



independent competition and regulatory commission

**ACT Greenhouse Gas  
Abatement Scheme**  
**Compliance and operation of the  
Scheme for the 2009 compliance year**  
**Report 8 of 2010**  
**June 2010**

The Independent Competition and Regulatory Commission (the Commission) was established by the *Independent Competition and Regulatory Commission Act 1997* 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 Act for determining competitive neutrality complaints and providing advice about other government-regulated activities. Under the *Utilities Act 2000*, the Commission also has responsibility for licensing utility services and ensuring compliance with licence conditions.

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# Contents

|          |   |           |
|----------|---|-----------|
| <b>1</b> | <b>Introduction</b>                               | <b>1</b>  |
| 1.1      | Scheme overview                                   | 1         |
|          | Legislative framework                             | 1         |
|          | Portfolio policy arrangements                     | 2         |
|          | Annual reporting                                  | 2         |
| 1.2      | NSW Energy Savings Scheme                         | 2         |
| <b>2</b> | <b>Territory greenhouse gas benchmarks</b>        | <b>3</b>  |
| 2.1      | Benchmark determination – key factors             | 3         |
| <b>3</b> | <b>Benchmark participants</b>                     | <b>5</b>  |
| <b>4</b> | <b>Compliance framework</b>                       | <b>5</b>  |
| 4.1      | Greenhouse gas benchmark statements               | 5         |
| 4.2      | Penalties   | 6         |
| <b>5</b> | <b>Compliance outcomes for 2009</b>               | <b>7</b>  |
| 5.1      | Benchmark participant compliance with obligations | 7         |
| 5.2      | Regulation of the scheme in 2009                  | 8         |
|          | Benchmark participant compliance                  | 8         |
|          | Delegation of functions                           | 8         |
| <b>6</b> | <b>Certificates surrendered in 2009</b>           | <b>8</b>  |
| 6.1      | Types of abatement certificates surrendered       | 8         |
| 6.2      | Number of abatement certificates surrendered      | 9         |
|          | <b>Abbreviations and acronyms</b>                 | <b>13</b> |



# 1 Introduction

## 1.1 Scheme overview

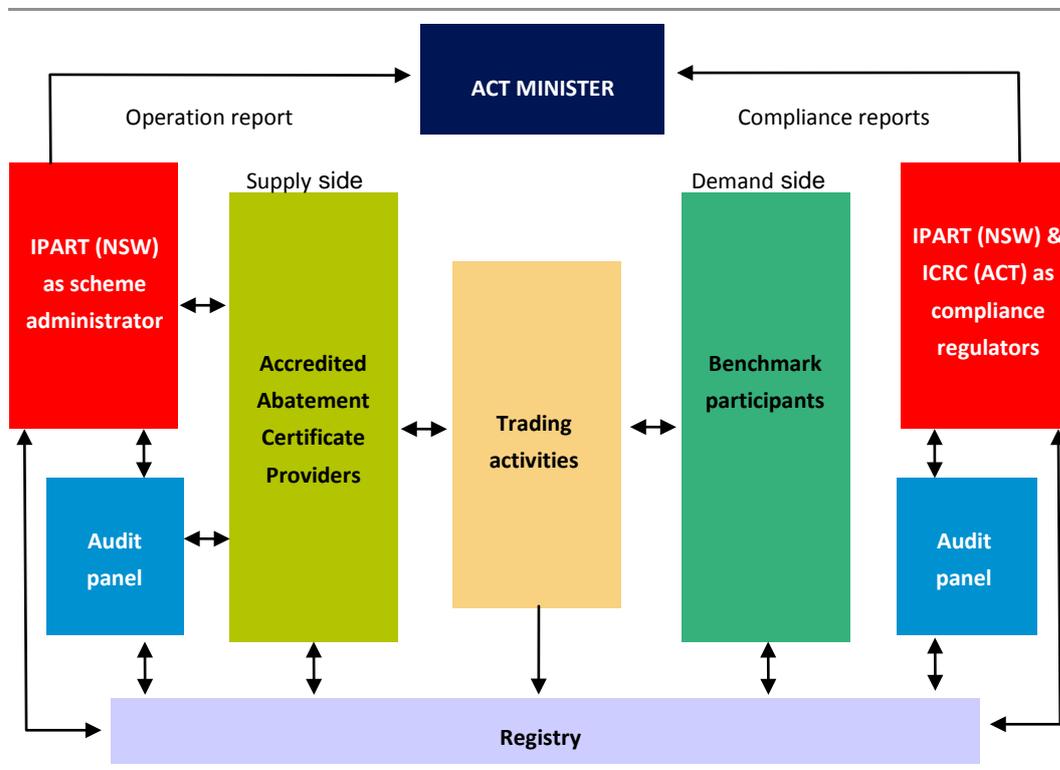
This is the fifth annual compliance report on the ACT Greenhouse Gas Abatement Scheme (ACT GGAS). It covers the 2009 calendar year.

### 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.<sup>1</sup> 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 and accredits abatement projects,<sup>2</sup> while the Independent Competition and Regulatory Commission (the Commission) is the compliance regulator of ACT GGAS.<sup>3</sup>

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 (CO<sub>2</sub>-e) that has been abated measured against a baseline.

Figure 1: Structure of GGAS and key participants



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

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

<sup>3</sup> s.49 (The regulator), *Electricity (Greenhouse Gas Emissions) Act 2004 (ACT)*

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 year<sup>4</sup>
- 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.

### **Portfolio policy arrangements**

In the ACT, the Department of the Environment, Climate Change, Energy and Water (DECCEW) had 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, Climate Change and Water.<sup>5</sup>

### **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 of abatement certificate providers accredited under the scheme rules to create certificates, and on projects accredited in the ACT.<sup>6</sup>

## **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

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<sup>4</sup> s.13 (Factors to be determined and notified before beginning of each year), Electricity (Greenhouse Gas Emissions) Act 2004 (ACT)

<sup>5</sup> Administrative Arrangements 2009, Notifiable instrument (NI2009-593)

<sup>6</sup> See, e.g., IPART, *Scheme Administrator's report on the Operation of the ACT Greenhouse Gas Abatement Scheme during 2008*, August 2009. 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 2008*, July 2009.

not party to the new 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.<sup>7</sup> The new Rule removed all activity under the Demand Side Abatement (DSA) Rule, with the exception of on-site generation. Energy savings measures are now covered solely by the NSW 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) Act<sup>8</sup> 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.

### 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.<sup>9</sup>

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.

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<sup>7</sup> The instrument is available from <http://www.greenhousegas.nsw.gov.au/Documents/syn64.asp>.

<sup>8</sup> s.7 (Territory greenhouse gas benchmarks), *Electricity (Greenhouse Gas Emissions) Act 2004* (ACT)

<sup>9</sup> Electricity (Greenhouse Gas Emissions) Benchmark Compliance Rule 2009 Notifiable Instrument NI2009-591

The benchmark for 2009 was 7.27 tonnes of carbon dioxide (CO<sub>2</sub>) equivalent per capita. The electricity sector benchmark was set at 2,508,397 tonnes of CO<sub>2</sub> equivalent in the Electricity (Greenhouse Gas Emissions) Determination 2009.<sup>10</sup>

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

Table 1: Key factors, Compliance Years 2005 to 2009

| Key factor   | Compliance year <sup>1</sup> | Factor numbers |
|--|------------------------------|----------------|
| ACT pool coefficient for greenhouse emissions (tCO <sub>2</sub> -e/MWh) <sup>2</sup> | 2005                         | 0.913          |
|  | 2006                         | 0.929          |
|  | 2007                         | 0.941          |
|  | 2008                         | 0.954          |
|  | 2009                         | 0.967          |
| Total ACT Electricity Demand (GWh) <sup>3</sup>                                      | 2005                         | 3,123          |
|  | 2006                         | 2,749          |
|  | 2007                         | 2,810          |
|  | 2008                         | 3,118          |
|  | 2009                         | 3,322          |
| Total ACT Population (number) <sup>4</sup>   | 2005                         | 329,900        |
|  | 2006                         | 325,500        |
|  | 2007                         | 326,400        |
|  | 2008                         | 327,300        |
|  | 2009                         | 345,034        |
| Electricity Sector Benchmark (tCO <sub>2</sub> -e) <sup>5</sup>                      | 2005                         | 2,626,004      |
|  | 2006                         | 2,480,310      |
|  | 2007                         | 2,372,928      |
|  | 2008                         | 2,379,471      |
|  | 2009                         | 2,508,397      |
| Territory greenhouse gas benchmarks <sup>6</sup>                                     | 2005                         | 7.96           |
|  | 2006                         | 7.62           |
|  | 2007                         | 7.27           |
|  | 2008                         | 7.27           |
|  | 2009                         | 7.27           |

Notes:

<sup>1</sup> calendar years

<sup>2</sup> levels supplied to ICRC by IPART

<sup>3</sup> ACT electricity demand is the projected electricity demand for the compliance year being determined

<sup>4</sup> based on ABS projections at end June - 2005 was based on medium growth (B) projections while 2006 to 2009 are based on low growth (C) projections

<sup>5</sup> product of ACT population and Territory greenhouse gas benchmarks

<sup>6</sup> tonnes of CO<sub>2</sub> equivalent of greenhouse gas emissions per head of population and set in s.7 of the Act

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% of the aggregated demand. In

<sup>10</sup> Electricity (Greenhouse Gas Emissions) Determination 2009 Notifiable Instrument NI2008–520 sets out the determined key factors for 2009.

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%.

## 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 retailers.<sup>11</sup> During 2009, there were 19 entities licensed to retail 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.<sup>12</sup> No user in the ACT currently operates on a scale large enough to qualify as a large customer. Consequently, all participants in the ACT scheme in 2009 were electricity retailers.

## 4 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.<sup>13</sup>

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

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<sup>11</sup> 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*.

<sup>12</sup> 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*.

<sup>13</sup> *Guide to completing the 2009 annual greenhouse gas benchmark statement for benchmark participants in the ACT*, p.3

forward a shortfall of up to 10% of their respective benchmarks to the next compliance year.<sup>14</sup> This was not permitted in 2007 (the first year to meet the target of 7.27 tonnes of CO<sub>2</sub> 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.<sup>15</sup>

## 4.2 Penalties

If a benchmark participant does not comply with its allocated benchmark, a penalty is payable to the Territory.<sup>16</sup> The amount payable for the 2009 compliance year is \$12.50 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.<sup>17</sup>

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 CO<sub>2</sub>-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 2009 is set out in table 2.

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<sup>14</sup> s. 12 (Greenhouse shortfalls may be carried forward), *Electricity (Greenhouse Gas Emissions) Act 2004* (ACT)

<sup>15</sup> “An electricity retailer supplier 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 2009 annual greenhouse gas benchmark statement for benchmark participants in the ACT*, pp.20-21).

<sup>16</sup> s.16 (Greenhouse penalties), *Electricity (Greenhouse Gas Emissions) Act 2004* (ACT)

<sup>17</sup> 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

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

| Indexation year   | Starting penalty (\$ / per t CO <sub>2</sub> -e) | A <sup>1</sup> (index number) | B <sup>2</sup> (index number) | CPI indexation factor (A/B as of 1 July) | Adjusted penalty (\$) | Adjusted penalty (\$ rounded) | Compliance year (calendar) |
|-------------------|--|-------------------------------|-------------------------------|--|-----------------------|-------------------------------|----------------------------|
| 2004 <sup>3</sup> | \$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 <sup>4</sup>                       | 12.41                 | 12.50                         | 2009                       |
| 2009–10           | \$12.50  | tbd                           | 670.1                         | tbd                                      | tbd                   | tbd                           | 2010                       |

n/a = not applicable tbd = to be determined

**Notes:**

<sup>1</sup> 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

<sup>2</sup> 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

<sup>3</sup> Section 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 CO<sub>2</sub> -e)

<sup>4</sup> as of 1 July 2009

## 5 Compliance outcomes for 2009

### 5.1 Benchmark participant compliance with obligations

The Commission assessed that, with one exception, all of the benchmark participants met their obligations under the ACT scheme in the 2009 compliance year.

- Thirteen benchmark participants surrendered sufficient abatement certificates to meet their greenhouse gas benchmarks.
- Six benchmark participants did not supply electricity in the ACT in 2009 and were not required to surrender any abatement certificates.
- No benchmark participant elected to carry forward part of their liability to 2010.<sup>18</sup>
- Seventeen benchmark participants submitted signed statements (or Form 2 declarations that no electricity was supplied in the ACT during the compliance year) by the due date 18 March 2010.
- One benchmark participant (Integral Energy) submitted its statement after 18 March 2010.
- One benchmark participant (Jackgreen) did not submit a benchmark statement.

Jackgreen (International) Pty Ltd did not supply electricity in the ACT during 2009. The company was suspended from operating in the National Electricity Market in late-2009 and the company has been placed in administration. As a licensed electricity retailer, however, the company is still required to meet all of its statutory and other regulatory obligations including those established in the scheme. The Commission is communicating with the administrators of the company regarding its compliance obligations.

Table 3 provides a summary of benchmark participants' performance against compliance requirements.

<sup>18</sup> s.12 (Greenhouse shortfalls may be carried forward), *Electricity (Greenhouse Gas Emissions) Act 2004* (ACT)

Table 3: Benchmark participant compliance for 2009

| Participants surrendered sufficient certificates to meet 2009 benchmark obligations | Participants not required to surrender certificates in 2009 <sup>1</sup> | Failed to meet benchmark statement requirements |
|---|--|---|
| ActewAGL Retail Ltd   | Australian Power & Gas Pty Ltd   | Jackgreen (International) Pty Ltd               |
| AGL Sales Pty Ltd   | Dodo Power & Gas Pty Ltd   |   |
| AGL Sales (Queensland Electricity) Pty Ltd  | ERM Pty Ltd  |   |
| Aurora Energy Pty Ltd   | Momentum Energy  |   |
| Country Energy  | Sanctuary Energy   |   |
| 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  |  |   |
| <b>Total: 13</b>  | <b>Total: 5</b>  | <b>Total: 1</b>                                 |

Note:

<sup>1</sup> licensed utilities which did not supply electricity in the ACT during the compliance year

## 5.2 Regulation of the scheme in 2009

### Benchmark participant compliance

In 2009, all benchmark statements were completed and audited correctly. All but two benchmark participant submitted their statements by the due date, 18 March. One of these had not submitted its statement at the writing of this report. No participant over- or under-surrendered certificates.

### 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.<sup>19</sup> No functions were delegated in 2008.

## 6 Certificates surrendered in 2009

### 6.1 Types of abatement certificates surrendered

There are four types of abatement certificates 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.
- *Carbon sequestration certificates* are certificates created through the storing of carbon in forest growth for a guaranteed 100 years.

<sup>19</sup> s.50 (Functions of the regulator), *Electricity (Greenhouse Gas Emissions) Act 2004* (ACT).

- *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.

In addition, *renewable energy certificates* (RECs) created through the generation of electricity through eligible renewable means pursuant to the *Renewable Energy (Electricity) Act 2000* (Cth) can be counted toward meeting benchmark participants' GGAS obligations. RECs are converted to NGAC equivalents using the ACT pool coefficient for greenhouse emissions expressed as tCO<sub>2</sub>-e/MWh for each of the relevant years.

Generation certificates, demand side abatement certificates, and carbon sequestration certificates are collectively known as NSW greenhouse gas abatement certificates (NGACs). Large user abatement certificates are known as LUACs. IPART regulates the creation and sale of NGACs as part its role as scheme administrator.<sup>20</sup>

NGACs account for the majority of abatement certificates surrendered in the ACT scheme. Other than NGACs, benchmark participants may also surrender RECs to abate their greenhouse gas emissions. RECs are not NGACs. The Federal Government's Office of the Renewable Energy Regulator regulates the creation and sale of RECs. 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.<sup>21</sup> For 2009, the limit on the number of RECs is 3.14% of total energy acquisitions by the benchmark participant.<sup>22</sup>

## 6.2 Number of abatement certificates surrendered

Table 4 sets out a breakdown of abatement certificates surrendered between 2005 and 2009 by type. A total of 743,151 certificates (includes converted RECs) were surrendered under the ACT scheme in 2009. These certificates were surrendered to the NSW and ACT GGAS Registry, administered by IPART as part of its role as scheme administrator. Of the 743,151 certificates, 636,212 were NGACs, and 106,939 were RECs converted to NGACs using the ACT pool coefficient (0.967) for greenhouse emissions expressed as tCO<sub>2</sub>-e/MWh.

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<sup>20</sup> As discussed in part 1.2 (NSW Energy Efficiency Scheme) of this report, from 1 July 2009, demand side abatement certificates are no longer created under the GGAS scheme.

<sup>21</sup> Division 2.3 (Renewable energy certificates), *Electricity (Greenhouse Gas Emissions) Regulation 2004* (ACT)

<sup>22</sup> Division 2 (Renewable power percentage), *Renewable Energy (Electricity) Act 2000* (Cth).

Table 4: Breakdown of abatement and renewable energy certificates surrendered, by compliance year, 2005 to 2009

| Year                             | NSW greenhouse gas abatement certificates (NGACs) <sup>1</sup> |   |                                   |  | Total abatement & converted renewable energy certificates <sup>3</sup> |
|----------------------------------|--|---|-----------------------------------|--|--|
|                                  | Generation certificates  | Demand side abatement certificates (DSAs) | Carbon sequestration certificates | Renewable energy certificates (RECs) <sup>2</sup><br>(converted to equivalent no of NGACs) |  |
| 2005                             | 96,336   | 174,315                                   | 0                                 | 45,702<br>(41,726)   | 312,377  |
| 2006                             | 126,993  | 15,266                                    | 0                                 | 65,086<br>(60,465)   | 202,724  |
| 2007                             | 268,400  | 54,697                                    | 0                                 | 79,893<br>(75,179)   | 398,276  |
| 2008                             | 54,575   | 531,397                                   | 0                                 | 93,881<br>(89,562)   | 675,534  |
| 2009                             | 64,642   | 557,713                                   | 13,857                            | 110,588<br>(106,939)   | 743,151  |
| <b>Total to 31 December 2009</b> | <b>610,946</b>   | <b>1,333,388</b>                          | <b>13,857</b>                     | <b>395,150</b><br><b>(373,871)</b>   | <b>2,332,062</b>   |

Source: IPART GGAS registry and benchmark statements from licensed utilities

Notes:

<sup>1</sup> Some NGACs figures for earlier years have been updated and hence may vary slightly from those reported in previous years.

<sup>2</sup> The REC series has been recalculated and converted to NGACs using the ACT pool coefficient for greenhouse emissions expressed as tCO<sub>2</sub>-e/MWh for each of the relevant years.

<sup>3</sup> The total number of surrendered certificates is made up of the total NGACs (generation, demand-side abatement, and carbon sequestration) and converted RECs.

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

- The total number of abatement certificates (including converted RECs) surrendered in a single year has more than doubled over the five-year period from 312,377 in 2005 to 743,151 in 2009
- The number of demand side abatement certificates increased significantly in 2008 and 2009.
- The number of generation certificates has fluctuated over the five-year period rising to a maximum of 268,400 in 2007 before falling to 54,575 the following year and then increasing moderately in 2009.
- Carbon sequestration certificates were first surrendered in the ACT during 2009 with just under 14,000 surrendered.
- The number of RECs has more than doubled over the five-year period increasing from 41,726 (converted to NGACs) in 2005 to 106,939 (converted to NGACs) in 2009.
- The total number of abatement certificates (including converted RECs) required to fully meet 2009 obligations is equivalent to 743,151 tCO<sub>2</sub>-e abated.
- In the five calendar years to 31 December 2009, abatement certificates (including converted RECs) equivalent to 2,332,062 tCO<sub>2</sub>-e abated were surrendered through the operation of the ACT's scheme.

Figure 2: Total number of abatement certificates (NGACs and converted RECs), 2005 to 2009 compliance years

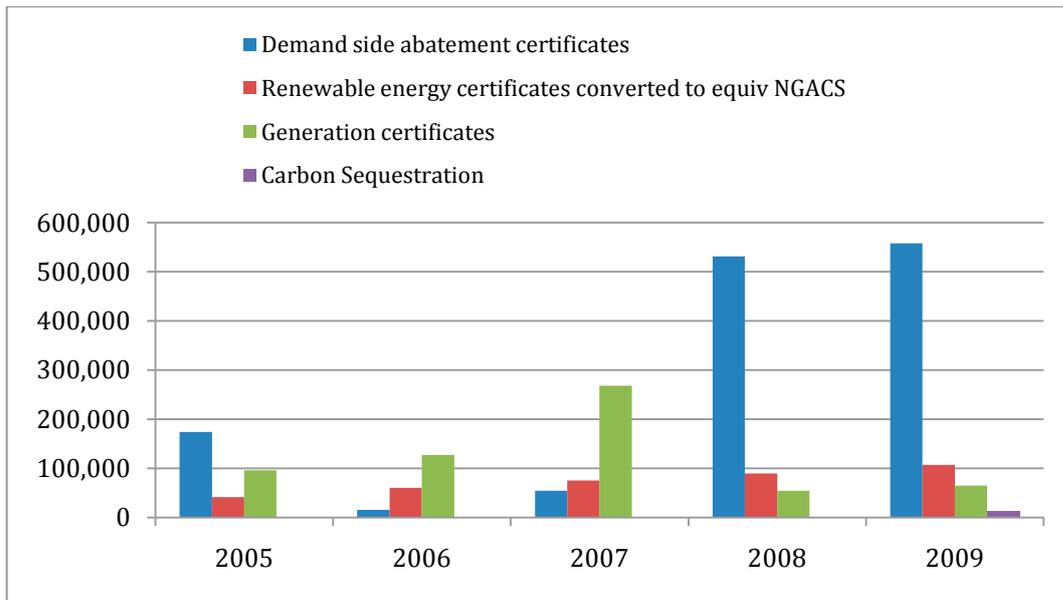
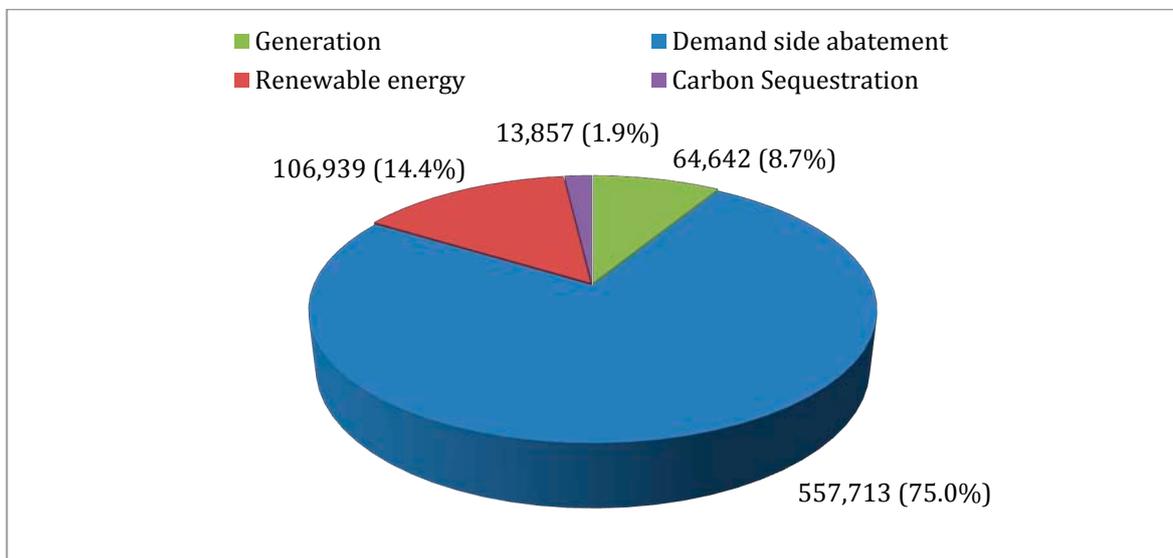


Figure 3 shows that 75% of certificates surrendered in 2009 were demand side abatement certificates. Of the minor categories, converted renewable energy certificates accounted for 14.4% of the total, generation certificates for 8.7% and, for the first time, carbon sequestration for 1.9%.

Figure 3: Breakdown of abatement certificates (NGACs and converted RECs), number and percentage, 2009 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<br>(Greenhouse Gas<br>Emissions) Act | <i>Electricity (Greenhouse Gas Emissions) Act 2004</i> (ACT)                   |
| 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</i> (ACT)        |
| 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   |
| Utilities Act                                    | <i>Utilities Act 2000</i>  |