



ICRC

independent competition and regulatory commission

Issues paper
**Retail prices for
non-contestable electricity
customers – 2012–14**

**Report 11 of 2011
December 2011**

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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The secretariat may be contacted at the above addresses, by telephone on (02) 6205 0799, or by fax on (02) 6207 5887. The Commission's website is at www.icrc.act.gov.au and its email address is icrc@act.gov.au.

How to make a submission

The Independent Competition and Regulatory Commission (the Commission) welcomes submissions on the issues raised in this paper as well as any other relevant information that could assist the Commission's inquiry into secondary water use in the ACT.

Responses to the issues paper should be supported with evidence and data wherever possible. Where parties are interested in addressing one or more of the questions listed in the paper, the relevant question number(s) should be noted.

Submissions may be mailed to the Commission at:

Independent Competition and Regulatory Commission
GPO Box 296
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Alternatively, submissions may be emailed to the Commission at icrc@act.gov.au. The Commission encourages interested parties to make submissions in either Microsoft Word format or PDF (OCR readable text format – that is they should be direct conversions from the word processing program, rather than scanned copies in which the text cannot be searched).

Submit your submission documents along with a completed submission cover sheet, which is available on the Commission's website at www.icrc.act.gov.au. For submissions received from individuals, all personal details (for example home and email address, phone and fax number) will be removed for privacy reasons before they are published on the website.

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The secretariat may be contacted at the above addresses, by telephone on (02) 6205 0799, or by fax on (02) 6207 5887. All the papers previously produced by the Commission, including those referred to in this report, can be found on its website at www.icrc.act.gov.au.

Submissions on the issues paper are due to the Commission by **5 pm, 3 February 2012**.

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1 Introduction

1.1 Background to the inquiry

Retail competition for small electricity customers (small businesses and households) in the ACT was introduced on 1 July 2003. This followed the opening of the market for customers consuming more than 160 megawatt hours (MWh) per year (predominantly large businesses) in 1998 and for those consuming greater than 100 MWh/year (mainly medium-sized businesses) in 2001.

When the ACT Government decided to open the market to all customers, it also required that ActewAGL Retail offer customers consuming less than 100 MWh/year a non-negotiated standard customer contract incorporating a tariff approved by the Independent Competition and Regulatory Commission. Customers who remain on non-negotiated contracts are known as franchise customers and the suite of regulated tariffs as the transitional franchise tariff (TFT). Customers who choose to enter into alternative contract arrangements with ActewAGL Retail or other electricity retailers are known as non-franchise customers.

At the time retail competition was introduced for small customers, the ACT Government issued a reference to the Commission to provide a price direction for the period 1 July 2003 to 30 June 2006.¹ Toward the end of the price direction, the ACT Government sought the Commission's views on the need for continued price regulation. In April 2006, based on the prospects for market development as they then appeared, the Commission recommended the price-setting arrangements be discontinued and a monitoring arrangement put in place. The Commission suggested that the existing tariffs be extended for 12 months to allow for necessary legislative changes to be undertaken.²

The ACT Government has issued further price directions since 2006, and the Commission's recommendation to adopt a price monitoring approach was not accepted.³

On 21 September 2011, the ACT Government issued the Commission with terms of reference seeking a price direction to determine the electricity tariffs for franchise customers for the period 1 July 2012 to 30 June 2014.⁴

1.2 Purpose of the issues paper

The issues paper is intended to provide relevant information to inform submissions from interested parties, including:

- background information on the issues related to the inquiry, including the requirements of the terms of reference
- the Commission's proposed approach and methodology
- specific issues on which the Commission is seeking comment and information through the submission process.

¹ Independent Competition and Regulatory Commission, *Final determination – investigation into retail prices for non-contestable electricity customers in the ACT*, 2003. All the Commission's reports can be found at www.icrc.act.gov.au/icrcreportsandpapers.

² Independent Competition and Regulatory Commission, *Final report – retail prices for non-contestable electricity customers*, 2006.

³ Independent Competition and Regulatory Commission, *Final report and price direction – retail prices for non-contestable electricity customers*, 2007, 2008, 2009 and 2010.

⁴ ICRC (Price Direction for the Supply of Electricity to Franchise Customers) Terms of Reference Determination 2011 (Disallowable instrument DI2011-261). The terms of reference can be found in Appendix 1.

1.3 Scope of the terms of reference

The terms of reference require the Commission to consider the following matters in its investigation:

- a. The impact on direct electricity costs of changes in government policies and pass through of those costs to regulated prices including, but not restricted to:
 - i. the Commonwealth Government Carbon Tax.
 - ii. Commonwealth or ACT retailer obligation energy efficiency schemes.
 - iii. the Commonwealth Government's Large and Small Renewable Energy Targets.
 - iv. the ACT Feed-in Tariff.
 - v. any other schemes implemented to address climate change.
- b. The efficient and prudent cost of managing risk in the cost of purchasing electricity.
- c. The requirements of s. 20 of the ICRC Act.
- d. Any other matters the Commission considers relevant.

The Commission must report in sufficient time to allow ActewAGL Retail to make any necessary changes to its billing system and to provide information on the new tariffs to customers before the new tariffs commence on 1 July 2012.

A full copy of the terms of reference may be viewed in Appendix 1.

1.4 Structure of the issues paper

The remainder of the issues paper is structured as follows:

- Chapter 2 discusses issues relevant to the inquiry.
- Appendix 1 reproduces the terms of reference.
- Appendix 2 reproduces articles 15, 16 and 20 from the ICRC Act.
- Appendix 3 sets out the weighted average price cap formula.
- Appendix 4 provides a list of abbreviations and acronyms.

1.5 Inquiry timeline

The Commission proposes to adopt the following timeline for inquiry.

Activities	Dates
Release of this issues paper	23 December 2011
Closing of submissions on issues paper	3 February 2012
Release of draft report	30 March 2012
Closing of submissions on draft report	4 May 2012
Public hearing (if stakeholder interest)	11 May 2012
Final report and price direction	15 June 2012
ActewAGL Retail implementation of tariff changes	From 1 July 2010

The release of the final report by mid-June is designed to allow ActewAGL Retail sufficient time to make necessary changes to its billing system and provide information to customers, as required by the terms of reference.

The Commission is required under the *Independent Competition and Regulatory Commission Act 1997* clause 17(4)(a) to conduct a public hearing for all price regulation investigations. The venue and time are yet to be determined. Once established, the Commission will advertise the details of the public hearing in the *Canberra Times* and on its website in late April or early May. Alternatively, you may contact the Commission directly in late April or early May for details.

2 Discussion of issues

This chapter provides a description of the methodology adopted by the Commission in determining regulated retail tariffs for ActewAGL Retail's franchise electricity customers. The chapter also discusses issues concerning the methodology that may need to be addressed in determining tariffs for 2012–14. The Commission is predisposed to retaining the methodology it used for determining retail electricity tariffs for 2010–12 but wants to review aspects of the 2010 methodology in light of developments in the National Electricity Market since that time.

Retail electricity prices for small customers continue to be regulated for small customers in all regions of the National Electricity Market other than Victoria. In New South Wales, the region surrounding the ACT, the Independent Pricing and Regulatory Tribunal (IPART) established its methodology for determining retail charges to 30 June 2013 in March 2010. In Queensland, the Queensland Competition Authority (QCA) is in the process of reviewing its methodology for determining certain retail electricity tariffs for 2012–13. Aspects of the IPART and QCA methodologies may be relevant to the Commission's review.

When the ACT Government issued its franchise electricity customer price direction to the Commission in September, it also announced that it had decided to not accept the Australian Energy Market Commission's (AEMC) recommendation to end the regulation of small customer electricity tariffs in the ACT. Aspects of the reasons for the AEMC's recommendation are still relevant to the Commission's consideration of its preferred methodology. This is addressed in the following section.

The principal development affecting the operation of the National Electricity Market since 2010 is the decision of the Commonwealth to establish a price for carbon dioxide emissions from 1 July 2012. The Commission will need to be satisfied that its preferred methodology is able to take account of this development.

The Commission's view is that the methodology developed over the previous price directions is robust and should not be substantially changed unless there is compelling evidence that a change is needed.

2.1 The Commission's regulatory approach

A particular high-level issue concerns whether the Commission should use ActewAGL Retail as the benchmark for the cost components used in the methodology or a hypothetical new entrant electricity retailer. This is a fundamental issue, because the Commission's approach in previous determinations was to base the regulated retail tariff on the efficient costs of the incumbent business providing the regulated retail service rather than on the efficient costs of a new entrant provider. The Commission has always taken the view that, in the absence of compelling reasons to do otherwise, the regulated retail tariff should be based on the efficient costs of the incumbent firm, ActewAGL Retail. The Commission believes that this position is well supported by the economic analysis discussed by the Commission in its past reviews.

The AEMC recently completed a review of the effectiveness of competition in the ACT retail electricity market and questioned the Commission's approach to setting the regulated retail tariff.⁵ The AEMC proposed that an option for increasing competition was for the Commission to base the regulated retail tariff on the efficient costs of a new entrant business. The distinction between

⁵ Australian Energy Market Commission, *Stage 2 final report – review of the effectiveness of competition in the electricity retail market in the ACT*, 2011, p. 3.

basing the regulatory approach on the efficient costs of an incumbent business and basing it on the costs a new entrant would face largely comes down to whether to include an allowance for the recovery of customer acquisition costs (CAC) or customer acquisition and retention costs (CARC).

This is based on the observation that an incumbent firm and a new entrant face the same set of cost drivers except for the costs of attracting customers. Incumbent firms and new entrants must purchase electricity from the wholesale market, pay network businesses for transporting the electricity and incur retailing costs such as billing customers. A new entrant, however, must incur additional costs to build a loyal customer base – costs that the incumbent firm does not incur. The Commission's view is that this distinction is fundamental to the regulatory outcome.

The AEMC earlier stated in its Stage 1 Final Report that:

The ICRC has considered whether or not to include a CAC or CARC allowance on several occasions. However, given its legislative requirements and its terms of reference, the ICRC has always decided to set a price based on ActewAGL Retail's costs (excluding CAC/CARC) rather than a price based on the costs that a new entrant and/or stand-alone retailer would likely incur.⁶

This statement does not properly reflect the Commission's consideration of this matter. In its 2010 final decision the Commission wrote extensively on the issue of increasing the regulated tariff in order to promote competition. In that report the Commission noted:

There is little empirical evidence at this time that the true 'competitive price' that would occur in a market without any regulated price would be above or below the TFT as currently set.⁷

This analysis clearly implies that implementing the abovementioned recommendation of the AEMC would carry a significant risk that electricity prices for small customers would settle at a level above that which would have been obtained had the regulated tariffs been continued. However, in the same report, the Commission also noted that there are factors that make removal of the regulated tariffs desirable.⁸ The policy challenge is not simply to remove the regulated tariffs, but to do so in a way that delivers benefits to the ACT community. In the Commission's view, that challenge has not yet been fully met.

2.2 Description of methodology

The Commission calculates a cost index to establish the quantum by which the basket of franchise tariffs can be adjusted using a weighted average price cap. The weighted price cap formula is set out in Appendix 3. The Commission proposes to continue this approach in providing a price direction for 2012–14. Hence, the focus of the balance of this paper is the methodology for establishing the cost index factor.

The cost index model is intended to capture the year-on-year movement in the cost of energy for an incumbent retailer purchasing electricity from the market and providing retail services to supply electricity to franchise customers. The index consists of the individual cost components of an

⁶ Australian Energy Market Commission, *Stage 1 final report, – review of the effectiveness of competition in the electricity retail market in the ACT*, 2011, p. 26.

⁷ Independent Competition and Regulatory Commission, *Final decision – retail prices for non-contestable electricity customers 2010–12*, 2010, p. 53.

⁸ Independent Competition and Regulatory Commission, *Final decision – retail prices for non-contestable electricity customers 2010–12*, 2010, pp. 6–7.

efficient retailer. While the individual cost components and the methodology used to calculate each of them have been updated over the period since 2003, the broad methodology has remained unchanged: each year's price adjustment is based on the year-on-year movement in the index.

The most recent price adjustment was the calculation of the index for 2011–12. This allowed a comparison with the level of the index for 2010–11 and the calculation of the allowed percentage increase. The cost components and the annual change are shown in Table 2.1.

Table 2.1 Composition of index for 2011–12 relative to 2010–11

	2010–11 final decision	2011–12 final decision	% change
Energy purchase cost (\$/MWh)	58.57	54.50	-6.94
Energy contracting cost (\$/MWh)	0.76	0.78	2.63
Green costs (\$/MWh)	5.15	13.14	155.15
National electricity market fees (\$/MWh)	0.76	0.78	2.63
Energy losses (%)	5.92%	5.02%	
Total energy purchase cost (\$/MWh)	69.01	72.60	5.20
Retail operating costs (\$/MWh)	10.56	10.86	2.85
Customer acquisition costs (\$/MWh)	–	–	
Total retail costs (\$/MWh)	10.56	10.86	2.85
Network costs (\$/MWh)	71.44	77.17	8.02
Total energy + retail + network costs (\$/MWh)	151.01	160.63	6.37
Retail margin (EBITDA, % of sales)	5.40%	5.40%	
Total retail costs (\$/MWh)	159.16	169.30	6.37
X factor in CPI + X on MAR in \$/MWh (%)		3.42	

Source: Independent Competition and Regulatory Commission, Final decision – retail prices for non-contestable electricity customers 2011–12, 2011, p. 11.

Note: EBITDA = earnings before interest, taxes, depreciation and amortisation; CPI = consumer price index; MAR = maximum allowable revenue

Table 2.1 shows an annual nominal price increase of 6.37% (that is, the price increase including inflation). This represented a real increase of 3.42% (that is, the price increase excluding inflation).

2.3 Description of cost elements

In estimating the individual cost components, the Commission draws on benchmark cost information available in the marketplace and in other regulatory decisions within the electricity sector in Australia. Issues in relation to each of the individual cost components (as shown in Table 2.1) are discussed below. The Commission has most recently provided a detailed discussion of each cost component in chapter 7 of the *Final decision – retail prices for non-contestable electricity customers 2010–12*.⁹

The following discussion focuses heavily on the electricity purchase cost component of the cost index because it is the largest component after network costs, which are determined by the Australian Energy Regulator. Furthermore, the electricity purchase cost is the element subject to most contention because of the complexity of its calculation.

⁹ Independent Competition and Regulatory Commission, *Final decision – retail prices for non-contestable electricity customers 2010–12*, 2010.

¹⁰ Independent Competition and Regulatory Commission, *Final technical paper – model for determining the energy purchase cost component of the transitional franchise tariff*, 2010.

Electricity purchase costs

Two issues related to the wholesale energy purchase cost model need to be addressed as part of the upcoming review:

- Are there any recent issues in the wholesale electricity market that would necessitate changes to the wholesale energy purchase cost model?
- Can the wholesale energy purchase cost model be improved?

The first question asks if circumstances have changed, while the second question focuses on potential improvements even if circumstances have not changed.

The terms of reference for this inquiry require the Commission to consider ‘the efficient and prudent cost of managing risk in the cost of purchasing electricity’ as part of the determination of the regulated franchise tariffs. As part of the previous inquiry, the Commission undertook a study on the modelling of the energy purchase cost component. As a result of the study, the Commission released a technical paper on its preferred model for determining the energy purchase cost.¹⁰

Energy purchase costs are the costs incurred by the incumbent retailer in purchasing electricity from the market (that is, from electricity generators) to supply franchise customers. These costs represent around 40% of the total cost of providing retail electricity in the ACT.

An electricity retailer must have energy available to meet the varying demands of its customers. It can obtain that energy in a variety of ways. It can, for example, buy energy in the wholesale spot market as it is required to deliver it (with prices determined on a half-hourly basis throughout the day). Alternatively, it may enter into a contract with an electricity generator to supply energy at a predetermined price. The effective price a retailer ends up paying for its electricity is also influenced by any trading it may have done in the markets for electricity derivatives, for example, in the market for electricity futures operated by the Sydney Futures Exchange. Because the spot price of electricity is highly volatile – high prices are associated with peak demands for energy – a retailer will usually use a mix of these purchasing alternatives to try to reduce the price risk to which it is exposed because of this volatility. Such an approach is often described as adopting a hedging strategy.

In order to estimate the efficient cost of electricity to a retailer, the Commission must model an efficient hedging strategy. For the reasons explained in its technical paper referred to above, the Commission determined that it was appropriate to take a conservative approach and assume that a retailer would fully cover its anticipated electricity requirements for a coming quarter by taking up contracts and/or futures at an even rate over the 23 months up to 31 May of the financial year preceding the financial year in which the quarter occurs.¹¹

Supply contracts and electricity futures most commonly specify that energy is to be delivered evenly over the contract period. Demand for electricity, however, is marked by peaks and troughs throughout the day and between days. Moreover, the peaks and troughs in electricity prices are highly correlated with the peaks and troughs in energy demand. This means that the average price paid per unit of energy by a retailer during a quarter will generally differ from the average of the prices across the half-hourly intervals making up that quarter. Since the contract and futures prices

¹⁰ Independent Competition and Regulatory Commission, *Final technical paper – model for determining the energy purchase cost component of the transitional franchise tariff*, 2010.

¹¹ Given the requirement to set prices before the commencement of the financial year to which they apply, this is the latest data available to the Commission before it must make its determination.

measure the latter, they must be adjusted by a factor representing the distribution of demand over the period (the load profile) to provide an estimate of the average per unit price of electricity paid by a retailer. The final report for the 2010–12 price direction explains how this was done for the current regulatory period.¹²

Finally, the Commission cannot observe contract prices because these transactions are not completed via a trading platform such as the Australian Stock Exchange, which makes price information public, but through so-called over-the-counter (OTC) transactions where the price agreed is typically known only to the parties.¹³ The Commission assumes, however, that when the futures contracts are being robustly traded, arbitrage between the OTC and futures markets will ensure that prices in the two markets stay closely aligned so that futures prices, which are publicly available, provide a good indicator of contract prices.

Given the energy purchase cost model as described above and in the 2010 report, the important question at this time is: have changing circumstances resulted in the need to alter or modify the energy purchase cost model?

The most significant development the model has to deal with is the introduction of a carbon price from 1 July 2012. The futures market is already trading electricity futures contracts for the period following the introduction of the carbon price. Analysis of this information will provide guidance on whether the introduction of the carbon price may require an amendment to the model.

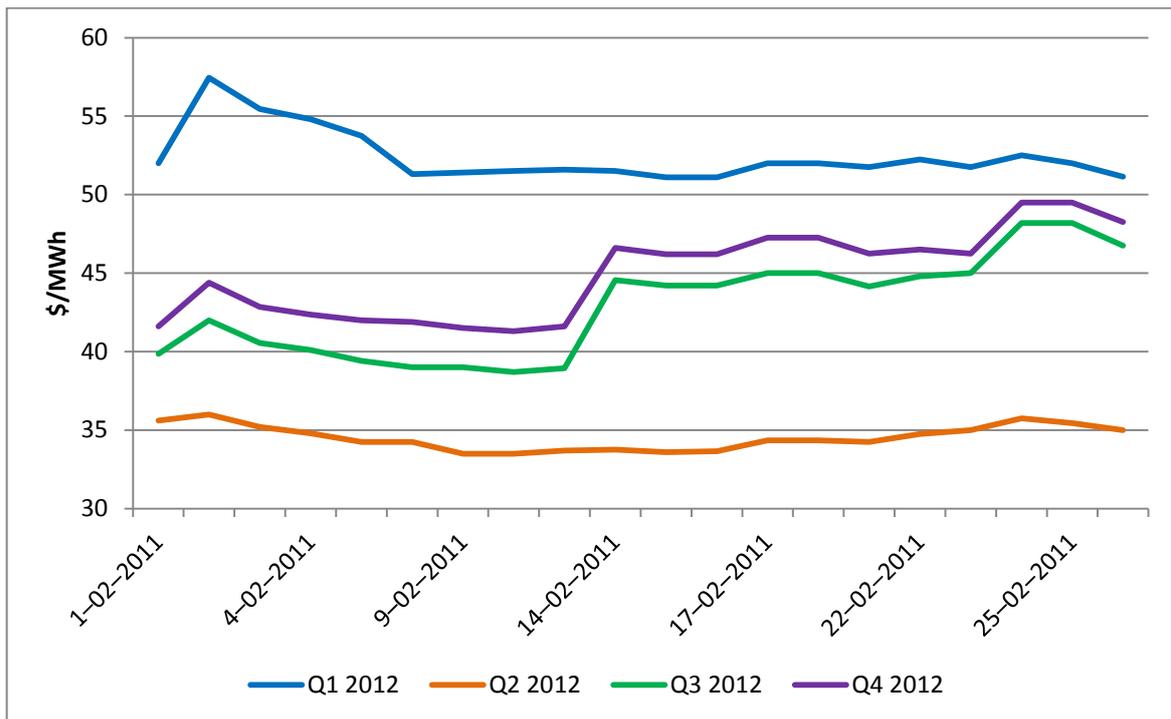
As can be seen in figure 2.1, the introduction of a carbon price is reflected in the price of futures in quarters 3 and 4.¹⁴ Futures prices stepped up in mid-February 2011 following the Australian Government's announcement, whereas futures prices for quarters 1 and 2, which precede the introduction of the carbon taxes, are largely unaffected.

¹² Independent Competition and Regulatory Commission, *Final decision – retail prices for non-contestable electricity customers 2010–2012*, 2010, pp. 27–34.

¹³ Some price information is collected by brokers and others involved in the OTC market and made available commercially. It is, however, difficult to judge how accurate a reflection of the market such partial information provides.

¹⁴ The analysis in this, and later figures, is based on futures contracts for New South Wales base load electricity.

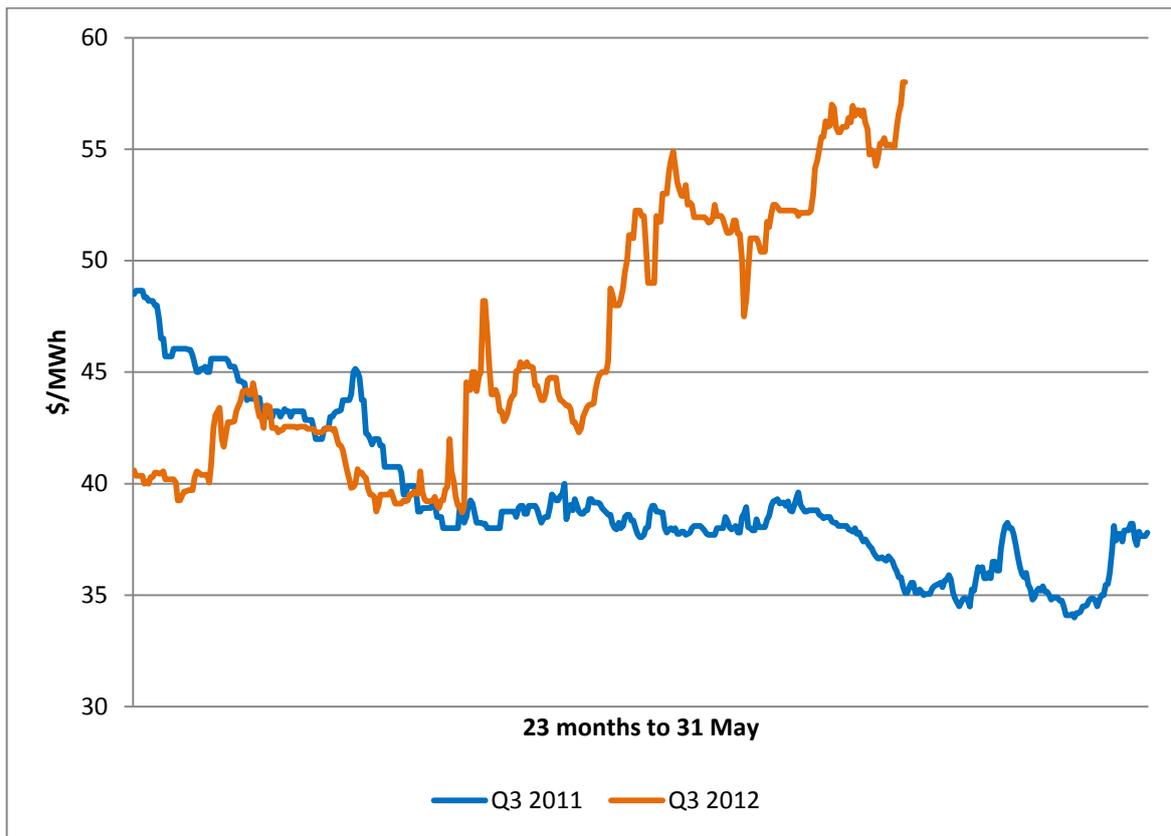
Figure 2.1 2012 futures prices during February 2011



The continuing impact on the futures price for the quarter immediately following the introduction of the carbon price is shown in figure 2.2.¹⁵ The sharp upward movement following the announcement of the intention to introduce a carbon price in February 2011 was followed by further increases as the introduction of the carbon price has become more certain, that is, following the passage of the legislation on 8 November 2011. As of the beginning of December 2011, the futures price for the third quarter of 2012 was around \$20/MWh above the price for the corresponding quarter of the previous year at the same lead time. A similar effect can be seen in all comparisons of 2012–13 futures prices with the corresponding 2011–12 futures prices.

¹⁵ Figures 2.2, 2.3, 2.4, 2.5 and 2.6 are based on data available as of 9 December 2011.

Figure 2.2 Third quarter 2011 and 2012 price comparison



This increase in futures prices will, if sustained, feed through to an increase in the cost index the Commission uses to determine the franchise tariff in the ACT. While such a development is unlikely to be welcomed by ACT electricity consumers, this does not indicate any fault in the functioning of the cost index model. The model simply reflects the higher prices expected to be faced by retailers in securing energy to meet ACT demand, including the impact of the introduction of the carbon price on electricity prices.

Higher prices do not appear to be the only effect that the announcement of the carbon price has had on the electricity futures market. The level of trading activity also appears to have been affected and this may affect the confidence with which the futures price is regarded as a good indicator of the contract price.

Two commonly used measures of the level of activity in the futures market are the level of open interest and the trading volume,¹⁶ which are reported daily for all electricity futures by d-cyphaTrade.¹⁷ The open interest measures the number of units of electrical energy covered by the positions outstanding in the market and is an indicator of the depth of the market. The trading volume is a measure of the rate of turnover of those positions and is an indicator of market turbulence. Taken together, they measure the robustness of the trading in futures contracts; higher levels indicate a more robust market.

¹⁶ The bid-ask spread is another potential measure that would be of interest because it is a measure of the liquidity of the futures market. However, given that futures contracts are not traded with the same frequency as other equities, frequently not trading every day, they may not be a reliable measure of the true spread.

¹⁷ Note that a subscription required to access the d-cyphaTrade data on electricity futures.

Figures 2.3 and 2.4 show the open interest and cumulative trading volume in electricity futures contracts for each of the four quarters of each of the last seven financial years as of the second Friday in December of the preceding year (to enable a like-with-like comparison).

Figure 2.3 Open interest comparison 2006–07 through 2012–13

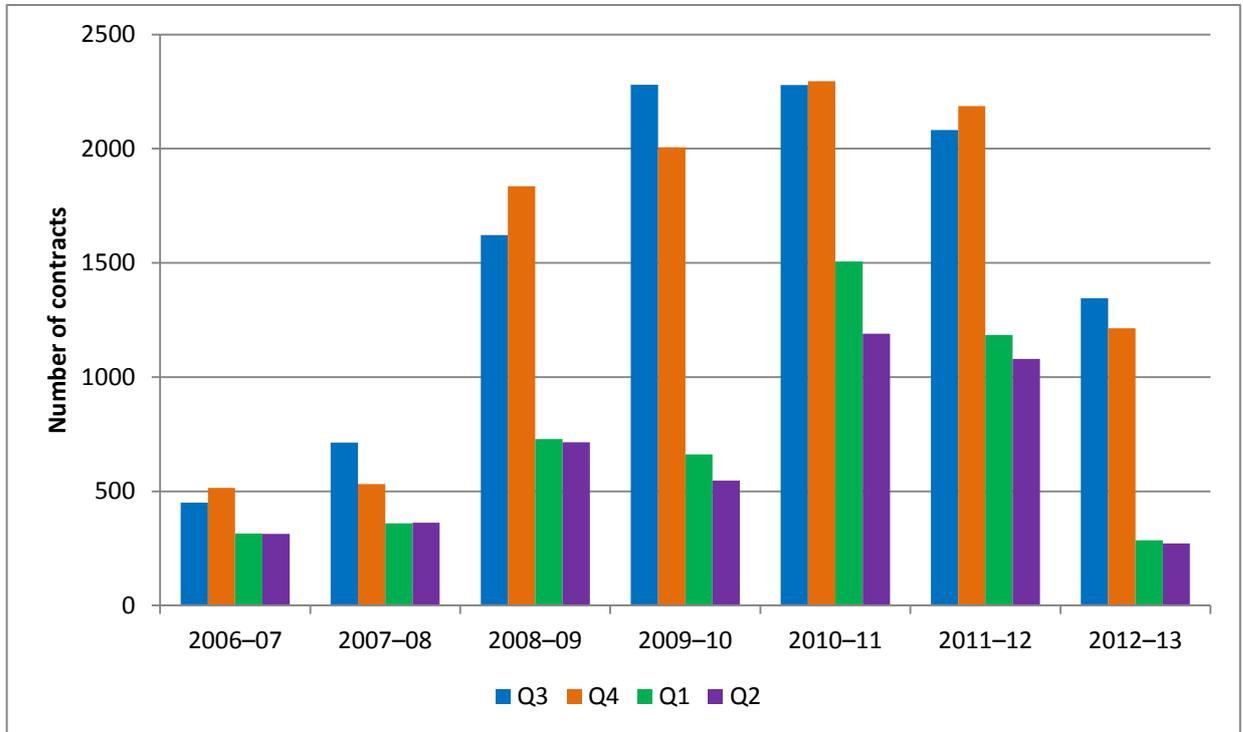
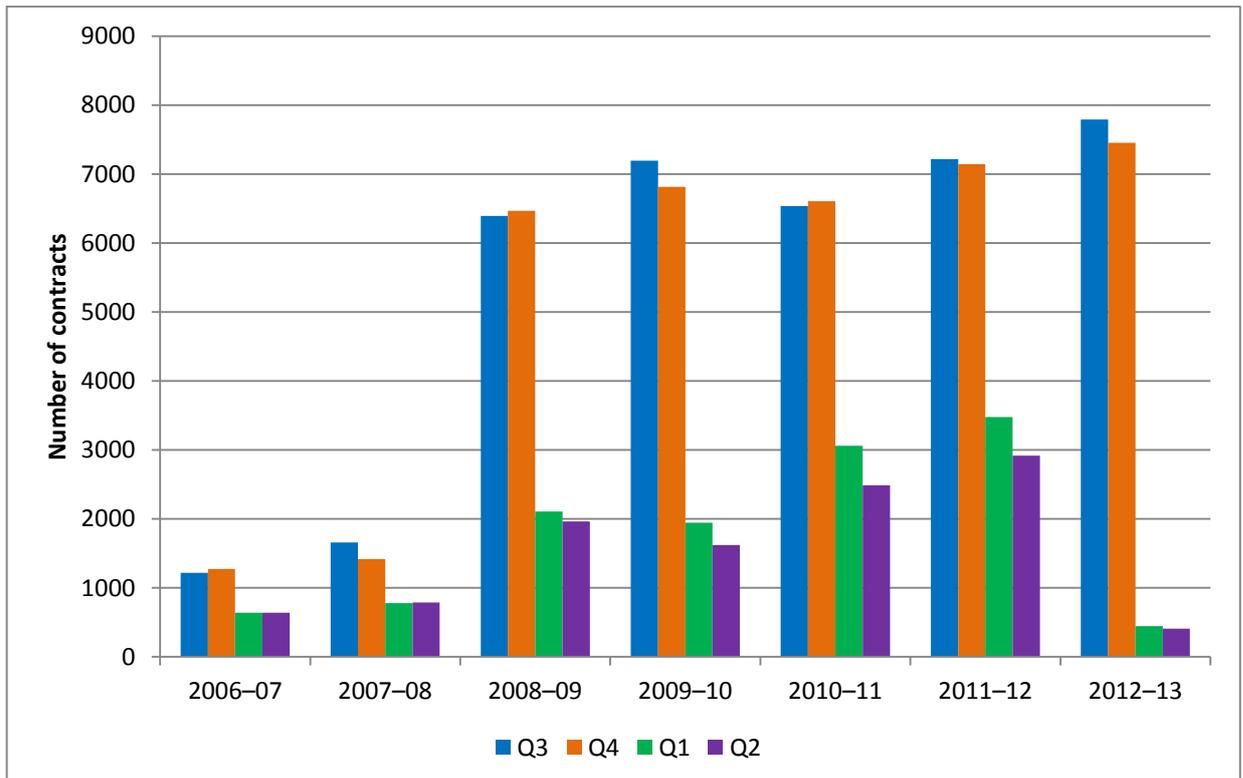


Figure 2.4 Cumulative trading volume 2006–07 through 2012–13



The figures show that 2012–13 is clearly different from the preceding four years. The futures markets matured in 2008–09 and the behaviour in the market was consistent from 2008–09 through 2011–12. Open interest and trading volume for the last two quarters of 2012–13 are significantly below those in the previous four years. It is interesting to note that, while the open interest in the first two quarters of 2012–13 (that is, the first quarters to which the carbon price will apply) is lower than the previous four years, the cumulative trading volume is not. This indicates that the desire to trade is present even if the depth of the market is relatively shallow.

Further analysis indicates that these lower levels of open interest and volume may be caused by a delay in the commencement of trading of futures for the relevant quarters. Figures 2.5 and 2.6 show the open interest and the cumulative trading volume for first quarter 2013 futures as compared to first quarter 2012 futures.

Figure 2.5 Open interest comparison for quarter 1 2012 and quarter 1 2013

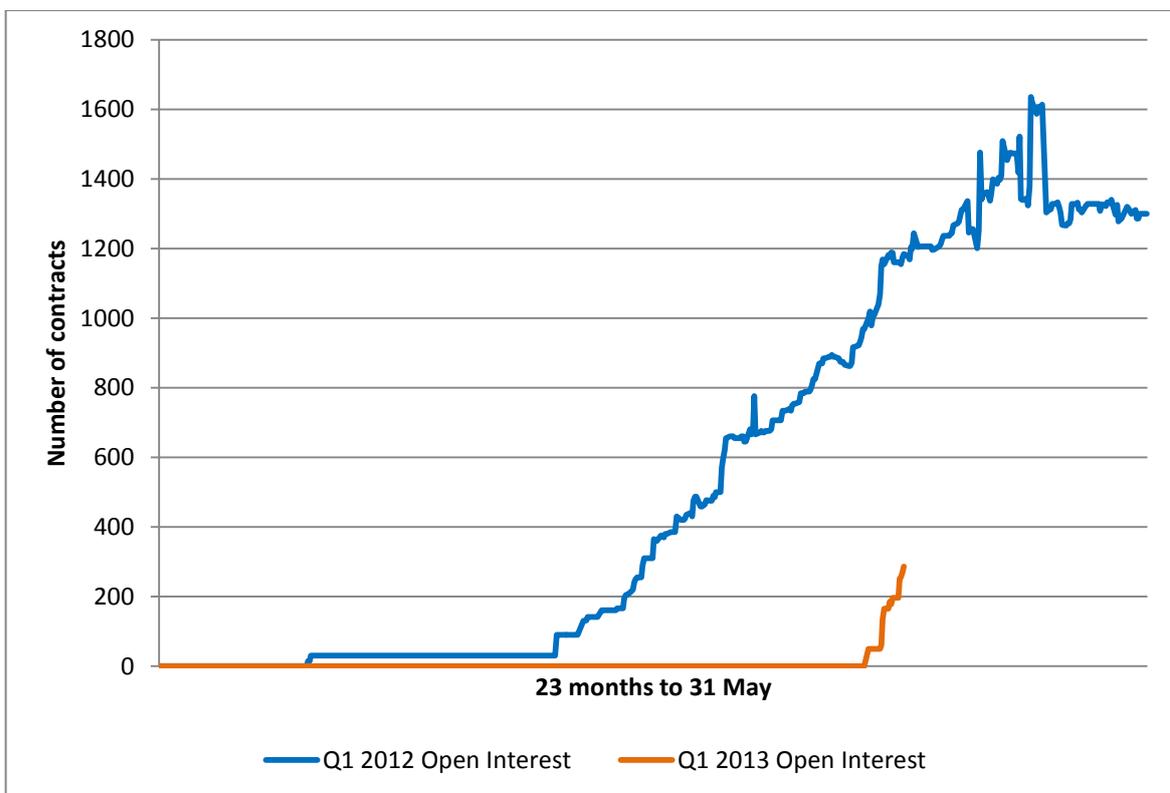
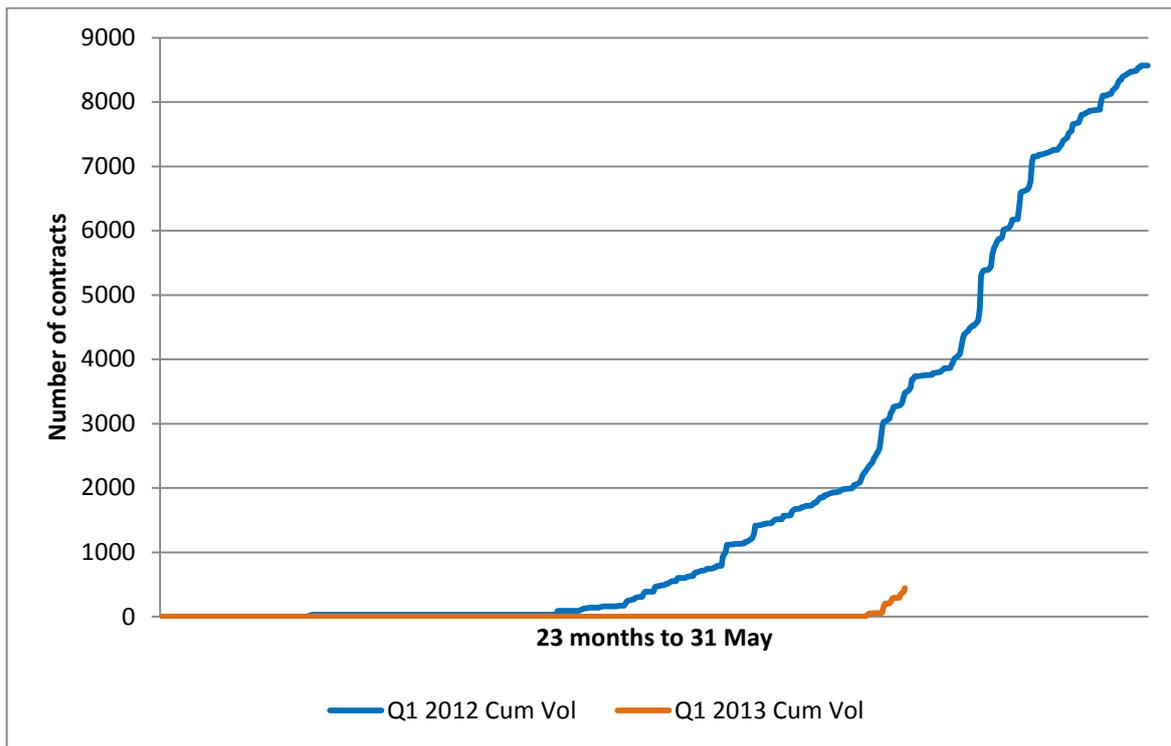


Figure 2.6 Cumulative volume comparison for quarter 1 2012 and quarter 1 2013



Figures 2.5 and 2.6 appear to indicate that trading for quarter 1 2013 has been delayed relative to equivalent trading that had occurred at the same relative time for quarter 1 2012.

This evidence suggests that there may be valid reasons for the Commission to consider modifying its energy purchase cost model to take account of the lack of distant trading in the market when determining the forward price component of the cost index. The modification could be either a temporary adjustment to the model or a permanent change to the model. This is an issue that the Commission will consider as part of the production of a draft report to be released in March 2012. The Commission seeks comments on this issue.

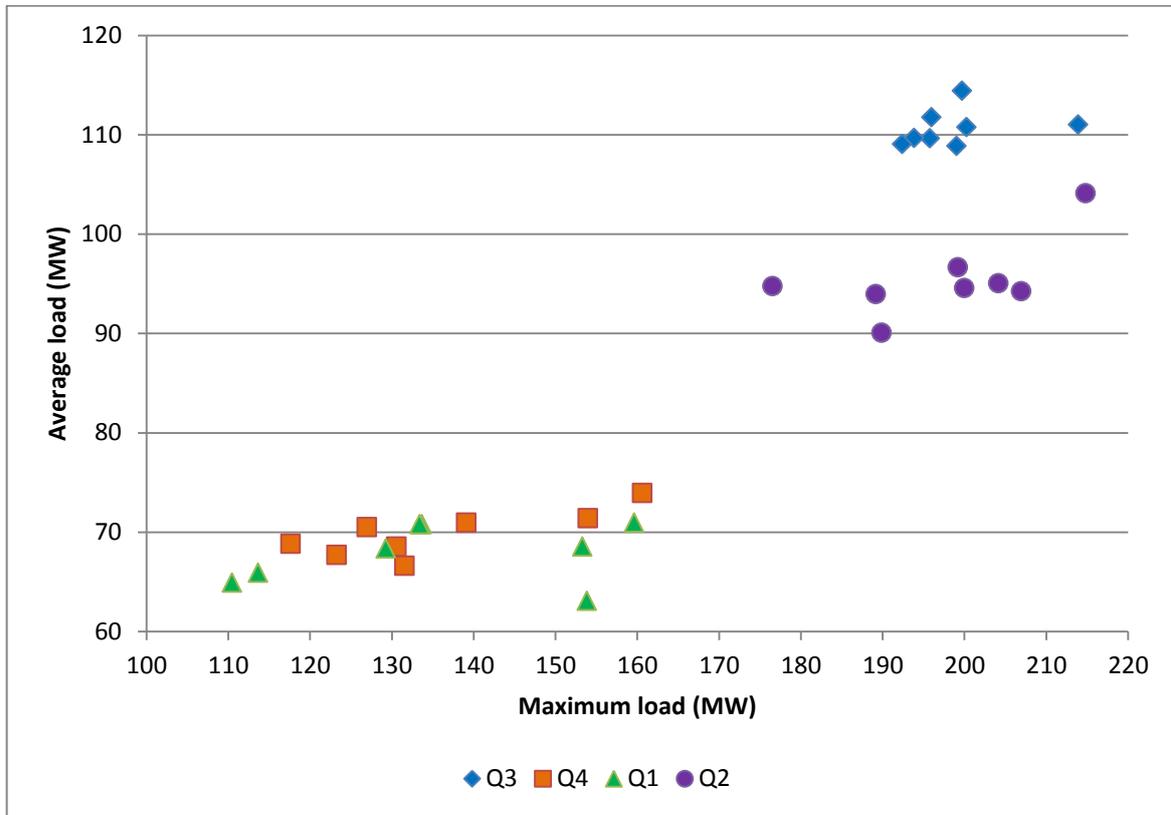
The second question posed at the beginning of this section asks whether there are any potential improvements to the Commission's cost index methodology. The Commission intends to carefully examine possible improvements to the 2010 methodology where those improvements result in an energy purchase cost that more accurately reflects changes in the efficient costs that would be incurred by a retail electricity business satisfying the regulated retail load. This approach, whereby the Commission considers refining the model to more accurately reflect efficient costs, is consistent with the approach taken in previous price directions.

The previous discussion identified that a lack of trading and market participation due to the proposed introduction of the price on carbon has resulted in a significant reduction in the length of time horizon of actively traded futures contracts. This analysis focused on the forward price component of the determination of the energy purchase cost calculation. Another area where adjustment to the model may be justified is to correct the inconsistency between the time period over which the load shape and hedging costs are calculated. In the current model, the load shape is calculated using annual data while the hedging costs rely on quarterly data.

Examination of the average and maximum loads on which the Commission bases its modelling reveals that quarterly loads vary dramatically. Figure 2.7 shows a scatter diagram of the maximum

quarterly load compared to the average quarterly load. The data is for the 32 quarters from 2003–04 through 2010–11.

Figure 2.7 Scatter diagram – average load to maximum load



The first and fourth quarters of the year (covering October through March) have similar loads with comparable average loads and variable maximum loads. The third quarter, which has the highest average load, has the least variation in the maximum load.

The load patterns (specifically the similarity of quarterly loads across years combined with the difference between quarters) suggest that moving to quarterly measurement for the load shape and hedging costs will improve the accuracy of the Commission’s model. The Commission will investigate this possible change to its model as part of this review.

Energy contracting cost

Energy contracting cost consists of the trading and management costs incurred by the incumbent retailer in managing an energy trading desk. An energy trading desk is necessary to manage electricity purchases and the associated financial risks as discussed in the section above on the energy purchase cost.

The energy contracting cost component may also include costs associated with purchasing energy that are not captured elsewhere in the Commission’s methodology. Such costs may include factors such as any premium paid to generators, relative to the market price, to provide electricity in the ACT due to the territory’s unique load profile.

The Commission has not identified any reason to change the existing method of adjusting this cost component to reflect the change in the consumer price index (CPI), as calculated using the

following formula populated using the ABS All Groups Index for the weighted average of eight capital cities:

$$CPI_t = \frac{CPI_{March(t-2)} + CPI_{June(t-2)} + CPI_{Sept(t-1)} + CPI_{Dec(t-1)}}{CPI_{March(t-3)} + CPI_{June(t-3)} + CPI_{Sept(t-2)} + CPI_{Dec(t-2)}} - 1$$

(where t is the current period).

Green costs

A range of government-imposed obligations aim at achieving environmental outcomes. Where these obligations impose a legitimate cost on ActewAGL Retail, they are included in the green cost component of the cost build-up approach.

Green costs included in the most recent index calculation were the Australian Government's expanded Renewable Energy Target¹⁸ (now split into large-scale and small-scale components), the ACT Government's Greenhouse Gas Abatement Scheme,¹⁹ and the elements of the ACT Government's feed-in tariff scheme not funded by distributors.^{20, 21}

An issue that has arisen in allowing ActewAGL Retail to recover the cost of purchasing the required number of renewable energy certificates to meet its obligations under the Renewable Energy Target is how to determine the cost of the certificates. For the 2011–12 price reset, the Commission used a market-related approach to establish prices for large-scale generation certificates (LGCs). While the Commission intends to retain this approach, matters of detail concerning the most appropriate method for estimating the LGC cost need to be determined. With respect to small-scale technology certificates (STCs), the Australian Government guarantees a price of \$40 per certificate, which is available from the Office of the Renewable Energy Regulator.

Another green cost that may affect ActewAGL Retail over the period of the determination is the ACT Government's energy efficiency scheme, as foreshadowed in the *ACT Sustainable Energy Policy*.²² The energy efficiency scheme intends to place a mandatory obligation on ActewAGL Retail to undertake energy efficiency measures in households and small businesses. If such a scheme is implemented within the determination period, the Commission will determine what legitimate costs have been incurred by ActewAGL Retail as a consequence and incorporate those in the cost model as appropriate.

As discussed under the energy purchase cost, the Australian Government's carbon price will be directly accounted for in the wholesale price of electricity and is therefore not included as a separate green cost.

¹⁸ Information on the Renewable Energy Target is available on the website of the Office of the Renewable Energy Regulator at www.orer.gov.au.

¹⁹ The ACT's Greenhouse Gas Abatement Scheme is established through the *Electricity (Greenhouse Gas Emissions) Act 2004* (ACT).

²⁰ The ACT's electricity feed-in scheme is established through the *Electricity Feed-in (Renewable Energy Premium) Act 2008* (ACT).

²¹ Specifically, the ACT Government's feed-in tariff scheme provides for payments to customers with renewable generation capacities smaller than 30 kilowatts (kW). The costs of the scheme are generally funded by ActewAGL Distribution and recovered through distribution network tariffs, but retailers currently fund 6c/kWh on the assumption that this approximates the avoided costs of purchasing energy from other generators.

²² Environment and Sustainable Development Directorate, *ACT sustainable energy policy – energy for a sustainable city 2011–2020*, 2011. Available at www.environment.act.gov.au/energy/energy_policy.

The Commission intends to continue to apply the approach taken in the 2011–12 price reset and use market-based costs wherever possible.

National Electricity Market fees

The National Electricity Market (NEM) is the interconnected electricity grid that covers most parts of Queensland, New South Wales, the ACT, Victoria, Tasmania and South Australia. The NEM is managed by the Australian Energy Market Operator (AEMO), which is funded via user fees that are ultimately borne by customers. Those fees cover a range of functions provided by the AEMO that are necessary for the safe and reliable delivery of electricity to all consumers.

The Commission has not identified any reason to change the existing method of adjusting this cost component to reflect the change in the CPI, using the CPI averaging approach described above.

Energy losses

In the first half of the calendar year, AEMO publishes reports in which it provides transmission and distribution loss factors for that forthcoming financial year.²³ The Commission calculates the percentage of total energy losses for each financial year using the product of the transmission loss factor and distribution loss factor applicable to the ACT.²⁴

The Commission has not identified any reason to change the existing method of calculating this cost component.

Retail operating costs

Retail operating costs are the costs incurred by the incumbent retailer in providing retail services to franchise customers. These costs include:

- billing services, including meter reading
- call centre costs
- customer information costs
- general operating overhead costs.

In 2003 the Commission took a cost build-up approach to evaluating operating costs and has increased this component in line with the CPI since 2003.

The Commission has not identified any reason to change the existing method of adjusting this cost component to reflect the change in the CPI using the CPI averaging approach described above.

Customer acquisition costs

The Commission previously assessed the appropriateness of including an allowance for CAC/CARC. The Commission's view is that if it were determining the efficient cost of a new entrant retail electricity business, it might be appropriate to include this component in total retail costs. However, this is not the Commission's objective. The Commission is determining the efficient costs of the incumbent retailer – ActewAGL Retail. In any case, the Commission's

²³ Australian Energy Market Operator transmission and distribution loss factors are available at www.aemo.com.au/electricityops/lossfactors.html.

²⁴ The transmission loss factor is the marginal loss factor for the Canberra 132 kV connection point, and the distribution loss factor is that for ActewAGL Distribution's low-voltage connection.

preliminary analysis suggests that total retail costs as presently determined are similar to those of other jurisdictions that specifically account for CAC/CARC.

This issue will be explored further in the draft report.

Network costs

Transmission and distribution network costs are paid by the retailer to transport electricity from the generator to the customer. The costs that the transmission and distribution network owners charge are determined by the Australian Energy Regulator (AER).

The AER released its final decision on ActewAGL Distribution's electricity distribution network prices for 2009–10 to 2013–14 in April 2009.²⁵ The final decision provided for a real increase in distribution charges of 13.82% in 2009–10, followed by annual real increases of 4% for the remainder of the period.

The distribution price as calculated by the AER includes the costs from the ACT Government's feed-in tariff scheme (excluding those costs paid directly by the retailer, which are recovered as green costs). Recent changes to the feed-in tariff arrangements, such as the introduction of medium renewable energy generators in the *Electricity Feed-in (Renewable Energy Premium) Amendment Act 2011*, will be passed through to customers when the costs the distribution business incurs are included in the distribution tariffs.

The Commission has not identified any reason to change the existing method of calculating this cost component.

Retail margin

The retail margin represents the return the incumbent retailer earns on the investment it must undertake to provide retail services. Without a retail margin, the incumbent retailer would be unable to attract the funds needed to provide those services. In addition, a retail margin, together with an allowance for other legitimate costs of providing the retail service, allows room for other retailers to enter the market and competitively offer alternative electricity supply contracts, assuming they can operate more efficiently or achieve other economies (including savings on the retail margin) that can be passed through to customers in the form of lower prices.

In its 2010–11 final decision, the Commission paid particular attention to the detailed analysis of the retail margin carried out by IPART and its adviser, the Strategic Finance Group (SFG). Recognising the extensive analysis done by SFG and the consideration by IPART, the Commission adopted a retail margin of 5.4% for 2010–11. This was higher than the 5.0% allowance in 2009–10 but is consistent with the IPART margin for the period to June 2013.

The Commission has not identified any reason to change the level of the retail margin.

Cost pass-through arrangements

In its 2010 final decision, the Commission opted to allow ActewAGL Retail to submit one pass-through application during each year in addition to the price reset at the end of the first year of the two-year price determination. Provision for a pass-through allowance was made so that unexpected

²⁵ This decision can be accessed on the Australian Energy Regulator's website at www.aer.gov.au.

cost changes, either positive or negative, would be passed on to customers. Pass-through claims were allowed for:

- taxation events
- network tariff changes
- regulatory events.

Pass-through claims had to meet a materiality threshold, which was set at 0.25% of ActewAGL Retail's franchise customer revenue.

As part of this review, the Commission will consider the necessity of maintaining pass-through arrangements, the set of allowable pass-through events and the level of the materiality threshold.

2.4 Summary

The Commission's predisposition is to maintain where possible its current approach to determining the regulated retail tariffs in the ACT. Each of the cost elements in the Commission's methodology has been described and reviewed for potential refinements. Based on this review, the Commission identified the following areas where there may be potential to improve the existing model or where further investigation may be justified:

- energy purchase cost component, specifically:
 - whether the model should be adjusted in light of the effects of the introduction of a carbon price on the level of distant trading in the futures market
 - whether the accuracy of the model could be improved through the adoption of a quarterly load shape rather than the current annual load shape (such that the model were solely based on quarterly data)
- the manner in which green costs are determined
- the extent to which the Commission's approach to determining efficient costs is comparable to that adopted in other jurisdictions that specifically account for CAC/CARC.

In addition, the Commission foreshadowed a review of the prescribed cost pass-through arrangements.

The Commission will consider these issues in the development of the draft report and is interested in submissions on these issues. The Commission is also aware that stakeholders may wish to comment on other aspects of the Commission's approach and methodology, and the Commission welcomes submissions on any aspect of this review.

Appendix 1 Terms of reference

Independent Competition and Regulatory Commission (Price Direction for the Supply of Electricity to Franchise Customers) Terms of Reference Determination 2011

Disallowable instrument DI2011–261

Made under the

Independent Competition and Regulatory Commission Act 1997 (the Act), Section 15 (Nature of industry references) and Section 16 (Terms of industry references).

Reference for investigation under Section 15

Pursuant to subsection 15(1) of the Act, I refer to the Independent Competition and Regulatory Commission (the ‘Commission’) the provision of a price direction for the supply of electricity to franchise customers for the period 1 July 2012 to 30 June 2014 with provision where appropriate for a review by 30 June 2013.

Terms of reference for investigation under section 16

Under the Act, section 16(1), I require that the Commission consider the following matters in relation to the conduct of the investigation:

1. The Commission should take into account the following matters:
 - a. The impact on direct electricity costs of changes in government policies and pass through of those costs to regulated prices including, but not restricted to:
 - i. the Commonwealth Government Carbon Tax;
 - ii. Commonwealth or ACT retailer obligation energy efficiency schemes;
 - iii. the Commonwealth Government’s Large and Small Renewable Energy Targets;
 - iv. the ACT Feed-in Tariff; and
 - v. any other schemes implemented to address climate change.
 - b. The efficient and prudent cost of managing risk in the cost of purchasing electricity.
 - c. The requirements of s. 20 of the Act.
 - d. Any other matters the Commission considers relevant.
2. The Commission must produce its final report in time sufficient to allow ActewAGL Retail to make any necessary changes to its billing system and to provide information on the new tariff to customers.

Andrew Barr MLA

Treasurer

21 September 2011

Appendix 2 Extracts from the ICRC Act

15 Nature of industry references

- (1) A referring authority may provide an industry reference to the commission in relation to any of the following matters:
 - (a) prices for regulated services;
 - (b) competition within a regulated industry;
 - (c) any other matter in relation to a regulated industry;
 - (d) any matter in relation to regulated industries in general;
 - (e) any other matter in relation to an industry, or industries in general;
 - (f) any matter provided for by another law of the Territory.
- (2) The fact that a price direction is in force in relation to a regulated industry does not preclude a further investigation of prices in the industry, or the making of a new price direction in relation to prices in the industry.
- (3) An industry reference may limit the scope of the investigation and report to a particular aspect of the regulated industry, or to a particular period during which the industry has been operating, or in any other matter.
- (4) An industry reference may relate to a number of goods or services supplied by the same or different suppliers.
- (5) An industry reference may be withdrawn or amended by the referring authority at any time before the commission has delivered its report to the person.
- (6) If an industry reference is amended or withdrawn, the referring authority must prepare a written notice setting out the reasons for the amendment or withdrawal.
- (7) The referring authority must give a copy of the notice to the commission.
- (8) The notice is a notifiable instrument.

Note A notifiable instrument must be notified under the Legislation Act.

16 Terms of industry references

- (1) The referring authority may determine terms of reference for an investigation on an industry reference.
- (2) The terms of reference may include 1 or more of the following:
 - (a) a specification of a period within which a report is required to be submitted to the referring authority;
 - (b) a requirement that the commission consider specified matters;
 - (c) except in relation to price regulation, the making of a price direction and any related investigation and report—a requirement that the commission exercise its functions subject to any subsequent written direction of the authority.
- (3) A determination under subsection (1) is a disallowable instrument.

Note A disallowable instrument must be notified, and presented to the Legislative Assembly, under the Legislation Act.

- (4) A referring authority must cause a direction mentioned in subsection (2) (c) to be presented to the Legislative Assembly within 6 sitting days after it is given.

Directions about prices

- (1) At the conclusion of an investigation on a reference authorising the commission to make a price direction in a regulated industry, the commission must decide on the level of prices for services in relation to the period specified in the reference and give a price direction accordingly to each person providing regulated services.
- (2) In making a decision under subsection (1), the commission must have regard to—
 - (a) the protection of consumers from abuses of monopoly power in terms of prices, pricing policies (including policies relating to the level or structure of prices for services) and standard of regulated services; and
 - (b) standards of quality, reliability and safety of the regulated services; and
 - (c) the need for greater efficiency in the provision of regulated services to reduce costs to consumers and taxpayers; and
 - (d) an appropriate rate of return on any investment in the regulated industry; and
 - (e) the cost of providing the regulated services; and
 - (f) the principles of ecologically sustainable development mentioned in subsection (5);
 - (g) the social impacts of the decision; and
 - (h) considerations of demand management and least cost planning; and
 - (i) the borrowing, capital and cash flow requirements of people providing regulated services and the need to renew or increase relevant assets in the regulated industry; and
 - (j) the effect on general price inflation over the medium term; and
 - (k) any arrangements that a person providing regulated services has entered into for the exercise of its functions by some other person.
- (3) Also, in making a decision under subsection (1), the commission must allow a declared fee under section 4C (Declared fees to be passed on to consumers) to be passed on in full to consumers of the service.
- (4) In a price direction, the commission must indicate to what extent it has had regard to the matters referred to in subsection (2).
- (5) For subsection (2) (f), *ecologically sustainable development* requires the effective integration of economic and environmental considerations in decision-making processes through the implementation of the following principles:
 - (a) the precautionary principle—that if there is a threat of serious or irreversible environmental damage, a lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;
 - (b) the inter-generational equity principle—that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;
 - (c) conservation of biological diversity and ecological integrity;
 - (d) improved valuation and pricing of environmental resources.

Appendix 3 Weighted average price cap formula

Once the transitional franchise tariff (TFT) (expressed as a percentage increase over the previous year's TFT in the form $(1 + \text{CPI}) * (1 + X)$) is established by the Commission, it needs to be translated into the range of non-negotiated tariffs offered by ActewAGL Retail. This has been achieved by adopting a weighted average price cap approach under which ActewAGL Retail can rebalance individual non-negotiated tariffs as long as the adjustment in the weighted average price does not exceed the overall percentage increase in the TFT determined by the Commission.

Thus, the maximum price that ActewAGL Retail can charge for the provision of electricity services to franchise customers in an upcoming year is calculated in accordance with the following formula:

$$\sum_{i=1}^n \sum_{j=1}^m P_{ij}^t Q_{ij}^R \leq \sum_{i=1}^n \sum_{j=1}^m P_{ij}^{t-1} Q_{ij}^R \times (1 + \text{CPI}) \times (1 + X)$$

where

- P_{ij}^t is the proposed price for component j of the regulated retail tariff i in the upcoming year
- P_{ij}^{t-1} is the price charged by ActewAGL Retail for component j of the regulated retail tariff i in the current year
- Q_{ij}^R is the reference quantity for component j of the regulated retail tariff i defined as the actual quantity (in both customer numbers or MWh) as reported by ActewAGL Retail for the 12-month period ending 31 March in the current year.

The Commission intends to use a similar form of adjustment to translate the movement in the TFT to the tariffs to be charged by ActewAGL Retail in 2012–13 and 2013–14.

Appendix 4 Abbreviations and acronyms

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
CAC	customer acquisition costs
CARC	customer acquisition and retention costs
Commission	Independent Competition and Regulatory Commission
CPI	consumer price index
EBITDA	earnings before interest, taxes, depreciation and amortisation
ICRC	Independent Competition and Regulatory Commission
ICRC Act	<i>Independent Competition and Regulatory Commission Act 1997 (ACT)</i>
IPART	Independent Pricing and Regulatory Tribunal of NSW
kW	kilowatt
LGC	large-scale generation certificate
MAR	maximum allowable revenue
MWh	megawatt hour
NEM	National Electricity Market
OTC	over the counter
QCA	Queensland Competition Authority
RET	Renewable Energy Target
SFG	Strategic Finance Group
STC	small-scale technology certificate
TFT	transitional franchise tariff