

# **Ergon Energy Corporation Limited**

**Review of Electricity Pricing and Tariff  
Structures - Stage 2**

**Request for Comments Paper  
– Submission**

**Queensland Competition Authority**

**2 October 2009**

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This submission, which is available for publication, is made by:

Ergon Energy  
PO Box 15107  
City East  
BRISBANE QLD 4002

Enquiries or further communication should be directed to:

Tony Pfeiffer  
General Manager Regulatory Affairs  
Ergon Energy Corporation Limited  
Email: [tony.pfeiffer@ergon.com.au](mailto:tony.pfeiffer@ergon.com.au)  
Ph: (07) 3228 7711  
Mobile: 0417 734 664  
Fax: (07) 3228 8255

Or

Jenny Doyle  
Manager Regulatory Affairs – Tariff Strategy  
Ergon Energy Corporation Limited  
Email: [jenny.doyle@ergon.com.au](mailto:jenny.doyle@ergon.com.au)  
Ph: (07) 4092 9813  
Mobile: 0427 156 897



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# 1 INTRODUCTION

Ergon Energy welcomes the opportunity to provide comment to the Queensland Competition Authority (QCA) on its Request for Comments Paper in respect of the second stage of its Review of Electricity Pricing and Tariff Structures (the Review).

This submission is provided by:

- Ergon Energy Corporation Ltd (EECL) in its capacity as a Distribution Network Service Provider (DNSP) in Queensland; and
- Ergon Energy Queensland Pty Ltd (EEQ), in its capacity as a non-competing area retail entity in Queensland.

In this submission, EECL and EEQ are collectively referred to as 'Ergon Energy'.

Ergon Energy has structured this submission in two parts:

**Part A:** Sets out Ergon Energy's general comments in relation to the consultation.

**Part B:** Provides detailed comment on each of the QCA's specific questions, where Ergon Energy considers it is relevant to comment.

Ergon Energy is available to discuss this submission or provide further detail regarding the issues that it has raised should QCA require.

## 2 PART A – GENERAL COMMENTS

Ergon Energy welcomes the collaborative approach being taken by the QCA in seeking stakeholder comment, and supports the Ministers' Direction to the QCA to review existing retail tariffs and ensure the long term management of peak electricity demand

As a Queensland Government-Owned Corporation, Ergon Energy is an essential service provider, supplying electricity to over 600,000 customers in regional Queensland. Ergon Energy, in its capacity as a non-competing area retail entity is only able to provide customer retail services to its customers on the regulated retail tariffs, or notified prices. As Ergon Energy's costs are greater than the revenue it receives from customers on the regulated retail tariffs, it receives CSO payments from the Queensland Government to ensure its customers retain access to affordable electricity supply. Competition is limited in regional Queensland as the high cost of supply does not provide the opportunity for effective retail competition at or below the notified prices

Ergon Energy notes to date, the key focus of the consultation appears to be on customers in South East Queensland. However, given the majority of customers in Ergon Energy's distribution area are on notified prices, the effectiveness and outcome of the Retail Tariff Review will have a significant impact on customers in regional Queensland. It is therefore important that the circumstances for customers in regional Queensland are given due consideration.

Ergon Energy agrees with the QCA that in general, the existing schedule of tariffs is unlikely to be cost reflective and a restructure of the tariffs could enhance customer understanding of tariffs, and provide better signals to customers regarding the costs of their electricity use.

At a high level, there are a number of relevant factors to consider in constructing a tariff with a view to promoting demand management and energy efficiency. Ergon Energy submits that ultimately to promote demand management and energy efficiency, the regulated retail tariffs must be structured in a manner which allows clear signals to be sent to customers as to the economic value of their electricity connection and service, and the underlying fixed and variable costs of their electricity use and demand on the network.

Ergon Energy also notes that tariffs alone will not drive demand reduction and changes in behaviour. However, cost reflective pricing that sends appropriate signals to customers is essential to reinforce preferred behaviours and discourage behaviours that increase energy consumption and demand.

Ergon Energy believes that the recommended N+R approach to retail pricing is an important step for retail tariff reform in Queensland, and will provide a mechanism which allows both retail and network tariffs to work co-operatively to address common (retail and distribution) demand management objectives. That said, Ergon Energy remains concerned with the proposed timeline in moving to the new three-year price path framework by 1 July 2010. Ergon Energy supports the almost unanimous view expressed by stakeholders, that it is unlikely that the significant system and process changes necessary to deliver a new regulated retail tariff structure will be achievable by 1 July 2010.

As a result, Ergon Energy strongly supports a transitional two-staged approach to implementing a new regulated retail pricing methodology and price setting framework in Queensland. This issue is further discussed in Part B of this submission.

### 3 PART B – RESPONSES TO SPECIFIC QUESTIONS

#### 3.1 Alternative tariff structures to support cost reflectivity

##### The makeup of individual tariffs

Do the fixed charges currently specified in the existing tariffs reflect the fixed costs incurred by retailers (other than network costs) when supplying retail electricity services to customers on those tariffs, including customers with little or nil consumption?

**Ergon Energy believes that a number of the fixed charges incorporated into the existing regulated retail tariffs are insufficient to cover retailers' fixed costs in servicing a customer (or its "cost-to-serve")**

Retailers are exposed to considerable fixed costs in delivering retail services to their customers. Fixed costs typically comprise operating costs incurred by retailers in administering customer service and billing. These costs are associated with operating and maintaining call centres, performing billing and revenue collection services, operating and maintaining customer management IT systems and complying with regulatory obligations.

The cost structures of different retailers will vary, and regulators therefore generally seek to benchmark this "cost-to-serve" on the basis of a retailer with particular characteristics – for example, an efficient, stand-alone retailer with a reasonable market share.

While the outcome varies for the different regulated retail tariffs, Ergon Energy is of the view that a significant number of existing tariffs have fixed charges which are not sufficient to cover the reasonable fixed costs of an efficient (and benchmark) stand-alone retailer. Furthermore, Ergon Energy notes in some instances the fixed costs in the regulated retail tariffs do not even cover the fixed charge component of network tariffs which are billed to retailers.

Accordingly, Ergon Energy considers that the fixed charges incorporated into existing regulated retail tariffs are not cost reflective, nor do they send appropriate signals to customers as to costs of servicing the customer, regardless of their consumption or demand on the network.

If not, which of the existing tariffs have fixed charges that are the closest to cost reflectivity and which fixed charges are the furthest from cost reflectivity?

As noted above, the main challenge in any such analysis is identifying the level of retailer fixed costs, as this will vary between retailers. However, on the basis of the proposed N+R approach, a reasonable method for undertaking preliminary analysis (in the absence of a detailed 'bottom-up' review of cost elements within the tariffs) may be to compare the current fixed charge components (i.e. any minimum payments, service fees, annual fixed charges or guarantee agreement shortfall charges) in each of the existing regulated retail tariffs with a combination of:

- The current fixed charges included in the applicable (Energex) network tariff for each of the specific regulated retail tariffs; plus

- The retail cost component rates per customer (cost-to-serve) as identified in the QCA's Benchmark Retail Cost Index (BRCI) Determination for 2009-10.<sup>1</sup>

Ergon Energy agrees with the QCA, that a detailed review of cost elements, including division of costs into fixed and variable components could be undertaken during consultation on the first pricing determination under the new pricing methodology.

Should the retail (non-network) prices include a fixed cost component as well as a variable cost component?

**Retail prices (or regulated retail tariffs) should include a fixed cost component**

Ergon Energy strongly supports the inclusion of fixed cost components in regulated retail tariffs, along with variable cost components. As noted above, there are both fixed and variable costs that a retailer incurs as part of the business of energy retailing. Inclusion of a fixed cost component in regulated retail tariffs will ensure a clear signal is provided to customer as to the economic value of electricity services regardless of usage, as well as enabling retailers to recover these costs. Variable cost components dependant on a customer's usage should provide appropriate economic signals to customers as to the cost of their electricity use.

To ensure regulated retail tariffs efficiently recover costs in delivering retail services to customers, it is essential for the fixed retailing costs to be recovered via a fixed cost component in the retail tariff. Ergon Energy considers that failure to recover an appropriate (network and retail) fixed cost may lead to a perverse outcome where retailers are provided little or no incentive to encourage customers to reduce their energy consumption. That is, in instances where a customer has little or nil consumption, in the absence of a fixed cost component the retailer would not be able to recover its (full) costs in providing retail services to the customer, and would therefore be providing its services to the customer at a loss.

What alternatives, if any, are available for aligning network tariffs with retail tariffs?

Ergon Energy strongly supports the goal of aligning retail tariffs with network tariffs as an essential component of implementing a functional regulated tariff regime.

The most appropriate way of achieving this outcome is to ensure that the eligibility rules for a customer to access a particular regulated retail tariff are consistent with (and determined by) the eligibility rules associated with the applicable network tariff for that customer.

Table 1 below provides a number of basic examples for illustration purposes.

<sup>1</sup> Ergon Energy notes that the retail cost component rates in the 2009-10 Determination are based on the retail cost categories the QCA was required to consider in calculating the BRCI, and the retail costs per customer were based on estimates of customer numbers from both Energex and Ergon Energy. Based on the information provided in the 2009-10 BRCI final determination, Ergon Energy considers any analysis of cost reflectivity of fixed charge components should take into account retail operating costs per customer plus customer acquisition and retention costs per customer (i.e. for example for 2009-10 a total of \$109.72, comprising of \$83.19 for retail operating costs, and \$26.53 (\$19.99 + \$6.54) for customer switching and transfer costs).



Table 1: Example Eligibility Rules for Alignment of Network and Retail Tariffs

<b>Energex Network Tariff</b>	<b>Eligibility</b>	<b>Retail Tariff</b>	<b>Eligibility</b>
Domestic Energy Only / Business Small	<ul style="list-style-type: none"> <li>- For SAC customers consuming less than 25MWhs/annum</li> <li>- Only available for Basic Accumulation Metered customers</li> </ul>	Retail Tariff A	<ul style="list-style-type: none"> <li>- For SAC customers consuming less than 25MWhs/annum</li> <li>- Only available for Basic Accumulation Metered customers</li> </ul>
Business Small TOU	<ul style="list-style-type: none"> <li>- For SAC customers consuming less than 25MWhs/annum</li> <li>- Only available for TOU Metered customers</li> <li>- Peak TOU Period "A"</li> <li>- Off Peak TOU Period "B"</li> </ul>	Retail Tariff B	<ul style="list-style-type: none"> <li>- For SAC customers consuming less than 25MWhs/annum</li> <li>- Only available for TOU Metered customers</li> <li>- Peak TOU Period "A"</li> <li>- Off Peak TOU Period "B"</li> </ul>
Business Medium	<ul style="list-style-type: none"> <li>- For SAC customers consuming greater than 25MWhs/annum</li> <li>- Only available for Basic Accumulation Metered customers</li> </ul>	Retail Tariff C	<ul style="list-style-type: none"> <li>- For SAC customers consuming greater than 25MWhs/annum</li> <li>- Only available for Basic Accumulation Metered customers</li> </ul>
Business Medium TOU	<ul style="list-style-type: none"> <li>- For SAC customers consuming greater than 25MWhs/annum</li> <li>- Only available for TOU Metered customers</li> <li>- Peak TOU Period "C"</li> <li>- Off Peak TOU Period "D"</li> </ul>	Retail Tariff D	<ul style="list-style-type: none"> <li>- For SAC customers consuming greater than 25MWhs/annum</li> <li>- Only available for TOU Metered customers</li> <li>- Peak TOU Period "C"</li> <li>- Off Peak TOU Period "D"</li> </ul>

In Retail Tariffs A and C, the price of the retail components may be the same – that is, the same retail fixed and retail variable costs could apply. Similarly, the price of the retail components in Retail Tariffs B and D may be the same – that is the same peak variable rate and the same off-peak variable rate could apply (subject to considerations such as the time-of-use periods applied in each tariff). This is largely due to the fact that from a retailer perspective the wholesale cost of energy (the variable cost) is not a product of energy volume consumed. It is more relative to the time at which energy is consumed.<sup>2</sup>

Furthermore, Ergon Energy considers it essential that retail tariffs are structured in such a manner that they allow for the underlying network pricing signals to be received by customers via the retail tariff. For example any charging parameters (or price components) and signals which are utilised by the distributors in their network tariff structures to deliver a network pricing signal (such as a capacity charge, volume charge, demand charge etc), must be also evident in the retail tariff structure to ensure the end customer receives the appropriate pricing signals.

Ergon Energy agrees that there would be benefit in retailers and distributors working together to achieve alignment of appropriate signals where possible. The greatest challenge in this regard will be the alignment of meaningful time-of-use periods. However, to the extent that there is correlation between times of network peak demand and higher wholesale energy costs, an appropriate signalling structure for both parties should be achievable.

Ergon Energy recognises and appreciates the concerns of some stakeholders, that in setting bundled N+R prices for regulated retail tariffs, this may lead to the duplication of retail tariffs whenever different N components (i.e. Energex network tariffs) are applied to different customers on the same retail tariff. However, Ergon Energy considers a potential increase in the number of regulated retail tariffs may not necessarily be a negative outcome. Furthermore, it is considered this may be an essential by-product of a move towards ensuring more appropriately structured retail tariffs which reflect the underlying cost of supplying electricity.

While it may be possible to construct a bundled regulated retail tariff using either an averaged “N” component, or only applying one of the “N” components (i.e. where different or multiple ‘N’ components may apply), Ergon Energy considers this would be counterproductive to the objectives of enhancing the cost reflectivity of the regulated

<sup>2</sup> Ergon Energy notes:

(i) As energy consumption across the State increases there will in due course be a requirement to bring more generation on line to meet consumption requirements. To the extent that new generation (eg. renewable, gas-fired, CPRS impacts generally) is more expensive than the current generation mix, it may be argued that customers with higher consumption will ultimately drive up energy costs. This additional cost should, however, be reflected in wholesale energy costs generally, and therefore be captured in the wholesale energy cost component of the ‘cost stack’ methodology. The merit of ‘overcharging’ large volume consumers now to avoid the need to build new generation later is a complicated issue in the context of ‘cost reflectivity’. For example, is such a charge best considered as reflective of future cost resulting from the high consumption behaviour? A further challenge is the question of targeting high volume customers rather than inefficient customers. A customer may be low volume, but inefficient, and therefore contribute unnecessarily to increased generation requirements. Mechanisms outside pricing will be a necessary component of any solution.

(ii) Retailers with a smaller portfolio (i.e. less physical load to trade) may not be able to access hedge contracts at the same costs as larger volume retailers.

retail tariffs. Further any such approach could potentially result in either over- or under-recovery of costs from customers.

## The suite of tariffs available to customers

Which of the existing tariffs are closest to achieving cost reflectivity and why?

As noted in the QCA's Final Report in respect of Stage 1 of the Review, there is a distinction to be made between cost recovery and cost reflectivity. Consider this in terms of a simple tariff with a fixed and variable component (for example Tariff 11). A tariff should not be considered cost reflective if the fixed costs do not reflect the underlying fixed costs of supply. However, if the variable rate in that tariff is priced higher than the variable cost to supply then once a particular volume of energy is consumed by the customer, the retailer will have recovered their costs. For energy consumption above that level the customer will become profitable for the retailer. However, for customers who do not consume a sufficient volume of electricity the variable charges recovered will not be sufficient for the retailer to recover the fixed costs of supplying electricity to the customer. Therefore, such a tariff is not cost *reflective*, but it will result in cost *recovery* for customers who consume over a certain volume. For those customers who consume under the 'break-even' volume the tariff is neither cost reflective nor could it achieve cost recovery.

Cost reflectivity of existing tariffs can be determined by identifying the underlying costs and comparing them with the actual charges (or price components) in each tariff. While some of the costs are relatively simple to identify (for example the network costs (or tariff) applicable to a customer can be identified by applying the rules in the relevant network tariff schedules), other retail costs will vary according to such things as:

- The efficiency of the retailer;
- The structure of a retailer (for example vertical integration with generator(s));
- Whether the retailer is a new entrant, or an established national retailer;
- The billing system and IT capability of the retailer;
- The ability of the retailer to access hedge contracts to manage its wholesale energy risk; and
- The impact of wholesale market pool outcomes on a retailer.

For this reason, Ergon Energy submits that it is necessary to (continue to) apply a benchmarking approach to identifying retail costs (or the R component) under the recommended N+R approach in setting regulated retail tariffs. However, Ergon Energy is cognisant that any benchmarking approach must also take into consideration the unique characteristics and attributes of the Queensland electricity market, which may not be apparent for retailers operating in other jurisdictions. For example in Queensland:

- A small customer who has entered into a market contract with a retailer can elect to revert back to regulated retail tariffs (under a standard retail contract with a market retailer) upon completion or termination of a market contract;
- New large customers (and any existing non-market customers) can currently access notified prices; and
- The costs of supplying electricity to regional Queensland customers is high, meaning that many regional customers will not be able to access a market offer

below regulated retail prices. These customers instead receive the benefit of the Uniform Tariff Policy and the Queensland Government's Community Service Obligation, which limits the extent that full costs can be charged to them, by providing the right to access the notified prices.

Ergon Energy considers that any benchmarking of retail costs should not be based on the costs of a large, national, vertically integrated retailing business. To do so is likely to limit participation in the Queensland market to one or two retailers with those characteristics. This would act as a barrier to entry for new retailers whose presence in the market could otherwise foster lower prices and a broader range of retail product offerings to customers in Queensland.

Ergon Energy therefore submits that benchmarking should be based on the higher end of the reasonable range of costs of an efficient medium to large sized stand-alone retailer (for example, a retailer without vertical integration). Ensuring that benchmark costs are within a reasonable range also ensures that the retail component of the regulated retail tariffs are not inflated for those customers in regional Queensland, who are otherwise unable to access a competitive market contract.

Full details and aspects of the benchmark calculations will need to be subject to sufficient public consultation during the fleshing out of any detail in establishing the new long-term pricing framework and price setting process. Ergon Energy appreciates that for the purposes of current analysis, a reasonable and practical approach may be required to determine benchmark costs for assessing the cost reflectivity of the existing suite of retail tariffs. While Ergon Energy considers such an approach may also have application for a transitional period, Ergon Energy notes that any such approach should not limit the options for further consultation in establishing the actual pricing framework and price setting process.

By way of example, Ergon Energy considers the following approaches (which draw on previous work of the QCA and its consultants) could be applied:

- *Wholesale energy costs* – Ergon Energy agrees with the QCA, that a market based approach should be applied as the LRMC approach assumes that the retailer has access to generation through vertical integration. The wholesale cost will need to be shaped (for example by the Energex Net System Load Profile) and benchmark energy losses applied;
- *Environmental costs* (for compliance with the Mandatory Renewable Energy Target and the Queensland Gas Scheme) – set at the level of the penalty price, which reflects the ceiling compliance cost. This avoids the need for unnecessary and extensive forecasting analysis to attempt to determine how each market will behave during the period of the pricing determination. This is a relatively minor cost contributor to the overall outcome;

- *Retail Operating Costs* (or Cost-to-serve) – the QCA identified retail cost component rates per customer in its 2009-10 BRCI determination<sup>3</sup> <sup>4</sup>;
- *Retail Margin* – the QCA’s consultants, CRA International, in their analysis of the BRCI for 2007-08 and 2008-09 identified that the reasonable range for a retail margin was 2 – 8% of total costs, before ultimately recommending that a retail margin of 5% was appropriate for the BRCI at that time<sup>5</sup>. While a standard percentage margin could be applied across all customers (or tariffs) it may be more appropriate to consider applying a range of percentages across customer segments (determined by tariff eligibility) such that a smaller margin is applied to large volume customers. Note that while this would potentially result in a lower “R” component for larger customers than for smaller customers, this should not be avoided where it is reflective of appropriate cost recovery.

Which of the existing tariffs are furthest from achieving cost reflectivity and why?

Ergon Energy considers this could be determined by applying the approach to construction of a cost stack as identified above.

Is the existing schedule of tariffs sufficient to achieve cost reflectivity or should further tariffs be added (or deleted)?

Ergon Energy agrees with the QCA that in general, the existing schedule of tariffs is unlikely to be cost reflective and a restructure of the tariffs could enhance customers understanding of tariffs, and provide better signals to customers regarding the costs of their electricity use.

Whilst there may be scope for some of the “existing” tariffs to be retained where the structure of a retail tariff appropriately reflects the underlying costs of supply, Ergon Energy considers the existing retail tariff schedule needs a fundamental overhaul, and that a full review of the eligibility requirements for all of the retail tariffs is required. Current (and future) metering arrangements are also a key consideration, in developing a schedule of (retail) tariffs appropriate for implementation in the Queensland market.

For example, the existing retail Tariff 11 has a fixed component and a variable component. It is available to domestic customers. The associated Energex network price also currently only has a fixed and a variable component. Structural alignment therefore exists, but the levels of each component must be reviewed and adjusted. As identified in Table 1 above, if cost reflectivity is the desired outcome, it may not be necessary to distinguish between domestic and business customers. As such, the

<sup>3</sup> Ergon Energy notes that the retail cost component rates in the 2009-10 Determination are based on the retail cost categories the QCA was required to consider in calculating the BRCI, and the retail costs per customer were based off estimates of customer numbers from both Energex and Ergon Energy. Based on the information provided in the 2009-10 BRCI final determination, Ergon Energy considers any analysis of cost reflectivity of fixed charge components should take into account retail operating costs per customer plus customer acquisition and retention costs per customer (i.e. for example for 2009-10 a total of \$109.72, comprising of \$83.19 for retail operating costs, and \$26.53 (\$19.99 + \$6.54) for customer switching and transfer costs).

<sup>4</sup> WEC and Environmental costs would be variable costs i.e. c/KWh, Retail Operating Costs would be fixed i.e. \$/day and Retail Margin would be a combination of fixed and variable costs.

<sup>5</sup> CRA International – Draft Report – Calculation of the Benchmark Retail cost Index for 2007-08 and 2008-09.

eligibility requirements for Tariff 11 would also need to be adjusted to align with the associated Energex network tariff. (Note – while Energex have “Domestic Energy Only” and “Business Small” network prices, the rates of those prices are currently the same. If that was to vary in future it would be necessary to introduce an additional retail tariff incorporating the different network price). However, it should be noted that if the underlying network tariff were to change in structure, for example to include capacity or demand charges, then under the N+R approach, this should flow through to the regulated retail tariff to ensure cost reflectivity.

As mentioned above, Ergon Energy considers a potential increase in the number of regulated retail tariffs may not necessarily be a negative outcome. Furthermore, it is considered this may be an essential by-product of a move towards ensuring more appropriately structured retail tariffs which reflect the underlying cost of supplying electricity.

A transitional approach to retail pricing for 2010-11 is discussed in section 3.3 below.

#### What types of tariffs would ideally be included in the tariff schedule?

As recommended by the QCA in its Final Report in respect of Stage 1 of the Review, all regulated retail tariffs should be structured on the basis of an N + R building block. To achieve the Queensland Government’s Uniform Tariff Policy and promote competition where viable, the “N” component should reflect the relevant Energex network price.

Under the N+R approach, regulated retail tariffs should reflect the signals contained in the underlying network tariffs. This means that where time-of-use tariffs, controlled load tariffs and kVA tariffs are part of the network price signal, they should be reflected in the regulated retail tariff. Such tariff structures allow for clear signals to be sent to customers about the cost of their electricity use, and promote demand reduction and energy efficiency, particularly at times the distribution network is at peak demand. This is discussed further in section 3.2 below.

Consideration must be given to ensuring protection for vulnerable customers. The Queensland Government Electricity Rebate currently exists to assist eligible customers (e.g. pensioners) with their electricity costs. To address any new or additional hardship issues for those customers as a result of an increase in the fixed component of retail tariffs, it is considered relatively simple to increase the fixed amount of that rebate.

Otherwise, care should be taken not to interfere with the operation of the electricity market via the adoption of subsidised regulated retail tariffs. More appropriate mechanisms for targeting customers in need through both retailer hardship programs and independent Government subsidies and support should be considered. Such approach is consistent with the Ministerial Council on Energy’s principles to guide the future development and implementation of energy CSOs<sup>6</sup>.

<sup>6</sup> Ministerial Council on Energy, Energy Community Service Obligations, National Framework.

Regarding the conditions that restrict the uptake of certain regulated tariffs, are there any conditions that should be changed or relaxed to allow or encourage more customers to take advantage of time-of-use tariffs, controlled load tariffs or other types of tariff that may be considered more cost reflective?

Ergon Energy considers the key requirement is the alignment of retail tariff eligibility and classification with the relevant network tariff.

The existence of clearer eligibility rules will allow retailers to provide assistance to customers to choose the most appropriate tariff for which they are eligible (subject to the customer's network tariff).

In addition to eligibility issues, Ergon Energy notes the mandatory hard-wiring of certain appliances (or elements) to controlled load tariffs may be worth further consideration.

Ergon Energy notes that any conditions which facilitate a greater penetration of controlled loads would greatly benefit the management of peak demand, and ultimately contribute to lowering the cost of electricity for all consumers.

For example a requirement to connect electricity hot water systems, boosters for solar or heat exchange units and air-conditioners<sup>7</sup> to interruptible tariffs (for example tariff 31, 33, or equivalent) would assist in achieving this outcome. However, when considering such requirements, any associated costs incurred by customers in complying with such a requirement must also be considered. In this regard, a broader policy approach which requires new and replacement equipment to be hard wired as a controlled load on installation, or for it to occur as a condition of property sale could be considered by the Government. Any consideration by the Government regarding the adoption of a broader policy approach in this regard should recognise the needs of any vulnerable customer groups that would be adversely affected by the introduction of such requirements.

## Promoting competition across classes of customers

Is there a greater level of retail competition evident for certain classes of customers? If so, what makes these types of customers more attractive for competition?

Ergon Energy Queensland is a non-competing retailer supplying customers in regional Queensland on standard retail contracts. As Ergon Energy's costs are greater than the revenue it receives from customers on regulated retail tariffs, it receives CSO payments from the Queensland Government to ensure its customers retain access to affordable electricity supply. Competition is limited in regional Queensland as the high cost of supply does not provide the opportunity for effective retail competition at or below the notified prices.

Whether competition in South East Queensland exists for a particular class of customers will depend on the costs to supply that class of customer compared with the level of the regulated price to which that customer class is currently eligible, and potentially the existence of headroom in the regulated prices.

<sup>7</sup> Both Ergon Energy and Energex are currently trialling the cycling of air-conditioning compressors. This is discussed further in section 3.2 of this paper.

Are certain classes of customers, on average, currently on tariffs closer to cost reflectivity than others? Why?

The 'cost reflectivity' of particular tariffs can be determined by comparing the underlying costs with the actual retail tariff components. This can be performed by applying the approach to benchmarking retail costs identified above, and adding the relevant network costs. The difficulty with this review, as identified in Ergon Energy's submission in relation to Stage 1 of the Review, is that many regulated retail tariffs are underpinned by multiple network prices. The level of actual cost reflectivity will therefore be relevant not only to the characteristics of the actual retailer, but also relevant to the relevant network prices the retailer is being charged. As such, the same regulated retail tariff will be more or less cost reflective depending on the network charge. For this reason, limiting the eligibility for particular retail tariffs to the eligibility for network tariffs is critical for ensuring future cost reflectivity in regulated retail tariffs. The correct tariff structure relevant to underlying costs (e.g. fixed/variable etc), the eligibility rules and the component calculation rules all impact on whether a tariff is ultimately cost *reflective*. The level of the customer's consumption will also be a driver of the tariff's cost *recovery*.

How should the Authority best determine the prices necessary to promote competition for each customer class?

The QCA's recommendation of an N + R building block approach to regulated retail pricing will help to ensure competition is promoted in South East Queensland for each customer class. A benchmarking approach to identifying retail costs (or the R component), such as that described above, which sets the Retail components at the higher end of a reasonable band, will further assist in ensuring that prices are not set too low and inadvertently act as a barrier to entry to new retailers who are willing to compete in the market.

The approach to setting each of the separate Retail components should be considered when resolving the approach to the issue of inclusion of headroom. As noted by the QCA in its Final Report for Stage 1 of the Review, care should be taken not to inflate prices as Ergon Energy Queensland's customers will generally only be able to access the notified prices, rather than the lower competitive rates which should be available to customers in South East Queensland.

The QCA should also bear in mind the role of regulated retail tariffs as a safety net, and the role of network pricing to deliver key price signalling messages (e.g. demand management). The retail component should not be overly sophisticated as retail product development should remain the domain of competitive retailers. Innovative product development of market retailers will further encourage customer churn. The fact that EEQ customers are limited to supply at notified prices does not change that conclusion as it is considered that such an approach would still result in sufficient options and signalling in the retail component of the regulated tariffs available to customers.

When considering this issue, it is also relevant to note that prior to the introduction of retail competition in Queensland, customers in South East Queensland were generally subsidising customers in regional Queensland. That is, customers in South East Queensland generally paid more than the cost to supply them, while regional Queensland customers paid less than the cost to supply them (and still do). This was achieved as notified prices were generally set well above the cost to supply in South East Queensland, but still (generally) well below the cost to supply in Regional Queensland.

If prices are made cost reflective, are there any reasons why notified prices should not be retained for small and/or large business and commercial customers?

Ergon Energy believes that customers should see the true cost of energy and any subsidies or support should be provided in an explicit and transparent manner. However, it is noted that the Queensland Government's current policy is that all non-market customers have access to the notified prices. Further, the Government, in the Direction to the QCA, stated that the Review should be conducted within the context of the Uniform Tariff Policy. Due to the unique circumstances in Ergon Energy's area, full consideration of the impacts on customers and the community must occur before a decision is made to remove access to the notified prices.

### **The removal and consolidation of tariffs**

Should the three existing tariffs that are labelled obsolete in the tariff schedule be removed, and if so, what are the implications of doing so?

The current rules provide that no new customers are entitled to supply on the obsolete tariffs. It is considered impractical to continue an approach whereby all old, or obsolete, tariffs are retained until all customers supplied on those tariffs choose to move to another tariff. It is considered appropriate that the obsolete tariffs be removed, and relevant customers transferred to another applicable tariff. The timing of this action should be considered in light of the broader review recommendations to limit the impact of multiple tariff changes for affected customers.

What criteria should be used to consider which tariffs to consolidate?

Ergon Energy supports the QCA's recommendation of an N + R approach to determining regulated retail tariffs. If this recommendation is accepted there would be a fundamental overhaul of the current tariff schedule, and the issue of consolidation would be irrelevant.

Further, one of the key issues identified in Stage 1 of the Review is the fact that multiple network prices underlie most existing retail tariffs. It is considered more appropriate to increase the number of tariffs (to reflect the number of network tariffs) rather than consolidate them and exacerbate the existing problem of lack of cost reflectivity.

If a transitional approach is deemed necessary for the 2010-11 year, the issue of consolidation will need to be considered in light of the transition path. Transitional options are discussed below in Section 3.3 of this submission.

Which of the existing tariffs should be consolidated?

See previous comments.

### 3.2 Alternative tariff structures to encourage efficient use of electricity

What should be the relevant considerations when choosing alternative tariff structures that promote demand management and energy efficiency?

Ultimately to promote demand management and energy efficiency, a tariff must be structured in a manner which allows clear signals to be sent to customers as to the economic value of their electricity connection and service, and the underlying fixed and variable costs of their electricity use and demand on the network.

At a high level, there are a number of relevant factors to consider in constructing a tariff with a view to promoting demand management and energy efficiency. Such factors include:

- Network capacity and peak demand (i.e. what are the periods during the day of high and low demand, and when should electricity use be encouraged);
- Nature of the customer's usage (i.e. domestic, industrial, rural etc) and load profile;
- Customer's ability or likelihood to respond to a pricing signal (i.e. can the customer control their load to take advantage of the tariff structure);
- Metering technology installed at a customer's premise; and
- Costs in implementing and administering a tariff.

The issue of the management of peak demand is a particular focus of the distribution businesses as they must build a network which is capable of meeting the peak demand levels of its customers at critical peak periods. Co-incident peak demand is a driving factor behind the cost of building and augmenting a network, and therefore is one of the drivers behind network prices. As management of (peak) demand is a core issue for distributors, Ergon Energy strongly submits that (peak) demand price signalling should remain the responsibility of the distribution businesses. Further this should occur through the development of its network prices (i.e. the N component) as regulated and approved by the Australian Energy Regulator. While Ergon Energy recognises that when energy is consumed in peak times, the retailer is generally more exposed to a higher wholesale energy cost, Ergon Energy considers the impact and flow through of this risk to retail pricing should be captured through the incorporation of an appropriately shaped wholesale cost of energy component, rather than through a retail demand charging component in the regulated retail tariff.

Accordingly, Ergon Energy considers the recommended N + R approach to regulated retail pricing with appropriate alignment of retail and network tariff structures is the best method by which to ensure appropriate price signalling is achieved in promoting demand management activity. Any attempt to send demand signals in regulated retail tariffs which do not reflect the demand signalling in network prices will lead to under- or over-recovery from customers on those tariffs, as they would not reflect the true cost of supply.

Ergon Energy also considers that the N + R approach to regulated retail pricing will also help to promote energy efficiency. One flaw of the existing regulated retail tariffs which is inconsistent with the promotion of energy efficiency is the fact that the fixed cost component generally under-recovers the (network and retail) fixed costs of supply. As noted previously, Ergon Energy considers that failure to recover an appropriate fixed

cost in the regulated retail tariffs may lead to a perverse outcome where retailers are provided little or no incentive to encourage customers to reduce their energy consumption. Regulated retail tariffs with fixed costs that reflect the actual fixed costs of supply would resolve this issue.

As noted above, any approach to regulated retail pricing other than cost reflectivity would mean either over- or under-charging customers for their electricity supply. Attempting to create tariff structures which send signals that seek to encourage lower energy consumption by inflating variable energy costs for high-volume customers (e.g. inclining block retail tariffs) are likely to be inconsistent with the actual costs of supplying customers<sup>8</sup>. This is not the role of regulated retail pricing.

In summer months customers tend to use a greater volume of electricity to power air-conditioning and other cooling equipment. Reflective of the greater demand and risk of wholesale price spikes at that time of year, wholesale cost of energy is typically higher in summer months. A retail component of the regulated retail tariff which had a seasonal charge (i.e. higher variable rate in summer to recover higher wholesale costs) may be one method to ensure customers understand the true cost of supply and may thereby encourage a general reduction of energy use in summer months. The benefit of such approach is that it should also have an indirect impact on peak demand reduction.

Introduction of seasonal pricing is not limited by the existence of accumulation meters (i.e. the type of meter installed for most small customers). Some accumulation meters are also capable of delivering some limited time-of-use functionality. More sophisticated retail pricing for customers on accumulation meters is, however, limited.

In any event, cost reflective tariffs are considered to be merely a starting point for promoting energy efficiency. In addition, customer information (e.g. in-house displays, energy audits) and significant, long-term education campaigns are essential if energy efficiency objectives are to be achieved.

What impacts will peak and off-peak pricing have on various customer classes? What classes of customer are likely to be affected most?

**Time-of-use pricing which applies a higher variable rate in peak periods will likely mean cost impacts for customers consuming energy in those peak times who are unable to alter their energy use patterns.**

Ergon Energy notes that day time peak demands have the most impact on the network, and therefore from a network perspective it is preferable to encourage energy use to be shifted to low use periods at night (when the capacity of the network is also higher). Therefore, the greatest impact will be on those customers that have no ability to avoid or reduce energy use during the day. In general terms, business customers who (only or mostly) operate during these hours and residential customers who remain at home during the day are most likely to be impacted by a tariff structure that discourages energy use during peak periods.

To some extent, Ergon Energy considers the impact of time-of-use pricing on some customer groups can be minimised through customer education. For example, to reduce or avoid energy use, customers can:

<sup>8</sup> Refer to Footnote 2.

- Change the time that they operate certain appliances representing discretionary loads (for example air-conditioners, dishwashers, clothes dryers etc) in order to access lower cost energy; or
- In addition to a time-of-use tariff, hard wire and connect eligible appliances (for example hot water systems and pool pumps etc) to a controlled load tariff(s) to access lower cost energy.

While these options may be available to some customers, Ergon Energy also recognises customers who have no (or limited) discretionary loads, or have no ability to take advantage of a controlled load tariff (for example customers in class 2 dwellings<sup>9</sup> who only have access to single (and shared) metering at the premises) could be adversely impacted by time-of-use tariffs. Therefore, Ergon Energy considers such customer should have the option of accessing other tariff structures, which still provide for appropriate signals as to the costs of their electricity usage.

Ergon Energy notes that when considering the operation of time-of-use pricing and the concept of retail tariff cost reflectivity, the potential difference between what the customer is charged and what the retailer actually pays for that load should also be considered. This will occur in circumstances where AEMO use a Net System Load Profile (or average load profile) as a basis to charge retailers in the wholesale energy market for the consumption of their customers with an accumulation meter. The customer however, would be billed by the retailer on the basis of their actual peak and off-peak consumption levels, and will benefit to the extent they consume in off-peak periods.

To what extent could network tariff reforms better address demand management objectives rather than retail tariff reform?

Ergon Energy submits that both network tariff and retail tariff reform need to work co-operatively to ensure demand management objectives are able to be achieved through the operation of an effective and functional regulated tariff regime. If retail tariffs do not support network tariffs then it will be difficult to provide customers with clear and appropriate signals which would encourage energy use at a time that would benefit the network.

As noted above, Ergon Energy considers network tariffs are the appropriate mechanism for delivering demand pricing signals. However, in this regard Ergon Energy also notes network tariff reform is a matter for the Australian Energy Regulator (AER), who will be responsible for the economic regulation of Queensland distribution businesses, including the regulation and approval of network tariffs from 2010.

Ergon Energy believes that the recommended N+R approach to retail pricing which allows for the pass through of network costs (and network pricing signals) is an important step for retail tariff reform in Queensland, and will provide a mechanism which allows both retail and network tariffs to work co-operatively to address common (retail and distribution) demand management objectives.

It is also important to note that there are other possible means and initiatives (other than through tariff reform) which could be utilised by distributors and/or retailers which together with the operation of (network and retail) tariffs could contribute to addressing demand management issues. For example, customer information and education.

<sup>9</sup> A Class 2 dwelling is a building containing 2 or more sole-occupancy units each being a separate dwelling

How should the Authority ensure that the structure of tariffs does not impede the existing initiatives of distributors in managing peak demand?

As noted above, Ergon Energy considers network tariffs are the appropriate mechanisms for delivering demand pricing signals. The recommended N + R approach to retail pricing which allows for the pass through of network costs (and signals), will to some extent, ensure distributors' initiatives in managing peak demand are not impeded. Structural alignment between network and retail tariffs (and charging parameters) is essential to ensure clear (demand) pricing signals are sent through to customers. Furthermore, Ergon Energy considers regulated retail tariffs should continue to support (and further encourage) direct control load arrangements (i.e. controlled load tariffs) currently in use throughout Queensland.

Ergon Energy notes that there are also other means and initiatives (other than through network pricing) which could and are being utilised by distributors in managing peak demand. In this regard, Ergon Energy submits that through appropriate consultation with stakeholders (including distributors), the QCA can ensure any re-structure of the regulated retail tariffs do not impede any existing industry initiatives with respect to managing peak demand.

As set out in our response to Stage 1 of the Review, it is Ergon Energy's preference that its own network signals are passed through to customers. However, Ergon Energy recognises the difficulty in achieving this while the Government's Uniform Tariff Policy remains.

### Inclining block tariffs

Would the introduction of an inclining block tariff structure deliver significant benefits (in terms of more efficient use of electricity and reduced peak demand) by itself?

**The fundamental flaw with an inclining block tariff is that it does not reflect the actual cost of electricity, and it provides little or no incentive for customer's to reduce energy in periods of peak demand.**

The underlying assumption of an inclining block tariff is that it can promote reduction of energy use, by sending a price signal to customers that attempts to curb energy consumption as it increases. From a network perspective, as day time peak demand has the most impact on the network, it is preferable to encourage energy use to be shifted to low use periods, when the capacity of the network is also higher. Similarly in the wholesale energy market, the wholesale cost of energy is largely influenced by *when* the energy is used (i.e. in peak or off-peak times) as opposed to how much energy is used. While an inclining block tariff may be useful from an energy conservation perspective, Ergon Energy is of the view that inclining block tariffs are inappropriate from a demand management perspective because:

- Inclining block tariffs can be equally penalising on customers who use significant amounts of energy at times of low network demand, and to customers who use significant amounts of energy during periods of high demand. As a result inclining block tariffs provide no differentiation between efficient energy users and inefficient users;
- Inclining block tariffs can create cross-subsidisation issues, in that they can potentially benefit smaller users (irrespective of whether they are efficient or

inefficient energy users), and punish larger efficient energy users. This is particularly the case if the lower price block is set at or below actual cost; and

- The 'resetting' of the lower cost energy block following a bill would provide customer's with little incentive to reduce their energy in times of high demand on the network.

Accordingly, Ergon Energy strongly submits that inclining block tariffs are not appropriate for promoting demand management, and in particular are not suitable tariff structures for large commercial and industrial customers.

Would an inclining block tariff structure be more suited to some tariffs than others? Which ones?

Inclining block retail tariffs are not generally considered appropriate for any customers as they can create cross-subsidy, overcharging or both.

What thresholds would be appropriate for each of these tariffs in order to provide appropriate pricing signals?

Inclining block tariffs are not generally considered appropriate, and in particular are not considered appropriate for larger commercial and industrial customers.

## Peak demand and time-of-use pricing

How widely available are time-of-use meters and to what types of customers?

Time-of-use meters are not commonly installed in small customer premises, and are generally more widely utilised in large commercial and industrial customer premises. Ergon Energy notes it is progressively deploying time-of-use meters (i.e. interval meters) to its large customers as part of its ongoing maintenance program.

Ergon Energy is also required under the National Metrology Procedure, to install type 5 meters capable of being upgraded to a 'functional' type 4 meter without being removed (that is a remotely read interval meter, producing metering data at half hourly intervals) on a new and replacement basis. However, in Queensland the National Metrology Procedure requires meters on non-market sites, and small market customer sites with annual consumption less than 100MWh to be registered and (manually) read as an accumulation meter. While this requirement is in place, the number of these meters currently installed is relatively low.

Would the availability of peak pricing and time-of-use tariff structures deliver significant benefits (in terms of more efficient use of electricity and reduced peak demand) given the existing availability of the required metering?

While time-of-use meters aren't widely utilised in the general population, peak pricing and time-of-use tariff structures still provide an effective mechanism in reducing peak demand on the network. This is because time-of-use meters (and tariff structures) are generally installed and utilised by large energy users (such as large commercial and industrial customers), who may have the ability to shift their load to off peak periods. The significance of the peak demand reduction benefit (and effectiveness of the time-of-

use pricing signal) is largely dependent on the customer's ability to shift load to take advantage of a time-of-use tariff.

Should time-of-use metering be encouraged and, if so, how?

As noted above, in accordance with the National Metrology Procedure, Ergon Energy is installing type 5 meters capable of being upgraded to a 'functional' type 4 meter without being removed (that is a remotely read interval meter, producing metering data at half hourly intervals). However in Queensland the National Metrology Procedure requires meters on non-market sites, and meters on small customer sites (i.e. annual consumption less than 100MWh) to be registered and (manually) read as an accumulation meter.

Ergon Energy supports the development of metering technology which will enable more effective price signalling (such as through time-of-use pricing structures). Ergon Energy notes that a change to the National Metrology Procedures would be required to allow customers (and in particular small customers) to make use of tariffs requiring time-of-use (interval) data. Ergon Energy believes that time-of-use data from smart meters together with network and retail tariffs that deliver effective price signals is the most appropriate outcome.

Any change in the requirement to commence reading type 5 meters as interval meters will have significant implications for distributors (and ultimately retailers and customers). Some of the implications for distributors include:

- Increased site visits to customers' premises to reprogram meters to allow for interval data to be collected for time-of-use tariffs;
- Increased time (and labour costs) required to download required interval data from each meter rather than reading meter registers;
- Increased expenditure in metering equipment (such as download probes) to allow meter reads to be conducted with existing (hand-held) metering equipment. Such equipment would become obsolete, if a decision was made to roll out smart meters in Queensland; and
- Increased expenditure and investment in system and IT capabilities to cater for changes to metering and billing processes.

Ergon Energy notes that although new electronic meters currently being installed by distribution businesses in Queensland are capable of providing time-of-use readings, without being read as an "interval meter" (i.e. the meters are able to be programmed to accumulate the registration on different time rates into separate registers, and then read as an accumulation with multiple registers) the number of such meters currently in service in Ergon Energy's distribution area is relatively low (estimated at less than 1% of metering inventory). Furthermore, the implications for distributors in enabling such time-of-use reading capability would be just as significant as a change to the National Metrology Procedure as discussed above.

Finally, a decision on whether or not to roll-out smart meters to small customers in Queensland is expected in 2012. If such a decision is made, the costs outlined above will become inefficient as they would not have been incurred under a smart meter roll-

out and significant additional expenditure will then be required to enable smart metering<sup>10</sup>.

Accordingly Ergon Energy supports time-of-use metering (and tariffs) where there is a positive business case and clear benefit to customers and the network in investing in such metering technology at a premises. As large energy users are more likely to have an ability to shift their loads to off-peak periods and take advantage of a time-of-use tariff, Ergon Energy suggests this customer segment is an area where time-of-use metering is appropriately targeted.

## Interruptible tariffs

How effective are interruptible tariffs and/or individual control devices in managing customer demand during peak demand periods?

Interruptible tariffs applied to suitable loads are extremely effective in managing peak demands in times of network constraint. Ergon Energy estimates that it has approximately 670MW of connected load under control, which can result in over 200MW of load reduction at peak times. Further to this, Ergon Energy notes:

- Approximately 70% of all of Ergon Energy's residential customers have some form of interruptible tariff (Tariff 33 or Tariff 31);
- Hot water, air conditioners, pool pumps and other discretionary appliances have been connected to interruptible tariffs for many years with immense customer acceptance;
- Ergon Energy is considering whether additional controlled load tariffs should be introduced from a network perspective;
- Recent trials undertaken by Ergon Energy for direct load control of air conditioning have proved encouraging with nearly a kilowatt of load per customer reduced over the control period. As result Ergon Energy is expanding the trial to include another trial area and aims to secure additional customers on this trial; and
- Ergon Energy has also been working in conjunction with Energex to develop a direct load control device that deals with the issues raised with having pool pumps on interruptible tariffs. Initial research and reactions from key stakeholder groups is encouraging and Ergon Energy will be progressing a trial of this device in the next few months.

To what extent have customers in each distribution area that have the capacity to access an interruptible tariff taken up the option?

Within Queensland, a very high proportion of customers have the capacity to access interruptible tariffs (tariffs 31 and 33). As noted above, approximately 70% of all of Ergon Energy's residential customers have some form of interruptible tariff

<sup>10</sup> As set out in our response to Stage 1 of the Review, the benefits derived from such a roll-out are considered to increase to the extent that effective price signalling, utilising the meter sophistication, is able to be delivered to customers.

What types of consumption would be suitable for interruptible tariffs and/or individual control devices?

Interruptible tariffs are ideally suited for appliances that are discretionary in their use or are able to be operated without a perceived loss of utility by the customer.

'Non-visible' loads such as hot water energy storage devices, pool pumps and some forms of refrigeration are particularly advantageous to connect to interruptible tariffs, as it allows for appliances to operate out of peak period, without adversely or 'visibly' impacting the customer. 'Visible' loads or discretionary appliances such as air conditioners, dishwashers, washing machines and clothes dryers are also suitable for interruptible tariffs. However, switching (or off supply) times for these visible loads need to be consistent on a daily basis so the customer can plan usage around the switching periods. Generally loads need to be switched off over the (domestic) evening peak to be effective, which is typically at least of three hours duration.

Recent trials undertaken by Ergon Energy for direct load control of air conditioners have also proved encouraging, with loads cycled rather than interrupted over the peak period, allowing customers to have the benefit of cooled and dehumidified air.

What are the metering requirements for hard wired appliances and those using individual control devices?

Hard wired devices interrupted at the switchboard, should be metered on a separate element to the main tariff, as currently done for Tariff 31 and 33. This provides ability to reward customer, via a lower network tariff, for providing controlled load.

In addition to this solution, individual control devices can be used but can only be metered on the main tariff at the installation, as this is what provides power to the general power outlet. Provision of incentives for customers to adopt this solution would need to be provided.

Would a wider availability of interruptible tariffs and/or individual control devices enabling remote load control be an effective means of managing periods of peak customer demand? Which would it be more cost effective?

Yes. Ergon Energy considers this could be extremely effective. Given that most existing metering arrangements would not have to be changed, and that distribution businesses already have Audio Frequency Load Control Systems widely deployed, a wider availability of interruptible tariffs could be quite cost effective.

Ergon Energy considers that the take up of interruptible tariffs in Queensland could be improved through:

- Improved marketing of interruptible tariffs to new home builders;
- Improved marketing of interruptible tariffs to other customer segments with relatively low market penetration (such as small business customers); and
- Restructure and/or introduction of other interruptible tariffs to cater for specific discretionary appliances such as air-conditioners with shorter switch times or cycling over peak periods.

## Other demand management initiatives

What other demand management initiatives are being undertaken by industry?

Ergon Energy plans to invest almost \$70 million in developing affordable alternatives to address growing peak demand over five years. Under the AER's new Demand Management Incentive Scheme (DMIS), Ergon Energy will invest \$5 million over five years to develop demand management initiatives. \$61 million over five years is planned to be invested in efficient non-network alternatives, aimed at addressing the issue in ways other than traditional network expansion. Ergon Energy's current non-network alternatives program focuses on the following five projects.

- *Townsville Network Demand Management commercial and industrial pilot project.* This pilot project initiative involves entering into contracts with commercial and industrial customers in Townsville. Ergon Energy makes financial contributions to each customer's capital works programs in order to implement various technical and commercial network demand management arrangements.
- *Townsville: Queensland Solar City.* This project is a Federal Government initiative to trial a sustainable business model for the concentrated deployment of distribution generation (solar photovoltaics) and demand management through energy efficiency, load management, smart meters and innovative trials
- *Townsville and Magnetic Island Residential Air Conditioning Direct Load Control.* Ergon Energy has been undertaking a pilot of controlling air conditioning compressors in up to 70 volunteer residential customer premises across Townsville / Magnetic Island. The purpose of the project is to test offers to understand optimal customer purchasing and to demonstrate peak load reduction in a defined area by controlling residential air conditioning units in a manner that has negligible impact on customer comfort perceptions
- *Pool Pump and Filtration Direct Load Control Trials.* Currently, there is little opportunity to exercise direct load control on pool pumps. The pool construction and pool servicing industries, who have direct contract with customers and key channels to the market, have little if any incentive to promote energy efficiency and in some cases actively advise against customers having their pool pumps controlled through a controlled load tariff. In order to address these potential barriers, a technological solution is being developed to allow connection to existing controlled load tariffs without the shortcomings associate with them.
- *Cloncurry North SWER Network Demand Management Trials.* Customers on SWER (Single Wire Earth Return) systems are a particular focus as the demand being placed on SWER systems far exceeds what they were originally designed to support. A trial is underway with a small number of customers on the Cloncurry North SWER system that involves demand reduction through the installation of timers on hot water, pumps and air conditioning loads as well as the installation of ceiling insulation and installation of solar hot water systems.

Further details on Ergon Energy's Non-Network Alternatives Program are available in Ergon Energy's Regulatory Proposal to the AER for the period 2010 – 2015.

Are such schemes capable of being integrated with any of the identified alternative tariff structures?

Yes. Ergon Energy believes beyond trial and pilot phases, successful initiatives are capable of being integrated with alternative retail tariff structures.

Are alternatives to the existing tariff structures necessary for such other demand management initiatives to be successful?

Ergon Energy notes that tariffs alone will not drive demand reduction and changes in behaviour. However, Ergon Energy believes that the recommended N+R approach to retail pricing is an important step for retail tariff reform in Queensland, and will provide a mechanism which allows both retail and network tariffs to work co-operatively to address common (retail and distribution) demand management objectives.

In this regard Ergon Energy notes:

- Time-of-use tariffs could allow customers to shift discretionary loads to lower energy cost periods, which could assist in the delivery of current demand management initiatives; and
- Changes to existing interruptible tariffs or new tariffs to support direct load control of appliances would assist with current demand management initiatives.

### 3.3 Transitional arrangements and future options

How should the Authority ensure that the structure of the notified tariffs will allow or complement the future use of smarter meters and similar technology?

Ergon Energy notes that the future use of smart meters and similar technology is currently being addressed through the development of a broader national smart metering framework by the Ministerial Council of Energy. While Queensland distribution businesses will undertake smart meter pilots and trials in the short to medium term, any decision regarding any future roll-out of smart meters in Queensland is unlikely to be made until 2012.

Ergon Energy considers that the recommended N + R approach and pricing framework for setting regulated retail tariffs is flexible enough to complement and allow for smart meters and similar technology. The key in the short to medium term will be to ensure that the framework allows tariff trials to be undertaken.

While 'smarter' meters may allow the delivery of more complex signalling, from a retail perspective this should largely be left to market products rather than the regulated retail tariff. Network businesses will be able to introduce more sophisticated signalling as more capable metering is introduced.

What transitional arrangements should the Authority consider to allow customers affected by any change the opportunity to respond to any changes that result from tariff restructure and the introduction of cost reflective tariffs?

Ergon Energy considers that for customers to respond appropriately it is critical that they have a better understanding of the drivers of their electricity costs and the methods by which they are able to reduce or change their energy consumption.

Historically, with an abundance of cheap coal-fired electricity and limited penetration of energy intensive appliances, customers have not had the same need to focus on their electricity bills. In more recent times, changing lifestyle trends and climatic effects are resulting in customers using more electricity, and at times which is placing significant additional demand (and costs) on networks. For example:

- Falling costs of once 'luxury' and energy intensive appliances, has enabled increasing numbers of customer to install and utilise air conditioning units, plasma televisions and computers;
- Changing style and designs of buildings, and construction materials which may not be appropriate for climatic conditions in particular areas, has resulted in customers installing large air conditioning units to make houses liveable at times of climatic extreme; and
- Increasing wholesale energy costs with increasing penetration of higher cost gas and renewable generation, and the shorter term impact of drought, have also driven up electricity costs in recent times.

Accordingly, Ergon Energy supports education campaigns (including energy audits) and the provision to customers of tools to help them understand and change their energy use (for example in house displays).

#### Other Comments

Ergon Energy remains concerned with the proposed timeline in moving to a three-year price path framework by 1 July 2010. Therefore, Ergon Energy supports the almost unanimous view expressed by stakeholders in respect of Stage 1 of the Review, that it is unlikely that the significant system and process changes necessary to deliver a new regulated retail tariff structure will be achievable by 1 July 2010.

Furthermore, Ergon Energy considers that if sufficient time is not afforded to retailers to ensure their billing processes and systems are accurately functioning (in light of some potentially major and complex structural changes to the existing regulated retail tariff structures), there is a real and heightened risk, that the ultimate impact will be experienced by customers, through the stress and financial impact of retail billing errors.

Ergon Energy believes that even if more retail billing errors are a temporary or 'teething' issue in moving to a new regulated retail tariff structure, the issue is unlikely to promote customer confidence in the billing processes and systems of retailers, and in turn promote confidence in the competitive electricity market in Queensland. This is seemingly at odds with the primary objective of the Electricity (Retail Billing Guaranteed Service Level Scheme) Code, which is aimed to instil such confidence in the interests of customers.

As a result, Ergon Energy strongly supports a transitional two-staged approach to implementing a new regulated retail pricing methodology and price setting framework in Queensland. Ergon Energy suggests, subject to the removal of obsolescent tariffs and declining block tariffs (for example Tariff 21), the remaining retail tariffs could continue to apply from 1 July 2010 for one year, but with adjustments to the pricing levels within the relevant fixed and variable cost components to better reflect actual (network and retail) costs. Retention of existing tariff structures in the short term will alleviate the need for major and potentially complex system changes necessary in the implementation of a new tariff structure.

In this regard, Ergon Energy proposes the following option for the QCA's consideration, which as a one-year transitional measure seeks to achieve the following objectives:

- A reasonable and progressive step towards the recommended N + R pricing methodology and price setting framework;
- A greater level of cost reflectivity in tariffs than exists in the current retail tariffs;
- Limited or (preferably) no changes to existing tariff structures; and

- Minimal changes to the retail tariff calculation rules.

In essence, Ergon Energy proposes that for the 2010-11 year:

- Existing tariff structures should be retained, but adjusted to reflect the underlying Energex network tariffs, combined with the benchmark retail cost stack;
- A number of 'sub-tariffs' would then need to be created which have the same structure of existing retail tariffs, but are set at different price levels;
- The eligibility for each retail tariff would be determined by the eligibility rules for the relevant Energex network tariff; and
- The rules for the calculation of certain tariff components (e.g. the demand charge in T41 and 43) would also be changed so that they are consistent with the relevant Energex network tariff rules.

With this in mind, it may be possible for the pricing outcome for 2010-11 to be determined using the following steps:

- Applying the approach in Attachment 1 to calculate those retail tariffs on the basis of 2009-10 costs;
- Gazette those 2009-10 tariffs to apply just prior to the commencement of 2010-11;
- Apply the BRCI for 2010-11 to the new 2009-10 tariffs to determine the tariffs for 2010-11.

It is recognised that the flaws identified in the BRCI methodology will result in a move away from cost reflectivity for individual retail tariffs for that transitional year, but should, to some extent, retain cost reflectivity on a portfolio basis<sup>11</sup>. In the absence of the ability to make changes to the BRCI in time, this outcome may be unavoidable in the 2010-11 transitional year.

Ergon Energy recognises and appreciates that its proposed transitional option is not a complete solution to the issues raised in Stage 1 of the Review (which can only be addressed in the long term through implementation of the recommended N + R pricing methodology and price setting framework). However, Ergon Energy considers that it provides a method for achieving better cost reflectivity for the most common retail tariffs in Queensland in the short term. As noted in the QCA's final report in respect of Stage 1 of the review, by providing an approach for customers connected to Tariffs 11, 20, 22, 31, 33, 41 and 43 it would address around 98% of total customers (or connections) in Queensland.<sup>12</sup>

The remaining tariffs, and in particular the farming, rural subsidy and drought relief tariffs (62, 64, 65, 66, 67, 68), unmetered supply (71, 81, 91) and the High voltage General Supply Demand each have complexities which require further consideration, but could be addressed instead as part of the longer term approach.

Ergon Energy notes that from a distribution perspective, from 1 July 2010 there will be changes to the arrangements for Individually Calculated Customers (ICCs), Connection Asset Customers (CACs) and Embedded Generators (EGs), as well as street lighting

<sup>11</sup> Ergon Energy recognises that a number of flaws were noted in Stage 1 of the review in respect to the BRCI methodology. In particular, the application of a single index to all tariffs, assumes the underlying supply costs for each tariff are the same. Ergon Energy considers the underlying costs of individual tariffs will vary. The impact on this outcome of the inclusion of EECL cost in the BRCI calculation is also noted.

<sup>12</sup> Queensland Competition Authority Final Report Review of Electricity Pricing and Tariff Structures – Stage 1 September 2009 Table 4.2

customers. These changes arise from the AER's Framework and Approach Stage 1 and are discussed in Ergon Energy's Regulatory Proposal. As ICC, CAC and EGs in both Ergon Energy and Energex's areas receive site specific prices, consideration of these customers will need to occur both as part of any transitional arrangement and the implementation of the N+R solution. Regulated retail street lighting tariffs are only available to customers in Ergon Energy's area. It is noted that it is likely that Ergon Energy and Energex will have different arrangements for street lighting customers from 1 July 2010<sup>13</sup>. The QCA will need to consider any potential impacts of this as part of the implementation of either a transitional arrangement or a complete N+R approach.

Ergon Energy notes that on the basis of the limited time available to prepare this submission, initial analysis indicates that the system solution for this option is of medium complexity. The level of complexity, and therefore delivery time, would be influenced by a number of factors including the detail of the tariff eligibility rules, dictated by Energex's eligibility rules (e.g. how often are the customer's consumption levels and applicable tariffs reviewed). Further detail must be determined and investigation required before definitive timeframes could be provided, and this will of course vary between participants. Further consideration and consultation on this option is therefore recommended

Further details of this proposed approach is outlined in table form in Attachment 1.

<sup>13</sup> Ergon Energy would be happy to discuss these arrangements with the QCA.

## Appendix 1: Proposed Transition Approach for 1 July 2010 for the Most Common Retail Tariffs in Queensland

New Retail Tariff	Cost Components					
	Current Structure	Transitional Structure	Energex Network Tariff	Retail	Network	Eligibility Rules
11*	fixed price (\$/month)	fixed price (\$/day)	domestic small	fixed	fixed price (\$/day)	SAC customers only (Domestic or Business)
	flat energy price (c/kWh)	flat energy price (c/kWh)	business small	flat variable	flat energy price (c/kWh)	Consumption <=25 MWh Accumulation meter
20**	fixed price (\$/month)	fixed price (\$/day)	business medium	fixed	fixed price (\$/day)	SAC customers only (Domestic or Business)
	flat energy price (c/kWh)	flat energy price (c/kWh)		flat variable	flat energy price (c/kWh)	Consumption >25 MWh (no max) Accumulation meter
31	minimum payment (\$/month)	fixed price (\$/day)	controlled load 1	fixed	fixed price (\$/day)	Specified permanently connected appliances
	flat energy price (c/kWh)	flat energy price (c/kWh)		flat variable	flat energy price (c/kWh)	Separately metered
33	minimum payment (\$/month)	fixed price (\$/day)	controlled load 2	fixed	fixed price (\$/day)	Specified permanently connected appliances
	flat energy price (c/kWh)	flat energy price (c/kWh)		flat variable	flat energy price (c/kWh)	Separately metered
22A	fixed price (\$/month)	fixed price (\$/day)	business small TOU	fixed	fixed price (\$/day)	SAC customers only (Domestic or Business)
	peak energy price (c/kWh)	peak energy price (c/kWh)		variable peak	peak energy price (c/kWh)	Consumption <=25 MWh
	off-peak energy price (c/kWh)	off-peak energy price (c/kWh)		variable off-peak	off-peak energy price (c/kWh)	TOU meter (Peak is 7am to 9pm Mon to Fri)
22B	fixed price (\$/month)	fixed price (\$/day)	business medium TOU	fixed	fixed price (\$/day)	SAC customers only (Domestic or Business)
	peak energy price (c/kWh)	peak energy price (c/kWh)		variable peak	peak energy price (c/kWh)	Consumption >25 MWh (no max)
	off-peak energy price (c/kWh)	off-peak energy price (c/kWh)		variable off-peak	off-peak energy price (c/kWh)	TOU meter (Peak is 7am to 9pm Mon to Fri)
41A	demand price (\$/kW/month)	demand price (\$/kW/month)	small demand		demand price (\$/kW/month)	SAC customers only
	fixed price (\$/month)	fixed price (\$/day)		fixed	fixed price (\$/day)	Demand Meter
	flat energy price (c/kWh)	flat energy price (c/kWh)		flat variable	flat energy price (c/kWh)	No energy TOU
41B	demand price (\$/kW/month)	demand price (\$/kW/month)	medium demand		demand price (\$/kW/month)	SAC customers only
	fixed price (\$/month)	fixed price (\$/day)		fixed	fixed price (\$/day)	Demand Meter
	flat energy price (c/kWh)	flat energy price (c/kWh)		flat variable	flat energy price (c/kWh)	No energy TOU
41C	demand price (\$/kW/month)	demand price (\$/kW/month)	large demand		demand price (\$/kW/month)	SAC customers only
	fixed price (\$/month)	fixed price (\$/day)		fixed	fixed price (\$/day)	Demand Meter
	flat energy price (c/kWh)	flat energy price (c/kWh)		flat variable	flat energy price (c/kWh)	No energy TOU
41D	demand price (\$/kW/month)	demand price (\$/kW/month)	high voltage demand		demand price (\$/kW/month)	SAC customers only
	fixed price (\$/month)	fixed price (\$/day)		fixed	fixed price (\$/day)	Demand Meter
	flat energy price (c/kWh)	flat energy price (c/kWh)		flat variable	flat energy price (c/kWh)	No energy TOU

## Appendix 1: Proposed Transition Approach for 1 July 2010 for the Most Common Retail Tariffs in Queensland

New Retail Tariff				Cost Components		Eligibility Rules
	Current Structure	Transitional Structure	Energex Network Tariff	Retail	Network	
43A	demand price (\$/kW/month)	demand price (\$/kW/month)	small demand		demand price (\$/kW/month)	SAC customers only Demand Meter Energy TOU Meter (Peak is 7am to 11pm Mo
	fixed price (\$/month)	fixed price (\$/day)		fixed	fixed price (\$/day)	
	peak energy price (c/kWh)	peak energy price (c/kWh)		variable peak	flat energy price (c/kWh)***	
	off-peak energy price (c/kWh)	off-peak energy price (c/kWh)		variable off-peak	flat energy price (c/kWh)***	
43B	demand price (\$/kW/month)	demand price (\$/kW/month)	medium demand		demand price (\$/kW/month)	SAC customers only Demand Meter Energy TOU Meter (Peak is 7am to 11pm Mo
	fixed price (\$/month)	fixed price (\$/day)		fixed	fixed price (\$/day)	
	peak energy price (c/kWh)	peak energy price (c/kWh)		variable peak	flat energy price (c/kWh)***	
	off-peak energy price (c/kWh)	off-peak energy price (c/kWh)		variable off-peak	flat energy price (c/kWh)***	
43C	demand price (\$/kW/month)	demand price (\$/kW/month)	large demand		demand price (\$/kW/month)	SAC customers only Demand Meter Energy TOU Meter (Peak is 7am to 11pm Mo
	fixed price (\$/month)	fixed price (\$/day)		fixed	fixed price (\$/day)	
	peak energy price (c/kWh)	peak energy price (c/kWh)		variable peak	flat energy price (c/kWh)***	
	off-peak energy price (c/kWh)	off-peak energy price (c/kWh)		variable off-peak	flat energy price (c/kWh)***	
43D	demand price (\$/kW/month)	demand price (\$/kW/month)	high voltage demand		demand price (\$/kW/month)	SAC customers only Demand Meter Energy TOU Meter (Peak is 7am to 11pm Mo
	fixed price (\$/month)	fixed price (\$/day)		fixed	fixed price (\$/day)	
	peak energy price (c/kWh)	peak energy price (c/kWh)		variable peak	flat energy price (c/kWh)***	
	off-peak energy price (c/kWh)	off-peak energy price (c/kWh)		variable off-peak	flat energy price (c/kWh)***	

\* Currently applicable to both "domestic small" and "business small" network customers as they have identical rates.

Should Energex apply different rates for the different network classes in 2010/11, retail tariffs 11A (domestic) and 11B (business) should be created.

\*\* It is not clear how Energex applies their network tariff for domestic SAC customers who consume greater than 25 MWh PA and have an Accumulation meter. (Noting the domestic tariff appears to be limited to customers with an Accumulation meter.)  
It is therefore assumed that domestic SAC customers would be eligible for this retail tariff only, on the basis of their consumption level and meter type.

\*\*\* The flat energy price in the network tariff would become a cost component in both the total 'variable peak' and 'variable off-peak' retail tariff price.

### Notes

- For cost reflectivity, the calculation of the chargeable demand (kW units) must reflect the underlying Energex network rules and not the current gazetted Retail Tariff rules for Tariffs 41 and 43.
- This proposal has not considered the small number of ICC and CAC customers who are on any of the Most Common Retail Tariffs. A short term solution for those customers is complicated by the application of site specific network prices and a capacity charge.

