used the default DLF.

In 2008, two auditors used the incorrect Compliance Rule and one failed to identify the incorrect benchmark statement above. The auditors also resubmitted corrected audit reports. All other reports were thorough and comprehensively covered required matters.

Delegation of functions

The Act allows the Commission to delegate its regulatory functions to a member of staff or anyone else approved by the Minister.¹⁹ No functions were delegated in 2008.

15. Act, s. 50(3).