



Request for Comments:
Review of Electricity Pricing
and Tariff Structures – Stage 2

QCROSS Submission

October 2009

About QCOSS Inc

Queensland Council of Social Service (QCOSS) is the peak body for over 600 welfare and community sector organisations in Queensland. For over 50 years QCOSS has worked to promote social justice and exists to provide a voice for Queenslanders affected by poverty and inequality. We act as a State-wide Council that leads on issues of significance to the social, community and health sectors. We work for a Fair Queensland and develop and advocate socially, economically and environmentally responsible public policy and action by community, government and business.

QCOSS has been funded by the Department of Employment, Economic Development and Innovation and the Department of Justice and Attorney General for an energy consumer advocate project in Queensland. The purpose of this project is to advocate on behalf of Queensland consumers and particularly vulnerable and low-income households in relation to energy. QCOSS looks forward to engaging in future processes to achieve better outcomes in the provision of essential energy services.

Summary of Recommendations

- That the Queensland Government request the QCA to undertake additional consultation on and analysis of the impact of any proposed tariffs on Queensland residential consumers. This analysis should take into account consumption and income levels and the consumer protection mechanisms and responses that are necessary to protect vulnerable consumers.
- That the QCA report to government on these matters before further progress to implement new tariffs occurs.
- That no additional fixed costs be included in any new tariff structure. Fixed costs disadvantage low income consumers and mute price signals designed to encourage energy efficiency.
- That the QCA explore the feasibility of introducing an inclining block structure, while ensuring that low income high volume consumers are protected from the associated price impacts.
- A time of use (TOU) tariff structure should not be considered in advance of reliable evidence to establish the costs and benefits of this approach.
- If a TOU tariff is provided for in the notified tariffs, the voluntary nature of this tariff must be ensured by imposing an obligation on retailers to offer a flat rate tariff if requested regardless of whether the customer has an interval meter. The QCA should also impose a prohibition on early termination fees for market contracts offering a TOU tariff.
- That the QCA further explores the potential of interruptible tariffs in Queensland, as well as recommending mechanisms to mitigate any risks associated with interruptible tariffs to consumers.
- That the Queensland Government and QCA delay implementation of new tariff structures until such time as the consumer impacts have been thoroughly considered, and not before July 2011.

Introduction: preliminary comments on assumptions and approach

QCOSS welcomes the opportunity to comment on Stage Two of the Queensland Competition Authority's (QCA) review of electricity pricing and tariff structures.

The QCA's review of electricity pricing and tariff structures is a matter of critical importance to Queensland consumers. QCOSS believes that regulated prices and notified tariffs in Queensland are an essential component in ensuring the affordability (and therefore access to) electricity as an essential domestic service for all Queenslanders.

Energy supports fundamental human needs include safe food (storage, preparation) and safe shelter (hygiene, lighting, temperature control). Electricity supports equipment that is crucial to well-being and independence (health, communication). Beyond these fundamentals, energy supports community engagement and family life (social interactions, employment, and education).

The processes for determining annual changes in electricity pricing including the flow on effect to other goods and services can have a major effect on household expenses, especially for low-income, disadvantaged and vulnerable households. In addition there are equity implications associated with certain pricing structures, and tariff design is important in the impact that prices have on various classes of consumers and household types.

For these reasons QCOSS is concerned that the terms of reference for the current review are too narrow and do not adequately articulate, scrutinise and debate the full range of public policy issues that are in question. In particular we hold concerns that the QCA is not required to consider the impacts of cost reflective pricing and the various tariff proposals on consumers, particularly low income and vulnerable consumers.

The current discussion paper focuses primarily on alternative tariff structures to support cost reflectivity and alternative tariff structures to encourage efficient use of electricity. The two policy drivers for this are the desire to further promote the competitive market in Queensland, and the desire to encourage energy usage that reduces peak demand, deferring peak network augmentation and associated network costs. QCOSS believes that the affordability of electricity to consumers and the need to ensure equity in pricing and tariff design should be a policy driver of equal weight in the current discussion.

The impacts on different customer classes and across household types should be thoroughly analysed considered and used to inform decision making on pricing and tariff options. An impact analysis would also inform decisions about changes to the consumer protection framework and the financial assistance framework that may be required with new tariff structures. Without such an analysis, policy makers will not be well positioned to respond in a timely way to any unforeseen and unintended consequences of new tariff structures.

<p>Recommendation: That the Queensland Government request the QCA to undertake additional consultation on and analysis of the impact of any proposed tariffs on Queensland residential consumers. This analysis should take into account consumption and income levels and the consumer protection mechanisms and responses that are necessary to protect vulnerable consumers.</p>
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That the QCA report to government on these matters before further progress to implement new tariffs occurs

Alternative Tariff structures to support cost reflectivity

The QCA has asked for comment on a number of issues concerned with achieving more cost reflective notified tariffs in Queensland, including the makeup of individual tariffs, the suite of available tariffs, the costs necessary to promote competition across classes of customers, and the removal and consolidation of existing tariffs.

QCROSS will confine our comments to issues affecting residential consumers and the related residential tariffs (11, 31 and 33). We this reason we do not comment on the proposal for the removal and consolidation of a number of non-residential tariffs. QCROSS is also unable to comment on many of the specific questions asked by the QCA in relation to the cost reflectivity of the various tariffs, and we therefore confine our responses to some matters related to the impact on consumers and broad principles concerning cost reflectivity and tariff design.

Cost Reflectivity and consumer impacts

The current QCA discussion paper asserts that the greatest cost reflectivity will be achieved by dynamic pricing but notes that the available metering technology does not allow for it. Underlying this statement is an assumption that cost reflectivity requires the structure of retailer costs to precisely mirror the structure of charges to the consumer, rather than merely requiring that retailers recover the full costs of supply across its customer base. QCROSS believes that further debate on this matter is required – this approach prioritises various market objectives rather than balances consumer and environmental objectives which are of equal concern. It must be recognised that there are equity implications associated with certain pricing structures, and that adoption of any tariff structure to achieve more cost reflective pricing will invariably alter the existing cross subsidies that are inherent in the electricity market and new groups of winners and losers will emerge.

Fixed Charges

The QCA asks whether retail prices should include a fixed cost component as well as a variable cost component. While QCROSS understands that many of a retailer's costs are fixed, we believe that any fixed component of the bill should be kept as low as possible.

Higher fixed charges will tend to mute other price signals to consumers to encourage energy efficiency or conservation as the usage component of the bill will be lower. They also disadvantage those who consume small amounts of energy relative to those who consume large amounts. Such consumers will be unable to reduce their bills significantly although they might attempt to reduce energy use. Low-income consumers (who on average use less) are also more likely to find these charges onerous.

We also note that the QCA has already decided to pass through network costs directly to consumers so the total network component will appear as a fixed cost component of a consumer's bill, where it has previously been rolled into the variable component. We would not support any further increase in the fixed cost component

of any revised tariffs, and we would expect usage charges to go down as a result of the proposed pass through of network costs.

Recommendation: That no addition fixed costs be included in any new tariff structure. Fixed costs disadvantage low income consumers and mute price signals designed to encourage energy efficiency.

Alternative tariff structures to encourage efficient use of electricity

The QCA discussion paper examines three potential tariffs that may encourage more efficient use of electricity, and particularly demand side management.

In the preliminary comments, the QCA notes “encouraging the efficient use of electricity requires consumers to be aware of the cost of their consumption, particularly during peak and off-peak times, and to be able to take action to manage their consumption accordingly”.

However, the role that tariff design can play to encourage people to use energy more wisely, the ability and willingness of consumers to respond to price signals including time variant prices is highly debatable.

There is considerable empirical evidence to suggest that demand for electricity is inelastic both in the short and the long run, meaning that the change in the quantity of electricity demanded does not alter proportionately to the percentage change in price. For example, research by Langmore and Dufty into household demand responses found that a 30-40% price increase was required to effect a 4% consumption reduction if relying on price alone.¹ Cross price elasticity (ie. the ability to shift time of use) and elasticity of substitution was also found to be low. Such evidence suggests that the variables such as dwelling size and thermal efficiency and household characteristics such as income, size, appliance holdings and lifestyle, are more determinate of demand than is price.

According to Langmore and Dufty, this “highlights the inability of many households to change consumption in response to price signals, and hence the bluntness of pricing as a tool to drive behavioral change.”² There are many barriers consumers to reducing energy usage, altering time specific consumption patterns, and improving the energy efficiency of dwellings and appliances, particularly for low-income and vulnerable households. These barriers include inadequate consumer information and education, inconsistent incentives between parties incurring the capital costs of energy efficiency measures and those receiving the savings benefit (e.g. between landlords and tenants), and high initial and hidden costs in accessing energy efficiency opportunities³.

The question of whether energy charges can encourage energy efficiency was recently the subject of a discussion paper by the UK Office of Gas and Electricity Markets.⁴ Their conclusion was that price and tariffs are not an effective mechanism to address many of the barriers to energy efficiency, but that they may play a supporting role. They note that direct measures, including financial incentives, are needed to overcome high up front costs, lack of information and advice and split incentives in the rental market. They also warn that “different pricing structures could, in some cases, lead to negative welfare effects as there are significant differences

¹ Langmore M & Dufty G, *Domestic electricity Demand Elasticities, issues for the Victorian Energy Market*, June 2004, page 11

² *ibid.*

³ Energy Efficiency and Greenhouse Working Group. (2003). *National Framework for Energy Efficiency Issues and Challenges*. Commonwealth of Australia: Canberra.

⁴ Office of Gas and Energy Markets, *Can Energy Charges Encourage Energy Efficiency*, July 2009

across income groups in price sensitivity and the affordability of substitutes, including energy efficiency measures.”⁵ Low income households are particularly vulnerable because they have low levels of discretionary energy usage, and may not have the resources or opportunity to insulate their home, or replace appliances with more energy efficient versions.

They also advised that the introduction of tariffs designed to encourage greater energy efficiency may require programmes to ensure vulnerable households are protected and do not suffer any unintended consequences in terms of disproportionate costs.

In relation to this, we reiterate our recommendation that a thorough analysis of the impacts on different types of households of the different tariff structures be undertaken to ensure that negative welfare effects are avoided, to determine the additional support measures that might be required to support vulnerable households and to determine how such measures should be targeted.

Inclining block tariffs

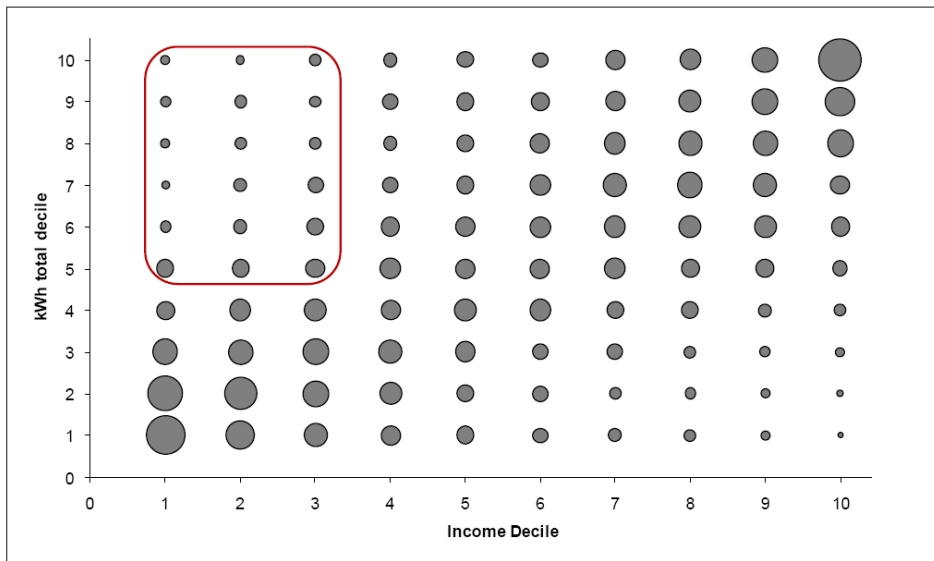
QCOSS believes that an inclining block tariff structure has merits and should be further investigated as a mechanism to encourage a reduction in discretionary energy usage while supporting the affordability of a basic consumption level of electricity for all households.

Although low-income households spend a much higher proportion of their weekly budget on utilities such as electricity and gas than do wealthy households, in general they have a significantly lower energy consumption profile. Recent data from the Centre for Sustainable Energy in the UK demonstrates this clearly.⁶ Figure one below details the electricity consumption level of households across income quintiles - the larger the bubble the larger the number of households represented. The data shows that the vast majority of households in the lowest income deciles have the lowest level of consumption (940kw per annum). The exact opposite is true in the highest income decile where the majority of households consume the highest level of energy (6, 200kw per annum).

Figure 1: Electricity Consumption across Income Groups (UK)

⁵ Ibid.

⁶ Centre for Sustainable Energy (2008) *Assessing the social impacts of a supplier obligation: report to DEFRA*



Source: Centre for Sustainable Energy (2008) *Assessing the social impacts of a supplier obligation: report to DEFRA*

Australian studies also confirm this pattern. For example, a survey undertaken in Victoria by the Department of Human Services found that concession card households used 15% less electricity than non-concession households. While usage increased with household size, concession cardholders consistently consumed less than non-concession cardholders across all household sizes.⁷

Inclining block tariffs increase the cost for high volume users. Since low-income consumers on average use less, they may benefit. An inclining block tariff structure will also provide some incentive for higher income/ higher consumption households to reduce energy usage (within the limits of the demand inelasticity of price outlined above).

However there are a number of additional considerations that need to be carefully explored to ensure the effectiveness of an inclining block tariff.

- Firstly, it is critical that an inclining block tariff structure be implemented in conjunction with additional measures designed to assist high consumption - low-income households. On the UK data, these households comprise some 18% of total households and are represented in figure one in the red circle. Such measures should be aimed either at assisting those households to reduce their consumption by removing the major barriers to energy efficiency, or where greater efficiency is not possible for reasons of household size or medical necessity, to provide financial assistance.
- Second, the steps at which the price changes occur within the tariff structure are a matter of critical importance and must be thoroughly considered.
- Finally, some changes in the presentation of the bill to consumers is likely to be required to ensure that households are able to understand the pricing structure and therefore the pricing signal that is being sent.

The QCA paper raises the argument that inclining block tariffs will only send signals to encourage overall energy conservation, and not reductions in consumption at times of peak demand. We agree with this statement, however, there are several points we would make in response to this.

⁷ Department of Human Services, *Responses to the Review of Effectiveness of Retail Competition and the Consumer Safety net for Electricity and Gas: Issues Paper*, 2003, p4.

- Any contribution to the reduction of coal fired electricity use is valuable, and there is no reason to believe that some of the savings would not occur during periods of peak demand.
- As noted several times in the paper, the only tariff structure likely to send signals to consumers about the cost of their consumption (dynamic pricing) is currently not an available option in Queensland – and indeed the costs/ benefits of introducing such an option may not make such an option feasible. None of the current options (other than time of use pricing which if pursued will only have limited availability) will assist send price signals to encourage consumers to shift their time of consumption, and so we do not believe this is an effective argument against an inclining block tariff.
- If in the future smart metering is more widely available, there is nothing to prevent a time of use pricing structure operating in conjunction with an inclining block tariff. Each tranche ie. peak, off-peak, shoulder would have separate pricing tiers that incline.

Recommendation: That the QCA explore the feasibility of introducing an inclining block structure, while ensuring that low income high volume consumers are protected from the associated price impacts

Peak Demand and time-of-use pricing.

The QCA asks would the availability of peak pricing and time of use (TOU) tariff structures deliver significant benefits given the existing availability of the required metering, and whether time of use metering should be encouraged and if so, how. QCOSS understands the QCA's question relates to the benefits of a time of use tariff for the approximately 200, 000 interval meters in place in south-east Queensland that could potentially be used for time of use pricing, as there is currently no broader mandated rollout for smart meters. However, we believe that the benefits of using TOU tariffs on any scale cannot be adequately established at this stage. There is considerable work going on in this particular space as part of a national work program mandated by the Ministerial Council on Energy (MCE), and there is still considerable debate about the overall cost benefits, and the benefits in terms of demand management.

In the overall national cost benefit analysis of a mandated roll out of smart meters, Nera Economic Consulting found the benefits deriving from demand response impacts were the benefits associated with the most uncertainty. In fact, for Queensland they found the likely demand response benefits to be significantly lower than business efficiency benefits (which related to avoided metering costs). This throws into question the value of adopting TOU tariffs at this point in Queensland for the purposes of demand management. We also note that the available metering may not have the functionality to derive the business efficiency benefits at this time.

Pilots and trials of smart metering technology is proceeding in most jurisdictions, including Queensland and a mandated roll out will occur in Victoria. QCOSS believes that the benefits of smart metering should be established through these activities before any wider rollout occurs in Queensland, and that benefits should accrue to those who will pay for the costs of the technology – that is, consumers. While some households may be able to shift their consumption to non peak times and by virtue of that save on energy bills, many consumers have limited capacity to respond to price signals for the reasons already outlined in this paper. Therefore the likelihood of a significant reduction in demand due to the introduction of a TOU tariff is questionable.

Recommendation: A TOU tariff structure should not be considered in advance of reliable evidence to establish the costs benefits of this approach.

Should the QCA propose a regulated time of use tariff as a voluntary option for customers with suitable meters, QCOSS would urge the QCA to proceed with considerable caution and to undertake a more detailed examination of the possible consumer impacts.

One immediate is that a TOU tariff offering should be completely voluntary to consumers. If an “opt in” TOU tariff were developed, it is essential that customers can also opt out of this tariff if it turns out to be unsuitable for them. Lifecycle changes such as children and retirement can have a major impact on a household’s energy consumption levels and patterns. Unforeseen circumstances such as redundancy and illness may equally impact on a household’s energy consumption and turn a household that benefits from a TOU tariff to a household that substantially loses out. It is therefore crucial that customers are able to switch from TOU to single rate just as easily as they can switch from single rate to TOU.

QCOSS notes that New South Wales has had TOU tariffs in operation for some time for customers with interval meters and that there have been some issues for consumers associated with this. These issues have been explored in a forthcoming research paper undertaken as part of the Consumer Protections and Smart Meters project being undertaken by The St Vincent DePaul Society.⁸

This research found that since not all retailers in NSW are currently willing to supply electricity to a household with a smart meter, time of use pricing poses some immediate challenges for the NSW regulatory framework. EWON has explained, “there are some retailers whose billing systems are not compatible with TOU data and they may refuse a contract on this basis”.⁹

A further and more serious consumer protection issue, is that some customers have had difficulty reverting to a flat rate tariff having found a time off use tariff unsuitable for their consumption patterns. Earlier this year *The Herald* reported that customer who had a smart meter installed 3 years earlier and believed it had significantly increased his electricity bill felt trapped with a smart meter as other retailers declined to offer him an electricity contract.¹⁰

According to the St Vincent De Paul report, this situation has eventuated because the underlying network tariff for such customers is a time of use tariff, and retailers being charged this by the network are therefore unwilling therefore to offer a flat rate contract.

Recommendation: If a TOU tariff is provided for in the notified tariffs, the voluntary nature of this tariff must be ensured by imposing an obligation on retailers to offer a flat rate tariff if requested regardless of whether the customer has an interval meter. The QCA should also impose a prohibition on early termination fees for market contracts offering a TOU tariff.

⁸ Mauseth Johnston, M. Customer Protections and Smart Meters: Background Paper, St Vincent de Paul Society, August 2009.

⁹ Energy and Water Ombudsman, NSW (EWON), EWONews, Issue 19, May 2009, p 5.

¹⁰ The Herald, *Power suppliers shun smart meter*, 30/01/2009 at www.theherald.com.au/news/local/news/general/power-suppliers-shun-smart-meter/1419929.aspx

Interruptible Tariffs

QCOSS agrees that interruptible tariffs may offer some consumers the opportunity to save on their electricity bill while offering distributors the ability to manage congestion on their networks. We understand that direct load control trials in Queensland are underway and that there are early indications that customer acceptance is relatively high. As yet there have been no significant consumer concerns arising from voluntary load control and we would support an exploration of the potential for the current off-peak tariffs to be used for more innovative tariff options focused on demand management.

However we do note there are some risks associated with load control options which must be addressed prior to implementation of any interruptible tariff option, particularly given the potential for market contracts to emerge that have complex product offerings and contract terms and conditions. These include:

- The need for protection and redress for consumers to prevent them being pressured or persuaded into signing over discretionary loads for load shedding to their detriment
- The need to ensure that pricing compensates consumers adequately for the level of inconvenience of load shedding to them, noting the benefits of load shedding are shared through the entire system
- The need to protect consumers from the risk of malfunction, particularly for control of non-discretionary loads and to maintain service quality through service standards and avenues for redress.

We note that there are some consumers in the public housing rental market who are currently unable to access more affordable off peak tariffs due to either the size of the hot water systems provided with their tenancies, or because of the wiring to their premises. We believe it would be helpful for the relevant areas of Queensland government to confer on ways to remove these barriers in the future, whether or not the existing off peak tariffs remain as they are or their scope is expanded.

We also note that the real level of discount for off-peak usage (as determined by network charges) is not being passed on under the current regulated price, and that this should be rectified to make off peak tariffs more attractive to consumers as part of this current review of pricing.

Recommendation: That the QCA further explores the potential of interruptible tariffs in Queensland, as well as recommending mechanisms to mitigate any risks associated with interruptible tariffs to consumers

Other demand management options

QCOSS notes the value of distributed generation such as solar PV in contributing to demand management when timed to occur at times of peak demand. We would argue that further work be done to ensure that the value of such technologies to the market is captured. This will be particularly important if time-of-use charges are in place – the value of such distributed generation should also be priced according to the time specific value of supply, and not the average cost of supply.

Transitional arrangements and future options

The authority asks how they should complement the future use of smart meters in their current consideration of the structure of notified tariffs.

The QCA will be aware that under the broad direction of the Ministerial Council on Energy (MCE) the National Smart Meter Program and its associated work streams are currently developing advice on detailed national minimum functionality for smart meters in order to maximise benefits across all stakeholders. This work will include advice on technical definitions, performance and service level requirements for the minimum functionality specification. QCOSS believes it will be important that any developments in Queensland, particularly those where the cost is passed on to the consumer, are consistent with any nationally mandated processes to ensure that consumers do not bear additional costs in a future smart meter rollout.

We also note that there are a considerable number of consumer protection issues associated with the introduction of interval meters, and that both the Queensland regulatory arrangements and the proposed National Electricity Retail Legislation must have provision to deal with these issues. We draw the QCA's attention to the work being undertaken by St Vincent De Paul Society in Victoria on Consumer Protections and Smart Meters. A background paper and an analysis of issues as they relate to Victoria have already been published under this project, and an analysis of the Queensland situation is currently being prepared. This work will provide an important reference point for the range of code amendments that is likely to be required to deal with TOU pricing and interval meter technology, whether as part of a mandated broader rollout or in the context of a voluntary tariff with limited availability.

One of the issues that will be important is the way that information is presented to consumers on the bill. We believe it will be essential that consumers have the capacity to understand the pricing structure and the impact of their consumption patterns, in order that they are able to make the necessary behavioural changes to keep the cost of their electricity down.

We also note that there are likely to be similar issues relating to consumer for any new tariff structure adopted by the QCA, and the specific transitional arrangements will depend on the tariff structure proposed. We would therefore propose (consistent with recommendation 1) that the QCA undertake a specific consumer impact analysis for any new tariffs proposed prior to implementation. We would intend to have further input into the specific impacts and the transitional arrangements required at this time. The full range of possible impacts and therefore transitional arrangements are too complex to adequately speculate on in this response given the short time frame provided and limited scoping of consumer impacts.

Without explicit acknowledgment of the need to protect vulnerable consumers and ensure access to a basic level of essential energy for all Queenslanders, policy responses to address Queensland's ongoing energy needs and combat climate change risk overlooking the essential nature of electricity and the significant social and economic consequences of lack of access to basic levels of energy.

We are also concerned, given the complexity of the issues and the analysis of impacts that remains to be done, that the current timeframe for implementation of new tariffs is unrealistic and may drive changes that are ill-considered.

<p>Recommendation: That the Queensland Government and QCA delay implementation of new tariff structures until such time as the consumer impacts have been thoroughly considered, and not before July 2011.</p>
