Submission to the Queensland Competition Authority on the Draft Determination on Regulated Retail Electricity Prices for 2014-15

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1. Executive Summary

Origin Energy (Origin) appreciates the opportunity to respond to the Queensland Competition Authority's (QCA) *Draft Determination on Regulated Retail Electricity Prices for the period 2014-15* ('the Draft Decision').

Origin supports many of the findings of this Draft Decision, but seeks to raise a number of issues, in particular in relation to the methodology used to model the cost of wholesale electricity.

Origin appreciates that the QCA has sought to maintain consistency in its approach with last year's determination however considers there are two key issues that differ for this year's determination: likely repeal of the Clean Energy Act and uncertainty around the Renewable Energy Target policy settings and hence the market price for Large Scale Certificates.

The Commonwealth Government's intent to repeal the Clean Energy Act is clear, however the timing by which this legislation may be passed and the date upon which repeal may take effect remain uncertain.

Origin strongly supports the QCA's proposed approach to carbon repeal, which involves developing two sets of prices, carbon-inclusive and exclusive, that can be applied as required depending on the policy outcome. This approach is consistent with Government and customer expectations that there will be a reduction in price upon repeal of the Clean Energy Act.

As outlined in our submission to the QCA's Issues Paper of July 2013 applying a partial, risk-weighted carbon component for the whole regulatory year as recommended by ACIL Allen would not match a retailer's actual carbon cost under any foreseeable scenario.

Origin believes that if the Federal Government pursues a policy of giving carbon repeal retrospective effect the negative complications and costs of this would outweigh any benefit it might confer on energy consumers. As a basic principle Origin maintains that retailers should not carry the negative revenue impact of retrospective appeal unless they can recover this from counterparties and so remain whole. Given the uncertainty surrounding policy outcomes in this context, Origin strongly supports the QCA's decision to leave this to policy rather than seeking to capture the possible impact of retrospective appeal in notified prices.

The terms of reference for a review of the Renewable Energy Target (RET) were released on 17 February 2014. The review is to be conducted by an expert panel which is to provide a report to the Prime Minister, the Treasurer and the Ministers for Industry and the Environment by mid-2014. Uncertainty around the future form of the RET coupled with carbon repeal have resulted in a substantial reduction in liquidity for the trade of Large Scale Renewable Certificates (LGCs).

Reduced liquidity makes the spot market price an unreliable indication of the actual costs a retailer is likely to incur in complying with the scheme. Indeed the volume of LGCs traded is so low that it would not be possible for major retailers to acquit their LRET liabilities through spot market purchases. Given this uncertainty Origin recommends that the QCA estimate the cost of LGC based on LRMC based modelling.

Origin notes that this will also more closely reflect the actual cost to retailers given many retailers have entered into PPAs or developed wind farms to meet their obligations.

Origin recognises the challenges faced by the QCA's consultants in attempting to estimate wholesale energy costs and the limitations of any Pool price modelling. While Origin has provided some suggestions to improve the modelling, it is difficult for Origin to fully understand the interaction of demand, Pool price and assumed hedge contract position in what is by necessity a "black box" model. It is therefore critical that the overall results be tested for reasonableness. In examining the overall results one element that stands out as anomalous has been the positive payouts under cap products.

Origin is particularly concerned that for the second consecutive year an approach is proposed by ACIL that assumes that retailers will profit by purchasing a high volume of cap products, a form of insurance. It is unrealistic to assume retailers will consistently be able to profit from buying an insurance product. Origin strongly encourages the QCA to consider the likelihood of the payout outcome and retailers being able to deliver a profitable long contract position.

2. Background

On 5 September 2012 the Minister for Energy and Water Supply provided the Queensland Competition Authority (QCA) a Delegation requiring it to determine regulated retail electricity prices (notified prices) for a three-year period from 1 July 2013 to 30 June 2016. While the task is delegated for three years (rather than a one-year period as previously), the QCA is still required to determine prices annually. The QCA's first price determination was made on 31 May 2013 for the period from 1 July 2013 to 30 June 2014. The second determination is to apply from 1 July 2014 to 30 June 2015.

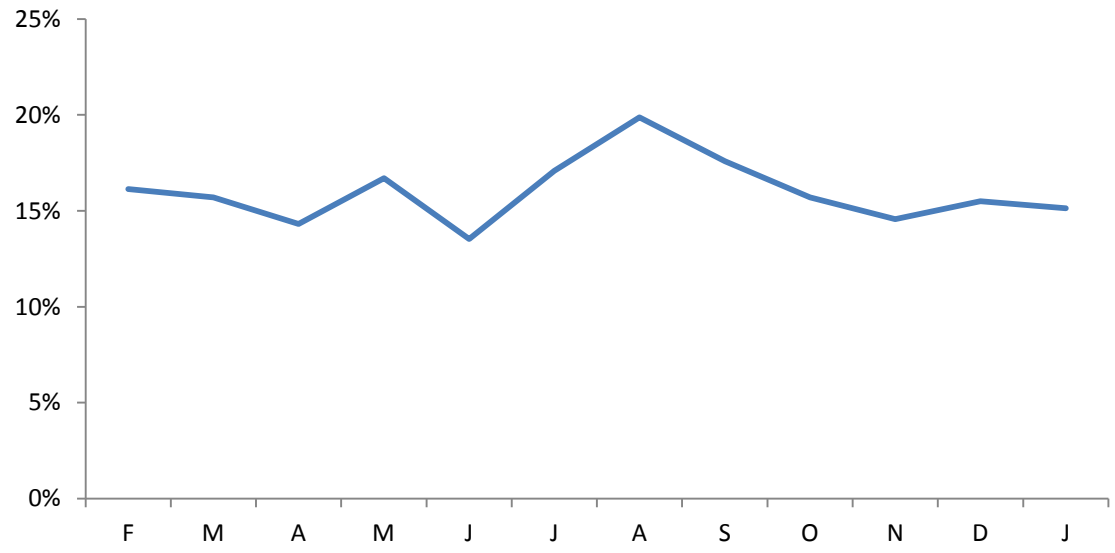
In July 2013 the QCA released an Interim Consultation Paper on the review, followed by the Draft Decision in December 2013. The QCA held a number of workshops on its Draft Decision in which Origin was a participant.

3. Competition in Queensland

Origin concurs with the QCA[1] that there are indications that competition Queensland's contestable electricity market has improved since the 2013-14 Determination was released. These include the growing share of Tier 2 retailers[2] and the growing number of customers on market contracts - the latter exceeding 70 percent for the first time in September 2013[3]. There are a wide variety of offers in place, offering lower prices than regulated rates or some other combinations of benefits.[4]

Churn in Queensland's contestable market has fluctuated somewhat over the last 12 months but has not fallen below 13 percent since the QCA made its 2013-14 Determination in May 2013, reaching just below 20 percent in August (Figure 1, below). Variation in churn can occur due to seasonal and other factors unrelated to underlying levels of competition.

Figure 1. Historical monthly annualised transfer rate in Queensland's contestable market, February 2013-January 2014



Source: AEMO data, Origin analysis

In our view the conditions for competition in south east Queensland are effective, except for on-going retail price regulation that limits the scope for competitive activity to develop further. An allowance for headroom remains a crucial component of regulated prices to counter the negative effect of price regulation on competition. Without this component competition would diminish considerably, complicating the transition to deregulated prices in July 2015.

Origin notes that the Australian Energy Market Commission has commenced the first of what will now be an annual review of the effectiveness of competition. This report will provide further insight in to the development of competition in Queensland.

[1] QCA, Draft Determination on Prices for 2014-15, December 2013, p.37
[2] QCA, Draft, p.41
[3] QCA, Draft, p.43
[4] QCA, Draft, p.41

4. Energy cost

Origin has a number of concerns with the approach the QCA has adopted to calculating the cost to retailers of wholesale energy.

We do not revisit here our concerns about the decision not to include a reference in the wholesale energy allowance to costs other than the short-run market-based cost. In our view this continues to lead to material under-estimation of the costs retailers actually incur in procuring wholesale energy. However, we acknowledge that the QCA has settled on its approach and we do not have evidence additional to that we have provided in prior submissions.

With respect to the current draft we do consider that ACIL's modeling could be refined in a number of areas. It is important that ACIL consider these areas of concern as a whole, because adjusting certain elements in isolation could lead to a result that was less logical than the current outcome, specifically around variability and levels of cap cover. Specifically, the issues relate to:

- the compression of 43 simulated demand sets to within the Australian Energy Market Operator's (AEMO) 10 and 90 percent probability of exceedence (POE) projection;
- the hedging strategy in ACIL Allen's model that relies heavily on caps that implausibly generate net income for the notional retailer in all years;
- the regression used to map 43 years to temperature data to four years of demand which arbitrarily caps the relationship between temperature and demand; and
- the approach to estimating the cost of the Large Scale Renewable Target, which relies on a shallow certificate market relative to the overall volume of certificates to be surrendered in the coming year.

Lastly, Origin strongly supports the QCA's approach to uncertainty on the outcome of carbon policy in FY2015.

Demand flex

ACIL Allen have fit their 43 simulated demand sets to within AEMO's 10 and 90 percent probability of exceedence projections. This means that demand is constrained to within 80 percent of the range of demand outcomes AEMO projects for FY2015. The result is that variability in demand is reduced significantly from the levels predicted by the market operator.

While Origin acknowledges and supports the QCA's decision to adapt the 10 percent POE scenario, this being at the upper end of the range of demand outcomes, we maintain that fitting the modelled results to within 80 percent of AEMO's projected outcomes is unrealistic and has the potential to systematically understate variability. In our view it would be preferable to scale the upper and lower bound of the simulated demand so that the 10 and 90 percentiles of the 43 scenarios are matched to AEMO's 10 and 90 projections respectively.

Origin notes the comments of ACIL Allen in their report supporting the QCA's Draft Determination, noting that while there are limitations in its methodology they had not found that adding additional demand outcomes had a noticeable impact on hedged

price outcomes[5]. That this is the case is likely the combined impact of multiple shortcomings in the model: in addition to the unrealistic level of flex, the hedging strategy implies an unrealistic level of cover, meaning that increased variability is almost always hedged and generates net income to the retailer (an issue we examine below), reducing the overall cost of energy. Origin encourages the QCA to consider the interplay of multiple shortcomings in ACIL Allen's model, rather than considering the impact of changing individual variables in isolation.

Hedging strategy

We observe that the impact of the hedging strategy in ACIL Allen's model is that in both years modelled since the QCA adopted its new approach the retailer has received net income from its cap purchases. This is highly implausible. Purchasing caps is a form of insurance for retailers, delivering a reduced risk of exposure to high spot price outcomes. This reduced risk carries a premium, which serves as revenue to the party that sells the cap trade. If cap trades generated income to the purchaser under all scenarios then counterparties to these trades would either cease selling the caps or change their terms. Yet we observe that year on year all caps generated net income. This is likely because of the unrealistic coincidence of a high level of cap cover and price spikes. In this way the model retailer is effectively fitting its cap strategy to pricing outcomes *ex post*, where in practice the retailer must buy caps in advance and hence rarely manages to hedge peak price outcomes entirely accurately. In Origin's experience caps in Queensland since 2006 have had a payout ratio of 62.5 percent (payout/premium).

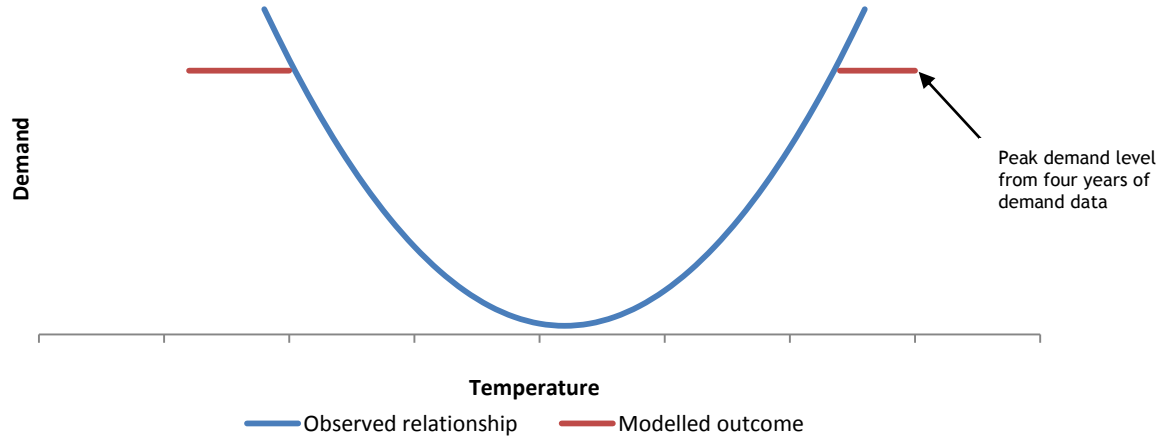
Origin proposes that ACIL Allen either introduce more inaccuracy in to the hedging strategy of its model retailer.

Mapping temperature data to demand data

ACIL Allen use a least squares regression approach to match 39 years of temperature data to 4 years of actual demand data. One implication of this approach is that outlying temperature days from the 39 years must fit one of the demand days in the 4 years. Demand is generally highest at the lowest and highest temperature outcomes. However, the regression approach adopted by ACIL Allen caps the impact of outlying temperature days to the highest demand day within the four years of data. The likely impact of this is outlined in Figure 2.

[5] ACIL Allen, Estimated Energy Costs 2014-15 Retail Tariffs, December 2013, p.14

Figure 2. Impact of modelling approach on outlying temperature days



Source: Origin analysis

This result is that this approach somewhat arbitrarily caps the relationship between outlying temperatures and demand, thereby also reducing the efficacy of including 39 years of actual temperature records. ACIL Allen observe that "peak demand is not a linear function of temperature and that above certain temperatures, the relationship between temperature and peak demand weakens such that peak demand tends to reach a limit or a point of saturation."[6] While this may be the case, Origin is not convinced that ACIL Allen have adequately established the nature of this relationship, since it is not extrapolated, merely assumed. Origin proposes that ACIL Allen make adjustments in recognition of these limitations in the model.

Estimating the cost of the Large Scale Renewable Energy Target

ACIL Allen estimate the cost of the LRET by averaging the forward prices for Large-scale Generation Certificates (LGCs) for 2014 and 2015 during the two years prior to the commencement of each year, respectively.

Origin has argued that ACIL Allen should reference the long-run marginal cost of generating renewable energy, since retailers do not rely exclusively on market purchases of LGCs in order to meet their commitments under the LRET. In addition to market purchases, they invest directly in plant and long term power purchase agreements. ACIL Allen has acknowledged that retailers do not only rely on market purchases of LGCs, however in their view:

- ACIL Allen is not required to model retailers' actual costs, only what a notional retailer could do to meet its obligations for the year in question, and so retailers' past decisions to invest in generation and PPAs are irrelevant;
- LRMC is too imprecise a measure and so should not be relied upon.

Origin questions the bases for both these assertions.

Firstly, a notional retailer that sought to meet its LRET obligations for FY2015 entirely from purchases of LGCs could not do so in practical terms. Uncertainty about the future of the scheme has led to dramatically shallower markets for LGCs in recent months. The issue has become more pronounced since Origin raised it in September 2013. Policy uncertainty around the LRET is particularly acute: a broad spectrum of outcomes is possible, from the removal of the carbon price and no change to the LRET target, which would lead to an increase the cost of the LGCs (all other things being equal), through to

[6] ACIL Allen, Estimated Energy Costs 2014-15 Retail Tariffs, December 2013, p.14

the dismantling of the scheme in its entirety (which is yet to be ruled out by policymakers). Each outcome within this spectrum has different implications for the value of LGCs, which is leading both buyers and sellers to hold off to await the outcome of the RET policy review.

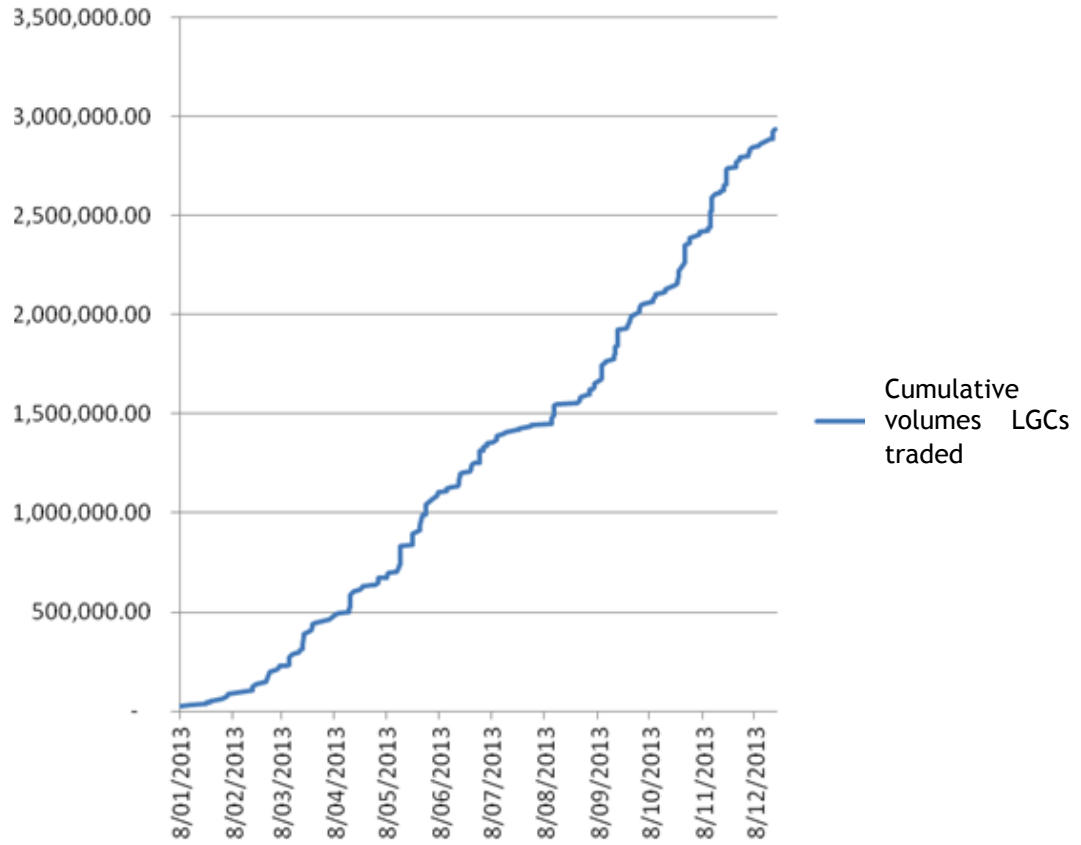
In this environment liquidity and depth in the LGC market are significantly constrained and prices in that market are no longer representative of reasonable assessments of the cost of meeting the LRET target. IPART reached a similar conclusion in its review of electricity prices for 2013-14.

Origin notes ACIL Allen's comments that while Origin provided indicative volumes of LGCs traded in its response to the Issues Paper, it did not explain its methodology in arriving at these numbers.[7] To arrive at these numbers Origin relied on data from the Renewable Energy Certificate registry and excluded all trades where a bank was the counterparty. However, data from the Renewable Energy Certificate (REC) includes LGCs first created via a power purchase agreement, which is recorded as a "trade". In this way Origin's figures overstated the volume of trades in the secondary market.

In Figure 3 below Origin has derived data on the volume of trades in the secondary market for LGCs by registering trade confirmation emails sent by brokers. This data is limited to trades executed by brokers and hence to the secondary market. This shows that overall volumes traded in the secondary market in 2013 reached around 3 million. This represents around 60 percent of Origin's liability under the scheme in that year, that is, is less than one retailer's obligation under the scheme.

[7] ACIL Allen, Estimated Energy Costs 2014-15 Retail Tariff, Report to the Queensland Competion Authority, November 2013, p.28

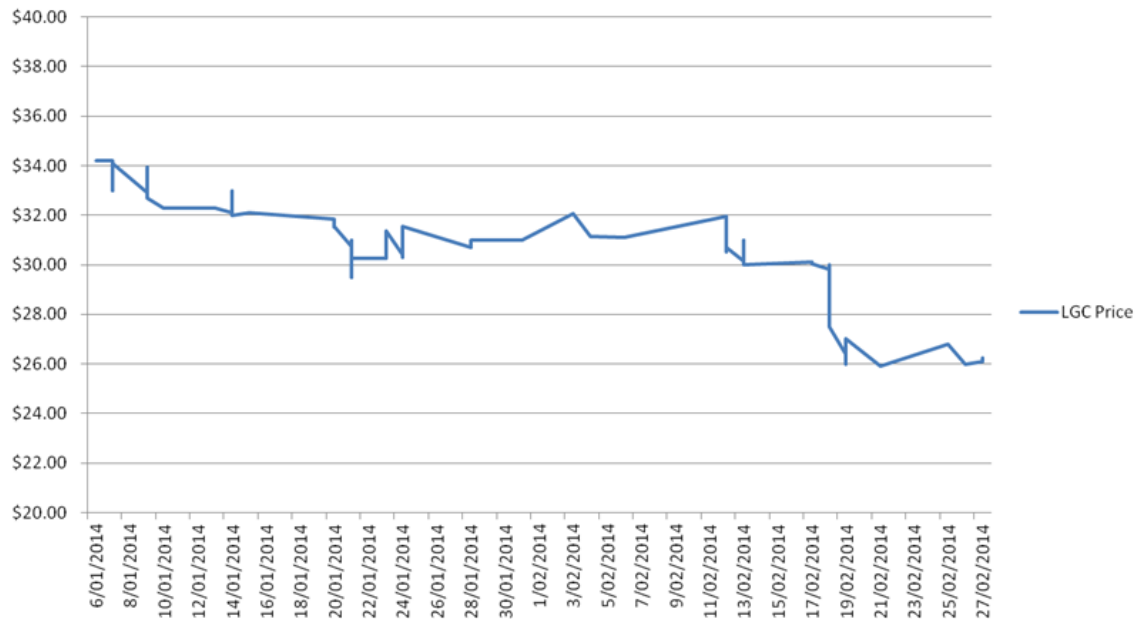
Figure 3.Cumulative trade by brokers in Large-scale Generation Certificates, 2013



Source: Origin analysis

Another indication of the unreliability of the price can be seen in the price trajectory for LGCs, which has continued to fall in the first months of 2014, as outlined in Figure 4. A significant fall in the price followed the announcement in mid-February of members of the Commonwealth Government's Panel that will review the terms of the RET, underlining the impact of policy uncertainty.

Figure 4. Large-scale Certificate (LGC) price January-February 2014, dollars



Source: Origin analysis

In this environment it is unreasonable to suggest that a retailer could meet its LRET obligations based on buying LGCs in the market, since there are insufficient volumes to do so and so current prices do not reflect the actual cost of such a strategy. In this environment the notional retailer whose costs ACIL Allen are seeking to reflect would need to make investments in renewable generation or PPAs, similarly to how the major Queensland retailers have done.

Origin also questions ACIL Allen's assertion that LRMC is too complex or imprecise a notion to rely on as an alternative measure. To Origin's knowledge ACIL Allen regularly advises clients on the return available from investments in power generation and significant sunk investments are made on the basis of this advice. If these assessments of cost were indeed wildly imprecise than no investments in generation would have been made, which is evidently not the case. All estimates of cost have some shortcomings and in the current context LGC forward prices are less reliable than a robust and transparent assessment of LRMC in our view.

Carbon

Origin strongly supports the QCA's proposed approach to carbon, which involves developing two sets of prices, both carbon-inclusive and exclusive, that can be applied as required depending on the policy outcome.

As outlined in our submission the QCA's Issues Paper of July 2013 applying a partial, risk-weighted carbon component for the whole regulatory year as recommended by ACIL Allen would not match actual carbon cost under any foreseeable scenario. Retailers would be carrying a risk of under-recovery of carbon that would dwarf their retail cost and margin allowances. Furthermore, while policymakers and retail customers would expect to see some impact from carbon repeal, they would not under the approach recommended by ACIL Allen. Lastly, retailers would be obliged to charge

a carbon component post repeal. The ACIL Allen approach suggests that this over-recovery would compensate retailers for any under-recovery prior to repeal. However in practice retailers would risk contravening obligations under proposed consumer laws not to pass on carbon costs once the Government is no longer levying these.

Origin notes the QCA's comments on retrospective repeal.[8] Origin is also unclear on the impact of retrospective appeal on energy markets and believes that it is likely to have multiple complications and costs that would outweigh any benefit it might confer on energy consumers. As a basic principle Origin maintains that retailers should not carry the negative revenue impact of retrospective appeal unless they can recover this from counterparties and so remain whole. Given the uncertainty surrounding policy outcomes in this context, Origin strongly condones the QCA's decision to leave this to policy rather than seeking to capture the possible impact of retrospective appeal in notified prices.

[8] QCA, Draft, p.23

5. Retail costs, margin and pass through

Origin broadly supports the QCA's approach to estimate retail costs, retail margin and headroom. We also support the inclusion of an allowance for regulatory fees.

Origin notes comments at the QCA's workshop held in Brisbane to the effect that retailers' customer and acquisition costs may have fallen and hence this allowance should be reduced or removed, either because retailers have ceased door to door marketing or because competition the state is now mature. Origin sees no evidence of this. Maintaining this competitive activity is vital as the Queensland Government completes the transition to deregulated pricing in south east Queensland.

Origin believes retail margin should be calculated on total costs including network costs, since managing the network pass through creates significant cash flow risks for retailers that they must manage.

Origin supports the allowance for pass through for SRES and differences in network charges.

6. Transitional issues

As outlined in previous submissions, Origin supports the three year transitional period to return Tariff 11 to the levels it would have been prior to the decision to freeze the tariff in 2012-13.

Origin notes that this transition involves an increase in the fixed rate compared to the variable rate. When this transition is complete the impact of the original policy intervention will have been unwound. However, we highlight that tariffs may still not have reached cost-reflective levels in absolute terms. This is because the current structure of energy tariffs in all Australian electricity markets are generally too heavily weighted towards variable (volume) components relative to fixed components. This tariff structure does not accurately reflect network costs, which are largely fixed independently of volume. While retailers merely pass network costs through, the tariff structure shapes incentives for customers to undertake activities such as investments in rooftop solar, since investments like these allow customers to reduce their exposure to the variable component of their charge and thereby their exposure to network cost.

This imbalance has become more evident as investments in rooftop solar PV, energy efficiency activities and additional air conditioning load have meant the average household peak demand continues to rise even as average volumes fall. As a group, customers with peakier loads are contributing less than their proportionate cost to network costs. This network cross-subsidy is in addition to the cross-subsidy that occurs when the wholesale energy costs of customers with peakier profiles is settled via the net system load profile, rather than based on when their consumption actually occurs.

Origin recognises that it is not within the QCA's purview to address these issues, but seeks to highlight their relevance to a discussion on the cost-reflectivity of existing tariffs. We believe further tariff reform will be necessary over coming years to address shortcomings in the current framework. In this context, targeting an appropriate and measured transition towards larger fixed components while managing the differential impacts on smaller and vulnerable customers will remain important considerations.