



Submission to the
Queensland Competition Authority
on the 2007-08
Benchmark Retail Cost Indexation

10 April 2007

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Executive Summary

This submission summarises Origin's interpretation of the Benchmark Retail Cost Index (BRCI) methodology as recorded in the relevant legislation and the Delegation of the Minister's powers to the QCA. It represents our preliminary response to the Interim Consultation Notice issued by the QCA in April 2007. Given the important and complex issues raised in the Consultation Notice we will further develop our response and elaborate on specific issues raised by the QCA over the next week.

Based on the legislation and Delegation, including the requirement that retail competitive margin be held relatively constant, we have made a number of assumptions (set out below) that we believe are also relevant to the QCA analysis. Table 1 summarises Origin's calculation of the BRCI based on these assumptions:

- network costs reflect the AARR figures in the respective regulatory determinations with the inclusion of additional cost pass-throughs and no account taken for over and under-recoveries;
- Ergon's AARR is NPV smoothed over the Determination period;
- ENERGEX's FRC cost pass-through application has not been included;
- the Powerlink AARR is derived from the current AER draft decision;
- the assumed energy cost for 2006-07 is \$50/MW.h which has been escalated in 2007-08 by 13% as discussed in section 5.1. Total energy cost has been calculated based on the Queensland NEM load figures included in Table 1;
- retail cost of serve is only increased to take account of wage escalation and retaining market share of customer numbers;
- retail margin remains constant as a percentage of revenue; and
- energy demand forecasts from the QCA Determination in 2005 have been used as proxies for the actual Queensland loads.

Table 1: Benchmark Retail Cost Indexation

		2006-07	2007-08
Ergon Energy	(\$m)	676	766
ENERGEX	(\$m)	699	802
Powerlink	(\$m)	363	403
Total Network Cost	(\$m)	1,738	1,971
Energy Cost	(\$/MW.h)	50.00	56.50
Total Energy Cost	(\$m)	1,748	2,045
Retail Costs	(\$m)	138	156
Retail Margin	(%sales)	5%	5%
Total Cost	(\$m)	3,805	4,381
Old NEM Load	(GW.h)	34,955	36,194
BRCI	\$/MW.h	108.85	121.04
Change	(%)		11.19%

1. Background

Origin Energy (Origin) is pleased to make submission to the Queensland Competition Authority (QCA) regarding the indexation of Queensland's notified electricity prices for 2007-08.

Origin is fully supportive of the Queensland Government's policy intent of ensuring that regulated retail tariffs are adjusted annually to reflect any change in the cost of supplying electricity to customers in Queensland. It is vital given the introduction of full retail contestability (FRC) on 1 July 2007 that tariffs:

- promote effective competition in the mass market of South East Queensland while encouraging further competition in the rest of Queensland; and
- ensure any changes to cost structures in the energy market are accommodated to avoid any deterioration in cost-reflectivity.

Consequently, Origin welcomes the objectives of the benchmark retail cost index (BRCI), as stated in the delegation of powers¹ (Delegation) to the QCA, being:

- ensuring the existing retail headroom in the tariffs at the date of the delegation are substantially maintained; and
- to avoid the policy of customer reversion to regulated tariffs resulting in the retail entity incurring a financial loss to supply those customers.

Origin acknowledges that the prescribed methodology for the BRCI has sufficient flexibility to allow the QCA to practically meet these objectives.

Origin additionally supports the rigorous and consultative process planned for the indexation of the notified retail tariffs in 2008-09 as outlined in the *Electricity Amendment Regulations 2007* and the Delegation. However, given the current time constraints, we also accept the need for a truncated process for 2007-08 as outlined by the QCA. Given this, however, we note the:

- importance of strict adherence to the timetable so that notified electricity prices can be revised before the start of FRC; and
- equally important requirements for the QCA to undertake sufficient robust analysis and consultation to ensure that retail prices in 2007/08 (a critical year from an FRC perspective) reflect the BRCI objectives.

In this context, Origin also notes that the BRCI is a relatively blunt instrument to achieve the stated policy objectives. There are several aspects of the BRCI, for instance, that do not at face value capture the actual costs facing retailers and therefore risk undermining the achievement of the policy intent.

This has two implications. First, where there are questions of interpretation, these should be considered from a broader policy perspective rather than from a narrow more literal interpretation. Secondly (and consistent with our concerns), Origin intends to continue to pursue legislative changes to the BRCI to better achieve the policy objectives.

However, this submission has focussed on achieving the policy intent using the BRCI methodology as it currently stands.

¹ Certificate of Delegation: Under section 90(3) of the Electricity Act 1994 (as amended)

2. Networks Costs

Under the *Electricity Act 1994* (as amended), the network costs are to include both the distribution and transmission network costs for Queensland customers that are connected to distribution networks.

Origin recognises the QCA's role in setting the Queensland distribution network prices and their experience in these matters. However, when examining the treatment of network costs in the BRCI methodology, there are many options with regard to which cost figures are used and they have differing and often significant impacts.

This section sets out Origin's view of the calculation of network cost elements in order to meet the intent of the Government's retail tariff policy.

2.1 Average Annual Revenue Requirements (AARRs)

Origin believes that the network cost in the BRCI should reflect the Ergon, ENERGEX and Powerlink AARRs as determined in the respective QCA or Australian Energy Regulator (AER) regulatory determinations.

It is necessary to use the AARR figures rather than actual revenue figures in this instance as:

- all Queensland networks are currently regulated using a Revenue Cap. Using this form of regulation de-links total costs from actual energy consumption resulting in the actual average network price over the period being unknown. Any variance in energy and demand or forecast error in network prices results in an over or under-recovery of network charges compared to the AARR which is corrected in following years. Using forecast annual network costs that take into account previous years' under and over-recoveries will distort the impact on the BRCI; and
- the BRCI is being calculated in the midst of a regulatory period. As a result, including previous year's variances will reduce or increase expected retail headroom which would be in conflict with the government's policy intent.

As such Origin believes that the network costs used in the BRCI should be based on the networks' AARRs as determined by the regulators.

2.2 Ergon Network Costs

Origin strongly supports the conditions of the Delegation requiring the QCA to recalculate Ergon Energy's AARR for the period 2005-06 to 2009-10 so that Ergon's network costs increase by the same percentage year on year.

The NPV smoothing of Ergon's total revenue requirements will provide AARR figures that can be meaningfully used in the BRCI to fulfil the intent of the Government policy. This resolves the problem that the growth in Ergon's network charges occurred in the first year of the regulatory determination period but the indexation methodology is only commencing during the period.

Origin's calculation of Ergon's NPV smoothed AARR for the period is shown in Table 2 and demonstrates the impact of the smoothing on the annual increase in network costs over the period.

Note that in performing this NPV smoothing, Origin has used:

- a discount rate of 8.50% - the Weighted Average Cost of Capital (WACC) calculated by the QCA in their 2005 Determination²; and
- an AARR of \$525.9 million for 2004-05 as the starting point - as provided by the QCA in their earlier Determination in 2001³.

Table 2: NPV Smoothing of Ergon AARR (\$million)

	2005-06	2006-07	2007-08	2008-09	2009-10	Total
QCA						
AARR ⁴	684.3	725.4	767.2	812.5	860.4	3850
(%change)	30.1%	6.1%	5.8%	5.9%	5.9%	
NPV	684.3	668.6	651.7	636.1	620.8	3262
NPV Smoothing						
AARR	596.2	676.0	766.4	869.0	985.2	3893
(%change)	13.4%	13.4%	13.4%	13.4%	13.4%	
NPV	596.2	623.0	651.1	680.3	710.9	3262

The QCA is required to utilise NPV smoothed AARR figures in the BRCI for Ergon. Using reasonable assumptions Origin has calculated these figures as \$676 million and \$766.4 million in 2006-07 and 2007-08 respectively, an increase of 13.4%.

2.3 ENERGEX Network Costs

Origin understands that the relevant smoothed AARR figures for ENERGEX Limited are \$620 million in 2006-07 and \$690 million for 2007-08.

However, Origin believes it is imperative that the QCA incorporate the impact of ENERGEX's cost pass-through application for additional capital expenditure that was approved in March 2007. In other words, the BRCI should not be calculated using the pass-through amounts net of adjustment for past over or under-recoveries, but should use the full cost as explained below.

ENERGEX has also submitted a recent cost pass-through application for FRC costs to be included in 2007-08 network revenues. Origin would like assurances from the QCA that if approval is to be given for any FRC cost-pass-through in network prices in 2007-08 then it will be included in the BRCI.

2.3.1 Cost pass-Through of Additional Capital Expenditure

Origin strongly believes that the gross network costs arising from the approval of ENERGEX Limited's additional \$720 million in capital expenditure should be included in the BRCI methodology.

Origin understands that in their Final Decision⁵, the QCA has offset some of the cost of the additional capital expenditure by discounting ENERGEX's revenue over-recoveries of previous years.

While Origin believes this is the appropriate approach when calculating allowed network revenue, this approach is not appropriate in the BRCI methodology.

The impact of ENERGEX's previous over-recovery of network revenue has been a temporary reduction in actual retail headroom in the relevant years. This reduction in headroom was considered temporary as it would be returned to retailers through network charge reductions in the subsequent years.

² QCA Final Determination re: Regulation of Electricity Distribution 2005

³ QCA Final Determination re: Regulation of Electricity Distribution 2001

⁴ refers to Smoothed AARR, page 178 of QCA Final Determination 2005

⁵ QCA Final Decision: ENERGEX Application for Capital Expenditure Cost Pass-through, March 2007

However, if the QCA uses the adjusted revenue allowance for calculating 2007/08 forecast network revenue, then it is effectively making the reduction in retail headroom a permanent rather than temporary impact. Again, this highlights the value from a methodological, transparency and equity point of view, of using the original AARR figures for 2006/07 and the new AARR figures for 2007/08, in both cases exclusive of adjustments for over and under recoveries.

We note here that the QCA has already identified in their Final Decision⁶ the impact of the additional capital expenditure on the ENERGEX AARR in individual years. The QCA is therefore in a position to add these new network costs to the AARR used in the BRCI calculation. This will ensure that the retailers' headroom is returned to the position that would have eventuated before the offset of previous over-recoveries.

Origin's view of the ENERGEX AARR figures required to comply with the BRCI policy intent is highlighted in the following table.

Table 3: ENERGEX AARR Adjustments (\$million)

	2006-07	2007-08	2008-09	2009-10
Smoothed AARR	\$699.2	\$779.9	\$870.0	\$916.3
Additional Capex Pass-through ⁷		\$22.4	\$32.5	\$53.9
Resultant ENERGEX AARR	\$699.2	\$802.3	\$902.5	\$970.2

2.3.2 Cost pass-through of FRC Costs

Any impact of the ENERGEX application (and any future Ergon application) for cost pass-through for FRC must be considered and included in the BRCI process. These additional costs should be included in the relevant year to which they are attributed to the network's revenue cap.

However, Origin is concerned with ENERGEX's cost pass-through application for FRC costs being included in the 2007-08 network revenue because of the time constraints upon the QCA including:

- the necessary review and consultation of ENERGEX's pass-through application before its approval;
- the importance of rapid transparency of approved distributors' network prices for 2007-08 given the introduction of FRC; and
- the consultation and calculation of the BRCI as required under the Minister's Delegation.

As a result, Origin suggests that the QCA continue to calculate the BRCI without any additional network costs for FRC whilst independently pursuing their rigorous assessment of the ENERGEX FRC cost pass-through application.

The QCA would then have greater time to consider ENERGEX's cost-pass-through application and the results of the QCA assessment of the application can then be treated by:

- including any additional FRC costs for 2007-08 in the 2008-09 BRCI process; or alternatively
- approving a specific network charge for FRC independently. This network charge could be specifically prescribed as a non-DUOS charge for 2007-08 so that retailers would be able to pass it directly through to customers.

⁶ QCA Final Decision: ENERGEX Application for Capital Expenditure Cost Pass-through, March 2007

⁷ QCA Final Decision: ENERGEX Application for Capital Expenditure Cost Pass-through, Table 7, p 15.

For the purpose of this submission, Origin has assumed no FRC cost pass-through in the 2007-08 ENERGEX network charges.

2.4 Powerlink Network Costs

Origin supports the QCA utilising the most current estimates for their AARR for Powerlink in the Indexation. This is currently the AER Draft Decision⁸ but a Final Decision is expected shortly.

Origin notes that transmission network costs in the BRCI are only to reflect the transmission costs that are passed through to Queensland customers utilising the distribution networks. These networks costs are not separately identified by Powerlink or by the AER. However, Origin understands that the QCA receives the information on total transmission cost through the distribution network when the distributors make their network pricing submissions for the forthcoming year.

Given distribution network price submissions, which include Transmission Use-of-System (TUoS) charges, will be submitted to the QCA in the near future, Origin is confident that the QCA can determine the correct Powerlink AARR for 2007-08. For the purpose of this submission, Origin has utilised the Powerlink AARR from the current Draft Decision with assumptions made regarding transmission costs to entities not utilising the distribution networks (see Table 4).

Table 4: Assumed Powerlink Network Costs (\$million)

	2004-05	2005-06	2006-07	2007-08
Powerlink AARR	\$409.0	\$444.5	\$483	\$536
Non-Distribution Costs ⁹	\$86.6	\$109.7	\$120	\$136
TUOS Pass-through ¹⁰	\$322.4	\$334.8	\$363	\$403

2.5 Total Network Costs

Table 5 shows a representative Queensland network cost that has been calculated by Origin to demonstrate its proposed methodology for the BRCI calculation.

The figures used for Ergon reflect the NPV smoothed AARR shown in Table 1 while the ENERGEX AARR figures include the additional capital expenditure pass-through approved by the QCA as highlighted in Table 2.

The network cost for Powerlink is based on several assumptions regarding:

- the approval of Powerlink's AARR by the AER; and
- the share of Powerlink's transmission revenue that is attributable to delivery through the Queensland distribution networks.

Table 5: Total Network Cost (\$million)

	2006-07	2007-08
Ergon	676	766
ENERGEX	699	802
Powerlink	363	403
TOTAL	1,738	1,971
(% change)	11.7%	13.4%

It is readily apparent that Queensland network costs are in a period of unprecedented growth which must be reflected in the BRCI to satisfy the Government's retail tariff policy objectives.

⁸ AER Draft Decision: Powerlink Queensland transmission network revenue cap 2007-08 to 2011-12, 8 December 2006

⁹ Calculated based on past Powerlink AARR and passthrough of TUOS to distribution customers.

¹⁰ QCA: Financial and Service Quality Performance Reports 2004-05 and 2005-06

3. Retail Costs and Margins

Given the time constraints on the current consultation, Origin submits that for the purpose of setting the BRCI for 2007-08, the QCA utilise an appropriate retail cost and margin from within the range of recent studies carried out in other jurisdictions. The QCA should focus on the change in retail costs expected for 2007-08 as the market moves to full contestability. Given that the BRCI is focussed on the movement of costs between financial years the exact quantum of the costs is less relevant than in some other jurisdictional reviews.

Origin proposes a retail cost of \$75 per customer and retail margin of 5% of sales for 2006/07. These are the recent findings of the Independent Pricing and Regulatory Tribunal (IPART)¹¹ for mass market new entrant retailers in New South Wales.

For 2007-08, a retailer in the Queensland market will face additional retail costs due to:

- the rapid escalation in labour costs that is being experienced in most Australian industries;
- the compliance costs arising from greater regulatory and compliance obligations for Queensland FRC;
- the customer acquisition costs consistent with an active competitive market and maintaining sufficient customers to limit a negative impact on average costs to serve¹²;
- other additional retail costs following the introduction of FRC that include increased risk management costs, market settlement validation costs, increased bad debt and working capital costs; and
- the additional retail costs associated with both the implementation and management of FRC systems. Origin notes that in other jurisdictions, additional costs of \$5 - \$10/customer/year have been allowed - these are for the direct and incremental costs of a "host" retailer establishing and maintaining systems that allow customers to churn to other retailers.

For the purposes of the BRCI, these changes in costs will have the major impact in the transition from 2006/07 (pre-FRC) to 2007/08 (post FRC) so will need to be recognised within the current BRCI decision. Subsequent changes in retail costs can be captured in the more detailed review for 2008/09.

In the next sections we provide some additional detail on a number of the key points raised above. However, Origin has a great deal of experience now with the impact of FRC on average retail costs and would appreciate an opportunity to discuss all the various post FRC cost drivers in further detail in the near future.

3.1 Wages Escalation

Wage growth in Australian industries, and especially the utilities sector, has risen sharply in recent years. A recent report by Access Economics¹³ for the AER forecast that nominal wage growth in the utilities sector would be 5.9% in 2007-08. This implies real wage growth in excess of 2.5%.

¹¹ IPART 2007: Promoting Retail Competition and Investment in the NSW Electricity Industry.

¹² Note here, for instance, that the Draft Determination in NSW provides for acquisition costs of some \$34/customer/year. In contrast, the ESCOSA determination for AGL price path (2005 - 2007) allowed an increase of above CPI for cost to serve in recognition of declining customer numbers spread over the same fixed costs. (see Table 7.4, page 71).

¹³ Access Economics Pty Ltd: Wage growth forecasts in the utilities sector, November 2006

Labour costs form an important direct and indirect component of retail operating costs (including fixed costs) and makes up approximately 60% of the retail cost to serve. This is based on labour cost shares of 70% of direct retail costs, 40% for billing and revenue collection and 80% of call centre costs.

Using a CPI forecast of 3.4% and the wage growth forecast of Access Economics of 5.9% would increase cost to serve in 2007-08 by 4.9% from \$75 a customer to \$78.70 per customer.

3.2 Acquisition Costs

Section 94 of the *Electricity Act 1994* (as amended) requires the retail costs to reflect that of a retailer that has a significant share of the market, providing customer services to Queensland electricity customers.

Origin acknowledges that this excludes any retail costs of planned expansion or aggressive customer acquisition programmes. However, the advent of FRC will introduce competition and in order to comply with the intent of the Act, Origin proposes that the retail cost of the BRCI must include customer acquisition costs that enable an efficient retailer to sustain its share of the market.

IPART's recent draft determination made recommendations on expected customer acquisition costs. Although Origin does not agree with IPART's assumptions regarding the number of years a customer is retained, it proposes that the QCA utilise the \$34 per residential customer acquisition cost for the purpose of the BRCI. Using this cost and an assumption of 10% churn allows the increase in retail cost to be calculated as shown in Table 6.

Table 6: Retail Cost to Serve

		2006-07	2007-08
Retail Entity			
Customers	(no.)	500,000	500,000
Cost to Serve	(\$/customer)	75.00	\$78.70
Retail Cost	(\$m)	37.5	39.4
Customer Acquisitions	(no.)	-	50,000
Acquisition Costs	(\$/customer)	\$34	\$35
Acquisition Cost	(\$m)		\$1.8
Total Retail Cost	(\$m)	37.5	41.2
Queensland			
Customers ¹⁴	(no.)	1,840,000	1,891,000
Total Retail Cost	(\$m)	138.0	155.8

3.3 Retail Margin

The BRCI requires the use of an appropriate retail margin to cover the retailer for its risk-weighted investment. Origin proposes the use of a benchmark net margin of 5% of sales as recommended by ESCOSA and IPART in their recent retail tariff reviews.

However, the use of this benchmark margin assumes that several of the significant risks arising from FRC, namely, the increased risks surrounding energy purchasing and customer acquisition are taken into account in other elements of the BRCI.

¹⁴ MMA Demand Forecasts for Distribution Network Services in Queensland: Response to comments on draft report and forecast update, 27 September 2004

If these added risks are not directly included in the calculation of energy and retail cost then the retail margin for 2007-08 must be increased relative to 2006/07 to accurately reflect the real change in the risk profiles of the businesses and therefore the real change in the cost of equity and debt, including the cost of working capital and capital investment.

4. Queensland Load

Origin agrees with the BRCI proposal of defining the Queensland NEM load as the loads supplied to the transmission connection network points of ENERGEX and Ergon. Origin is comfortable with the annual figures being based on the previous calendar year's data so that the Load is actual rather than a forecast figure.

However, although this data is readily available from Powerlink, Origin queries the legislative requirement for Powerlink to provide the information.

In this submission, Origin does not have access to the required loads for 2005 and 2006 and has used the QCA's demand forecasts for 2005-06 and 2006-07 contained in their 2005 Determination of network revenues.

It is essential, however, that there is consistency between the definitions of Queensland NEM load throughout the various formulas (otherwise, outcomes will be distorted by the mathematics not the real world events). Origin is not convinced that the current formula in the BRCI achieves this.

5. Long Run Marginal Cost

Long run marginal cost (LRMC) is a very theoretical concept and over the short-run at least bears only limited relationship to the actual costs facing retailers as:

- retailers must purchase their load and hedge their risks in the market place;
- the market responds to short and medium term factors, while the LRMC is based on longer term views of the supply/demand trends;
- the market is affected by additional factors such as transmission constraints and interstate demand/supply factors (Queensland generators will in-principle sell to the highest value market); and
- illustrating the points above is the recently observed market price increases in Queensland which has moved the price by more than 70% over the past few months reportedly due to water shortages and resulting generation constraints.

Moreover, there are multiple approaches to calculating the LRMC, all of which will lead to different outcomes in terms of both the absolute value of the LRMC and the rate of change over time in the LRMC. In particular:

- the “stand-alone” approach which assumes that there is currently no plant available to serve the load - the approach effectively builds and prices a whole new generation system that is least cost; and
- the “incremental approach” which measures the fixed and variable costs of supplying an additional unit of load, given the existing stock of generation plant.

Origin believes that the Act and Delegation provide very limited guidance to the QCA in terms of which of the approaches should be adopted by the QCA. The Act itself, in Section 92 reflects the contradiction described above. That is, s 92 (1) requires the QCA to assess the cost of energy incurred during the relevant tariff year to purchase energy to supply all of the NEM load of the State in the relevant year - assessment of this cost would normally be based on the relevant market costs. S 92 (2), however, states that this view must be based on the pricing entity's most recent estimate of the LRMC.¹⁵ Further there are issues with the treatment of interconnections and modelling of green legislation that are not explicit and can have a material affect of outcomes.

To reconcile these two potentially competing tasks in a post-FRC privatised retail world and, importantly, to be consistent with the policy intent of retaining stable retail margins, Origin believes that the results from the LRMC analysis must be compared to a market based approach. This will ensure that the LRMC conforms with the intent of the retail tariff policy.

Origin's concern is that such an analysis requires a comprehensive study of the LRMC options. Therefore, as with the other elements of the BRCI, Origin suggests that for this consultation the QCA focus on the changes to the LRMC from 2006-07 to 2007-08 and rely on the more extensive consultation process for 2008-09 for more considered analysis.

Using this assumption, Origin has focused its attention for this submission on identifying the changes in the energy cost component of the BRCI rather than the

¹⁵ These 2 concepts may have been reasonably aligned in the context of the one entity (the Queensland Government) being the owner of both the great majority of generation and the retail portfolio (ie. a natural hedge with a strike price at approximately the LRMC), they are not immediately related when generators and retailers are owned by separate entities.

absolute level. The energy cost component being defined as the efficient costs of building the optimal suite of generators to meet the state’s NEM load.

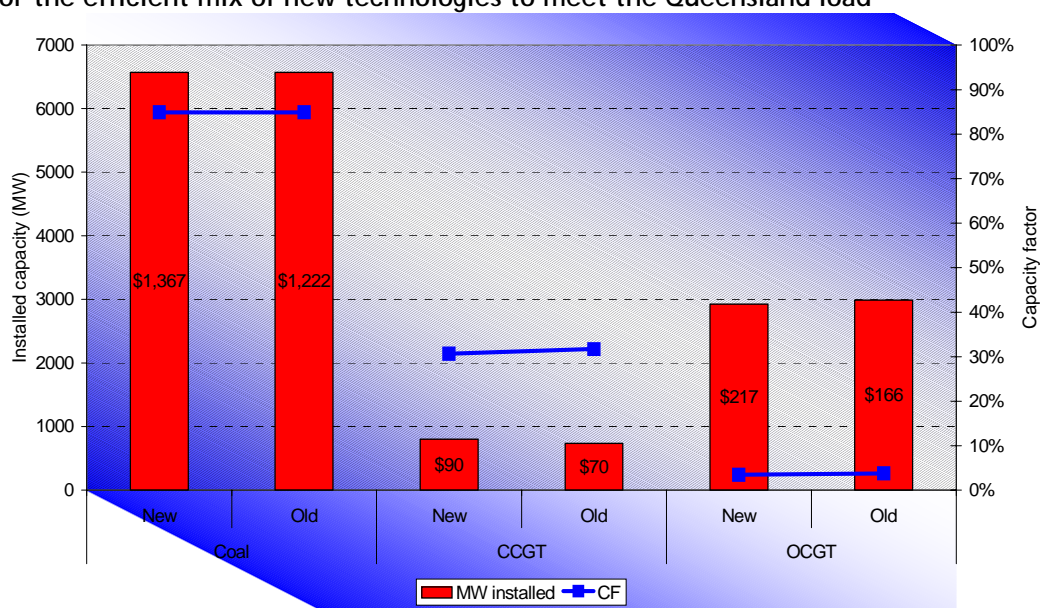
Origin has engaged Frontier Economics (Frontier) to examine the optimal suite of physical plant required to meet the Queensland NEM load and to focus on the change in optimal plant for 2007-08. Frontier are considering this from both a stand-alone and incremental LRMC perspective.

Origin requested assistance from Frontier because of their recent analysis of both LRMC and energy market based costs for IPART as part of setting the next 3 years of the NSW retail price path. Their approach provides a relatively robust approach that allows clear comparison of various types of LRMC outcomes, of market versus LRMC differences and most importantly, provides specific recognition of the trade-offs between risk and cost facing all privatised retailers.

5.1 Approach

The changes in LRMC are heavily dependent on changes in the assessment of underlying input costs. Frontier have compared the changes in the estimate of the costs of generation (as input into the LRMC calculation) for Queensland from the previous (2005) estimate to the most recent (2007) ACIL Tasman data, a generally accepted source of generation cost data. This comparison alone of input costs translates to a change in the LRMC of over 13% (refer Figure 1). The extent that LRMC has changed based on the previous and most recent estimates by ACIL indicates the extent that the industries view of generation costs has moved in a relatively short period.

Figure 1: Installed capacity, capacity factor and total annual cost (\$m, as label) for the efficient mix of new technologies to meet the Queensland load



In addition LRMC will also be impacted by:

- changes in peakiness of demand (see Figure 2);
- volatility in the spot market; and
- changes in the mix of generation driven, for example, by CO2 constraints

Figure 2: Queensland load duration curves

