QUEENSLAND
COMPETITION
AUTHORITY

Draft Methodology Paper

Regulated Retail Electricity Prices 2012-13

November 2011

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SUBMISSIONS

Public involvement is an important element of the decision-making processes of the Queensland Competition Authority (the Authority). Therefore submissions are invited from interested parties concerning the draft methodology the Authority has proposed for determining regulated retail electricity prices for 2012-13. The Authority will take account of all submissions received.

Written submissions should be sent to the address below. While the Authority does not necessarily require submissions in any particular format, it would be appreciated if two printed copies are provided together with an electronic version on disk (Microsoft Word format) or by e-mail. Submissions, comments or inquiries regarding this paper should be directed to:

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The **closing date** for submissions is 9 December 2011.

Confidentiality

In the interests of transparency and to promote informed discussion, the Authority would prefer submissions to be made publicly available wherever this is reasonable. However, if a person making a submission does not want that submission to be public, that person should claim confidentiality in respect of the document (or any part of the document). Claims for confidentiality should be clearly noted on the front page of the submission and the relevant sections of the submission should be marked as confidential, so that the remainder of the document can be made publicly available. It would also be appreciated if two copies of each version of these submissions (i.e. the complete version and another excising confidential information) could be provided. Again, it would be appreciated if each version could be provided on disk. Where it is unclear why a submission has been marked "confidential", the status of the submission will be discussed with the person making the submission.

While the Authority will endeavour to identify and protect material claimed as confidential as well as exempt information and information disclosure of which would be contrary to the public interest (within the meaning of the *Right to Information Act 2009 (RTI)*), it cannot guarantee that submissions will not be made publicly available. As stated in s187 of the *Queensland Competition Authority Act 1997* (the QCA Act), the Authority must take all reasonable steps to ensure the information is not disclosed without the person's consent, provided the Authority is satisfied that the person's belief is justified and that the disclosure of the information would not be in the public interest. Notwithstanding this, there is a possibility that the Authority may be required to reveal confidential information as a result of a RTI request.

Public access to submissions

Subject to any confidentiality constraints, submissions will be available for public inspection at the Brisbane office of the Authority, or on its website at www.qca.org.au. If you experience any difficulty gaining access to documents please contact the office (07) 3222 0555.

Information about the role and current activities of the Authority, including copies of reports, papers and submissions can also be found on the Authority's website.

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GLOSSARY

2009 Review	The Authority's Review of Electricity Pricing and Tariff Structures – Stages 1 and 2
ACB	Australian Carbon Benchmark
ACIL	ACIL Tasman
ACIL Report	ACIL Tasman, *Draft Methodology for estimating energy purchase costs, Prepared for the Queensland Competition Authority*, October 2011, available from: www.qca.org.au
ACT	Australian Capital Territory
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AFMA	Australian Financial Markets Association
APG	Australian Power and Gas
BRCI	Benchmark Retail Cost Index
CARC	Customer Acquisition and Retention Costs
CCIQ	Chamber of Commerce and Industry Queensland
CPI	Consumer Price Index
CPRS	Carbon Pollution Reduction Scheme
CSO	Community Service Obligation
Delegation	The Delegation from the Minister for Energy and Water Utilities, pursuant to section 90AA(1) of the Electricity Act, directing the Authority to determine regulated retail electricity tariffs (notified prices) to apply from 1 July 2012 to 30 June 2013.
Direction	The Direction from the Minister for Finance and the Arts and Acting Treasurer and Minister for State Development and Trade, pursuant to section 10(e) of the QCA Act, directing the Authority to investigate, and report on, a possible alternative retail electricity pricing methodology and schedule of retail electricity tariffs for the period commencing 1 July 2012 to 30 June 2013.
EEQ	Ergon Energy Queensland
ERET	Enhanced Renewable Energy Target Scheme
ESCOSA	Essential Services Commission of South Australia
ESOO	Electricity Statement of Opportunities
FRC	Full Retail Contestability
GEC	Gas Electricity Certificate
GWh	Gigawatt hours
HV	High voltage
ICRC	Independent Competition and Regulatory Commission
IPART	Independent Pricing and Regulatory Tribunal

Issues Paper	The Issues Paper released by the Authority on 24 June 2011 (acting under the Direction)
Large customer	A customer that consumes more than 100MWh of electricity per year
LGC	Large-scale Generation Certificate
LRET	Large-scale Renewable Energy Target
LRMC	Long Run Marginal Cost
MWh	Megawatt hours
NEM	National Electricity Market
NER	National Electricity Rules
Notified price	The electricity prices that a retailer may charge its non-market customers, as defined under section 90 of the *Electricity Act 1994*
NSLP	Net System Load Profile
ORER	Office of Renewable Energy Regulator
OTTER	Office of the Tasmanian Economic Regulator
POE	Probability of exceedance
QCA Act	*Queensland Competition Authority Act 1997*
QCOSS	Queensland Council of Social Service
Relevant tariff year	The period 1 July 2012 to 30 June 2013, as defined under section 329(3) of the *Electricity Act 1994*
ROLR	Retailer of Last Resort
RPP	Renewable Power Percentage
SFG	SFG Consulting
Small customer	A customer that consumes less than 100MWh of electricity per year
SRES	Small-scale Renewable Energy Scheme
STC	Small-scale Technology Certificate
STP	Small-scale Technology Percentage
The Authority	Queensland Competition Authority
The Electricity Act	*Electricity Act 1994*
The Minister	Minister for Energy and Water Utilities
The Regulation	*Electricity Regulation 2006*
UTP	The Queensland Government’s Uniform Tariff Policy
WAPC	Weighted Average Price Cap

1. INTRODUCTION

On 11 May 2011, the Queensland Competition Authority received a Ministerial Direction (the Direction) under section 10(e) of the *Queensland Competition Authority Act 1997* (the QCA Act). The Direction required the Authority to investigate, and report on:

(a) an alternative retail electricity pricing methodology for the determination of cost components under an N (network) + R (energy and retail) approach; and

(b) an alternative set of retail electricity tariffs, based on an N+R approach, which could be applied from 1 July 2012.

The Direction was a transitional measure to allow the review process to commence while the *Electricity Act 1994* (the Electricity Act) and *Electricity Regulation 2006* (the Regulation) were amended to remove the Benchmark Retail Cost Index (BRCI) approach to adjusting regulated retail electricity prices (notified prices) and to allow for the introduction of a new, cost-reflective price setting methodology.

The Electricity Act and Electricity Regulation were amended on 13 September 2011. The amended Electricity Act allows the Minister to delegate the function of determining notified prices to the Authority. Section 329 of the Electricity Act provides that any investigations or consultations previously undertaken by the Authority under section 10(e) of the QCA Act will be deemed sufficient for the purposes of the 2012-13 price determination process.

Acting under the Direction, the Authority released an Issues Paper on 24 June 2011 and received 20 submissions in response.

1.1 Delegation and Terms of Reference

On 22 September 2011, the Authority received a Delegation from the Minister for Energy and Water Utilities (the Minister) under section 90AA(1) of the Electricity Act requiring it to determine notified electricity prices to apply from 1 July 2012 to 30 June 2013 (the price determination). The Delegation also includes Terms of Reference for the price determination.

The Delegation replaces the previous Direction issued to the Authority under section 10(e) of the QCA Act.

The Delegation is broadly consistent with the Direction, with the exception of some minor amendments which provide more clarity regarding the Authority's task. In particular, the Delegation specifies that the Authority should, to the extent possible, base its determination on a Network (N) plus Retail (R) cost build-up approach to setting notified prices, where:

(a) the N (or network cost) component is treated as a pass-through – in determining the N component, the Authority must consider the network charges to be levied by Energex for each tariff for the relevant tariff year; and

(b) the R (or energy and retail cost) component is determined by the Authority.

In addition, and consistent with section 90(5) of the Electricity Act, the Authority is required to have regard to:

(a) the actual costs of supplying electricity;

(b) the effect of the determination on competition in the Queensland retail electricity market, consistent with the Government's policy objective that consumers, wherever possible, have the opportunity to benefit from competition and efficiency in the marketplace; and

(c) the Queensland Government's Uniform Tariff Policy (UTP), which ensures customers of the same class have access to uniform retail tariffs and pay the same notified price for their electricity supply, regardless of their geographic location.

Calculating the R component

Energy Costs

The energy cost component of each regulated retail tariff should include the cost of purchasing energy, environmental and renewable energy costs, energy losses and National Electricity Market (NEM) fees. In calculating the energy cost component, the Authority must consider:

(a) the cost of energy;

(b) fees, including charges for market and ancillary services, imposed by Australian Energy Market Operator (AEMO) under the National Electricity Rules;

(c) energy losses as published by AEMO;

(d) the likely impact resulting from Commonwealth legislation to put a price on carbon dioxide emissions;

(e) the efficient costs of meeting any obligations under environmental and energy efficiency schemes (including present and future State and Commonwealth schemes); and

(f) a mechanism to address any new compulsory scheme that imposes material costs on the retailer.

Retail costs

In determining the retail costs component of each regulated retail tariff, the Authority must:

(a) consider the retail costs that would reasonably be incurred by an efficient, representative retailer, the characteristics of which should be determined by the Authority; and

(b) determine an appropriate retail margin giving consideration to any risks not compensated for elsewhere.

Other issues

In making its price determination, the Authority must have regard to the following:

(a) the general supply residential tariff (Tariff 11) is to be structured as an inclining block tariff;

(b) a new voluntary time-of-use tariff is to be established for residential customers and that any customer who opts to transfer to this tariff, providing they have the appropriate metering, will be permitted to revert to the standard regulated tariff for residential customers in accordance with the requirements set out in the regulated retail tariff schedule;

(c) for farming and irrigation tariffs, targeted consultation should be undertaken with relevant stakeholders and industry groups, and consideration given to whether any transitional arrangements are needed for customers who may be required to move from one tariff to another;

(d) an appropriate tariff is to be established for customers who are supplied under the Rural Subsidy Scheme, or are located in a drought declared area;

(e) an appropriate tariff for street lighting customers in Ergon Energy's network area is to be established, and consideration given to whether any transitional arrangements are needed for customers on the existing tariff (Tariff 71);

(f) consideration should be given to transitional arrangements for customers who are on obsolete and declining block tariffs;

(g) from 1 July 2012, all existing and new non-residential customers in Energex's network area who consume more than 100 megawatt hours per annum will be unable to access regulated retail electricity tariffs, and must be on a market contract; and

(h) as at 1 July 2012, any customer who is on an obsolete or declining block tariff will be required to move to, or be transitioned to, an alternative regulated retail tariff.

The Authority is required to publish a draft methodology paper no later than December 2011, a draft report of its price determination on 30 March 2012 and publish a final report of its price determination and gazette the bundled retail tariffs no later than 31 May 2012.

The Minister's covering letter and Delegation are provided in **Appendix 1**.

1.2 Background to the Review

Since the commencement of full retail competition (FRC), notified prices have been adjusted annually by the Authority in accordance with the BRCI process previously prescribed in the Electricity Act and the Electricity Regulation.

There are currently 20 regulated retail tariffs for which notified prices have been adjusted using the BRCI approach. While some of the current tariffs were introduced more recently, most were introduced over 20 years ago. The current range of tariffs available to consumers consists of residential, business and agricultural/farming tariffs. However, there are restrictions on the access to various tariffs according to consumption characteristics, the location of premises or whether appropriate metering is in place to record the required consumption information.

Review of Electricity Pricing and Tariff Structures

In June 2009, the Authority was asked to:

(a) examine the BRCI methodology and alternative price-setting methodologies for reflecting the costs of supplying electricity; and

(b) examine Queensland's existing retail electricity tariffs and alternative tariff structures which may assist in the long-term management of peak electricity demand and to encourage efficiency.

The *Review of Electricity Pricing and Tariff Structures* (the 2009 review) was completed in two stages.

Stage 1

In the Final Report on Stage 1 of the 2009 Review, the Authority concluded that the BRCI methodology had a number of flaws, and that the existing suite of notified prices was unlikely to fully reflect the costs of supply (at least not for each individual tariff group) and did not provide good signals to customers regarding the underlying costs of their electricity usage.

To achieve significant improvements over the existing BRCI methodology, the Authority recommended an alternative retail pricing approach based on a N (network) + R (retail) approach, with the R component including appropriate allowances for energy and retail costs and the N component being a direct pass-through of network costs to customers.

Stage 2

In its Final Report on Stage 2 of the 2009 Review, the Authority concluded that retail tariffs should be made as cost reflective as possible, network and retail tariffs should be aligned and a voluntary time of use tariff should be introduced for residential customers who already had interval meters in place. The Authority also suggested including a seasonal component in some tariffs.

The current Delegation and Terms of Reference are in response to the 2009 review. In doing so, the Government has broadly accepted the recommendations of the 2009 review, with the following two provisos:

(a) the suggested seasonal component in some tariffs has not been accepted; and

(b) the requirement for an inclining block tariff in Tariff 11 was not a recommendation of the 2009 review.

1.3 The Queensland Regulated Retail Electricity Market

State of the market

Prior to 1998, all electricity consumers were on notified prices determined by the Queensland Government. For some large electricity consumers, the option to choose their electricity retailer commenced in 1998. However, for the majority of consumers, including all residential consumers, the option to choose only came into effect with the introduction of full retail contestability (FRC) on 1 July 2007.

Since the introduction of FRC, electricity retailers have been able to offer to supply electricity to all consumers, including those on notified prices. Consumers who take up a market offer transfer from the notified price to the market contract price they have agreed with the retailer of their choice. Small consumers who accept a market contract may also revert to a non-market contract at the notified price in the future, subject to the conditions of their market contract.

As at 30 June 2011, there were 11 retailers supplying consumers in the Queensland retail market. However, competition in Queensland is largely limited to South East Queensland (Energex’s distribution area) as a result of the Government’s Uniform Tariff Policy (UTP).

Under the UTP, the Queensland Government subsidises the notified prices payable by regional customers supplied by Ergon Energy Queensland (EEQ) via the Ergon Energy distribution network. EEQ is owned by the Queensland Government and is the only retailer subsidised under the UTP. In general, subsidised notified prices are below the prices available from other retailers offering market contracts. As a result, consumers, particularly small consumers, within the Ergon Energy distribution area generally access electricity through EEQ at notified prices.

As at 30 June 2011, approximately 1.15 million (or 57.3%) of small consumers and 10,704 (or 49.4%) of large consumers in Queensland remained on notified prices, the majority of these in Ergon Energy’s distribution area. Notified prices therefore remain an important feature of the Queensland retail electricity market.

From 1 July 2012, all existing and new non-residential large consumers in Energex's network area will no longer have access to notified prices, while large customers in Ergon Energy's network area will still be able to access notified prices.

Uniform Tariff Policy

The Queensland Government's UTP allows customers of the same class to access uniform retail tariffs and pay the same notified price for their electricity supply, regardless of their geographical location. The UTP works by subsidising customers in Ergon Energy's distribution area where notified prices are considerably lower than the actual costs of supplying electricity. The actual costs of supply are high because of the often long distances over which power must be transported and the often sparsely populated areas serviced by Ergon Energy. As a result, the costs of supply per customer are much higher than in the more densely populated South East of the State.

To support its UTP, the Queensland Government currently provides a Community Service Obligation (CSO) payment to fund the difference between the actual costs charged by Ergon Energy (the distributor) and the amount that is recovered by Ergon Energy Queensland (the retailer) from customers at notified prices.

1.4 The Review Process to Date

On 24 June 2011, the Authority released an Issues Paper advising interested parties of the commencement of the review.

The Authority received 20 submissions from interested parties in response to the Issues Paper. The list of submissions received is provided in **Appendix 2**. A copy of the Issues Paper and the submissions received can be accessed from the Authority's website.

The Authority engaged ACIL Tasman (ACIL) to provide expert advice on estimating energy costs to be included in the R component of regulated retail tariffs for 2012-13. ACIL has prepared a draft methodology report (ACIL Report)[1], which has been released by the Authority to accompany this paper. The details on the Authority's proposed approach to estimating energy costs are provided in the ACIL Report.

The Authority is now releasing this Draft Methodology Paper. The purpose of the Draft Methodology Paper is to set out the Authority's preliminary views and proposed approaches to determining the key elements of regulated retail tariffs and prices, with a particular focus on estimating energy and retail costs (the R component). It also sets out the Authority's proposed approach to recovering the R cost component through notified prices, discusses issues relating to Energex's proposed network tariffs for 2012-13 (including options for maintaining alignment between network and retail tariffs and prices) and addresses a number of other issues.

The Authority will host a workshop in November 2011 to provide for some initial discussion of the matters raised in this Draft Methodology Paper.

Submissions are invited in response to the Draft Methodology Paper and should be received by the Authority no later than 9 December 2011. In preparing its Draft Report, the Authority will consider all submissions received by the due date.

An updated timetable for the remainder of the review is provided below.

[1] ACIL Tasman, *Draft methodology for estimating energy purchase costs, Prepared for the Queensland Competition Authority*, October 2011, available from: www.qca.org.au.

Table 1.1: Timetable for the Review

Task	***Indicative Dates***
Release of Authority’s Draft Methodology Paper	11 November 2011
Workshop on Draft Methodology Paper	25 November 2011
Submissions on Draft Methodology Paper	**9 December 2011**
Release of Authority’s Draft Report	30 March 2012
Submissions on Draft Report due	**Early April 2012**
Release of Authority’s Final Report	**31 May 2012**

2. REPRESENTATIVE RETAILER

2.1 Introduction

Under the Delegation, the Authority must consider:

(a) the retail costs that would reasonably be incurred by an efficient, representative retailer, the characteristics of which should be determined by the Authority;

(b) the effect on competition in the Queensland retail market, consistent with the Government's policy objective that consumers, where possible, have the opportunity to benefit from competition and efficiency in the marketplace; and

(c) the network charges to be levied by ENERGEX

2.2 Retailer Characteristics

In the Issues Paper, the Authority discussed whether costs should be based on those incurred by an actual retailer or those likely to be incurred by a fictitious but representative retailer. The Delegation clarifies that it is the likely costs for a representative retailer (rather than an actual retailer) that the Authority is to consider and that the Authority is to determine the characteristics of that representative retailer.

The Authority considers that there are three key characteristics of an efficient representative retailer which need to be taken into account for the purposes of setting the R component:

(a) whether the retailer is a standalone business providing retail electricity services solely in South East Queensland *or* whether it is also involved in other activities and/or provides retail electricity services in other jurisdictions;

(b) how well established the retailer is in the market, including the size of its customer base; and

(c) the characteristics of the retailer's customer base, including whether it supplies:

   (i) small customers only *or* both small and large customers; and

   (ii) non-market customers only *or* both market and non-market customers.

Submissions in response to the Issues Paper

Most retailers preferred that retail costs be determined for a new entrant, standalone retailer of small or moderate size providing retail electricity services in Queensland. Retailers generally were of the view that this would encourage competition and ensure new entrants were not at a disadvantage to incumbents.

However, some retailers suggested the representative retailer should be a vertically integrated retailer. For instance, in discussing the calculation of energy costs, Origin Energy argued that "an integrated retailer is more closely aligned to a representative retailer for which the QCA is seeking to establish efficient costs" but later preferred a standalone retailer as the basis for estimating retail costs.

Few consumer groups commented on the characteristics of the representative retailer. QCOSS and Canegrowers indicated a preference for the representative retailer to be an incumbent retailer that could take advantage of economies of scale. Canegrowers also preferred an integrated retailer that was engaged in a range of business activities and could take advantage of economies of scope.

Approaches in other jurisdictions

Unlike in Queensland, regulators in other jurisdictions are required to determine regulated retail prices that must be offered by one or a small number of standard or default retailer(s) and tend to draw on cost information provided by that retailer(s). Nevertheless, in determining the appropriate level of costs to be recovered through prices, the regulators may also aim to reflect certain characteristics of a retailer that differ from those of the standard or default retailer(s).

In its final report on 2010-13 regulated retail prices in NSW, IPART aimed to establish the costs of a retailer that:

(a) is an incumbent retailer that has achieved economies of scale (has efficient costs);

(b) is a standalone retailer in NSW that is not vertically integrated with electricity distribution in NSW;

(c) serves retail customers, including small retail customers, in NSW and other jurisdictions across the NEM;

(d) can offer retail customers standard and negotiated customer supply contracts; and

(e) has an existing customer base to defend.

In its 2011-2014 pricing review in South Australia, ESCOSA decided that the regulated price should be set by reference to the small customer retail market in South Australia, rather than being based on the costs incurred specifically by the regulated retailer. It considered that adopting a new entrant retailer focus would ensure that electricity retailers are able to compete in the market and deliver the benefits of competition to consumers.

In its 2010-2012 pricing review in the ACT, the ICRC estimated the efficient costs of an incumbent electricity retailer providing retail electricity services to a regulated customer segment.

In Tasmania, OTTER aimed to determine the efficient costs of supplying non-contestable customers in its 2010-2013 pricing review.

Proposed approach

Under the previous BRCI approach to setting electricity tariffs, the Electricity Act defined the representative retailer as an incumbent, standalone Queensland electricity retailer with a substantial and representative cross-section of customer types.

The current task before the Authority is, however, quite different from that under the BRCI. The BRCI required the Authority to calculate the expected <u>increase</u> in the costs of a representative retailer over the forthcoming year, with the increase in costs so determined then used to increase existing tariffs. The actual level of costs incurred by the representative retailer did not form part of the tariff.

Under the current Delegation, the Authority is required to determine the appropriate <u>level</u> of costs for a representative retailer. As such, the level of costs will have a direct impact on tariffs. This makes the determination of the representative retailer a much more significant issue.

In submissions on the Issues Paper, retailers generally preferred to base costs on a small to medium new entrant retailer. This could lead to substantially higher costs than the previous definition. To the extent that consumer preferences were revealed in submissions, these tended to prefer costs based on a large, incumbent retailer able to access economies of scale. This would lead to costs being more in line with those estimated in the past and lower than under the retailer preferred alternative.

At the same time, the Delegation makes it clear that, in determining prices, it is important that the electricity market remain competitive, so that customers can benefit over the long term from the efficiencies that competition can bring.

It is against this background that the definition of the representative retailer must be considered. The representative retailer is not meant to be an actual retailer nor is it meant to be some sort of average retailer. Rather the representative retailer will have characteristics drawn from a variety of sources but designed to achieve the desired market outcomes in terms of prices and competition.

In deciding on its definition of the representative retailer, the Authority first reviewed the current level of competition in the market. If the current level of competition were seen as deficient, a definition based on a new entrant might be preferred over one based on an incumbent. The higher costs that would flow from a new entrant perspective would increase prices in the market and encourage new retailers to enter, thus promoting the level of competition at the expense of higher prices to consumers. Conversely, if the level of competition in the market were seen as adequate, then a definition based on an incumbent retailer should ensure that prices are sufficient to maintain the current level of competition and do not unnecessarily penalise consumers.

As discussed in Chapter 1, the retail electricity market in South East Queensland has developed considerably since the introduction of Full Retail Contestability (FRC) in mid 2007. There are a large number of retailers servicing small and large customers and customer switching activity is strong.

As shown in Table 2.2 below, there are currently 16 retailers operating in Queensland – 9 service both large and small customers, 5 service large customers only and 2 service small customers only.

While the Authority does not have access to information on the market offers available to business customers, there are currently 76 supply offers available to residential customers in South East Queensland, consisting of 27 for “standard” electricity supply and 49 with green electricity options. These market offers provide consumers in South East Queensland with a range of contractual terms and conditions combined with potential savings and other incentives.

The Authority is not aware of any market contracts available to residential customers in Ergon Energy’s distribution area.

As shown in Table 2.1, some 65% of customers in South East Queensland were on market contracts as at 30 June 2011. This suggests that a large number of customers have embraced the option to choose a market contract that is better suited to their needs than the regulated tariff.

Table 2.1: Market and non-market customers, South East Queensland[a] – as at 30 June 2011

Customer type	*Market customers*	*Non-market customers*	*Total customers*	*% on market contracts*
Small	860,942	463,158	1,324,100	65.0%
Large[b]	10,950	1,952	12,902	84.9%
All	**871,892**	**465,110**	**1,337,002**	**65.2%**

Source: information reported to the Authority under the Electricity Industry Code.
a Assumes that all market customers in Queensland are located within the Energex distribution area. While the Authority acknowledges that there are some market customers located within the Ergon Energy area, it is of the view that there are unlikely to be more than a few hundred small and large customers.
b From 1 July 2012, all large customers in the Energex area will be on market contracts.

The rate of customer switching is often used to measure the level of activity in an electricity market. While not always the case, a high switching rate typically suggests that retailers are actively marketing in a region and that they are offering consumers sufficient savings to incentivise them to switch retailers.

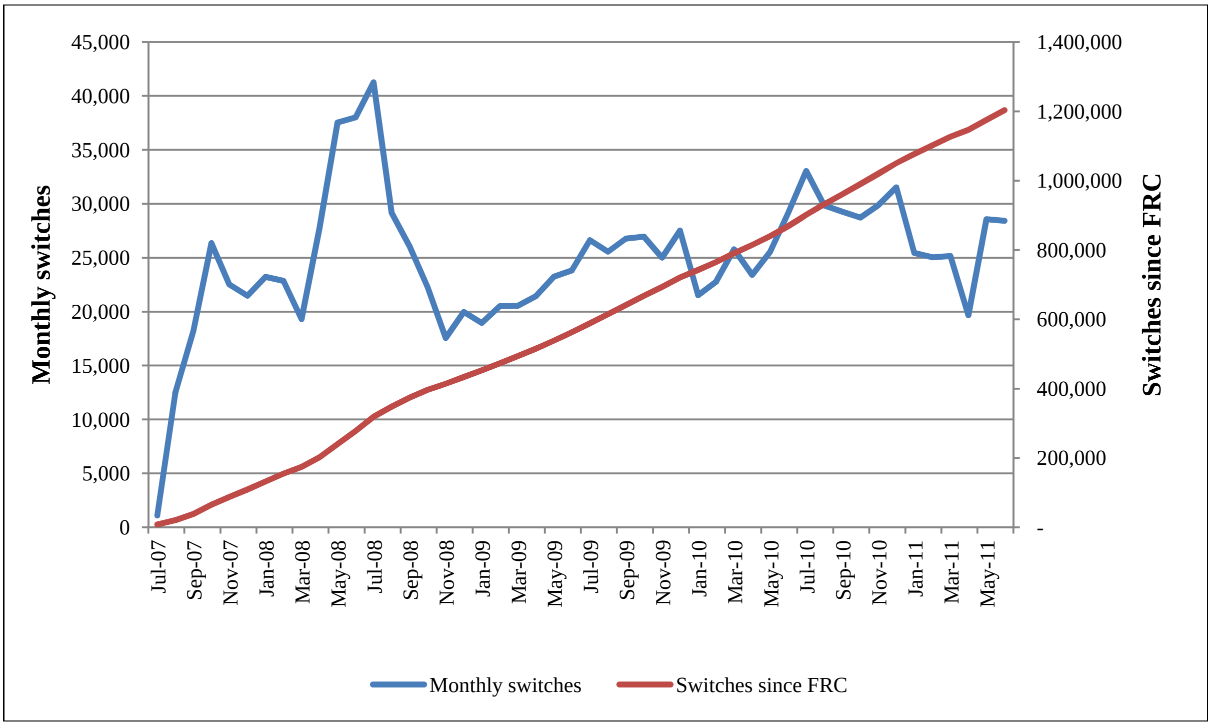
However, an abnormally active market might also suggest that potential profits in the market are high (perhaps due to the regulated retail tariffs being set too high) which would also encourage retailers to spend an unreasonable amount on marketing while offering customers large discounts.

Since FRC commenced in Queensland in 2007, the level of customer activity has been relatively high. Figure 2.1 below shows monthly and total customer switches since 2007. While there was considerable volatility in the switching rate over the initial 18 months of FRC, customer activity has typically stayed within the range of 20,000 to 30,000 customer switches per month in more recent years.

In comparison to other markets around the world, the level of customer activity in SE Queensland is particularly high, with the market being rated by one commentator as one of the most active retail electricity markets in the world[2].

[2] Vaasaa Ett, Utility Customer Switching Research Project 2010 – December 2010

Figure 2.1: Monthly and total customer switches since FRC



Source: AEMO Retail Transfer Statistical Data (Code M57B)

The above analysis suggests the south east Queensland electricity market is attractive to retailers who are actively seeking market share with a wide range of market offers for consumers. There does not appear to be any reason to believe that the level of competition is deficient or that further steps need to be taken to attract new entrants. On this basis the Authority considers that the definition of the representative retailer should be based on an incumbent retailer, not a new entrant.

Table 2.2 provides a snapshot of the characteristics of retailers currently operating in the market. The size of the retailer, its degree of vertical integration, whether it is solely Queensland based and whether it markets products other than electricity, will all determine the economies of scope and scale that the representative retailer enjoys and the associated costs which must be recovered through prices.

Table 2.2: Characteristics of active retailers in Queensland

Retailer	*Small customers*	*Large customers*	*Market customers*	*Non-market customers*	*Retails electricity in other region*	*Retails gas in SEQ*	*Other horizontal integration*	*Vertically integrated*
Origin	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
AGL	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Powerdirect	**Y**	**Y**	**Y**	**Y**	**Y**	**N**	**Y**	**Y**
TRUenergy	**Y**	**Y**	**Y**	**Y**	**Y**	**N**	**Y**	**Y**
Sanctuary	**Y**	**Y**	**Y**	**Y**	**Y**	**N**	**N**	**Y**
Lumo	**Y**	**Y**	**Y**	**N**	**Y**	**N**	**Y**	**Y**
APG	**Y**	**N**	**Y**	**N**	**Y**	**Y**	**Y**	**N**
Click	**Y**	**N**	**Y**	**N**	**Y**	**N**	**N**	**N**
Qenergy	**Y**	**Y**	**Y**	**N**	**N**	**N**	**N**	**N**
Momentum	**Y**	**Y**	**Y**	**N**	**Y**	**N**	**N**	**Y**
ERM	**N**	**Y**	**Y**	**N**	**Y**	**N**	**Y**	**Y**
Aurora	**N**	**Y**	**Y**	**N**	**Y**	**N**	**N**	**Y**
Tarong Energy	**N**	**Y**	**Y**	**N**	**N**	**N**	**N**	**Y**
OzGen	**N**	**Y**	**Y**	**N**	**Y**	**N**	**N**	**Y**
Stanwell	**N**	**Y**	**Y**	**N**	**N**	**N**	**N**	**Y**
Ergon Energy	**Y**	**Y**	**N**	**Y**	**N**	**N**	**Y**	**Y**

As Table 2.1 indicates, active electricity retailers in Queensland are not homogeneous and fall into three broad categories, as follows:

(a) Ergon Energy, which supplies only non-market customers and operates outside the SEQ market;

(b) specialised retailers who supply only large market customers, with a number being predominantly generators who are registered as retailers to supply (often) very large customers; and

(c) retailers who supply large and small customers.

Within category (c) retailers generally:

(a) retail electricity in SE Queensland as standalone electricity retailers and not also as retailers of gas (although the two largest retailers of electricity also retail gas);

(b) serve small and large retail customers in SE Queensland and other jurisdictions across the NEM.

While some retailers pursue customers only in a particular market niche, most operating in Queensland supply a mix of small and large customers. There are notified prices for all tariff categories despite large customers (those consuming above 100MWh) in Energex’s network being denied access to notified prices from 1 July 2012.

While not all retailers have non-market customers, small consumers who accept a market contract may revert to a non-market contract with their current supplier at the notified price in the future, subject to the conditions of their market contract; and

(c) are vertically integrated, however, the nature and extent of the vertical integration varies considerably. AGL and Origin Energy are the only retailers with significant customer bases that operate large-scale generation assets connected to the NEM in Queensland. All other retailers with generation assets have either relatively small customer bases in Queensland or generation assets in other states, or both. In general, new entrants are not vertically integrated.

In addition, the cost structure of the representative retailer will be affected by the size of its customers base. A large incumbent retailer will already have an established customer base while a smaller retailer may not be able to access the same economies of scale. However, there is also some evidence to suggest that reasonable economies of scale may be achieved with a relatively small customer base.[3] Smaller retailers may also gain the benefits of economies of scale that would naturally flow to a retailer with a larger customer base by outsourcing many back office functions to a third party. On this basis size may not be as important an issue as it might otherwise appear, nevertheless, the Authority will define the representative retailers as having sufficient size to access economies of scale.

Summary

In arriving at its definition of the representative retailer, the Authority has recognised:

(a) the maturity and competitiveness of the South East Queensland market which supports a mix of retailers from small new entrants to large incumbents; and

(b) the importance of maintaining a competitive market in the future by not deterring the entry of new retailers which can drive efficiency in the market and potentially lead to lower prices in the longer term.

While notified prices apply only to non-market customers, the reality is that these set the basis for determining prices for all customers, both market and non-market. In addition, consumers throughout the remainder of the State (in the Ergon Energy distribution area) will pay the notified prices set by the Authority as there is little if any competition in that part of the State meaning that consumers are unable to choose and alternate supplier.

In practice, the Authority's task is a matter of balancing the desire by some stakeholders for higher regulated prices which will promote more activity in the market against the desire by others for lower electricity bills.

The Authority's task is to set prices that will sustain an appropriate level of competition in the market in order to place downward pressure on prices but not set prices so high as to deny consumers those benefits that come from a competitive market in terms of greater efficiency and lower prices.

Based on the above considerations, the Authority considers that the representative retailer is one that:

(a) is an incumbent retailer of sufficient size to have achieved economies of scale;

[3] Frontier Economics, *Mass Market New Entrant Retail Costs and Retail Margin, Prepared for the Independent Pricing and Regulatory Tribunal,* March 2007.

(b) serves small and large retail customers in SE Queensland and other jurisdictions across the NEM;

(c) retails electricity on a standalone basis; and

(d) is not vertically integrated with an electricity generator.

3. TREATMENT OF NETWORK COSTS

3.1 Introduction

Network costs include the costs associated with the use of transmission and distribution networks and typically account for around 50% of the total cost of providing electricity to households.

The Delegation requires that the Authority adopt, to the extent possible, a cost-reflective N+R pricing approach under which network costs (N) are to be treated as a straight pass-through to customers. The Delegation further states that, in determining the network cost component of each regulated retail tariff, the Authority must consider the network charges to be levied by Energex for each tariff for the relevant tariff year.

In other words, where possible, the N component of each tariff should be equal to the Energex network price, regardless of the network to which the customer is actually connected. This approach will mean that, in the Ergon Energy distribution area, regulated retail prices will mirror the Energex tariff structure and the bundled price for each tariff will include the Energex cost of supply. However, Ergon Energy (distribution) will continue to charge retailers its actual cost reflective network charges, which will generally be higher than those of Energex as allowed for in the bundled notified tariff.

3.2 Energex's network tariffs

As noted in the Issues Paper, Energex has AER-approved distribution network prices designed to recover the costs Energex incurs in providing distribution network services to customers, as well as AER-approved transmission network prices that allow Energex to recover transmission network costs that it has paid (predominantly) to Powerlink for the use of the transmission network.

Under the N+R approach required by the Delegation, retail tariffs are to be calculated with reference to Energex's network tariffs. As a result, the number and structure of regulated retail tariffs will mirror Energex's network tariffs, to the extent possible.

3.3 Suitability of Energex's network tariffs

In the Issues Paper, the Authority noted that Energex's 2011-12 tariffs did not provide a suitable basis for some of the retail tariffs the Authority is required to consider, including inclining block and voluntary time-of-use tariffs for domestic customers, tariffs for farmers and irrigators, or tariffs for customers supplied under the Rural Subsidy Scheme or in drought declared areas.

The Authority also noted that there may be particular groups of customers in the Ergon Energy network area which are not represented in the Energex area, or are not sufficiently numerous in the Energex area to warrant a separate network tariff class.

Further, the Authority queried what network tariffs should be used for very large Ergon Energy customers (those consuming more than 4GWh per year) who would usually have network prices which are individually tailored to a greater or lesser extent depending on the characteristics of their consumption.

Following release of the Issues Paper, the Authority received, and released for comment, Energex's proposed network tariffs for 2012-13 (see **Appendix 3**).

Submissions

Most submissions commented on the suitability of Energex's network tariffs as a basis for regulated retail tariffs.

Some submissions discussed the suitability of Energex's 2011-12 tariffs, rather than its 2012-13 tariffs, and therefore tended to raise similar concerns to those raised by the Authority in the Issues Paper.

Submissions that focused on Energex's proposed 2012-13 tariffs suggested that most of these would provide a suitable basis for constructing the regulated retail tariffs that most customers (particularly domestic customers) would be charged. However, a number of other issues were also raised, including:

(a) what network charges should be used for very large Ergon Energy customers;

(b) how an inclining block tariff would be charged to customers with a prepaid card meter;

(c) that the regulated retail tariff for street lights should include an Ergon Energy based charge for costs associated with street light assets; and

(d) general concerns about the implementation of, and transition to, the new retail tariffs.

Proposed approach

As noted above, the Delegation requires new regulated retail tariffs to be based on Energex's network tariffs to the extent possible. This suggests that, if there is an appropriate tariff within the Energex network tariff structure, that network tariff is to be used as the basis for developing an accompanying retail tariff and hence a bundled retail price for the applicable customer class. Only where there is no applicable Energex network tariff for a particular customer class should the Authority consider any other basis for establishing a network plus retail bundled tariff for that particular customer class, for example, where customers have card operated meters that are not suitable for inclining block tariffs.

With this approach in mind, several of the key issues the Authority identified in its Issues Paper concerning the use of Energex's 2011-12 network tariffs have been addressed in the network tariffs Energex has proposed for 2012-13.

Domestic inclining block and time of use tariffs

Energex' proposed network tariffs include an inclining block network tariff and a voluntary time-of-use network tariff, for domestic customers. These will provide the basis for the inclining block and time of use retail tariffs for domestic customers required by the Delegation.

Tariffs for farmers, irrigators and customers supplied under the Rural Subsidy Scheme or in drought declared areas

The alignment by Energex of its proposed network tariffs with existing regulated retail tariffs provides the basis for regulated retail tariffs for farmers, irrigators and customers supplied under the Rural Subsidy Scheme or in drought declared areas. In particular:

(a) regulated retail tariff 66 (flat/demand – irrigation) aligns with Energex's proposed network tariff 8300 (demand – small);

(b) regulated retail tariffs 67 (flat – farm) and 68 (flat – irrigation drought area) align with Energex's proposed network tariff 8500/8600 (flat – small/medium business); and

(c) regulated retail tariffs 62 (time of use – farm) and 65 (time of use – irrigation) align with Energex's proposed network tariff 8700/8800 (time of use – small/medium business).

Tariffs for Ergon Energy's large customers

The alignment by Energex of its proposed network tariffs with existing regulated retail tariffs also provides the basis for regulated retail tariffs for large customers (consuming more than 100MWh per year). However, only those customers connected to Ergon Energy's network will be able to access these tariffs as per the Minister's letter to the Authority which sets out the Government's intention that all large customers in Energex's network area will be required to move to a market contract.

While Ergon Energy apparently has some very large customers (consuming more than 4GWh per year) on a number of different regulated retail tariffs, there are network tariffs proposed by Energex which align with each of these and hence there will be corresponding regulated retail tariffs for these existing customers. However, it appears that these very large customers are currently on inappropriate tariffs (for whatever reason) designed for customers consuming less than 4GWh and it is not clear where they would be placed under the new tariff structure – on an equivalent tariff or transferred to a more appropriate one. This problem has little to do with the revisions to the tariff structure and is a matter for Ergon Energy to resolve.

However, while Energex's proposed network tariffs do provide the basis for regulated retail tariffs for the majority of large customers (up to 4GWh), they do not currently include any tariffs intended for customers consuming more than 4GWh per year. Beyond this level of consumption, Energex calculates individually tailored network prices which are not publicly available. To address this gap, the Authority could require Energex to calculate one or two network tariffs that reflect the average of its cost-reflective network tariffs for all of its very large customers. These could then provide the basis for calculating regulated retail tariffs for these customers.

Street lighting

Ergon Energy stated that it has two categories of distribution tariffs for street lights, one that recovers only the network costs associated with supplying street light services and another that covers the costs associated specifically with the street light assets. Ergon Energy claimed that the street light asset charge was incorrectly omitted from the current regulated retail tariff schedule. However, this does not appear to be the case.

The current regulated retail tariff for street lighting (tariff 71) aligns with Energex's proposed network tariff 9600 (flat – unmetered). In its submission, Ergon Energy supported the use of Energex's network tariff 9600 as the basis for the new regulated retail tariff for street lighting but suggested that Ergon Energy's street light asset charge should also be passed through to customers.

Unless Ergon Energy is able to better articulate and substantiate their proposition, the Authority will not be taking up their suggestion to include some additional asset charge.

Obsolete and declining block retail tariffs

The Delegation requires that, from 1 July 2012, all obsolete and declining block tariffs be removed from the regulated tariff schedule. Any customer currently on one of these tariffs will be required to move to, or be transitioned to, an alternative regulated retail tariff.

The existing tariffs affected by this decision are set out in Table 3.1, along with the Energex proposed network tariff that most closely matches the redundant tariff.

Table 3.1: Obsolete and declining block tariffs to be replace and alternate network tariff

Redundant retail tariffs	***Proposed network tariff***
Tariff 21	8500/8600 – flat small/medium business
Tariffs 37, 62, 63, 64	8700/8800 – time-of-use small/medium business

Customers currently on obsolete or declining block regulated retail tariffs will be moved to the tariffs set out in Table 3.1 from 1 July 2012. However, they may prefer to move to an alternate tariff of their choice if there is one that better matches their usage and consumption.

Other tariffs

Ergon Energy has numerous customers currently supplied via a (prepaid) card-meter. While Energex's proposed flat small/medium network tariff would be suitable for Ergon Energy's card-metered business customers, there will be no single rate that can be applied to prepaid cards for small residential customers as the basic tariff for these customers will be an inclining block tariff that has differing rates according to the level of consumption. As a result, it may be necessary to create a regulated retail tariff available only to small customers on card operated meters based on one, or an average, of the charges in Energex's small customer inclining block tariff.

The only other existing regulated retail tariffs to be aligned with an Energex network tariff are regulated retail tariffs 81 (traffic signals) and 91 (watchman service lighting). Both of these (along with tariff 71 for street lights) align with Energex's proposed network tariff 9600 (flat – unmetered). Ergon Energy supported the use of Energex's network tariff 9600 as the basis for the regulated retail tariff for traffic lights.

Implementation issues

While it appears that it will be possible to match all existing regulated tariffs (apart from card meters) to a similar tariff within Energex's proposed 2012-13 tariff structure, there will not always be a perfect alignment for all customers.

For example, customers on the existing retail tariffs 43 and 53 include time of use charges that the corresponding Energex network tariffs (8100 – demand large and 8000 – HV demand) do not. Similarly, the existing time of use tariffs for farmers and irrigators do not align completely with the corresponding time of use network tariffs proposed by Energex.

Nevertheless, one purpose of the current review was to rationalise the regulated tariff structure and it is inevitable that this process will lead to some disruption for some customers. Energex may be amenable to adjusting some of the bounds and eligibility criteria for some tariffs if it can be demonstrated that these changes will better suit a majority of potential customers. The Authority will consider the impacts of some of these changes once the extent of disruption is known and may consider introducing some transitional measures to smooth the move from old tariffs to new tariffs for some customers. However, it is unlikely that all customers will be able to move seamlessly from one existing tariff to a replacement particularly where there are currently multiple tariff choices being replaced by single new tariffs.

3.4 Maintaining alignment of retail and network tariffs

As the Authority noted in the Issues Paper, adopting an N+R approach to setting regulated retail tariffs requires a formal process to ensure the ongoing alignment of network and retail tariffs.

Aligning the network and retail tariffs ensures the appropriate allocation of costs to (and recovery of costs from) groups of consumers covered by each tariff class. It also ensures that distributors are able to effectively engage in demand management initiatives that rely on price signals being passed through to customers.

Energex's network prices are routinely approved by the AER just prior to the start of each financial year. Under the National Electricity Rules, Energex is required to submit revised network prices at least two months prior to the commencement of the financial year. There is no formal limit under the National Electricity Rules on the time the AER can take to approve the pricing proposal.

The Authority is currently required to publish final notified retail electricity prices to apply in the coming financial year by 31 May each year. Any change in the network tariffs proposed by Energex and approved by the AER after the Authority had published final notified prices would potentially result in a misalignment with them.

Submissions

Submissions identified the following potential options for maintaining alignment between retail and network tariffs:

(a) request the AER to revise its processes in order to approve network prices earlier;

(b) adjust regulated retail prices to apply from 1 August each year instead of 1 July to accommodate potentially late approval of Energex network prices by the AER; and

(c) request Energex to supply the Authority with its proposed network tariffs and prices when they are submitted to the AER and use these as the basis for notified prices to apply from 1 July each year. Should there subsequently be any change to those proposed tariffs and/or prices, regulated retail prices could be adjusted after 1 July to reflect any changes approved by the AER.

Proposed approach

Option (a) is problematic because the AER is required to adhere to price approval timeframes stipulated in the National Electricity Rules (NER) and therefore has no discretion to change its approvals process. The Authority could pursue changes to the timeframes in the NER with the Australian Energy Market Commission (AEMC), but it would seem unlikely that the price approval process in the NER, which applies nationally, would be altered to suit circumstances in one jurisdiction.

Option (b) may be more feasible than option (a). However, while option (b) would eliminate the potential for notified prices changing more than once each year, it would require changes to State based legislative arrangements (amendment of the *Electricity Regulation 2006* to include a definition of a 'tariff year' as commencing from 1 August).

Option (b) would also result in current notified prices remaining effective until 1 August each year but new network tariffs would be charged to retailers from 1 July. Attempting to incorporate a fair and reasonable allowance in the revised 1 August prices to compensate retailers for any loss during the month of July (or consumers for any loss should prices have been set too high) would be an issue.

Option (c) may also be problematic because the National Energy Customer Framework will allow changes to retail prices only once every six months. While it may be possible for the Queensland Government to opt out of imposing this restriction in Queensland, changing all notified prices twice in quick succession would impose additional costs on retailers and increase the potential for confusion amongst consumers.

Given the difficulties associated with each of the available options, the Authority proposes to adopt option (c) as, to date, the AER has not made changes to Energex's final proposed prices while options (a) and (b) would require legislative or rule changes which the Authority cannot guarantee.

4. ENERGY COST COMPONENT OF RETAIL TARIFFS

4.1 Introduction

Under the Delegation, the R component of each retail tariff is to include appropriate allowances for energy and retail costs.

In the Issues Paper, the Authority identified the following items for possible inclusion in the energy cost component:

(a) the cost of purchasing wholesale energy from the National Electricity Market (NEM);

(b) renewable energy costs incurred by retailers in meeting their obligations under State and Commonwealth Government greenhouse gas emissions abatement schemes; and

(c) NEM participation fees and ancillary services charges imposed by the Australian Energy Market Operator (AEMO), as well as the costs associated with network energy losses.

This chapter provides an overview of ACIL's proposed approach. For detail on the approach see the ACIL Report.

4.2 Estimating Wholesale Energy Costs

In the Issues Paper, the Authority noted that it had considered two broad approaches to estimating wholesale energy costs in the 2009 Review, including:

(a) a cost-based approach such as the long run marginal cost (LRMC) of generation; and

(b) a market-based approach which estimates the wholesale energy costs involved in supplying electricity at prevailing market prices over a given period.

In the 2009 Review, the Authority suggested that the desire for a competitive electricity market and the need to reflect retailers' actual cost of supplying electricity provided sufficient reasons to adopt a completely market-based energy purchase cost approach. This was strongly supported by stakeholders in the 2009 Review.

A market-based methodology would involve estimating the costs incurred by a retailer in purchasing energy to supply the load of its customers. As the network component (N) of regulated retail tariffs in the N+R approach is to be based on Energex's network tariffs, for consistency, the retail component (R) should also be based on the costs of supply in Energex's network area. This would ensure that the bundled regulated retail tariffs reflect the likely cost to be incurred in supplying electricity within the competitive southeast Queensland market and are not escalated by the costs of supply in the higher cost Ergon Energy area of the State where competition is limited but consumers are insulated from these costs by the Government's uniform tariff policy.

Estimating the energy purchase costs to meet the load in Energex's network area would involve consideration of the various financial products and hedging strategies that a representative retailer could use to mitigate its potential exposure to high NEM spot market prices and decisions about a number of modelling parameters in estimating the market-based energy purchase costs.

Submissions

Retailers generally supported using a market-based approach, based on an assumed hedging strategy, to estimate energy costs, but raised two key concerns with that approach, including:

(a) there is currently insufficient forward trading of electricity, due to uncertainty surrounding implementation of the proposed carbon tax, to use forward contract price data to estimate energy purchase costs; and

(b) electricity prices will become more volatile in future and that this volatility will be bad for consumers and retailers.

For these reasons, most retailers proposed that the energy cost estimate should also include LRMC, typically as a price floor. Retailers also suggested that using LRMC as a floor in the energy cost estimate would provide certainty to investments in electricity generation capacity.

In contrast to retailers, consumer groups did not support using LRMC to estimate energy costs. For example, QCOSS and Ergon Energy supported using a pure market-based approach, with an assumed hedging strategy, to determine energy purchase costs, for the following reasons:

(a) the LRMC of generation is a theoretical concept and may not reflect the actual costs faced by retailers in purchasing wholesale energy in Queensland;

(b) calculating the LRMC of generation is opaque as it requires the Authority to rely on a consultant's 'black-box' model; and

(c) a market-based approach is based on transparent products that can be monitored and traded by all participants in the retail market; and

Ergon Energy also argued that including an assumed hedging strategy was necessary because relying only on pool prices would introduce unacceptable volatility for retailers and consumers.

Approaches in other jurisdictions

For its 2010-2013 retail electricity pricing decision for New South Wales, IPART[4] used a hedging-based approach to estimate energy purchase costs and was required by its terms of reference to use LRMC as a floor price.

In its decision on retail electricity prices in the ACT for 2010-2012, the Independent Competition and Regulatory Commission (ICRC)[5] developed a model for estimating energy costs based on corporate finance concepts rather than a hedging strategy, reflecting the ICRC's concerns about the nature of the electricity market which made it impossible to perfectly hedge. In deciding on this approach, the ICRC noted that there were a number of reasons why the LRMC should not be used to estimate energy purchase costs. Amongst other things, the ICRC noted that the suggestion that generators would benefit from higher energy cost allowances in regulated retail tariffs, as a result of including LRMC in the calculation, was unproven and that higher energy cost allowances would not flow upstream to generators unless the retailer was altruistically supporting its suppliers. Furthermore, the ICRC considered that regulated retail prices should not be used to attempt to correct concerns about the long-term investment in electricity generation.

Due to insufficient liquidity in the contract market, ESCOSA[6] used a hybrid cost-based and market-based approach to estimate energy costs in its price determination for 2011-14. Specifically, ESCOSA developed low and high estimates of LRMC to provide a price floor and price ceiling for its market-based energy cost estimate, which was based on a weighted average of market contract prices.

[4] IPART, *Review of regulated retail tariffs and charges for electricity 2010-2013, Final Report*, March 2010.
[5] ICRC, *Final Decision, Retail Prices for Non-contestable Electricity Customers 2010-2012,* June 2010.
[6] ESCOSA, *2010 Review of Retail Electricity Standing Contract Price Path, Final Inquiry Report and Final Price Determination*, December 2010.

Proposed Approach

LRMC

Despite the retailers support for retaining at least some aspects of LRMC estimates in calculating energy purchase costs, there are a number of reasons to move away from using LRMC and in favour of a market-based approach, including that:

(a) LRMC is an estimate of generation costs rather than the cost to a retailer of purchasing wholesale electricity;

(b) LRMC ignores prevailing market conditions, which can be influenced by a range of factors and which can have a significant influence on energy purchase costs; and

(c) LRMC ignores the existence of the NEM and the major impact it has had on the wholesale price of electricity.

The Authority remains unconvinced about the inclusion of an LRMC "floor" for estimating wholesale energy prices because, as noted in the Issues Paper, there appears to be sufficient reliable information available in the market for a firm to make a timely and efficient decision about investing in generation in the NEM without the need for the additional security of an LRMC floor in notified prices in Queensland. The Authority also continues to question why this security would be needed with regulated prices but not if the market was entirely deregulated, in which case only market costs would be available.

Market-based approach based on an assumed hedging strategy

In considering market-based alternatives to LRMC, ACIL noted (as did several retailers) that the current lack of trading in forward electricity contracts largely due to market uncertainty regarding the introduction of a carbon tax virtually precluded using a hedging-based approach similar to that used to calculate the BRCI to estimate energy purchase costs for 2012-13. However, ACIL noted that, when uncertainty over the carbon tax diminishes, and trading in forward electricity contracts recovers, a hedging-based approach should be reconsidered as the preferred method of estimating energy purchase costs.

As discussed in the Issues Paper, the Authority considers that a market-based approach (based on an assumed hedging strategy) is a better method for assessing the wholesale energy costs likely to be faced by retailers than a cost-based approach such as the LRMC. However, the Authority acknowledges the concerns raised in submissions and confirmed by ACIL regarding the current lack of trading in forward electricity contracts. Even if the volume of trading in forward contracts increases significantly before the Authority makes its final price determination, there will be insufficient data to form a reliable estimate of contract prices for 2012-13.

While the Authority would prefer to follow a hedging based approach to estimating forward energy costs, an alternative approach which does not rely on the availability of contract market data will be required for the current 2012-13 exercise. However, the Authority will reconsider its approach in future pricing determinations when the quality and quantity of market data improves.

An alternative market-based approach

Given the current lack of that data required for a hedging-based approach, ACIL suggested an alternative market-based approach to estimating energy costs that does not rely on hedging contracts.

In general terms, ACIL's proposed approach is to estimate the price that a retailer would be willing to pay in purchasing energy to meet the load of customers while mitigating a range of risks, principally those flowing from the impacts on the spot price of weather and plant outages.

ACIL's approach requires it to first construct weather- and outage-based load data for each NEM region (adjusted to reflect the consumption and maximum demand forecasts for 2012-13 published in AEMO's Electricity Statement of Opportunities (ESOO)) and for each tariff class (adjusted to reflect consumption and maximum demand forecasts for 2012-13 provided by Energex).

This process is based on actual load data for 2010-11 and 40 years of weather data from 1970-71 to 2009-10. By comparing half-hourly 2010-11 load data with the historical series of weather data, ACIL produces 40 years of simulated weather-based load data to go with the one year of actual load data for 2010-11. The resulting 41 years of load data is then adjusted to reflect the levels of consumption and maximum demand expected for 2012-13.

ACIL will also develop 20 generator outage scenarios to encompass a wide range of potential unplanned generation outages in the NEM. For each generator, ACIL will develop 20 sets of random half-hourly forced outages, with the overall level of forced outages reflecting observed past performance.

The 41 years of load data and 20 generator outage scenarios produce 820 simulated years of weather and outage load data.

Using the same proprietary model (Powermark) that it used to forecast spot prices for the BRCI and the weather and outage based load data, ACIL then estimates the half-hourly prices in each of the 820 simulated years. These half-hourly prices are then weighted with the forecast load traces for 2012-13 to establish a distribution of 820 load-weighted annual prices for each regulated retail tariff.

In ACIL's view, the mean of these price distributions represents the price that a retailer would be willing to pay for energy, over time, allowing for weather and outage risk.

ACIL also proposes to include an additional premium within the energy cost component for each tariff to account for the time value of money and other risks faced by retailers.

While the Authority's Issues Paper contemplated energy cost being calculated for the total load and then allocating these costs to each of the tariff classes, one of the benefits of ACIL's proposed alternative approach is that it would, at the outset, provide energy cost estimates for each tariff based on the load traces for each tariff. As the consumption habits of customers on different tariffs may vary, it is likely that the costs that a retailer would incur in purchasing energy to meet the load of each tariff would differ.

Most of the input data used in ACIL's approach is publicly available, or will be released with the draft price determination (for example, Energex's tariff-specific load traces). The use of publicly available data will improve the transparency of the approach and will help stakeholders to assess the inputs and outputs.

While the approach requires some use of 'black box' modelling, the Authority notes that the same can be said of other approaches supported in submissions, including LRMC and the hedging-based approaches adopted in the BRCI. That said, the Authority acknowledges that the alternate approach is more complex than the hedging-based approach and that this may reduce the transparency of the approach for stakeholders. This is a key reason why the Authority would have preferred to continue with the hedging-based approach it had previously used. However, on balance, given the lack of market data for a hedging-based approach, it appears that ACIL's approach is the most reasonable for the Authority to adopt in the current circumstances.

The details of ACIL's proposed approach can be found in the ACIL Report and have not been reproduced here. However, some features of ACIL's approach are discussed below.

4.3 Wholesale Spot Price Forecasts

In its Issues Paper, the Authority noted that it would be required to forecast future wholesale spot market prices in order to undertake its hedging-based analysis of energy costs. While the Authority has proposed to adopt ACIL's alternative approach, ACIL would still be required to forecast wholesale spot prices in order to undertake its analysis.

The Issues Paper noted that forecasting wholesale spot market prices with any degree of accuracy and credibility would invariably require the use of proprietary electricity market simulation models that are capable of simulating spot prices that would occur in the NEM.

Submissions

AGL, Origin Energy and Ergon Energy favoured the use of forecast spot prices rather than analysing historical prices. While each noted some of the shortfalls of proprietary models (largely relating to the subjectivity of assumptions and lack of transparency), it was considered that these were favourable to using historical prices that are unable to take account of future market conditions (such as the introduction of a carbon tax).

QCOSS suggested that the Authority should not adopt a methodology that relied on a proprietary model that was not open for review and auditing. Rather, it suggested the Authority adopt an approach similar to that followed by ICRC that utilised transparent and publically available historical spot prices (see below).

Qenergy suggested that it was unnecessary to develop spot price forecasts because, when businesses expose themselves to the spot market, they do it for speculative/trading reasons. Qenergy suggested that regulated retail tariffs should not account for activities that are unrelated to retailing.

Approaches in other jurisdictions

Previously, the Authority (in its BRCI decisions), IPART and ESCOSA have relied on expert consultants' proprietary electricity market simulation models to generate future spot prices. In its 2010-12 decision, the ICRC adopted a simpler modelling approach, relying on historical spot price outcomes against which it modelled forward contract prices.

Proposed Approach

Despite Qenergy's view, the spot price appears to be a key input to estimating the costs that a retailer is likely to face. While it is possible for retailers to minimise their exposure to the NEM by purchasing energy directly from generators, this is only one of a range of options that a retailer might take, including purchasing directly from the spot market. In addition, in a competitive market such as the NEM, contract prices will equate to the average spot price over the longer term. As a result, the Authority considers that spot prices are likely to provide a reasonable guide to energy purchase costs faced by a retailer.

The Authority acknowledges that proprietary models can be opaque and that some stakeholders would prefer an approach to determining spot prices that can be independently verified through publically available data. However, the use of historical prices, similar to the ICRC approach, can lead to estimates of energy costs that do not reflect market influences that can be forecast with reasonable confidence. As noted by Origin Energy, AGL and Ergon Energy, historical prices are unable to take account of structural changes that might occur in the market in the future, such as the introduction of a carbon tax. Given the likely imposition of a carbon tax on 1 July 2012, it would be inappropriate for the Authority to use historical prices and make no attempt to take account of the impact this tax is likely to have on prices in the forthcoming year.

4.4 Customer Load Forecasts

In the Issues Paper, the Authority noted that it would be necessary to estimate the load of customers in aggregate and on each network tariff in Energex's network area and that these load estimates would be a key determinant of energy costs.

Submissions

Retailers suggested that, subject to some adjustments, Energex's Net System Load Profile (NSLP) was the most appropriate source of data for customer load forecasts. Origin Energy, AGL and TRUenergy all noted that, if applied, the Energex NSLP should be adjusted to account for the transfer of large customers (those customers that consume more than 100MWh per annum) off notified prices and onto negotiated retail contracts.

Approaches in other jurisdictions

In their most recent determinations, ESCOSA and ICRC both adopted the NSLP as the basis for their energy cost estimates. While IPART and OTTER both used the forecast load of contestable customers provided by the incumbent retailers in their regions, this approach was required by their respective terms of references and regulations. IPART also made a recommendation to the NSW Government in its Final Determination that it consider amending the terms of reference for future price reviews to allow energy purchase costs to be based on the NSLP of each of the NSW Standard Retailers, rather than on the Standard Retailer's own forecasts of contestable customer load.

Proposed approach

The Delegation requires the Authority to have regard for the actual costs of supplying electricity in determining regulated retail prices for 2012-13.

Estimating energy costs by tariff class will better approximate the proportion of a retailer's total energy costs incurred in supplying each tariff class rather than allocating total energy costs uniformly across all tariff classes.

Energex has indicated that it can supply historical load traces for each of its network tariffs. However, due to metering limitations, a number of the load traces that Energex provides will be for samples of customers from relevant tariff classes. For example, Energex's residential load trace will reflect the consumption of a random sample of 400 households. ACIL will need to scale up partial load trace data to reflect the full load of each tariff class.

In previous years, the Authority has used load data for the 12 months ending 31 March immediately preceding the tariff year to estimate energy costs. However, using a single year's load can bias the energy cost estimates according to the weather of the sample year. To overcome this bias, ACIL proposes to use 50% POE load traces for each region of the NEM and each tariff that remove outlying weather conditions (such as significant storms or floods) that are unlikely to occur on a regular basis from the load forecast used to derive spot prices.

ACIL proposes to rely on load forecasts for individual tariffs provided by Energex for the 2012-13 year and on the forecasts in AEMO's Electricity Statement of Opportunities (ESOO) for the demand and consumption forecasts in each NEM regions.

Other issues to be considered in forecasting the load of customers on retail tariffs in Energex's network area for 2012-13 include:

(a) how best to cater for customers in Ergon Energy's distribution area consuming 4GWh and above (see Chapter 2);

(b) whether the imposition of an inclining block tariff for residential consumers will impact the load profile for this tariff; and

(c) what the load profile will be for those residential customers that choose to take-up the option of a voluntary time-of-use tariff and how their exit from the inclining block tariff will impact the load profile for the remaining inclining block customers.

4.5 Accounting for Energy Losses

In the Issues Paper, the Authority noted that it would be necessary to account for energy losses in calculating energy purchase costs and sought comments on any issues it needed to consider in doing so.

Submissions

Origin Energy, TRUenergy, Qenergy, Ergon Energy and QCOSS all suggested that the Authority should take account of both transmission and distribution losses in the Energex area.

Ergon Energy suggested that the Authority adopt loss factors published by AEMO, suggesting that the highest transmission loss factor in the Energex area and the Energex distribution loss factors that apply to each customer type would be the most appropriate.

QCOSS also suggested that the transmission loss factors that AEMO publishes would be the most appropriate to use and that the AER approved loss factors were most appropriate for distribution losses.

Proposed approach

As outlined in the ACIL Report, ACIL has proposed to take account of both transmission and distribution losses in its energy cost estimates.

Given that the Authority is determining regulated retail tariffs that are cost reflective in the Energex area, and that the load information upon which ACIL will be estimating energy costs is being supplied by Energex, it would appear consistent to only take account of those energy losses that occur in the Energex area.

The Delegation requires the Authority to adopt loss factors published by AEMO. The Authority will use the most recent transmission loss factors and AER-approved distribution loss factors that are available from the AEMO website at the time of preparing its decisions.

4.6 Carbon Pricing

On 24 February 2011, the Commonwealth Government announced that an interim carbon price mechanism would apply as early as 1 July 2012 with a carbon price to be fixed at a pre-determined rate that increases each year for three to five years, to be followed by the introduction of a carbon trading market.

In the Issus Paper, the Authority noted that, if a carbon tax is implemented by the Commonwealth Government on 1 July 2012, the costs associated with this tax will need to be accounted for in its energy purchase cost estimates.

The Authority also noted that the Government had foreshadowed a range of compensation measures to accompany the introduction of a carbon tax. Until the final details of these measures are known, it would be difficult to attempt to determine the most appropriate method for calculating carbon price compliance costs and any associated impacts on energy demand and supply.

Submissions

Submissions were generally supportive of including an allowance for carbon costs in the regulated retail tariffs. Retailers suggested that the Authority should estimate a pass-through for carbon costs separate to the energy costs allowance. AGL suggested that the Authority adopt the approach outlined in the Australian Carbon Benchmark (ACB) Addendum that AFMA published.

Approaches in other jurisdictions

A number of regulators in other jurisdictions have considered the likely impacts of a carbon price on regulated retail tariffs.

Throughout the early stages of the most recent reviews by ESCOSA, ICRC, IPART and OTTER, the Carbon Pollution Reduction Scheme (CPRS) was expected to take effect from 1 July 2011. ESCOSA, IPART and OTTER each estimated the likely impacts of carbon costs on regulated retail tariffs according to Commonwealth Treasury forecasts and their own estimates. ICRC noted that it would reassess its estimates in time for the beginning of the 2011-12 year.

While the CPRS was postponed prior to any of these determinations taking effect, ESCOSA, IPART and OTTER each included a re-opening clause in their determinations to allow them to take into account changes to carbon policies that may take effect in the future.

Proposed approach

As outlined in the ACIL Report, ACIL proposes to run two pricing scenarios through its spot price model (PowerMark) – one that is carbon-inclusive and one that is carbon-exclusive. If the carbon tax takes effect from 1 July 2012, the Authority will apply the carbon-inclusive scenario to its energy cost allowance for 2012-13. However, if the carbon tax does not take effect, the carbon-exclusive scenario will be used to determine the energy cost allowance for 2012-13.

The comparison of the two scenarios will highlight the effect that the carbon tax will have on regulated retail electricity tariffs.

In estimating the carbon-inclusive costs, ACIL will take account of combustion emissions (those emissions that result from the burning of fuel to generate electricity) and the likely impact on fuel prices of a carbon price on fugitive emissions (those up-stream emissions from mining and transportation of fuel).

4.7 Queensland Gas Scheme

The Queensland Gas Scheme requires retailers to obtain and surrender sufficient Gas Electricity Certificates (GECs) to cover a prescribed proportion of their annual customer load or incur a penalty charge for each MWh shortfall. The requirement to obtain GECs therefore creates an additional cost to retailers in purchasing electricity for their customers.

As noted in the Issues Paper, the Authority has used different approaches in the past to estimate GEC costs in the absence of information from retailers about their actual costs. In its most recent BRCI decision, while the Authority considered a proposed alternative approach based on the LRMC of gas-fired generation plant, it preferred to use a market data based approach. The Authority was of the view that an LRMC approach would be less transparent and potentially more complicated than a market-data based approach.

When a national emissions trading scheme was previously proposed, the Queensland Government indicated that the Queensland Gas Scheme may be phased out. It is not clear whether the Queensland Gas Scheme would be retained if a national carbon tax is introduced. However, until this situation is resolved, the Authority is bound to include these costs in its estimate of energy costs.

Submissions

Several retailers were critical of using current market data to estimate GEC costs due to insufficient liquidity in the GEC market. Some retailers also suggested that current market data did not reflect the cost to retailers of GECs purchased through long term supply contracts.

In contrast, QCOSS supported estimating GEC costs using market prices, arguing that these best reflected the actual costs faced by retailers. Australian Power and Gas made the general comment that, in its opinion, there was sufficient market data for the Authority to estimate compliance with environmental schemes.

Reflecting concerns about the current lack of market data, a number of submissions supported using a longer time series of data than the Authority had previously used in the BRCI to estimate GEC costs.

As alternatives to a market based approach, Origin Energy suggested that the Authority adopt the LRMC of gas-fired generation to calculate GEC costs. AGL suggested consideration of a ‘portfolio cost’ approach, incorporating other sources of compliance.

Proposed approach

In the ACIL Report, ACIL noted that information on long term GEC contracts that retailers may have is unavailable and that market data is the only available source of information on GEC costs. ACIL noted the current low levels of trading in the GEC market and therefore proposed to estimate GEC costs over a longer period than used to calculate the BRCI.

The Authority remains of the view that market prices are the most accurate indicator of the representative retailer’s cost of purchasing GECs in the absence of information about retailers’ actual GEC costs. The Authority maintains its preference for using market data on the basis that an LRMC approach would be less transparent and potentially more complicated than a market-data based approach.

The Authority notes retailers’ concerns about the current low levels of liquidity in the market for GECs. The GEC market has a relatively small number of participants purchasing certificates that are created monthly at most, and certificates are surrendered only once per year. Given these characteristics, it is to not surprising that transaction volumes are low.

Nevertheless, as current trading volumes appear to be particularly low, the Authority proposes to use a longer time series of data to estimate GEC costs for 2012-13 and notes that this approach was supported in submissions.

4.8 Enhanced Renewable Energy Target Scheme

On 1 January 2011, the Renewable Energy Target scheme was split into two separate schemes – the Small-scale Renewable Energy Target Scheme (SRES) and the Large-Scale Renewable Energy Target (LRET) scheme, collectively known as the Enhanced Renewable Energy Target Scheme (ERET).

The SRES covers small-scale technologies such as solar panels and solar hot water systems installed by households and small businesses. Retailers have an obligation to purchase Small-scale Technology Certificates (STCs) based on the expected rate of STC creation, which is determined by the Office of Renewable Energy Regulator's (ORER) Small-scale Technology Percentage (STP). The LRET sets annual targets for the amount of electricity that must be generated by large-scale renewable energy projects like wind farms. Retailers must purchase a set number of Large-scale Generation Certificates (LGCs), which is determined on the basis of achieving the annual target. The number of LGCs required to be surrendered by retailers to discharge their liability each year is determined by ORER's Renewable Power Percentage (RPP). Retailers are required to surrender STCs and LGCs to fulfil their ERET obligations. If a retailer fails to meet its obligations, it will incur a penalty.

As noted in the Issues Paper, the Authority based its estimate of 2011 LRET costs for the 2011-12 BRCI on weekly market prices for LGCs, as published by AFMA, as well as the latest Renewable Power Percentage (RPP) and annual LRET targets set by ORER. In addition to this actual data, ACIL forecast its own estimate of total liable energy for 2012 and utilised the latest published LRET target to arrive at a forecast RPP. To estimate SRES costs, the Authority relied on ORER's Clearing House price of $40/STC as well as ORER's final Small-scale Technology Percentage (STP) published for 2011 and ACIL's STP estimate for 2012.

The Authority rejected the suggestion by some retailers to use the LRMC of renewable generation to estimate LRET costs on the basis that it preferred to utilise available market data rather than a proxy such as the LRMC.

Submissions

Submissions were broadly in favour of continuing to use a market-based approach, based on ORER's clearing house price and binding and non-binding STPs, to estimate SRES, but views differed on how best to estimate LRET.

Ergon Energy, APG, Qenergy and QCOSS suggested that LGC prices should be estimated using a market-based approach. Ergon Energy suggested the Authority calculate LGC prices using a 12 month average based on market price data published by AFMA/Intercapital Plc.

In contrast, AGL, Origin Energy and TRUenergy preferred estimating LGC prices based on the LRMC of wind power generation, mainly reflecting concerns about a current lack of liquidity in the market for LGCs.

Despite its preference for using an LRMC approach to estimating LRET costs, AGL acknowledged that a market-based approach is a transparent way to determine short-term compliance costs but that other options for retailers to comply should be taken into account. AGL also considered that the LRET market was temporarily oversupplied and therefore suggested the Authority not to place too much weighting on prices.

AGL and Origin Energy suggested the Authority should allow for some 'catch-up' in RET costs for the first half of 2011 given that the BRCI legislation did not allow the Authority to incorporate the cost of the scheme for that part of the year in 2010-11. In addition, both retailers suggested that the Authority should allow for some form of 'cost-recovery' for part of the SRES costs incurred by retailers in 2011-12 as a result of ACIL's underestimation of the 2012 STP, which had not been provided for in the 2011-12 BRCI.

APG suggested that the Authority should consider all costs associated with the SRES and LRET schemes, including the administrative costs to a retailer of complying with the schemes.

Approaches in other jurisdictions

In the ACT and Tasmania, the ICRC and OTTER[7] adopted market-based approaches to estimating retailers' cost of complying with the LRET scheme in their most recent determinations. While the ICRC estimated the cost of LGCs based on its regulated retailer's over-the-counter trades, OTTER estimated ERET costs based on its regulated retailer's forward purchasing strategy.

IPART and ESCOSA based their estimates of the cost to retailers of complying with the LRET scheme on the LRMC of renewable generation in their most recent determinations. While IPART estimated the cost of LGCs on the basis of the LRMC of meeting the overall LRET target, ESCOSA estimated the cost of LGCs based on the difference between the LRMC of a new entrant wind generator and a Combined Cycle Gas Turbine generator.

All four regulators applied ORER's published and forecast RPPs in estimating LRET costs.

In relation to SRES, all four regulators adopted a market-based approach to estimating retailers' cost of complying with the SRES scheme. The SRES cost estimates were based on ORER's Clearing House price of $40/STC and its binding and non-binding STPs for the relevant years.

Proposed approach

The Authority proposes to use the same general approaches to estimating retailers' LRET and SRES costs in 2012-13 as it used for the 2011-12 BRCI.

LRET costs

In its 2011-12 BRCI, the Authority considered that a market-based approach was more likely to reflect the costs to retailers of complying with various environmental schemes and that it was superior to an LRMC based approach for a range of reasons.

While some retailers had different views on how a market-based approach might be implemented, the majority of submissions generally supported the market-based approach the Authority used in its previous BRCI decision.

In response to suggestions by some retailers, ACIL noted that, while retailers acquire most of their LGCs through long term contracts, the prices in these contracts are not available for estimating the cost of the LRET scheme. ACIL also considered that, despite thin trading, the market price of LGCs provided a better indication of LGC prices than estimates of the LRMC of wind generation.

The Authority maintains its view that, where a reliable market-based measure is available, it is difficult to justify the use of proxy measures such as LRMC. The Authority also considers that using an LRMC methodology would estimate the costs of producing LGCs representative of costs incurred by a vertically integrated retailer producing LGCs from its own gas-fired generation, rather than representing costs of a representative retailer (see section 2) providing only retail electricity services in Queensland.

[7] OTTER, *Investigation of maximum prices for declared retail electricity services on mainland Tasmania, Final Report*, October 2010.

SRES costs

ACIL has proposed calculating retailers' 2012-13 SRES costs based on ORER's binding and non-binding STPs and ORER's Clearing House price for 2012-13.

ACIL was of the view that, if it used market prices to estimate STC costs for 2012-13, it would need to forecast the proportion of STCs likely to be traded in 2012-13. ACIL considered that this may be difficult, as information on the volumes of STCs traded outside the Clearing House is not readily available.

Having regard to this data limitation, the Authority proposes to adopt ACIL's approach to estimating SRES costs for 2012-13, based on information published by ORER. This approach is consistent with that adopted in the 2011-12 BRCI and is also widely supported by stakeholders.

Other issues

The Authority is of the view that providing some catch-up of costs from previous years when setting cost reflective prices for 2012-13 is beyond the current task. Rightly or wrongly, the legislation at the time prevented these costs from being recouped. In addition, it is not appropriate to consider the issue of "un-recouped" costs for some cost elements without a consideration of the ex-post reasonableness of the other costs used in the 2011 BRCI calculation, making the task a de-facto review of the 2011 BRCI. Even if permitted to do so, the Authority would not be so inclined. The Authority will consider inclusion of a mechanism for the pass-through of future unforeseen, material costs incurred by retailers as discussed in Chapter 6.

4.9 NEM participation fees and ancillary services charges

NEM participation fees are levied by AEMO to cover the costs of operating the national energy market and ancillary services charges cover the costs of the services used by AEMO to manage power system safety, security and reliability.

As noted in the Issues Paper, the Authority has used historical data to forecast NEM participation fees and ancillary services charges because they are relatively stable from year to year.

Submissions

Submissions generally supported the approach used by the Authority for the BRCI in estimating NEM participation fees and ancillary services charges.

Approaches in other jurisdictions

Two general approaches to estimating NEM participation fees and ancillary services charges have been used recently in other jurisdictions:

(a) IPART, ESCOSA and OTTER used an approach similar to the Authority, whereby they forecast NEM participation fees and ancillary services charges based on historical prices; and

(b) ICRC escalated historical NEM participation fees and ancillary services charges by CPI.

In addition to its forecasts, OTTER provided a pass-through allowance in its 2010 Determination to account for any differences between the forecasts in its 2007 Determination and the actual data published by AEMO over the determination period.

Proposed approach

Given the general support in submissions, the Authority proposes to retain the previous approach used in the calculation of the 2011-12 BRCI in estimating costs for 2012-13.

5. RETAIL COSTS

5.1 Introduction

Under the Delegation, the Authority must consider the retail costs that would reasonably be incurred by an efficient, representative retailer, including the determination of an appropriate retail margin, giving consideration to any risks not compensated for elsewhere.

In the Issues Paper, the Authority identified a number of items for possible inclusion in the retail cost component, including retail operating costs, customer acquisition and retention costs (CARC) and an allowance for profit (the retail margin). This chapter discusses the Authority's proposed approach to calculating each of these cost items are to be based.

5.2 Retail Operating Costs

Under the Delegation, the Authority must consider the retail costs that would reasonably be incurred by an efficient, representative retailer.

Retail operating costs relate to the costs of the services provided by an electricity retailer to its customers and typically include customer administration (including call centres), corporate overheads, billing and revenue collection, IT systems and regulatory compliance.

In the Issues Paper, the Authority identified that there are two generally accepted approaches to estimating retail operating costs. A bottom-up approach which requires detailed information on each cost component or a benchmarking approach which relies on publicly available information and is therefore less data intensive. The two approaches can also be used together, with benchmarking used to assess the reasonableness of costs estimated under a bottom-up approach.

Under the BRCI, the Authority estimated retail costs in 2006-07 by benchmarking costs to those allowed in other jurisdictions and subsequently escalating this benchmark each year to account for wages growth and price inflation over the intervening period. For the 2011-12 BRCI, some additional costs were incorporated into the retail cost estimate, including CARC (which had previously been calculated separately) and the additional costs associated with the Authority's regulatory fees.

In the Issues Paper, the Authority noted that its benchmarking and escalation approach had been reasonably well accepted by stakeholders in the past, but that it was open to considering alternative approaches.

Submissions in response to the Issues Paper

Several retailers suggested different approaches to estimating retail cost in submissions:

(a) Origin Energy preferred benchmarking but noted that it can be difficult to compare decisions due to different methodologies and parameters used to approve costs. It therefore suggested that the current allowance should be retained and escalated;

(b) QEnergy noted that it supported the approach used to date, although it was not clear whether it was proposing that a new benchmark be established and escalated annually or that the current allowance should be retained and escalated;

(c) AGL supported benchmarking but with an allowance for Queensland specific costs and the incremental costs of a standalone new entrant retailer;

(d) Ergon Energy suggested that IPART's cost estimate should be adopted (with some Queensland specific adjustments) and that a high level assessment of this estimate could be undertaken against aggregated cost data provided by retailers; and

(e) Australian Power and Gas (APG), TRUenergy and Alinta did not propose a specific approach, although TRUenergy emphasised the importance of accounting for Queensland specific costs and regulatory obligations, while Alinta was of the view that the current allowance was reasonable, albeit conservative.

Consumer groups did not comment on the appropriate approach, although the Chamber of Commerce and Industry Queensland (CCIQ) recommended that mechanisms should be included to reflect performance and productivity outcomes.

Approaches in other jurisdictions

The most recent approaches adopted by regulators in other jurisdictions are summarised below.

New South Wales (IPART)

IPART adopted a bottom-up approach based on cost information provided by the three regulated retailers. It then benchmarked this estimate against its past determinations, regulatory decisions in other jurisdictions and cost information disclosed by publicly listed retailers.

South Australia (ESCOSA)

ESCOSA adopted a similar approach to IPART in determining costs in the initial year – an assessment of the regulated retailer's actual costs and benchmarking against other regulatory decisions, combined with benchmarking against market contracts in subsequent years. That is, ESCOSA determined a cost-reflective price for the start of the price path which was adjusted in subsequent years in line with movements in market contract prices.

Australian Capital Territory (ICRC)

The ICRC established an initial cost estimate in 2003 on the basis of information provided by the regulated retailer and benchmarking. This estimate was then escalated in subsequent years according to movements in the CPI.

Tasmania (OTTER)

OTTER benchmarked the regulated retailer's costs against other jurisdictions.

Proposed approach

The Authority considered whether it would be beneficial to obtain cost information from retailers in order to undertake a bottom-up analysis and to combine this with benchmarking. Origin Energy, AGL and APG all indicated they would be willing to provide cost information. However, the Authority considers that there are a number of problems with this approach.

Firstly, there is no standard or default retailer(s) in Queensland as all retailers must offer regulated or notified prices. Under the Delegation, the Authority is required to consider the costs of an efficient, representative retailer, so it would need to either:

(a) determine which retailer or retailers best met the definition of the representative retailer and obtain cost information from those retailer(s); or

(b) ask retailers to provide an estimate of the costs likely to be incurred by the representative retailer, rather than providing cost information relating directly to their own business.

Even if the Authority were able to obtain cost information, determining the efficiency and reasonableness of those costs would be difficult. Other sources of information on the disaggregated costs of retailers is not available to inform the Authority's assessment because retailers have not provided the Authority with retail cost information in the past and, in other jurisdictions, if retailers provide disaggregated cost information to the regulator this tends to be on a confidential basis. Origin Energy also noted that the process of obtaining information would be data intensive and that it had been a contentious issue in other jurisdictions given the different structures and activities of the various retailers. Similarly, Ergon Energy considered that information may be classified quite differently between retailers, making comparisons difficult.

While the Authority could assess cost estimates using a high level benchmarking analysis, a potential problem would arise if there was a large discrepancy between the results of the benchmarking analysis and retailers' proposed costs or even between retailers themselves. This would likely require the Authority to choose one approach (or cost estimate) over the others and there may be little basis for doing so.

Given these difficulties, the Authority proposes to use the current retail cost allowance as a starting point and to benchmark that allowance against those recently accepted in other jurisdictions in order to test its reasonableness. Where relevant, the Authority may also draw on publicly available information on retail costs. While the Authority notes that benchmarking has its drawbacks, it does not consider that an alternative approach would necessarily produce results that are any more robust or defensible.

Some retailers suggested that Queensland specific costs and regulatory obligations need to be taken into account. Where reliable information on the individual components of retail costs is readily available, the Authority will consider adjusting its estimate to include those costs. This is consistent with the Authority's approach under the BRCI, where it included a new cost item within retail costs in the 2011-12 BRCI Decision to recognise the imposition by the Authority of regulatory fees. The Authority will have regard for any costs incurred in those jurisdictions that are not relevant to Queensland.

Customer Acquisition and Retention Costs (CARC)

CARC are those costs incurred by retailers to acquire new customers and retain existing customers and generally include costs associated with marketing, advertising and sales overheads.

In the Issues Paper, the Authority identified that a number of approaches had been used by regulators to estimate CARC while in some jurisdictions no allowance for CARC is included.

Prior to the 2011-12 BRCI Decision, the Authority calculated CARC as a separate cost item based on expected rates of customer churn (except for the first BRCI where a loss of scale approach was used). For the 2011-12 BRCI, given the maturity of the South East Queensland market, the Authority decided that CARC should be treated in the same manner as other retail costs, rather than as a separately calculated cost item.

Submissions in response to the Issues Paper

QCOSS and Canegrowers were of the view that there was no justification for including an allowance for CARC. Retailers supported the inclusion of a CARC allowance, but had different views as to how it should be calculated:

(a) TRUenergy and AGL considered that it should be calculated by reference to churn rates;

(b) Origin Energy suggested that it should be calculated based on the costs incurred by a new entrant retailer and that it must cover all costs a retailer incurs in acquiring, retaining and transferring a customer. However, once calculated, Origin Energy supported the escalation of those costs on the same basis as other retail costs; and

(c) QEnergy supported the approach used to date, which presumably means that it supports treating CARC in the same manner as other retail costs.

Approaches in other jurisdictions

The most recent approaches adopted by regulators in other jurisdictions are summarised below.

IPART was required by it terms of reference to include an allowance for CARC. IPART estimated CARC separately and for the 2010 determination used an approach based on customer churn (similar to the Authority's approach prior to the 2011-12 BRCI).

ESCOSA included an implicit allowance for CARC in the retail cost allowance. ESCOSA justified accepting the regulated retailer's proposed retail cost allowance (including CARC) on the basis that it was consistent with the retail cost allowance recommended by its consultant, LECG (now Sapere Research Group), which had estimated CARC using a similar method to that adopted by IPART.

The ICRC (ACT) and OTTER (Tasmania) did not include CARC allowances. ICRC considered that the potential benefits of enhancing competition did not outweigh the potential negative impacts, including higher prices in the short term, while OTTER considered that CARC was not a valid cost element when dealing solely with customers who are not contestable.

Proposed approach

Given the concerns of some (non-retailer) stakeholders, the Authority first considered whether it is appropriate to include an allowance for CARC. Under the Delegation, the Authority is required to consider the retail costs that would reasonably be incurred by an efficient, representative retailer and, as discussed above, the Authority proposes to define the 'representative retailer' as one that supplies customers on both market and non-market contracts. The Authority is also required to consider the impact on competition in the Queensland retail electricity market of its determination, consistent with the Government's policy objective that consumers, wherever possible, have the opportunity to benefit from competition and efficiency in the marketplace.

Some form of CARC is a reasonable and real cost incurred by retailers participating in a competitive market and supplying both market and non-market customers. Not recognising a legitimately incurred cost may have a detrimental impact on competition by reducing the incentive for retailers to actively participate in the market. Consistent with the requirements of the Delegation and the Authority's proposed definition of the representative retailer, the Authority considers that it is appropriate to include an allowance for CARC.

Given the Authority's proposal to establish the retail cost allowance through benchmarking, the Authority considered that there were two possible options to calculating CARC:

(a) reverting to the customer churn approach used prior to the 2011-12 BRCI Decision (as suggested by TRUenergy and AGL); or

(b) treating CARC in the same manner as other retail costs, as done in the 2011-12 BRCI Decision.

The Authority considered these options in detail in its 2011-12 BRCI Decision and resolved that it was no longer appropriate to assess CARC as a separate retail cost item, nor to link CARC to customer churn rates, given the maturity of the South East Queensland market. As nothing has changed that would alter that view, the Authority will continue with the second option. The Authority has identified three possible alternatives to implementing this approach:

(a) establishing an implicit allowance through benchmarking the total (CARC inclusive) retail cost allowance;

(b) estimating a new baseline CARC allowance for inclusion in the retail cost estimate (as suggested by Origin Energy); or

(c) including the current (suitably escalated) 2011-12 allowance in the retail cost estimate.

The first option of benchmarking the (CARC inclusive) current retail cost estimate would appear consistent with the Authority's proposal to establish retail costs through benchmarking. However, a key problem with this approach is that, in other jurisdictions that identify a CARC allowance, it tends to be calculated using the customer churn approach which is sensitive to churn rates of that particular jurisdiction (rather than Queensland) and is inconsistent with the Authority's 2011-12 BRCI Decision to delink CARC from churn rates. Another problem is the lack of comparability to jurisdictions that do not include CARC.

The Authority rejected the second option of estimating a new baseline allowance for the 2011-12 BRCI given the number of difficulties with this approach. Estimating a bottom-up CARC allowance suffers from similar problems to estimating a bottom-up allowance for retail costs, as discussed above.

The Authority considers that the third option is the most appropriate in the circumstances and it is also consistent with the Authority's previously expressed intention to maintain the current allowance in real terms over time.

In order to undertake its benchmarking exercise to establish retail costs (excluding CARC), the Authority intends to make appropriate adjustments to remove the CARC component of retail cost benchmarks where it has been included.

5.3 Retail Margin

The Delegation requires the Authority to determine an appropriate retail margin giving consideration to any risks not compensated for elsewhere.

As noted in the Issues Paper, the retail margin represents the reward to investors for committing capital to a business and for accepting risks associated with providing retail electricity services. A retail margin which is not sufficient to compensate investors for their capital investment and exposure to systematic risks will lead to under-investment by existing retailers, deter entry into the market by new retailers and stall the development of effective competition.

In BRCI decisions, the Authority set the retail margin on an earnings before interest, tax, depreciation and amortisation (EBITDA) basis which meant that an allowance for depreciation and amortisation was implicitly included. It was also calculated as a percentage of total costs. For the 2007-08 BRCI, by reference to retail margins accepted in other jurisdictions, the Authority concluded that a retail margin of 5% appeared appropriate. The 5% margin was maintained for all subsequent BRCI decisions because the Authority considered that there was no evidence to suggest that the risks of retailing electricity in Queensland had changed from one year to the next and that changes in all other cost components had been captured elsewhere in the BRCI methodology.

Submissions in response to the Issues Paper

Most retailers maintained that the current retail margin of 5% was too low, although QEnergy considered that it was, nevertheless, reasonable. Of consumer groups, QCOSS considered that the current margin was realistic, but noted that it could arguably be lower, while CCIQ considered that it was too high.

Despite commenting on the appropriate level of the margin and, in some cases, the risks that should be compensated for, submissions did not suggest an appropriate estimation approach. However, Origin Energy and Ergon Energy recommended that, in considering an appropriate retail margin in Queensland, the Authority should have regard to the extensive analysis conducted by SFG Consulting for IPART's 2010 price review.

Approaches in other jurisdictions

Consistent with the Authority's approach under the BRCI, other regulators tend to calculate the retail margin on an EBITDA basis and (except in South Australia) calculate the margin as a percentage of total costs. In South Australia, the margin is calculated as a percentage of 'controllable costs' (that is, including retail and energy costs but excluding network costs).

While it is clear that the margin is intended to compensate retailers for their exposure to systematic risks in some jurisdictions (such as NSW), it is often not clear what risks are being compensated for in other jurisdictions. Current margins are 3.8% in Tasmania, 5.2% in South Australia[8] and 5.4% in NSW and ACT.

The most recent approaches adopted by regulators to estimate the retail margin in other jurisdictions are summarised below.

New South Wales (IPART)

IPART appears to have undertaken the most extensive analysis in estimating the retail margin for its most recent determination. It engaged SFG Consulting (SFG) to provide advice on a feasible range for the margin using three alternative approaches - expected returns, benchmarking and bottom up. IPART then selected the mid-point of the range for each approach and applied an equal weighting to each. The resulting 5.4% margin it selected was consistent with the mid-point of the reasonable range recommended by SFG.

South Australia (ESCOSA)

ESCOSA engaged LECG to advise on the retail margin for its most recent determination. LECG undertook a combination of benchmarking and a return on investment analysis (based on financial data provided by the regulated business). However, ESCOSA noted that it had relied more heavily on the results of the benchmarking analysis, given the numerous assumptions and judgements that were required in developing the bottom-up margin estimate.

Australian Capital Territory (ICRC)

The ICRC noted that it had paid particular attention to the margin estimated by IPART given the extensive analysis underpinning that estimate. However, in adopting the same margin as IPART, it considered that this may slightly over-compensate the regulated retailer for the risks it faces, given that compensation for energy purchase cost risks was already provided in the energy cost allowance and the broad range of matters eligible for pass-through to retail prices.

[8] The margin is calculated as 10% of controllable costs (i.e. energy and retail costs but excluding network costs) is approximately equivalent to 5.2% of total costs.

Tasmania (OTTER)

OTTER adopted a combination of benchmarking and return on investment analysis to estimate the retail margin.

Proposed approach

The Authority considers that the retail margin should compensate retailers for systematic risks through the retail margin while non-systematic risks are compensated for elsewhere in the determination. Systematic risks are the result of exposure to overall economic or market conditions and are also known as economic, market or non-diversifiable risk.

The Authority considered whether it would be useful to undertake an extensive and detailed analysis of the appropriate margin but was not convinced that there would be significant benefits from doing so. For instance, despite extensive analysis, IPART still needed to exercise judgement to select an appropriate margin within a relatively wide recommended range of 4.8% to 6%.

Therefore, the Authority proposes to undertake an assessment of the appropriateness of the current margin of 5% in the context of margins adopted in other jurisdictions. The Authority will pay particular regard to the analysis underpinning the most recent IPART estimate and will consider its applicability to a representative Queensland retailer. It also intends to draw on other publicly available information, where relevant.

6. SETTING THE R COMPONENT OF RETAIL TARIFFS

6.1 Introduction

As discussed in Chapter 2, under the N+R approach, retail tariffs are to be aligned with network tariffs. As a result, with very few exceptions, the number and structure of regulated retail tariffs will mirror Energex's network tariffs.

Chapters 3 and 4 set out the Authority's proposed approach to estimating energy costs and retail costs which together comprise the R component of retail tariffs.

This chapter discusses the Authority's proposed approach to allocating energy and retail costs to each network tariff and how those costs are to be recovered through the fixed (service charge) and variable (consumption charge) component of each tariff.

In the Issues Paper, the Authority considered that the R component of tariffs should be set on a fully cost-reflective basis, where possible. The letter from the Minister also acknowledges that the Authority is to set cost reflective prices and that the Government will investigate a range of measures to mitigate the impact of moving to cost reflective prices for financially vulnerable small residential customers.

Cost reflectivity is achieved when the costs of supply are allocated to each tariff and tariff component on the basis of the driver or cause of those costs. Such an approach should lead to more efficient use of electricity because customers would pay for the costs they cause an efficient retailer to incur, no more and no less.

6.2 Energy costs

In the Issues Paper, the Authority noted that the cost of supplying energy to a particular group of customers will depend on the load profile of that customer group. The Authority noted that it would rely on Energex to provide load profile data to go with each of its network tariffs. The Authority also queried whether stakeholders considered energy costs to be fixed or variable.

Submissions

AGL, Origin Energy, Ergon Energy and Canegrowers generally agreed with using Energex's net system load profile (NSLP) to allocate costs to customer groups. AGL suggested that the NSLP determined the aggregate cost incurred by retailers for the energy consumed by their customers and that the energy cost would therefore be the same for all customer groups. Origin Energy suggested that load data for each customer class would provide a more accurate estimate of energy costs for each customer class, but queried the accuracy of disaggregated data.

AGL, Origin Energy, Ergon Energy, Qenergy and QCOSS were of the view that, since energy costs vary with the volume of electricity consumed by customers, these should be recovered through a variable consumption-based component of retail tariffs.

Approaches in other jurisdictions

In other jurisdictions, regulated retailers tend to have the flexibility to set their own prices subject to a weighted average price cap (WAPC), which is determined by the regulator. Setting a WAPC is a more light handed form of regulation than determining individual tariffs and prices and, therefore, many of the issues that the Authority faces in allocating costs to tariffs and tariff components do not apply in other jurisdictions. As noted by IPART in its final report on 2010-13 regulated retail prices:

> *Under a WAPC approach, IPART determines the maximum average percentage by which each [regulated retailer] can increase its regulated tariffs (weighted by the relevant quantity) in each year of the determination period. The [regulated retailer] can then adjust the level and structure of individual regulated tariffs as it sees fit, provided that on average, these tariffs do not increase by more than the maximum percentage.*

In setting the WAPC, IPART split energy and retail costs into fixed components (costs that do not vary with electricity consumption) and variable components (costs that do vary with electricity consumption) and weighted the fixed components of prices by customer numbers and the variable components by estimated electricity consumption. In undertaking this task, IPART assumed that energy costs were 100% variable.

Proposed approach

The Authority engaged ACIL to provide it with expert advice on the allocation of energy costs to the various tariffs and tariff components as proposed by Energex for 2012-13.

As outlined in Chapter 3, ACIL's proposed approach to estimating energy purchase costs for 2012-13 involves estimating the costs for each of Energex's network tariff class directly, rather than estimating the aggregate energy costs and then allocating a portion of these to each tariff class, as would be the case under the hedging-based approach. As a result, the additional step of allocating aggregate energy purchase costs to different tariff classes the Authority discussed in its Issues Paper is no longer an issue of concern.

On the question of whether energy costs should be treated as fixed or variable, ACIL suggested that these should be fully recovered through the variable, consumption-based, component of each tariff. For tariffs using interval meters (time of use tariffs), the energy cost allowance for each period (peak, shoulder, off-peak) will be determined based on ACIL's estimate of the costs of supplying energy during the respective period. Allocating energy costs on a fully variable basis would be consistent with comments made in submissions and the approach taken by IPART in its recent review of NSW retail electricity tariffs for 2010-13.

6.3 Retail costs (retail operating costs and retail margin)

As for energy costs, cost reflective pricing requires that retail costs are also allocated to each tariff on the basis of the driver or cause of the costs being incurred.

Submissions

Retail operating costs

Retailers generally were of the view that most (if not all) retail operating costs were driven by customer numbers rather than electricity consumption. AGL also suggested that there may be some differences in the costs of supplying residential, business and rural customers, while QEnergy considered that costs per customer were similar, regardless of the size of the customer.

Retailers supported either:

(a) recovering costs through a fixed component of tariffs (AGL and QEnergy); or

(b) recovering most costs through a fixed component of tariffs and a small proportion through the variable component (Origin Energy and Ergon Energy).

In suggesting that a small proportion of costs should be recovered through the variable component of tariffs, Origin Energy and Ergon Energy suggested that the approach adopted by IPART (which treated 75% of retail operating costs and 100% of CARC as fixed cost components and 25% of retail operating costs as variable cost components) was a sound basis to follow.

While QCOSS acknowledged that some portion of retail costs is fixed, it preferred recovering retail costs through the variable component of tariffs.

Retail margin

Retailers suggested different approaches to the allocation of the retail margin to retail tariffs:

(a) Origin Energy proposed that a similar percentage margin should be applied to the costs allocated to each tariff component, in order to ensure that the retail margin paid by high consumption customers was similar in percentage terms to that paid by low consumption customers. However, Origin also appeared to suggest that it supported IPART's approach, whereby the retail margin is treated as a fully variable cost;

(b) AGL proposed that the retail margin be applied to each component of the retail tariff, but suggested that a balance was required between applying it on a percentage basis and a dollar basis. AGL was concerned that applying the margin on a percentage basis would result in larger customers contributing a higher dollar margin than smaller customers;

(c) While Ergon Energy appeared to support the approach taken by IPART, where the retail margin is treated as a fully variable cost, it also argued that the retail margin could be applied to customer groups based on the systematic risk associated with supplying those customers; and

(d) QEnergy suggested that the retail margin should not be recovered through the variable component of tariffs as this would incentivise retailers to encourage customers to increase consumption (which would increase the value of the retail margin).

Approaches in other jurisdictions

In its final report on 2010-13 regulated retail prices, IPART assumed that retail operating costs (excluding CARC) were 75% fixed and 25% variable. This assumption was supported by information provided by the regulated retailers which showed the contribution of fixed costs to total retail operating costs ranged from 76% to 77% and variable costs from 23% to 24%. IPART also assumed that CARC was a fully fixed cost and that the retail margin was a fully variable cost.

Proposed approach

The Authority's proposed approach to estimating retail costs, including retail operating costs, CARC and the retail margin is set out in Chapter 4. The Authority has proposed to estimate retail operating costs (including CARC) on a per customer basis and the retail margin as a percentage of total costs.

Retail operating costs

While there was general consensus in submissions that retail operating costs are largely driven by customer numbers and that costs should be recovered through the fixed component of retail tariffs, there was also some suggestion that costs may be partially driven by energy consumption or customer size. On this basis, the Authority considers that there are two possible options to setting the retail operating cost component of retail tariffs:

(a) if costs are driven by customer numbers - allocate the same cost to each customer and recover that cost through the fixed charge; or

(b) if costs are largely driven by customer numbers, but partially driven by electricity consumption or customer size allocate most costs (for example, 75% as was done by IPART) equally to each customer and recover those costs through the fixed charge and allocate the remaining costs equally to each MWh of consumption and recover those costs through the variable charge.

While the views of stakeholders on this issue were mixed, the Authority notes that IPART undertook a detailed analysis of the retail operating which indicated that, on average, 75% of retail operating costs excluding CARC were fixed, and the remainder variable, while CARC was assumed to be a fixed cost.

The Authority proposes to adopt the same approach as IPART adopted, and Origin Energy and Ergon Energy supported.

Retail margin

Given that the retail margin is calculated as a percentage of total costs, the Authority considers that an appropriate approach would be to apply the retail margin equally (on a percentage basis) to each component (fixed and variable) of retail tariffs. This would mean that, in dollar terms, larger customers would pay a higher margin than smaller customers, but that all customers pay the same margin as a percentage of their total bill.

While the Authority acknowledges that there may be justification for applying different margins to different customer groups (as suggested by AGL and Ergon Energy) on the basis of differences in risk, it considers that that this would be highly subjective therefore is not inclined to that approach.

7. OTHER ISSUES

This chapter discusses the Authority's preliminary views on other issues relevant to the price determination process that have not been discussed in other chapters, namely:

(a) accounting for unforeseen events that may have a material impact on retailers' costs;

(b) transitional arrangements for customers facing significant price increases; and

(c) the eligibility criteria and other terms and conditions pertaining to retail tariffs.

7.1 Accounting for Unforeseen Events

In the Issues Paper, the Authority noted that it may be appropriate to include a mechanism to account for the impact of certain clearly defined events that lead to a material and unforeseen change in retailers' costs. While the Authority noted that such a mechanism is more commonly used by regulators setting multi-year price paths, there remained the possibility that, even in a single-year pricing period, there may be major changes which may need to be accommodated by amending retail prices.

In past BRCI decisions, the legislative framework did not allow the Authority to include a cost pass-through or catch-up mechanism. As a result, retailers supplying non-market customers at times had to absorb any changes in costs that arose during the relevant year.

Submissions

Retailers were unanimously of the view that a mechanism is required to account for the impact of unforeseen events on the R component of tariffs.

On the other hand, QCOSS did not support the inclusion of such a mechanism on the basis that it would:

(a) usually only be included where the price path is longer than a year;

(b) prevent retailers from managing risks; and

(c) be unfair to consumers.

Approaches in other jurisdictions

In their most recent retail price determinations, all of which were multi-year determinations, IPART, ICRC, ESCOSA and OTTER included a cost pass-through mechanism to allow retailers to pass-through to customers the incremental, efficient costs associated with defined regulatory or taxation change events.

The mechanisms adopted by all four regulators were symmetrical so that tariffs may also be adjusted downwards by the regulator to reflect any similar cost decreases. Examples of the types of events covered under these arrangements are changed obligations in relation to green energy schemes, unforeseen events instigated by AEMO (such as a reserve trader or direction event) and retailer of last resort (ROLR) events.

Proposed approach

In calculating the energy cost component of regulated retail tariffs, the Delegation requires the Authority to consider retailers' efficient costs of, inter alia, meeting any obligations under environmental and energy efficiency schemes, including future State and Commonwealth schemes, and a mechanism to address any new compulsory scheme that imposes material costs on the retailer.

To achieve this, it would appear appropriate to include some form of mechanism to account for the material impacts of unforeseen events. Given the difficulty of assessing the probability of such events occurring and/or their impact on costs, and the fact that such events are generally beyond a retailers' control but may impose material costs or benefits on them, it would be preferable for customers to share some of the risk of these events occurring rather than including a risk allowance in the retail margin.

However, it is not clear whether the new legislation and the Delegation would allow the Authority to incorporate either:

(a) a cost pass-through mechanism, which would allow for price adjustments within the 2012-13 tariff year; or

(b) a catch up mechanism, which would account for cost impacts from a previous year in the subsequent tariff year.

The Delegation requires the Authority to determine notified prices to apply from 1 July 2012 to 30 June 2013. This suggests that the Authority may not be able to include a cost pass-through mechanism which would allow for those gazetted prices to be amended during the tariff year.

The Authority will seek to clarify this issue prior to the release of its Draft Report.

It should also be noted that, given that the National Energy Customer Framework will allow changes to retail prices only once every six months, any cost pass-through arrangement will have to address some form of catch-up of material unforseen events.

7.2 Transitional Arrangements

The Delegation requires the Authority to consider whether any transitional arrangements are needed for customers on farming and irrigation tariffs, obsolete and declining block tariffs (since they will be removed from 1 July 2012), and the street lighting tariff currently available in Ergon Energy's network area.

In the Issues Paper, the Authority noted the importance of providing customers with sufficient time to make informed decisions about the impact of their electricity usage on their bills. Given that new tariffs will be introduced on 1 July 2012, it was suggested that it may be appropriate to provide additional time for those customers who are required to change tariffs to make their decisions.

Some form of transitional arrangements may also be required where customers currently supplied under tariffs that are not cost-reflective face significant price increases if they are immediately moved to a cost-reflective tariff. However, a balance needs to be struck between the efficiency benefits of achieving cost reflective tariffs and the need to protect customers from price shocks.

Submissions

Consumer groups strongly supported the inclusion of transitional arrangements due to concerns about the potential for price and other impacts of implementing new regulated retail tariffs on 1 July 2012. For example, the Bundaberg Regional Irrigation Group noted there had been significant investment in irrigation equipment based on the characteristics of specific tariffs and suggested that two years notice of any tariff changes was required to allow upgrading or replacement of that equipment. Similarly, Canegrowers suggested that phasing in the new tariffs over a period of three years would give those customers facing significant changes time to adjust before the full impact was felt.

Some retailers acknowledged the potential for customers to experience significant price increases as a result of implementing the new tariffs but suggested that any associated social welfare concerns would be best dealt with through direct assistance from the Government rather than by continuing to distort electricity prices. As a result, retailers generally did not support transitioning customers to the new tariffs over a period of time.

Proposed approach

As a general principle, the Authority agrees with the view put by retailers that any social welfare concerns arising from implementing the new regulated retail tariffs would be best addressed through direct assistance by the Government rather than by distorting electricity prices. However, it is unlikely that all of the adjustment needed by customers to accommodate the new tariff structures will be addressed by Government social welfare considerations, as the adjustment needed may relate to, for example, commercial customers adjusting their operations to the new tariff structures. Therefore, in its draft price determination the Authority will consider the impact on customers specified in the Delegation of the new tariff structures and whether any transitional arrangements are warranted.

As the Authority noted in the Issues Paper, implementing transitional arrangements will require a balance to be struck between achieving cost reflective tariffs and the need to protect customers from price shocks. Holding a tariff below its cost reflective level or delaying the movement of some customers to fully cost reflective prices would cause financial losses for retailers or higher prices to other customers. Imposing such a burden on retailers could potentially hamper competition in the Queensland retail electricity market while forcing other customer groups to pay higher prices would deny them immediate access to the full benefits of competition.

7.3 Terms and Conditions of Retail Tariffs

The regulated retail tariffs and prices are published in a tariff schedule which includes a range of other information, including the eligibility criteria and other terms and conditions for each tariff.

The Authority understands that it will be responsible for determining the retail tariffs and prices while the Queensland Government (in conjunction with Energex and, possibly, Ergon Energy) will be responsible for determining the associated eligibility criteria and other terms and conditions. As discussed in Chapter 2, the Authority anticipates that most (if not all) of the eligibility criteria for retail tariffs from 1 July 2012 will mirror the eligibility criteria for Energex's underlying network tariffs.

The Minister has not delegated to the Authority determination of charges or fees relating to customer retail services under section 90(1)(b) of the Electricity Act. In the current tariff schedule, these charges relate to the provision of historical billing data and dishonoured payments, but could be expanded to include others, for example, credit card surcharges.

APPENDIX 1: DELEGATION AND COVERING LETTER

Hon Stephen Robertson MP
Member for Stretton

Queensland Government

Minister for Energy and Water Utilities

22 SEP 2011

MBN5236

Mr B Parmenter
Chairman
Queensland Competition Authority
GPO Box 2257
BRISBANE QLD 4001

Dear Mr Parmenter

I refer to the Government's decision, in May 2011, to implement a new electricity pricing methodology based on a Network (N) + Retail (R) (N+R) cost build-up (building block) approach and establish a new set of regulated retail electricity tariffs (notified prices), to commence from 1 July 2012.

In accordance with this decision, the Electricity Price Reform Amendment Bill 2011 (the Bill) was passed by the Queensland Parliament on 7 September 2011 and received assent on 13 September 2011. The Bill contains the key legislative amendments necessary to allow for the implementation of a new electricity price-setting methodology and set of tariff structures in 2012-13.

I now attach a certificate which provides my delegation to the Queensland Competition Authority (the Authority), as the pricing entity, to determine the notified prices that retail entities may charge non-market customers in the 2012-13 tariff year. The delegation is authorised under section 90AA(1) of the Electricity Act 1994 (the Electricity Act).

The Delegation also contains a Terms of Reference which impose conditions on the Authority when undertaking the delegated function.

Consistent with the Terms of Reference, the Authority is required to undertake an open consultation process with all relevant parties and consider all submissions received within the consultation period.

The Authority must publish its draft methodology paper on the R component no later than December 2011, its draft price determination on 30 March 2012, and its final price determination by 31 May 2012.

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The Queensland Government remains concerned about the pressure that increases in the cost of living, including rising electricity costs, are placing on household budgets, and has consistently advocated in previous pricing decisions that only genuine increases in costs of supply be passed on to consumers.

With the introduction of the new price setting methodology in 2012-13, the Government wishes to again stress that the Authority must consider the impact of price rises on consumers when determining regulated prices.

It is acknowledged that a move to cost reflective tariffs will have an adverse affect on some consumers. To assist in mitigating these impacts, the Government has approved an inclining block tariff (IBT) structure for residential customers.

An IBT is designed to encourage customers to conserve electricity by charging a fixed supply charge and a series of consumption blocks priced so the more you use, the more you pay. Under this approach, the impact of moving to a cost reflective pricing structure on lower consumption customers will be lessened.

The Queensland Government will also undertake additional work to further investigate a range of customer assistance measures to further mitigate the impacts of a move to cost reflective tariffs and the increasing cost of living on small residential electricity customers. It is expected these options will be considered as part of the 2012-13 Budget process.

Delegation and Terms of Reference

In undertaking the delegated function, the Authority should consider the following:

- The network charges to be levied by ENERGEX when determining the N component of the regulated retail tariffs;
- The cost of energy component should seek to balance the long term need for maintaining pricing stability with ensuring customers are not subjected to unnecessary price volatility in the short term;
- The Government has endorsed the establishment of an IBT structure for residential customers to apply from 1 July 2012;
- The Government has endorsed the establishment of a new voluntary time-of-use tariff for residential customers from 1 July 2012;
- It is the Government's intention that any customer on an obsolete or declining block tariff will be required to move (or transition) to an alternative regulated tariff from 1 July 2012;
- Before making any changes to farming and irrigation tariffs, the Authority should consult with relevant stakeholders and industry groups and consider whether any transitional arrangements may be required;
- The Authority should consider an appropriate tariff for street lighting customers in Ergon Energy's network area and whether any transitional arrangements may be required; and
- It is the Government's intention that from 1 July 2012, all existing and new non-residential customers in ENERGEX's network area, who consume over 100 megawatt hours per annum, will be unable to access regulated tariffs and must be on a market contract.

This Delegation (and Terms of Reference) replaces the previous Direction Notice, issued to the Authority on 11 May 2011 under section 10(e) of the Queensland Competition

Authority Act 1997 (QCA Act), requiring the Authority to investigate and provide a report on:

- An alternative retail electricity pricing methodology for the determination of the cost components under an N+R approach; and
- An alternative set of retail electricity tariffs, based on an N+R approach, which could be applied from 1 July 2012.

Please be assured the process and intent reflected in the Direction Notice issued under the QCA Act will be deemed sufficient for the purposes of the price determination process for 2012-13, in accordance with section 329 of the Electricity Act.

If you have any questions about my advice to you, Ms Kathie Standen, Director, Electricity Pricing Policy of the Department of Employment, Economic Development and Innovation will be pleased to assist you and can be contacted on telephone 3225 8256.

Yours sincerely

[redacted]

STEPHEN ROBERTSON MP

ELECTRICITY ACT 1994
Section 90AA(1)

DELEGATION

As the Minister for Energy and Water Utilities, pursuant to section 90AA(1) of the *Electricity Act 1994*, I hereby refer to the Queensland Competition Authority (the Authority) the determination of regulated retail electricity tariffs (notified prices) for Queensland to apply from 1 July 2012 to 30 June 2013, in accordance with the requirements set out in the following Terms of Reference.

Terms of Reference

1. Matters to be considered

In calculating the regulated retail electricity tariffs for the relevant tariff year, the Authority should ensure its price determination has regard to:

- the actual costs of supplying electricity;
- the effect of the determination on competition in the Queensland retail electricity market, consistent with the Government's policy objective that consumers, wherever possible, have the opportunity to benefit from competition and efficiency in the marketplace;
- the Queensland Government's Uniform Tariff Policy, which ensures customers of the same class have access to uniform retail tariffs and pay the same notified price for their electricity supply, regardless of their geographic location; and
- the information contained in the Attachment.

Methodology for calculating regulated retail tariff prices

Retail electricity tariffs comprise three main cost components:

- network costs;
- energy costs; and
- retail costs.

In calculating the regulated retail tariffs for the relevant tariff year, the Authority should, to the extent possible, base its determination on a Network (N) plus Retail (R) cost build-up approach to setting notified prices, where N (network cost) is treated as a pass-through and R (energy and retail cost) is determined by the Authority.

Network Costs

In determining the network cost component of each regulated retail tariff, the Authority must consider the network charges to be levied by ENERGEX for each tariff for the relevant tariff year.

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Energy Costs

The energy cost component of each regulated retail tariff should include the cost of purchasing energy, environmental and renewable energy costs, energy losses and National Electricity Market fees.

In calculating the energy cost component, the Authority must consider:

- the cost of energy,
- fees, including charges for market and ancillary services, imposed by Australian Energy Market Operator (AEMO) under the National Electricity Rules;
- energy losses as published by the AEMO;
- the likely impact resulting from Commonwealth legislation to put a price on carbon dioxide emissions;
- the efficient costs of meeting any obligations under environmental and energy efficiency schemes (including present and future State and Commonwealth schemes); and
- a mechanism to address any new compulsory scheme that imposes material costs on the retailer.

Retail Costs

Retail costs relate to the services provided by a retailer to its customers.

In determining the retail cost component of each regulated retail tariff, the Authority must consider the retail costs that would reasonably be incurred by an efficient, representative retailer, the characteristics of which should be determined by the Authority. The Authority is also required to determine an appropriate retail margin giving consideration to any risks not compensated for elsewhere.

2. Consultation

The Authority should consult with stakeholders, conduct workshops and consider submissions, within the timetable for making the price determination and publishing the draft and final reports. The Authority must make its reports available to the public.

3. Timing

(a) Draft Methodology Paper

The Authority must publish a paper outlining its draft methodology for calculating the R component of regulated retail electricity prices no later than December 2011.

(b) Draft Price Determination

The Authority must publish a report on its draft price determination of regulated retail electricity tariffs (with each tariff to be presented as a bundled price) for the period 1 July 2012 to 30 June 2013, on 30 March 2012.

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The Authority must publish a written notice inviting submissions about the draft determination. The notice must state a period (the *consultation period*) during which anyone can make written submissions to the Authority about issues relevant to the draft determination.

The Authority must consider any submissions received within the consultation period and make them available to the public, subject to normal confidentiality considerations.

(c) Final Price Determination

The Authority must publish a report of its final price determination on regulated retail electricity tariffs (with each tariff to be presented as a bundled price) for the period 1 July 2012 to 30 June 2013, and gazette the (bundled) retail tariffs, no later than 31 May 2012.

[redacted]

The Hon Stephen Robertson MP

Level 17 61 Mary Street, Brisbane

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ATTACHMENT

Determination of regulated retail electricity tariffs for the period 1 July 2012 to 30 June 2013

In making its price determination on regulated retail electricity tariffs for the period 1 July 2012 to 30 June 2013, the Queensland Competition Authority (the Authority) must have regard to the following:

- the general supply residential tariff (existing Tariff 11) is to be structured as an inclining block tariff;
- a new voluntary time-of-use tariff is to be established for residential customers;
- for farming and irrigation tariffs, targeted consultation should be undertaken with relevant stakeholders and industry groups, and consideration given to whether any transitional arrangements are needed for customers who may be required to move from one tariff to another;
- an appropriate tariff is to be established for customers who are supplied under the Rural Subsidy Scheme, or are located in a drought declared area;
- an appropriate tariff for street lighting customers in Ergon Energy's network area is to be established, and consideration given to whether any transitional arrangements are needed for customers on the existing tariff (Tariff 71); and
- consideration should be given to transitional arrangements for customers who are on obsolete and declining block tariffs.

In making its price determination, the Authority should note the following:

- From 1 July 2012, all existing and new non-residential customers in ENERGEX's network area, who consume more than 100 megawatt hours per annum, will be unable to access regulated retail electricity tariffs, and must be on a market contract;
- As at 1 July 2012, any customer who is on an obsolete or declining block tariff will be required to move to, or be transitioned to, an alternative regulated retail tariff;
- In relation to the establishment of a voluntary time-of-use tariff for residential customers, any customer who opts to transfer to this tariff, providing they have the appropriate metering, will be permitted to revert to the standard regulated tariff for residential customers in accordance with the requirements set out in the regulated retail tariff schedule.

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APPENDIX 2: STAKEHOLDER SUBMISSIONS

Table 1: Submissions in Response to the Issues Paper

	Organisation/Individual
1.	AGL
2.	Alinta Energy
3.	Australian Pensioners' and Superannuants' League Qld
4.	Australian Power & Gas
5.	Bundaberg Regional Irrigators Group
6.	Canegrowers Australia
7.	Chamber of Commerce & Industry Queensland
8.	Council on the Ageing Queensland
9.	Donhad
10.	Electrical and Communications Association
11.	Energex
12.	Energy Supply Association of Australia
13.	Ergon Energy
14.	Origin Energy
15.	QEnergy
16.	Queensland Consumers Association
17.	Queensland Council of Social Service
18.	Tableland Canegrowers and Mareeba District Fruit and Vegetable Growers Association
19.	Alan Telfer (Individual)
20.	TRUenergy

APPENDIX 3: ENERGEX'S PROPOSED (2012-2013) NETWORK TARIFFS

07 July 2011

energex
positive energy

Mr Gary Henry
Director Electricity and Gas
Queensland Competition Authority
Level 19, 12 Creek Street
Brisbane QLD 4001

Dear Mr Henry

In response to your letter dated 7 June 2011, ENERGEX has completed a review of its existing network tariff schedule to align with the objectives set out in the Ministerial Direction Notice received by the Queensland Competition Authority.

Attachment 1 to this letter includes ENERGEX's proposed 2012-13 network tariff structure and a matrix illustrating how these are intended to map against the expected regulated retail tariffs. In particular, the following changes from the existing 2011-12 tariff structure should be noted:

- the introduction of a new inclining block network tariff for domestic customers which will replace the existing flat rate network tariff;
- a new voluntary domestic time of use network tariff;
- the simplification of the business non-demand network tariffs;
- the simplification of the business demand network tariffs; and
- the simplification of the un-metered supply, street lighting and watchman lights network tariffs into a single network tariff.

Where ENERGEX does not have an existing specific network tariff, such as farming and irrigation tariffs, the most appropriate network tariff has been proposed. This is the same network tariff that would be charged to customers currently on this retail tariff.

Providing customers with options which encourage demand reduction during peak times is a key part of ENERGEX's network demand management strategy. A special reward option is proposed for customers who install air-conditioners which are demand management enabled. The details of this reward option are under development, however, it is expected to be a fixed annual payment to enrolled customers based on the long run marginal cost of demand.

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Attachment 2 contains ENERGEX's proposed structure of the new inclining block tariff and voluntary time of use tariff for domestic customers. This attachment also includes proposed changes to the business non-demand time of use tariff structure.

It should be noted that any changes to ENERGEX's network tariff structure must be approved by the Australian Energy Regulator (AER) and therefore should only be considered draft at this stage.

Yours Sincerely

[redacted]

Kevin Kehl
Executive General Manager Strategy & Regulation
ENERGEX Limited

Attachment 1

Tariff Mapping – Network Tariffs v Proposed Notified Tariffs

2012-13 Tariff Mapping — ENERGEX Network Tariffs / Notified Tariffs – Queensland Gazette

NTC	Description	Approx current cust. numbers	T11 Existing IBT – Domestic	T20 Existing Flat – Business	T22 Existing TOU – Business (Times to be reviewed)	T31 Existing Flat – Controlled Load 1	T33 Existing Flat – Controlled Load 2	T41 Existing Demand – min 75kW	T43 Existing Demand – min 400kW	T53 Existing Demand – HV	T71 Existing Public Lamps	T81 Existing Flat – Unmetered (Rename Required)	T91 Existing Watchman Lights	T11 (A) New TOU – Domestic	T62 Existing TOU – Farm	T65 Existing TOU – Irrigation	T66 Existing Flat/ Demand – Irrigation	T67 Existing Flat – Farm	T68 Existing Flat – Irrigation Drought Area
8400	IBT – Domestic	1,227,588	✓																
8450 New	TOU – Domestic	n/a – proposed tariff												✓					
8500 8600	Flat – Small Business Flat – Medium Business **Combined into one tariff**	73,932 (Small) 19,422 (Medium)		✓														✓	✓
8700 8800	TOU – Small Business TOU – Medium Business (Times to be reviewed) **Combined into one tariff**	7,265 (Small) 8,278 (Medium)			✓										✓	✓			
9000	Flat – Controlled Load 1	216,000				✓													
9100	Flat – Controlled Load 2	511,000					✓												
9600	Flat – Unmetered	n/a – volume charge only									✓	✓	✓						
8300	Demand – small	4,795						✓									✓		
8100	Demand – large	403							✓										
8000	HV Demand	29								✓									

Obsolete Retail Tariffs

Notified Tariff	Description
Tariff 21	Declining Block Tariff – Business
Tariff 37	TOU – Non – domestic heating
Tariff 63	TOU – Farm
Tariff 64	TOU – Irrigation

Other ENERGEX Network Tariffs

NTC	Description	Approx current cust. numbers	Proposal for 2012-13
9400	Flat – Streetlights	n/a – volume charge only	Network tariff to be removed – all unmetered supply is to be mapped to NTC 9600.
9500	Flat – Watchman lights	n/a – volume charge only	Network tariff to be removed – all unmetered supply is to be mapped to NTC 9600.
8200	Demand – medium	3,041	Network tariff to be removed – all existing customers transferred to Demand Small or Demand Large
Site specific	Demand/Capacity – Large Customers	488	Designed for customers > 4 GWh – ENERGEX network tariff only, not available in the gazette

Attachment 2

Proposed Tariff Structure

1. Proposed structure for the domestic inclining block tariff:

   Fixed Service Charge (c/day)
   \+
   Consumption charge (c/kWh) based on the following inclining block structure:

   Block 1 - 0 - 5000 (kWh per annum)
   Block 2 - 5001 - 10000 (kWh per annum)
   Block 3 - 10,001 + (kWh per annum)

   Note: we anticipate the above would be billed on a pro-rata basis

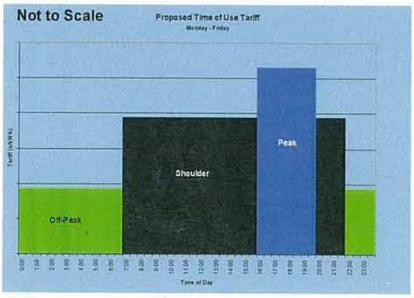
2. Proposed structure for the domestic time of use:

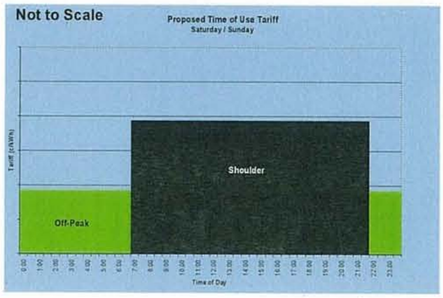
   Fixed Service Charge (c/day)
   \+
   Consumption charge (c/kWh) based on the following time of use structure:

   Monday to Friday
   - Off peak 10pm – 7am
   - Shoulder 7am – 4pm, 8pm – 10pm
   - Peak 4pm - 8pm

   Saturday/Sunday
   - Off peak 10pm – 7am
   - Shoulder 7am - 10pm
   - No Peak

   The proposed structure is illustrated below:





3. Proposed changes to the times associated with business non-demand time of use:

   Fixed Service Charge (c/day)
   \+
   Consumption charge (c/kWh) based on the following time of use structure:

   - Off peak 9pm – 7am
   - Shoulder 7am – 12pm
   - Peak 12pm – 9pm