



28 February 2008

**SUBMISSION ON QCA DRAFT DECISION ON THE  
BENCHMARK RETAIL COST INDEX FOR ELECTRICITY FOR  
2008-09**

**THE ASSOCIATION**

The Queensland Consumers' Association (the Association) is the peak body for consumer groups in Queensland. The Association's members work in a voluntary capacity. The Association is a member of the Consumers' Federation of Australia, the peak body for Australian consumer groups.

In recent years, despite its extremely limited resources, the Association has participated to the maximum possible extent in the work of the QCA on a range of energy related issues and in the Queensland government's consultation processes on the introduction of Full Retail Competition (FRC) which was the principle driver for the introduction of the BRCI approach towards annual changes in regulated electricity prices.

Unfortunately, due to resource constraints the Association was unable to participate in the consultation on the BRCI for 07-08 and to only a limited extent on the interim consultation notice on the BRCI for 08-09. Participation in the latter was a brief written submission and attendance at the subsequent stakeholder workshop.

The Association notes these constraints on its ability to advocate adequately for the interests of household consumers, to draw attention again to the lack of state-based funding for research and advocacy on behalf of Queensland's household consumers of energy. This is in marked contrast to the situation in NSW, Victoria, and WA where the state governments provide funding which allows existing or specially created research and advocacy bodies to employ expert staff to undertake such work. In NSW funding is provided for the Public Interest Advocacy Centre's Utility Consumers Advocacy Program, in Victoria for the Consumer Utilities Advocacy

Centre, and in WA for the Consumer Utilities Project based at the WA Council of Social Service

The Association is aware that the provision of state based funding for research and advocacy on behalf of household energy consumers is not a responsibility of the QCA. It is clearly a matter for the state government which, if it so desired, could provide funding from Consolidated Revenue or from consumers via charges on industry, or a combination of both. However, it is very relevant to the extent to which the QCA can obtain well informed input from household consumers during consultations on issues like the BRCI for 08-09. The Association submits that the QCA's equivalents in NSW, Victoria, and WA, and the development, implementation and review of public energy policies in general, benefit greatly from the inputs of their state funded consumer research and advocacy bodies.

The Association also notes that the Regional Electricity Councils, appointed by the Minister and run and funded by the electricity distributors, appear to have been unable or unwilling to engage in consultations with the QCA or the state government on high-level issues such as the BRCI and FRC.

### **THE SUBMISSION**

On this occasion, the Association was able to allocate sufficient resources to make a successful application to the National Electricity Consumer Advocacy Panel (NECAP) for funding to commission an expert consultant to prepare a consumer focussed review of the QCA's draft decision.

The Association is extremely grateful the NECAP for the funding, the rapid consideration of the application, and the recognition that BRCI issues have national relevance.

However, the Association notes that to obtain NECAP or other funding for this type of research and advocacy project, and to manage the project and use its outputs, requires considerable input from an organisation. Unfortunately, it is doubtful whether the Association has the resources to take a similar approach to future QCA and other energy consultation processes.

The consultant's review is presented in Appendix 1 of this submission. Due to the limited time available to undertake the work, the review deals only with the Cost of Energy, the NEM Load, and the Retail Margin.

However, the Association recognises that network costs are a major component of the BRCI, responsible for a large proportion of annual changes in the BRCI, and the potential for other treatments of network costs to contribute to the development of a better system for estimating appropriate changes to regulated retail tariffs. The Association hopes to monitor and participate in discussion on network charges and the BRCI during the coming weeks.

The submission consists of:

- Recommendations
- Overview
- Appendix 1: Review of the Queensland Competition Authority's Draft Decision on the Benchmark Retail Cost Index for Electricity 2008-09 – by Martin Chambers.

The contact person for this submission is: Ian Jarratt, ph: 07 37195475, email: [ijarratt@australiainmail.com](mailto:ijarratt@australiainmail.com)

## **RECOMMENDATIONS**

The Association endorses the following recommendations from the review presented in Appendix 1.

1. That the modelled LRMC is used as a stand- alone cost element to determine the cost of energy in accordance with the Regulations.
2. That any component developed to reflect actual contract prices or the impact of short term price volatility would be more appropriately incorporated as falling under the provisions of Section91G of the Electricity Act 1994, subsection (2) (d) “any other relevant costs the pricing entity considers relevant”.
3. That the figures #1 and #2 in CRA January 2008 report be labelled as illustrative only.
4. That QCA publish the LRMC results for the tariff year together with projections of LRMC in a five-year forward view with constant load profile.
5. That sensitivity testing of LRMC results based on use of different models is undertaken.
6. That fast start hydro/pumped storage generation be included as a fourth alternative in establishing the optimum plant mix.
7. That LRMC calculations be calculated using a probability methodology
8. That the time period during which hedge contracts are purchased is extend from 2 years to 4 years, and that hedge contract adjustments continue up to the preceding quarter before energy consumption.

9. That the level of hedge cover be extended to target where financially prudent between 98% and 102% of the forecast load for any ½ hour period.
10. That QCA investigate how, when and in what quantity forward hedges are secured by retailers who have a scale similar to that envisaged by the regulations.
11. That information should be provided by QCA regarding the number and total load of any loads taking supply direct from the Transmission system.
12. That the headroom allowance not be expressed as a percentage retail margin. Rather it should be treated as an absolute amount subject to (CPI – 0.5%)

The Association also makes the following recommendations:

The Queensland government should:

- take account of all suggestions by stakeholders for changes to the BRCI concept in total, changes to the BRCI's general methodology, and changes to the specific calculation of components of the BRCI, and be prepared to make any legislative changes required to achieve an efficient, equitable, and robust system for adjusting regulated electricity tariffs.
- monitor closely the impact of regulated tariffs and adjustments made based on changes in the BRCI or any other methods, on the profitability, efficiency, innovation, etc of the electricity retailers operating in Queensland. Such information should be made available to the public so that consumers can assess whether or not the processes are working in their interests.
- prepare, with appropriate prior consultation with stakeholders, a statement of its policy portfolio on energy matters, including the uniform tariff for electricity. The statement should include policy objectives and measures to assist lower income and other disadvantaged consumers to cope with increased electricity and other energy prices, including financial assistance, energy efficiency, and demand management measures.
- follow the example of the state governments in NSW, Victoria, and WA and provide funding from Consolidated Revenue or from consumers via charges on industry (or a combination of both), for an existing or a specially created research and advocacy body to employ expert staff to undertake such work on behalf of household consumers of energy.

## **OVERVIEW**

1. Regulated tariffs are extremely important for household consumers in all parts of Queensland because:

- in SEQ, the overwhelming majority of household consumers still choose to be on a regulated tariff or are unable to obtain a market contract.
- in Ergon's area, almost every household consumer is on a regulated tariff because in many areas the cost of supply is greater than the regulated tariff and the Queensland government provides subsidies to Ergon to make up the difference.
- in SEQ, which is the only area where it is profitable for retailers to offer alternatives to regulated tariffs (i.e. the only area where FRC is resulting in choice for consumers), they are the reference point for most tariffs offered with market contracts i.e. the offer is usually quoted as a % relative to the regulated tariffs.

In view of the above, it is obvious that the regulated tariffs and processes for estimating annual changes can have major effects on household expenses, especially for the poor and disadvantaged. In addition, there are obvious and major effects on inflation in terms of the need for consumers to try to increase their incomes to compensate for increases in electricity prices and the increased costs of goods and services when businesses increase prices to reflect higher electricity prices.

Recent statements by the Queensland government indicate that it too is concerned about the implication for consumers and the state's economy of unnecessarily high electricity prices. These statements are welcome. However, the Association notes also that higher regulated prices can also be beneficial to the Queensland government, for example they can reduce the subsidy paid to Ergon, have beneficial effects on the prices at which the government owned-generators can sell electricity, and encourage a greater uptake of market contracts.

In view of the importance of the BRCI process the government should:

- take account of all suggestions by stakeholders for changes to the BRCI concept in total, changes to the BRCI's general methodology, and changes to the specific calculation of components of the in the BRCI, and
- be prepared to make any legislative changes required to achieve an efficient, equitable, and robust system for adjusting regulated electricity tariffs.

2. In view of the above, it is vital that regulated tariffs are set at levels which reflect the costs of efficient operators, and do not result in excess profits, inefficiencies or failure to innovate. They must also be applied equitably, and be as stable and predictable as possible. Although, the BRCI change process is applied to regulated tariffs which historically were not necessarily set at levels which achieved the above objectives, the BRCI process for annual changes to tariff levels has the potential to play an key role in the future achievement of the above objectives.

Given the advent of FRC and the sale by the Queensland government, to the private sector of the retail operations of Energex, the Queensland government should monitor closely the impact of regulated tariffs, and adjustments made on the basis of changes in the BRCI or any other methods, on the profitability, efficiency, innovation, etc of the electricity retailers operating in Queensland. Such information should be made available to the public so that consumers can assess whether or not the processes are working in their interests.

3. The Association is concerned about the inadequate consultation which occurred prior to and after the decision to introduce a cost based approach to annual changes in regulated tariffs.

The Association notes that despite several requests during the FRC negotiations that there be consideration of the role of regulated tariffs in an FRC environment, this was not done. Indeed, the government announced the change to cost-based approach to annual changes in levels late in 2006 without any prior consultation with consumers.

Subsequently, there was minimal opportunity and time for consultation on the BRCI concept and details to be incorporated in proposed legislation and no consultation on matters in the Minister's letter of 16 March 2007 to the QCA.

Then there was only time for the QCA to have a short consultation process on the methodology and calculation of the BRCIs for 06-07 and 07-08.

The Association considers that these failures to consult either at all or adequately with consumers prior to the current process started by the QCA in 2007 on the BRCI for 08-09, have resulted in sub optimal outcomes.

4. The Association notes also that the BRCI process for adjustments to the regulated tariffs are only part of the policy mix needed by Queensland consumers in relation to energy matters and that it is essential for all policy objectives and instruments to be part of a well explained and justified comprehensive and coordinated policy portfolio. The Association is unaware of a single statement by the government of its policy objectives and portfolio on these matters and considers that the preparation such a statement, preceded by appropriate consultation with stakeholders should be a priority for government. Such a statement should include policy objectives and measures to assist lower income and other disadvantaged consumers to cope with increased electricity and other energy prices, including financial assistance, energy efficiency, and demand management.

The need for this portfolio will increase greatly if the cost-based approach to retail energy prices is maintained and prices increase further due to factors such as mandatory reductions in green house gas emissions from the energy industry.

Appendix 1.

**A REVIEW OF  
THE QUEENSLAND COMPETITION AUTHORITY'S  
DRAFT DECISION  
ON  
THE BENCHMARK RETAIL COST INDEX FOR ELECTRICITY  
2008- 09.**

Prepared by Martin Chambers for the

Queensland Consumers Association

From funding provided by the National Consumers Electricity Advocacy Panel

February 2008

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## SUMMARY OF RECOMMENDATIONS.

1. That the modelled LRMC is used as a stand- alone cost element to determine the cost of energy in accordance with the Regulations.
2. That any component developed to reflect actual contract prices or the impact of short term price volatility would be more appropriately incorporated as falling under the provisions of Section 91G of the Electricity Act 1994, subsection (2) (d) “any other relevant costs the pricing entity considers relevant”.
3. That the figures #1 and #2 in CRA January 2008 report be labelled as illustrative only.
4. That QCA publish the LRMC results for the tariff year together with projections of LRMC in a five-year forward view with constant load profile.
5. That sensitivity testing of LRMC results based on use of different models is undertaken.
6. That fast start hydro/pumped storage generation be included as a fourth alternative in establishing the optimum plant mix.
7. That LRMC calculations be calculated using a probability methodology
8. That the time period during which hedge contracts are purchased is extend from 2 years to 4 years, and that hedge contract adjustments continue up to the preceding quarter before energy consumption.
9. That the level of hedge cover be extended to target where financially prudent between 98% and 102% of the forecast load for any ½ hour period.
10. That QCA investigate how, when and in what quantity forward hedges are secured by retailers who have a scale similar to that envisaged by the regulations.
11. That information should be provided by QCA regarding the number and total load of any loads taking supply direct from the Transmission system.
12. That the headroom allowance not be expressed as a percentage retail margin. Rather it should be treated as an absolute amount subject to (CPI – 0.5%)

## INTRODUCTION.

This report has been prepared for the Queensland Consumers Association to assist it to make a submission on the QCA's draft decision on the BRCI for 2008-09.

The report has been prepared on the basis that QCA is obliged to undertake the assessment and calculation of the Benchmark Retail Cost Index BRCI strictly in accordance with the relevant Regulations.<sup>1</sup>

The report focuses on only two of the cost components of the BRCI – Cost of Energy and Retail Margin.

The material in this submission would desirably have been put forward for consideration during the shortened debate period leading to the setting of the Final Decision relevant to the 2007-08 Scheduled tariff period. It is hoped that just because the Final Decision relevant to 2007-08 passed unchallenged that this is not taken as assurance that the process and methodology was fully accepted.

A commendable feature of the Queensland Competition Authority (QCA) decisions has however been the extent that considerable detail and explanation has been made available in the public arena, in particular the comprehensive reports prepared by the consultants CRA. It has only been possible to undertake this assessment of the methodology because of the openness of the decision making process.

The draft decision regarding the 2008-09 BRCI has adopted several changes in methodology in comparison to that used for the original 2007-08 final decision. In this report comments are firstly submitted to reflect views relating to the methodology and approach taken regarding the 2007-08 BRCI final decision, before proceeding to comment on the 2008-09 draft decision.

It has been relatively pleasing that several of the issues of concern have now been addressed in this draft decision for 2008-09, and these have been acknowledged in this report.

The currently adopted methodology in establishing the cost of energy may still require further variation to better reflect what are considered to be the appropriate risk management policies of a prudent retailer having a substantial share of the Queensland market. The characteristics of this model retailer are set out in Section 109 of the Electricity Regulation 2006.

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<sup>1</sup> Minister's letter of 16 March 2007, attachment B, section 1 Background. "Division 3 sets out the methodology the QCA must adopt to calculate the benchmark retail cost index which is to be used to index tariffs to apply in the next tariff year."

“The assumption is that the entity has a proportion of customers, separated into customer types defined by their consumption level within particular consumption bands, that is substantially the same as the proportion for the bands for the whole Queensland customer base.

*Examples of customer bands ---*

- 88% domestic customers consuming less than 100MWh a year.
- 11% business customers consuming less than 100MWh a year
- 0.5 % of customers consuming 100 to 200 MWh a year
- 0.5% business customers consuming more than 200MWh a year.

It is also considered that the component relating to headroom<sup>2</sup> has been inappropriately converted into a percentage margin applied to the gross value of the retail cost, and as such provides retailers with a financial gain in part simply by the steep growth in the Network Charges that are essentially of a known magnitude and present little risk for the retailer. The treatment of ‘headroom’ as a percentage margin seems to be contrary to the Governments objectives: -

Attachment B to the Minister’s letter states –

“As specified in the Minister’s delegation notice to the QCA the Queensland Government had two objectives which the QCA must consider when exercising the delegated powers. These are to ensure the existing retail headroom in the tariffs at the date of the delegation are substantially maintained to ensure effective competition and that small customer reversion to regulated tariffs should not result in a retail entity incurring a loss for those customers”.

Timetable for determination of BRCI.

It must be noted that the public release of the QCA draft decision via e-mail circulation did not occur until 11.01am on Thursday 7<sup>th</sup> February, that is 6 days after the timetable shown in section 1.4. The closing date for submissions has been brought forward from the previous web site information that indicated “early in March” to 29 February. Consequently the time available for review and preparation of submissions has been reduced to 23 days and this is thought to be rather short given the changes proposed and complexity of the material.<sup>3</sup>

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<sup>2</sup> Minister’s letter of 16 March 2007, - “Headroom refers to the difference between cost of supply and the current tariff level”

<sup>3</sup> Electricity Regulation 100 (4) final consultation can not be less than 14 days after final consultation notice is published under subsection (1) (b).

## 1.0 COMPLIANCE WITH REGULATIONS.

The requirement set out in the legislation is that the BRCI for the year (B) be assessed as the value of the function  $R/L$  where R is the total benchmark retail cost for the year and L is all of the NEM load of the state for the year.<sup>4</sup>

R as the Retail Cost is required to be the sum of several components “benchmark retail cost elements” including cost of energy, network costs, retail costs and any other relevant costs the pricing entity considers relevant, each assessed relevant to the year of the BRCI application to the standard tariff.

The cost of energy is specified as the product of the Long Run Marginal Cost (LRMC) for the given year applied to the load profile and load magnitude of the preceding year.

Consequently the BRCI calculations for 2007-08 should be dealing with expenditures that essentially occur during 2007-08. Therefore in assessing the energy cost component it is submitted that only the final cost of hedges that are settled on the basis of physical supply during 2007-08 are appropriate for inclusion in the calculation.

The 2008-09 BRCI draft report introduces the use of electricity contract and spot prices combined in an arbitrary weighting with the calculated long run marginal cost to create a composite price in \$/MWh. This composite value is then used in the calculation of the cost of energy<sup>5</sup>. CRA state, “It is acknowledged that alternative weights could be adopted to reflect different views on the legislative intent in calculating the BRCI”. This appears to be clearly contrary to the specified approach of the legislation, which only refers to the long run marginal cost LRMC.

It is understood that the above approach has been adopted in seeking to observe the Governments stated intention that the BRCI should result in tariffs “indexed annually to reflect the changes in the actual cost of supply to customers these policy objectives should be met”.<sup>6</sup>

It is recommended<sup>7</sup> is that the modelled LRMC is used as a stand-alone cost element to determine the cost of energy in accordance with the Regulations.

A further recommendation<sup>8</sup> is that any component developed to reflect actual contract prices or the impact of short-term price volatility would be more appropriately

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<sup>4</sup> Electricity Act 1994, Reprint 7 of 1 July 2007. Division 3, Subdivision 3 - Benchmark retail cost index for relevant tariff year, section 91E.

<sup>5</sup> CRA report January 2008, pages 18 & 42.

<sup>6</sup> Ministers letter 16 March 2007, Attachment B Background

<sup>7</sup> Recommendation #1

<sup>8</sup> Recommendation #2

incorporated as falling under the provision of Section 91G of the Electricity Act 1994, subsection (2) (d) “any other relevant costs the pricing entity considers relevant”.

The introduction of a new source of data regarding actual contracts settled <sup>9</sup> (d-CyphaTrade) goes some way towards improving the accuracy of information being used for these important calculations, as it reports on actual transactions. However as noted later these financial futures contracts are for only small (1MW) load amounts. As such they would not attract the same level of competitive negotiation that could be expected for substantial blocks of annual flat load being purchased by a retailer holding a substantial share of Queensland total market load. The use of this data to estimate the actual contract rates of a large retailer’s portfolio is not supported.

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<sup>9</sup> CRA January 2008, page 34.

## 2.0 COST OF ENERGY

### 2.1 Calculation of LRMC.

The determination of the LRMC value and the calculation of the market bidding patterns by generators has been undertaken using CRA's proprietary model CEMOS<sup>10</sup>. This appears to place the QCA in a position of dependence on the continual use of the services of CRA, which is not consistent with prudent risk management.

While several other models would be available that are intended to produce essentially the same answer, it is suggested that steps be should taken to verify the extent of agreement or identify if variance does exist in the output results from different models. It would be unfortunate if a step change in such a fundamental item as the calculation of LRMC should be required some time in the future.

For example Frontier Economics in undertaking a consultancy for IPART in 2007

“Assessed the long - run marginal cost using its proprietary total cost optimisation model of the NEM (WHIRLYGIG)”<sup>11</sup>

These LRMC assessments took account of nominated NSW retailer's load profiles to arrive at retailer specific long run marginal costs.

The LRMC calculations have been based in part on a report published by ACIL Tasman in June 2007<sup>12</sup> regarding capital and operating costs for generation. The recent spate of new gas fired generation in Queensland provides possible evidence of changes in capital costs and fuel costs where private business interests develop power stations.

<u>Reference</u>	<u>Name</u>	<u>Size MW</u>	<u>Reported cost \$m</u>	<u>\$/MW \$m</u>
Origin Annual report	Mt Stuart	126	92	0.73
Origin Annual report	Dalby	630	780	1.24
Origin Annual report	Quarantine	120	80	0.67
AGL	Condamine	130	80	0.62

As this is information reported to shareholders it should be complete and accurate.

<sup>10</sup> CRA June 2008 report page 26

<sup>11</sup> IPART Promoting retail competition and investment in the NSW electricity industry. Final report and determination DET07-01 June 2007.

<sup>12</sup> CRA Report January 2008, page 28

Several of these values for open cycle and combined cycle gas turbines appear to be substantially lower than the values given by ACIL, quoted as<sup>13</sup>: -

	<b>2005</b>	<b>2007</b>
	\$'000/MW	\$'000/MW
CCGT	0.850	1.050
Black coal	1.400	1.700

It is recommended <sup>14</sup> that the figures #1 and #2 in the CRA January 2008 report <sup>15</sup> be labelled as illustrative only since the lines are not linear in practice (Fig 1) and the operating costs of each type of plant cover a bandwidth depending on unit size, proximity and cost of fuel source etc. So a large unit CCGT running on coal seam gas could have lower capital and operating costs than a smaller sized coal power station.

CRA have calculated the long run marginal cost in accordance with the Queensland BRCI conditions but have revised the assumptions between the May 2007 report and the January 2008 report.

The following table therefore summarises and demonstrates that the value of LRMC even for a given year when capital costs and fuel costs should be relatively uniform can vary under different regional scenarios by over \$10/MWh or almost 25%.

**Table – Long run marginal cost values.**

	<u><b>2006 –07</b></u>	<u><b>2007 –08</b></u>	<u><b>2008 –09</b></u>
	<u><b>\$/MWh</b></u>	<u><b>\$/MWh</b></u>	<u><b>\$/MWh</b></u>
CRA May 2007 <sup>16</sup>	43.30	44.00	
CRA Jan 2008 <sup>17</sup>		41.21	39.71
IPART - Country Energy <sup>18</sup>		42.40	42.50
IPART – Energy Australia		49.90	50.10
IPART – Integral Energy		52.00	51.90

It is recommended <sup>19</sup> that QCA publish the results of the LRMC calculations for Queensland undertaken each year and the projections of what the LRMC will be for a five - year forward view if load profile remains constant. This would assist the

<sup>13</sup> CRA January 2008 page 31

<sup>14</sup> Recommendation #3

<sup>15</sup> CRA January 2008, pages 21 & 22

<sup>16</sup> CRA May 2007 report, Table 5, page 30

<sup>17</sup> CRA January 2008, Table 4, page 32

<sup>18</sup> IPART Promoting Retail Competition, final report page 70 June 2007.

<sup>19</sup> Recommendation #4

development of an understanding of the extent that the BRCI might change in forthcoming years. This work should also include sensitivity testing of LRMC results through the use of alternative models<sup>20</sup>.

Customers contemplating a change to contract rates should be entitled to information regarding the potential price path of regulated tariffs and consequent account billings to enable them to make an informed decision regarding the potential risks and benefits from a transfer. The necessary network price information is prepared for a five-year period so this covers the two dominant cost components making up the BRCI. While a 5-year forward window of approved network prices is not always available, initial submissions for future periods are lodged several years in advance.

The IPART determination covering the period 2007 to 2010 does for example provide LRMC values for these three years.<sup>21</sup> It is important to note that the LRMC values for the three retailers remains very stable over this three-year period.

## **2.2 Aspects of LRMC determination**

The changes outlined in Section 3 of the CRA report for January 2008<sup>22</sup> regarding LRMC calculation are generally an improvement compared to the earlier approach. Changes noted include: -

- Taken as a stand-alone estimate to supply the load – supported.
- Adoption of the dynamic approach – supported.
- The LRMC is modelled only based on three forms of generation, Coal fired, Combined cycle gas turbine and Peaking. It does not seem to be specified what form of peaking plant is intended. It is assumed that open cycle gas turbine is intended.
- It is recommended<sup>23</sup> that the modelling should incorporate fast start hydro stations as they have a different capital cost – marginal cost structure that would be similar to the coal stations.
- Single estimate modelling. It is suggested that the probabilistic approach that provides sensitivity information to alternative scenarios of load factor and total load would be preferable.<sup>24</sup> The probability approach can still be used to adopt a single point value for incorporation in the BRCI.
- Recognises the load flow capabilities of the Transmission interconnections to the rest of NEM – supported.

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<sup>20</sup> Recommendation #5

<sup>21</sup> IPART Promoting Retail Competition, Table 6.3 page 79.

<sup>22</sup> CRA January 2008, page 25

<sup>23</sup> Recommendation #6

<sup>24</sup> Recommendation #7

The legislation requires that in the event of a “materially different approach to the calculation of the BRCI for the coming year the index must also be recalculated for the current year using the new approach in order to establish the percentage increase between the two years based on the new approach”<sup>25</sup>.

As the whole process of determining the BRCI is still evolving it is considered that it would be useful to provide a consistent set of calculations going back to the start of the scheme.

### **2.3 Time period of hedge purchasing.**

The CRA report of May 2007 recognises that a prudent retailer with a sound risk management policy will undertake forward covering of their expected load position by means of a series of hedge contracts<sup>26</sup>. These hedge contracts are typically quoted for a full year or per quarter year flat load, or for peak /off peak load.

To underpin this forward contracting of load, a progressive forecast that projects firm and probable load arising from contract and non–contract customers has to be prepared. The retailer as envisaged by the legislation / regulations is assumed to have a portfolio of load that has a proportional mix of customers and hence load that matches the overall Queensland mix of customers<sup>27</sup>. This load would include a number of major customers that take supply direct from the Transmission system. While the direct from Transmission system load is excluded in establishing the denominator of the BRCI formula, the model retailer must be assumed to be serving a proportionate number of the Queensland’s major customers<sup>28</sup> and thereby gaining the beneficial load factor of most of these loads.

For the low in number but very large in size major customers, such as the coal mines supply contracts are probably written for three to five year periods, while smaller customers typically might sign a two or three year contract.

The outcome from this is that the model retailer will have a forward load forecast that extends at least three to four years ahead. This forecast load would be progressively covered by hedge contacts as each individual major or medium sized contract is secured and signed off. Certainly a major contract with for example a coalmine would be substantially hedged by taking out flat load hedge(s) of appropriate MW.

It is instructive to note that in the Energex annual report of 2005-06 reference is made to “ A series of long-term hedge contracts was also employed throughout the year to minimise risk by managing exposure to the volatile pool price during periods of peak

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<sup>25</sup> QCA Feb 2008, page 5

<sup>26</sup> CRA May 2007 report, page 31

<sup>27</sup> Section 109 Electricity regulations 2006.

<sup>28</sup> Electricity Regulation 2006, Section 109.

demand”<sup>29</sup> and “The 10 - year commitment will secure electricity risk management products and Gas Energy Certificates (GECs) required under the Queensland government’s 13% gas Scheme”<sup>30</sup>. This forward contracting to secure new power station development such as the Braemer Power Project Pty Ltd gas fired power station could be considered typical of the PPA style contracts associated with private power station development. Energex entered into this 10-year contract in April 2004 even though first supply was not expected until May 2006. Several other gas-fuelled power stations have been commenced and commissioned in recent years. To secure the necessary financial approvals evidence of long term contracted advance sales for the electricity output is usually required.

Recent and relevant examples include transactions by Origin and AGL Energy where the corporate company is substantially vertically integrated and the retailer trades in electricity, natural gas and LPG.

- 1/2/2008 Origin will expand Mt Stuart power station (Townsville) by 126 MW to provide peak capacity by mid 2009.<sup>31</sup>
- 2007 Origin announced construction of 630 MW combined cycle power station located near Dalby and due to be commissioned by December 2009<sup>32, 33</sup>
- 14/11/2007 AGL and Queensland Gas Company issued statements to the ASX to the effect that AGL has entered hedge contracts for 66% of the output from the QGC Condamine CSG fuelled 130 MW power station.<sup>34</sup>

AGL states “ “By setting a three year price for 66% of the capacity, QGC has essentially locked in its financing costs for the entire plant for this period and is well positioned to take advantage of any price volatility with the residual capacity.

For AGL this transaction provides a near base load hedge and complements our existing Queensland portfolio which includes dispatch rights to Oakey peaking and Yabula base to intermediate power stations and a large portfolio of financial hedges purchased prior to and shortly after the Powerdirect acquisition”<sup>35</sup>

- Origin says in its 2006-07 annual report: -

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<sup>29</sup> Energex Annual Report 2005-06 page 6.

<sup>30</sup> Energex Annual report 2004-05 page 12

<sup>31</sup> ASX Media Release by Origin 1 February 2008

<sup>32</sup> ASX media Release by Origin 1 February 2008

<sup>33</sup> Origin Annual Report for 2006-07

<sup>34</sup> AGL and QGC Media reports to ASX, 14 November 2007.

<sup>35</sup> AGL Media Release to ASX 14 November 2007.

“Despite an average increase in electricity pool prices of around 60% this year, our cost of goods sold in the electricity business increased by only 2% compared with last year”

Consequently it is considered that the assumption made by CRA that a two-year purchasing period be adopted <sup>36</sup> is considered quite inappropriate. In their own discussion on this point CRA states that: -

“On the basis that a prudent retailer purchases its contracts over time, thus slowly building up the contract position over a period of two years or more (rather than trying to purchase all its contracts in one big block), it would be expected that for the period during which contracts were purchased for 2006-07 there was less uncertainty about future market prices than during the period when the prudent retailer would be purchasing contracts for 2007-08”<sup>37</sup>

It is also possible that the selection of two years was somewhat a matter of convenience in that: it matched the approach adopted by CRA regarding Victorian tariffs -

“A benchmark approach was used to estimate swap contracts using the AFMA data, with the contracts assumed to be purchased over a 24 month period in advance of the year for which the energy is being purchased” <sup>38</sup>

It is considered that a retailer will commence establishing forward hedge cover at least four (4) years ahead of the required supply date <sup>39</sup>. In addition hedge contracting to progressively achieve close to 100% cover will continue at least up to the quarter preceding the period of supply. This adjustment occurs as load forecasts are updated on a weekly basis taking account of loads secured or lost and expected seasonal variations.

The churn rate on residential customers is quite modest with the QCA data <sup>40</sup> indicating only 58,350 small market customers representing 3.1% of the total small customers have adopted a transfer. While this number is cumulatively increasing over time the percentage is still quite small. Consequently given that the model retailer holds a substantial proportion of the Queensland load there will be gains and losses of residential customers.

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<sup>36</sup> CRA report January 2008 page 38

<sup>37</sup> CRA May 2007, page 32

<sup>38</sup> CRA report May 2007, Appendix B example B1 concerning CRA project for Victorian tariffs from December 2003

<sup>39</sup> Recommendation # 8

<sup>40</sup> QCA publication “market and Non-Market customers as at 30 September 2007.

The net effect on load forecast is probably quite minimal, and not impact on level of hedge contracting.

A problematic issue has developed regarding the nature of the model retailer envisaged in Section 109 of the Electricity Act. This retailer is specified as only operating in the electricity retail market and only in Queensland. In practice the two retailers who acquired Sun Retail 890,000 customers<sup>41</sup> and Powerdirect customers are multinational, multi fuel and vertically integrated. As such they are in a strong position to negotiate energy purchase costs that are lower than the AFMA or d-cypha data would suggest.

Consequently the criteria used for purchasing hedge contracts for the Queensland load<sup>42</sup> is considered to be flawed. Our interpretation of Table 5 is that loads in excess of the 90<sup>th</sup> percentile peak load and the 80<sup>th</sup> percentile of the off-peak load would only be covered by \$300 price caps.

Using figure 3<sup>43</sup> and taking Q1curve, contracts would be taken for 8500 MW of load in the peak period, leaving an exposure of up to 1000MW for 10% of the time, and using figure 4 contracts would be taken for 7000 MW of off-peak contracts in Q1 with potential exposure of 1700 MW over 20% of the time.

It would be helpful to have this intended hedge contracting position explained further.

This adjustment of hedge position will include selling of hedges to other retailers as well as purchasing from generators etc. Most large retailers will have an active trading operation that maintains some depth to the market by holding both buy and sell positions for different time periods.

It is considered that a prudent retailer would seek to maintain their hedge cover within a range of 98% to 102% of the forecast load, with consequent minimal purchasing of energy at the pool (spot) price. This would involve purchase of hedge contracts for other than a full quarter<sup>44</sup>.

It is recommended<sup>45</sup> therefore that this matter of how, when and in what quantity forward hedges are secured be appropriately investigated by QCA, and a more appropriate purchasing policy than the current 1/24<sup>th</sup> of expected load be hedged per month be adopted.

In particular it should be assessed whether there are periods throughout the year when the level of contracting is intensified. It could be for example that most large contracts have been structured to start / finish either in accordance with the calendar year or

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<sup>41</sup> Origin Annual Report 2006-07 page 21.

<sup>42</sup> CRA report January 2008, Table 5, page 37.

<sup>43</sup> CRA January 2008, page 36.

<sup>44</sup> Recommendation #9

<sup>45</sup> Recommendation #10

financial year, with peaks in securing hedge contracts taking place in the March – April and September – October months. If this was correct it is likely that the Cost of Energy calculation could be significantly changed to a lower value as forward price perceptions may change in the months when NEM load is generally lower.

In addition the traders for a retailer are more likely to respond to “opportunistic” offers made by generators who are seeking to develop their own hedge positions, or to underwrite a proposed capacity expansion.

## **2.4 Adjustment factors to reflect market hedge contract and pool purchasing cost.**

The methodology proposed by CRA relevant to the 2007-08 and the 2008-09 BRCI calculations have incorporated two different approaches and several different data sources to incorporate a component that reflects the volatility in market prices compared to the LRMC.

QCA has determined that account should be made of the acknowledged difference between the calculated LRMC and the actual cost of hedged load<sup>46</sup>.

The methodology adopted for the 2007-08 BRCI introduced an additional factor to take recognition of the variation between the LRMC and the hedge rates that the retailer faces to secure load coverage. This assessment was based on an approach adopted by IPART in NSW in preparing their retail tariff findings<sup>47</sup>.

The method adopted establishes a weighted average cost of contracts that a prudent retailer would purchase contracts for the 2007-08 year was calculated at \$38/MWh<sup>48</sup>. CRA then applied a “factor to account for energy costs” of \$9.0 /MWh for 2006-7 and \$12/MWh for 2007-08<sup>49</sup>, based on material prepared by Frontier Economics for IPART.

For the 2007-08 period the initial assessment published in May 2007 was that this adjustment value was \$12.00/MWh, however the Final Decision published in June 2007 adopted a much higher value of \$13.50/MWh.<sup>49</sup> This resulted in the BRCI increase changing from 9.98% to 11.37%<sup>50</sup>. In essence a very high weighting was incorporated into the BRCI calculation regarding the short to medium term price volatility created by changes in the NEM system supply - demand balance, both actual prices and perceived potential supply shortages.

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<sup>46</sup> QCA Draft decision February 2008 page 12.

<sup>47</sup> CRA May 2007 report, section 3.10 page 30

<sup>48</sup> CRA report May 2007 page 32.

<sup>49</sup> CRA report June 2007 page 10.

<sup>50</sup> CRA report June 2007 page 19.

The cost of the hedged load has been taken from data published by Australian Financial Markets Association (AFMA). AFMA provide a service of collating submissions made by its members regarding the price \$/MWh appropriate for a flat 10MW fixed electricity swap. This data, while useful to market participants does not have a strong statistical base. The quorum is only four (4) contributors for the Queensland market, and as noted in the CRA June 2007 report, Page 10 footnote 8 AFMA does not publish data for each week because this quorum number is not achieved. With these low numbers of contributors it would be quite possible for the values to be somewhat manipulated, and AFMA seek to stabilize the published values by excluding any submitted prices that are more than one standard deviation above or below the mean value. Reference AFMA web site.

A different approach has been proposed for the calculation of the 2008-09 BRCI that no longer relies on the IPART findings. Instead a value representing the spot market prices using load weighting appears to have been adopted.<sup>51</sup>

It is also noted that in both the AFMA and D-Cypha methodologies rates are quoted independently of the contracting party's credit ratings, business alliances, or recognising the size of load being contracted.

IPART in June 2007 made very relevant comments regarding the use of both AFMA and d-cypha trade data: -

“The Tribunal also considered whether, in undertaking these annual reviews, it would assess significant movements in market based electricity purchase costs using publicly available sources of price information or expert advice. One source of information is the AFMA Curve. However, the AFMA Curve is an industry price survey, and therefore represents each participant's view of where the future market lies (as opposed to actual trading prices). This means it is open to manipulation.

Another source of information is d- Cypha, which represents eight futures products based on both base load and peak-period electricity bought and sold over a calendar quarter in the NEM in NSW, Victoria, South Australia and Queensland. However, while trade has increased significantly in recent months, in absolute terms d-Cypha trade is relatively small and, therefore, at this time does not adequately represent the contract market.

The Tribunal concluded that, for the purpose of setting the market –based electricity purchase cost allowance, the use of expert advice is superior to relying on the publicly available information.”<sup>52</sup>

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<sup>51</sup> CRA report January 2008 page 41.

<sup>52</sup> IPART Promoting retail competition and investment in the NSW electricity industry, page 86.

As a further consideration it should be reasonable to assume that the regulation model retailer who holds a substantial proportion of the Queensland load would be in a relatively strong negotiating position, and as such a competent trader could be expected to achieve contract prices typically \$1.00 / MWh to \$1.50 / MWh lower than the AFMA indicated rate.

All Queensland customers will be pleased that the recent heavy rains have provided a suitable increase in water storage for the restrictions on Tarong Power station and Swanbank power station to be lifted, so that they can operate at full installed capacity. It is also hoped that the Split Yard creek pumped storage hydro station at Wivenhoe is now able to provide a full quota of very quick start peaking capacity. All of these changes impact favourably on the forward contract prices and NEM pool prices.<sup>53</sup> A basic comparison of the average RRP daily prices for the first three weeks of December 2007 with the prices for the first three weeks of February 2008 indicates that the pool prices in February have dropped by perhaps \$6.00/MWh

A somewhat more transparent and appropriate approach in preparing the BRCI calculations would be to treat this market price variation between the LRMC and actual hedge prices as complying with the description “any other relevant costs the pricing entity considers relevant”<sup>54</sup>. The methodology of 2007 and 2008 create a dollar value per MWh that is not reflective of the LRMC as required by the legislation. The term reflective surely means more than incorporating LRMC as one of its components. With the adopted 50% -50% weighting the value derived is equally “reflective” of the assumed market price indicator chosen.

It is recommended<sup>55</sup> that this Market price adjustment factor should be incorporated in the determination of the BRCI as forming an input under the provisions of “ any other relevant costs the pricing entity considers relevant<sup>39</sup>”.

Based on the IPART findings it would appear that a properly researched experts advice regarding the appropriate level of contract price for the scale of load per quarter should be obtained.

A possible approach<sup>56</sup> would be to firstly establish the LRMC for each quarter over the relevant four- year period, and then apply a bandwidth of say \$4.00 below and \$6.00 above these values. Secondly establish the appropriate contract price per quarter.

Establish the absolute differences between the contract prices and the outer bounds of the LRMC values for each of the 16 quarters.

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<sup>53</sup> See comment QCA page 2

<sup>54</sup> Electricity Act 1994 Section 91G, subsection (2) (d)

<sup>55</sup> Recommendation #2 repeated.

<sup>56</sup> Submitted as example of alternative approach to determine market variation factor.

Apply this value difference in \$ / MWh to the appropriate volume of hedge load contracted for the quarter.

**Possible market price adjustment factor.**

Example only.

Yr / Quarter	LRMC	Lower band -\$4	Upper band +\$6	Market contracts	Difference value \$/MWh
1/Q1	41.00	37.00	47.00	48.00	1.00
1/Q2	41.00	37.00	47.00	46.00	0.00
1/Q3	41.50	37.50	47.50	55.00	7.50
1/Q4	41.50	37.50	47.50	53.00	5.50
2/Q1	41.50	37.50	47.50	50.00	2.50
2/Q2	41.50	37.50	47.50	45.00	0.00
2/Q3	42.10	38.10	48.10	43.00	0.00
2/Q4	42.10	38.10	48.10	43.00	0.00
3/Q1	42.10	38.10	48.10	70.00	21.90
3/Q2	42.10	38.10	48.10	45.00	0.00
3/Q3	40.80	36.80	46.80	45.00	0.00
3/Q4	40.80	36.80	46.80	38.00	0.00
4/Q1	40.80	36.80	46.80	35.00	-1.80
4/Q2	40.80	36.80	46.80	40.00	0.00
4/Q3	39.90	35.90	45.90	47.00	1.10
4/Q4	39.90	35.90	45.90	49.00	3.10

In establishing the complete definition of this “other relevant cost” provision could be made that since it is at the QCA discretion, that it may or may not be fully applied in any given year. The justification for this is that the regulation only requires that the retailers “headroom” remain *relatively stable*<sup>57</sup>, not that it must be a matter of certainty for the retailer. The setting of the actual bandwidth round the LRMC will need assessment after suitable modelling. The intention is that for quarters where the market contract price is within fairly close values to the LRMC then no additional adjustment to retail costs is needed. The variation would form part of the retailers risk margin and form a

<sup>57</sup> Minister’s letter of 16 March 2007, page 2.

performance incentive to achieve good contract priced hedges. Any substantial price increase does however flow through to the calculation of the retail cost for that quarter.

Based on the discussion above regarding the appropriate period during which our model prudent retailer would be purchasing hedge contracts, and our proposal that this should be at least over a four year period the impact of a relatively short term hedge price volatile period would be smoothed over four years rather than the current two years. Consequently it would be necessary to determine the 2008-09 BRCI using data from the four preceding years; that is 2004-05, 2005-06; 2006-07 and 2007-08.

## **2.5 Demand –pool price relationship.**

In their discussion in section 3.3.3 CRA <sup>58</sup> comment “spot prices are correlated with demand. This means that periods of high demand typically coincide with high spot prices, particularly at the more extreme (higher demand) range – meaning that the risks of being uncovered due to high demand are multiplied”.

This is perhaps a basic view of the price relationship. The Queensland market has experienced many occasions when prices have peaked during the Saturday / Sunday period when overall load is generally lower. The cause was established that mid-merit order plant was being taken off line for weekend maintenance activities, and a shortage of alternative quick start plant if a load increase outside forecast values occurred. The spot price is more about a picture of the 5-minute supply demand balance and the available rate of change in generation capacity over the next 5 minutes.

## **2.6 Cost of Energy Components summary.**

In summary of the material set out above it is submitted that the BRCI calculation must conform to Section 91G of the Electricity Act 1994, so should be calculated as follows.

1. Long run marginal cost calculated for relevant tariff year X NEM load of the State That is exactly as set out in Section 92 of the Electricity Act.
2. Network costs
3. Retail costs
4. Relevant adjustment costs for the Retail Costs comprising a factor for the variation in contract hedge prices for each quarter of the purchasing period (4 years) and the then current LRMC X contracted load volume for that quarter. This may include the use of a “bandwidth” approach to the LRMC. This should avoid double counting if LRMC increases or decreases.

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<sup>58</sup> CRA January 2008 page 34

### 3.0 NEM LOAD

The CRA report for January 2008 explains that the load specified by the Electricity Act is restricted to: -

“ The pricing entity’s view of the sum of the total loads supplied at each transmission connection point to a supply network within the State, as adjusted for any matter prescribed under a regulation”<sup>59</sup>

It is recommended <sup>60</sup> that transparency of disclosure should nominate the end-user loads (by name only) that have been excluded from the calculation of this NEM load. While most traditional large generators are connected directly to the Powerlink network, some of the newer and smaller (up to 150MW) power stations may not have a direct transmission network connection point.

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<sup>59</sup> CRA January 2008 report page 11.

<sup>60</sup> Recommendation #11

## 4.0 RETAIL MARGIN

The Minister's direction of March 2007 refers to the "headroom allowance" and this is defined by CRA Page 14 of May 07 Report as the margin between revenue received and retail costs. The Minister's document states that this value shall remain "relatively stable". The Ministers direction does not specify the margin as a percentage, this is an assumption taken by CRA for the relative convenience that a percentage margin is typically used in other regulatory findings.

An alternative interpretation based on the Minister's directions would be to treat the headroom allowance as an absolute value. A reasonable commencement point would be to assess the levels of retail profit shown in the accounts of Energex and Ergon Energy for the years preceding the commencement of FRC. The profit levels of these two retailers would be in excess of the expected profit from a Retailer only operating in the Queensland market, as they both have substantial loads in the other regions of the NEM. The extent of their load located outside of Queensland would however be largely offset by the contestable load that other retailers have progressively secured in the Queensland market.

The annual report material available shows the following EBIT profit values for the two Queensland GOC retailers.

All values in \$million

	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>
Energex Retail <sup>61</sup>	\$56.0	\$62.0	\$73.5
Ergon Energy Retail <sup>62</sup>	\$28.3 <sup>63</sup>	\$59.6	\$59.0
Total EBIT	\$84.3	\$121.6	\$132.5

These retailers were successfully operating in NSW, Victoria and South Australia while still jointly holding the dominant proportion of total Queensland load. It seems to be quite excessive that the BRCI calculation for 2006-07 should have been assessed at \$201.6 million. The proposed retail margin for 2008-09 of \$232million is providing a substantial boost to the retailers at a time when constraint is being urged on customers,

It is recommended<sup>64</sup> that instead of continuing the generous 5% retail margin<sup>65</sup>, that QCA adopt an absolute dollar approach to the headroom factor.

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<sup>61</sup> Energex Retail figures include Gas trading and sales as well as interstate electricity sales.

<sup>62</sup> Ergon Energy Pty Ltd and controlled entities results.

<sup>63</sup> Ergon Energy Annual report Page 23, "Earnings before Interest and Tax for retail performance. Profit after income tax equivalent was \$16,919,000, page 77.

<sup>64</sup> Recommendation #12

<sup>65</sup> QCA Feb 2008, page 2

Further the Minister's requirement is that the headroom be maintained as "relatively stable"<sup>66</sup> However retail operations of all forms by their nature are expected to have some fluctuation from year to year, so it should be quite reasonable that Electricity retailers experience some variation, that still conforms to the meaning of the wording "relatively stable". It is suggested that relatively stable could at least span between +2% and +6% growth in absolute profit per annum.

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<sup>66</sup> CRA January 2008 Page 33