

30 January 2015

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By email: Qldelectricity2015@aer.gov.au

Dear Mr Roberts

**Re: Submission to AER regarding Ergon Energy's regulatory proposal**

The Bundaberg Regional Irrigators Group (BRIG) was established to represent irrigators in the Bundaberg district across a range of commodity groups including sugar cane, grain and horticulture.

BRIG members farm on approximately 36,000 hectares and use an estimated 1,100 irrigation pumps and associated distribution systems to irrigate a variety of crops in the Bundaberg Regional Council area. A significant percentage of these systems (circa 90%) are powered by electricity.

**Electricity Prices**

Rapidly rising electricity prices are having a severe impact on the costs faced by our members and irrigated agriculture in general.

It is clear that the electricity price increases are adding significantly to the cost of irrigated agriculture, are threatening the sugar industry's international competitiveness, and are destroying demand for electricity.

We have formed the view that the increase in electricity price has been as a result of Ergon and Energex optimising and maximising their profits by exploiting the AER price setting process.

In turn the higher prices are hastening the change to alternative energy sources for those that can change.

Irrigators are a cornered demographic in that many of the alternative energy sources such as solar, wind and diesel being accessed by other consumers do not presently have the capacity to viably meet pumping requirements. This has resulted in irrigators being required to meet more and more of Ergon's/Energex's fixed revenue requirements as electricity demand across Queensland diminishes.

Not only is this disastrous for irrigators who do not have the capacity to significantly change irrigation behaviour without compromising production and therefore economic potential, it is threatening the viability of Ergon's network investments and increasing the risk of electricity assets being stranded.

**It is our understanding that the agreement that led to the creation of the Australian Energy Regulator (AER) and Australian Energy Market Commission (AEMC) was negotiated in 2003, formalized in 2004 and the AER formally came into existence in 2005. The first AER regulatory decisions took effect in 2009.**

**Since 2009 we have recorded the world's highest increases in electricity prices.**

BRIG is a very small organisation and we have struggled with the sheer volume of confusing and often conflicting opaque technical information emanating from Ergon and Energex.

Whilst we find it difficult and extremely time consuming and expensive to engage with the process we have attempted to understand the Ergon and Energex regulatory proposals.

We do understand that we are now paying between 96% and 107 % more for electricity than we were in 2009 for exactly the same service and level of reliability. CPI increase over this period was 13.64%.

**BRIG is of the opinion that the prices we are paying are excessive and have been manipulated by Ergon and Energex to maximise dividends and profits for their owners and have proven that a 33% reduction on 2013/14 farm tariffs would be revenue neutral. (Refer Annex 1)**

**Our request to implement a voluntary trial which we have guaranteed to underwrite financially has been ignored by the energy company and their shareholders who seem to think that promises of increases being limited to CPI from now on are sufficient to satisfy their customers.**

**Weighted Average Cost of Capital**

Ergon has proposed a WACC of 8.02% and Energex 7.75%.

Queensland Sugar Limited (QSL) is the organisation tasked with marketing, pricing and financing the Queensland sugar crop. To do this they need to secure finance in the vicinity of

\$800 million annually. As an agricultural commodity marketing entity they face commercial, financial, counterparty, environmental and sovereign risk.

QSL's cost for this finance facility is less than 4%.

**In our view it is ludicrous that organisations that have access to state treasury finance and have statutory billing capacity giving them priority over secured lenders, require more than a 3.6 to 3.8% WACC.**

### **Regulatory Asset Base**

The Regulatory Asset Base (RAB) is guaranteeing profits and escalating price increases.

In August 2014 the following excerpt was contained in advice provided to CANEGROWERS and the Australian Sugar Milling Council by CME on Ergon electricity tariff issues. (Annex 2)

*‘.....It might however be argued that this level of profit, although higher per connection is still only equivalent to a return of 2.5% on the \$3700M equity in Ergon's balance sheet. Since 2.5% is far below a reasonable return on equity, by implication Ergon is returning far less than reasonable. However, this criticism is fallible to the observation that \$2082m of the \$3715m equity in Ergon in 2012/13 is just an asset revaluation reserve rather than retained earnings or subscribed capital....’*

Asset revaluation combined with the impact that the guaranteed return from large and inefficient investment (Gold Plating) is ensuring that electricity prices are unsustainable for irrigators.

**It is BRIG's firm belief that Ergon and Energex have followed a deliberate and targeted strategy of profit maximisation by "optimising" the AER rules and processes to the detriment of electricity users particularly those that use electricity as an input in producing economic activity. e.g. Food and Fibre production.**

### **Capex and Opex**

During the past year a lot of attention has been devoted by consumers in coming to terms with how the RAB, the WACC and the NER impacts upon them as groups and individuals.

We have been informed that both Ergon and Energex are aware of the focus on these criteria and are now placing much more emphasis on optimising the CAPEX and OPEX components of their revenue proposals.

We do not have the capacity to drill down into the detail however we request the AER to be vigilant in this area.

**BRIG is of the opinion that the historical decline in demand for electricity should result in much lower CAPEX and OPEX requirements.**

**Conclusion**

BRIG would like to thank the AER Queensland team and the AER Consumer Challenge Panel for their assistance and professionalism in attempting to demystify the complexities involved in the electricity pricing process.

Much of this complexity has been caused by the DNSP's availing themselves of the AEMC/AER framework to return supernormal profits to their shareholders.

We have been advised that the Ergon reset proposal had over 150 dedicated full time employees working on it for the past two years. Newspaper reports suggest consultant's costs in excess of \$ 6 million have also been incurred by Ergon in this process.

For a business that has very high fixed costs there has been little interest from Ergon in stimulating consumption as a means of maintaining revenue while reducing prices. This is another adverse outcome of rules that guarantee revenue regardless of consumption.

While our irrigators and the wider economy are enduring severe economic pain, networks are making record profits.

This profit gouging has a huge impact on our irrigated farmers, many of who are being forced to switch off the pumps because they can't afford the electricity cost to run those pumps.

Many irrigators in Bundaberg are still paying last year's bills.

We are hopeful that the AER will be able to counter Ergon's and Energex's voracious needs for super normal profits and are willing to assist in any way that we can.

Yours faithfully



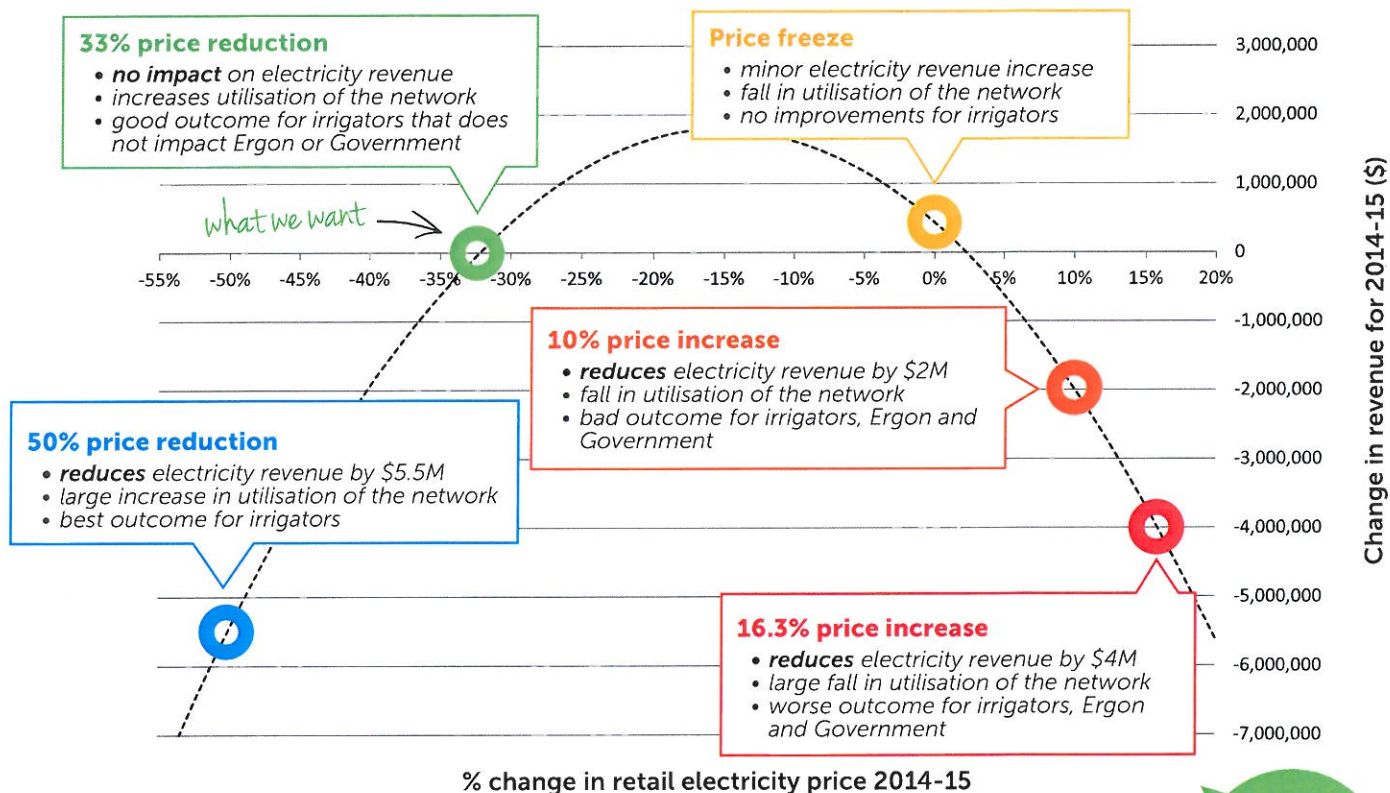
Dale Holliss  
Company Secretary

## Solutions for the 2014/15 electricity prices



CANEGROWERS calls on the Queensland Government to lower retail electricity tariffs for irrigation use (principally T62, T65 & T66) by 33% in 2014-15, exclusive of the carbon tax.

► **A 33% price reduction in 2014-15 is a revenue neutral solution for irrigation tariffs**



PTO to see what the change in price means for consumption and revenue in 2014-15

► **Why a 33% reduction?**

**Queensland Government:**

- A revenue neutral solution for irrigation tariffs (T62, T65 & T66)
- **No** Government subsidy requirement
- Will significantly increase utilisation of Ergon's network – an issue identified by the "Costello" Commission of Audit
- Will demonstrate real action to achieve the objectives in the Queensland Agriculture Strategy

**Ergon:**

- Will reverse the fall in utilisation across the Ergon network
- Will increase off-peak consumption from irrigation in key regional areas
- Will end the negative retail price spiral

**Irrigators:**

- Will provide much needed immediate price relief
- Lower prices will allow sugarcane growers to maximise the volume and value of cane production
- A large crop will result in security of cane supply for mills – guaranteeing thousands of "at risk" jobs in regional Queensland, while creating over one thousand more in 2014-15.

**The underlying electricity pricing framework is flawed. It does not take into account the impact of high prices on users or the wider Queensland economy.**

A five-step approach

While this factsheet focusses on retail prices for 2014-15, CANEGROWERS is actively involved in all areas of the electricity pricing reform. The five key components of our strategy to get the best result for irrigators are:



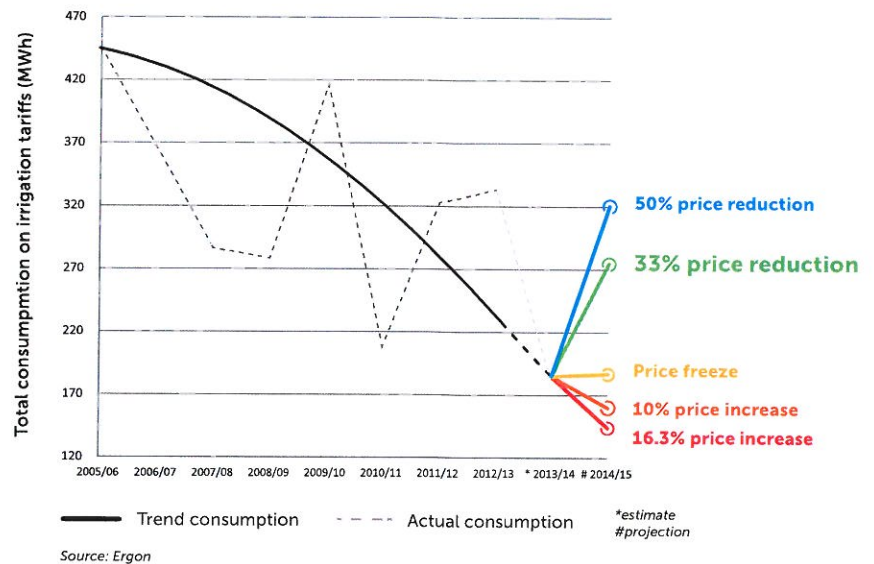
Factsheets for forthcoming issues will be provided by CANEGROWERS as they are announced.

CANEGROWERS analysis of Ergon data shows a 33% reduction in price will increase consumption and maintain revenue from electricity use to the Queensland Government via Ergon.

**Retail Prices  
2014-15**

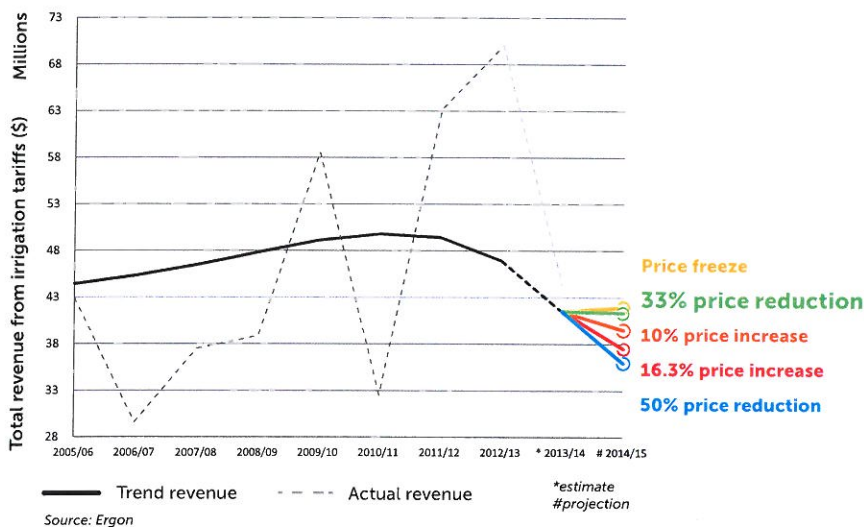
**Impact of price change  
on electricity used for  
irrigation**

A 33% price reduction will increase electricity consumption...



**Impact of price change  
on revenue to Ergon**

...and maintain electricity revenue to Ergon and the Queensland Government.  
**No subsidy is required to deliver the much-needed price relief.**



**Big Industry – Big Impact**

- World's third largest exporter of sugar (80% of Australian sugar is exported).
- \$2 billion value to the Queensland economy (to the annual Gross State Product).
- Second largest agricultural commodity in Queensland.
- 15,600 jobs directly, and 70,200 indirectly, accounting for 15% of employees in coastal Queensland.
- \$7 billion in land and \$4 billion in infrastructure assets controlled by the industry.



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**carbon + energy  
markets**

Advice to Canegrowers and the Australian  
Sugar Milling Council on Ergon electricity tariff  
issues

August 2014

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# 1 Introduction

Canegrowers has been advocating for changes to the electricity tariffs for its members in Queensland. The Queensland Competition Authority (QCA) sets these regulated tariffs.

Recently the QCA has concluded that irrigators in Queensland are already being subsidised by other electricity users in Queensland, and that the tariff changes that Canegrowers' are seeking will only increase the level of this subsidy.

We have been asked to advise Canegrowers on the relevant issues. This includes assessing QCA's conclusions on Canegrowers' proposals. We have also been asked by the Australian Sugar Milling Council to investigate their electricity concerns. This report responds to these requests.

The report is set out as follows:

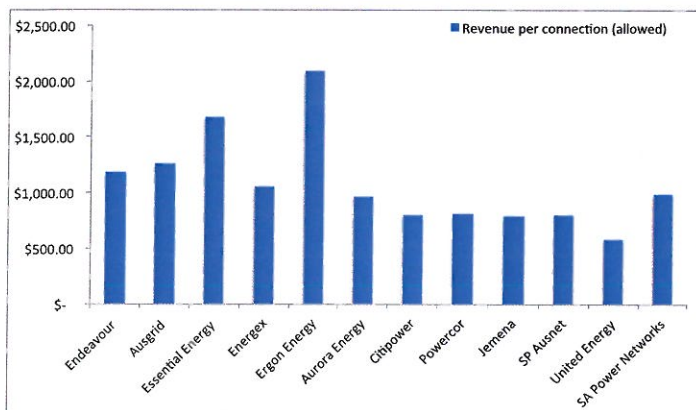
- Section 2 provides relevant background to the issues. It examines Ergon's revenues, costs, profits, regulated assets, average prices and operating conditions. It then describes the Uniform Tariff Policy, and the relationship between this, the Community Service Obligation and Ergon's profits. Finally the section compares the average price that irrigators in Queensland are paying for network services, compared to what they would pay if they were located in New South Wales, Victoria, South Australia or Tasmania.
- Section 3 is our assessment of QCA's subsidy claims in relation to Canegrower's proposals.
- Section 4 is our analysis of tariff issues affecting sugar millers in Queensland.
- Section 5 comments on Canegrower's tariff proposals to the QCA.
- Section 6 concludes and Section 7 recommends.

## 2 Background

### 2.1 Ergon revenue, costs and profits

Figure 1 below shows Ergon's allowed maximum regulated revenue per connection in 2014/15 compared to other distribution network service providers (DNSPs) in the National Electricity Market (NEM). It shows that Ergon's revenue per connection is far higher than any other DNSP.

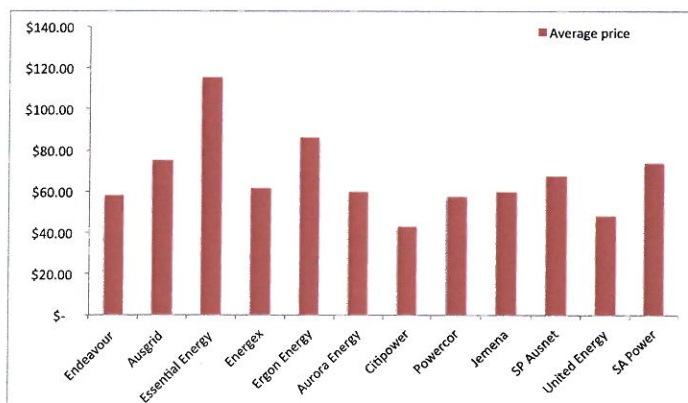
**Figure 1. Maximum allowed regulated revenue per connection in 2014/15 for DNSPs in the NEM. (\$/connection)**



Source: regulatory decisions, CME analysis

Figure 2 shows that Ergon's average price is second only to that charged by Essential. In other words, while Ergon's customers on average consume more than others in the NEM (it actually has the highest energy density in the NEM), Ergon's very high income per connection is not explained by the fact that their consumers use more electricity. Ergon's high average prices are also play a major role.

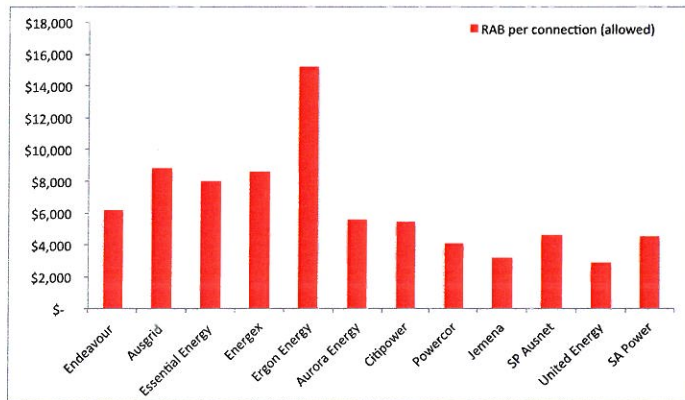
**Figure 2. Average prices in 2014/15 (\$/MWh)**



Source: regulatory decisions, CME analysis

Figure 3 shows that a large part of the explanation of Ergon’s high revenues per connection and high average prices is a regulated asset base per connection that is very much higher than that of other DNSPs

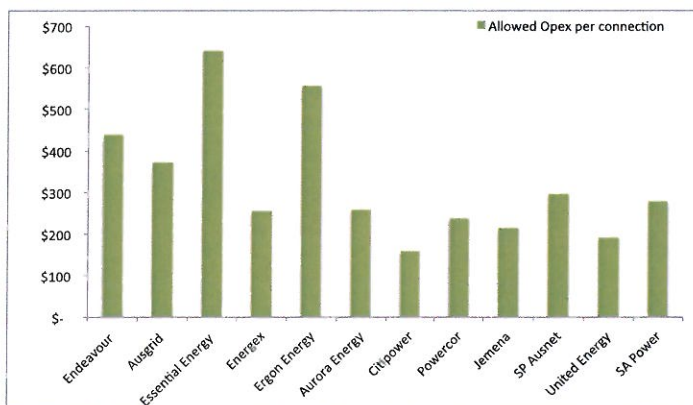
**Figure 3. Regulated assets per connection in 2014/15 (\$/connection)**



Source: regulatory decisions, CME analysis

In addition to very high regulated assets per connection, Figure 4 shows that Ergon also has very high operating costs per connection, second only to those of Essential.

**Figure 4. Operating costs per connection in 2014/15 (\$/connection)**

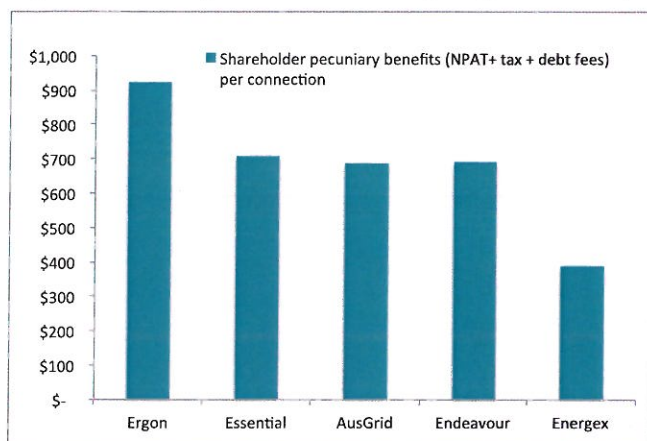


Source: regulatory decisions, CME analysis

Very high assets per connection combined with a generous allowed rate of return translates into high profits. This is shown in Figure 5.

This figure shows the financial entitlements of the mainland state governments in the NEM that own DNSPs (i.e. their entitlement to after tax profits plus debt guarantee fees plus income tax on profits). It shows that per connection, Ergon is by far the most profitable of all government-owned DNSPs. This chart is for the latest financial years for which audited data has been published. We expect that profitability in the 2013/14 financial year will have risen further.

**Figure 5. Profits per connection 2012/13 (\$/connection)**



Source: published financial reports, CME analysis

## 2.2 Ergon operating conditions

Does Ergon Energy face operating conditions that are significantly more or less onerous than its peers that might explain costs, prices and profits that are higher than other DNSPs in the NEM?

Ergon does have the lowest customer density in the NEM, although not significantly lower than a cohort of peers that includes Powercor in Victoria, Aurora in Tasmania and SA Power Networks in South Australia. Ergon also has the highest proportion of customers on long rural networks. Both of these factors might explain relatively higher costs for Ergon.

However against this, 45% of Ergon's network is single wire earth return, a far cheaper technology than others. It also has a predominantly overhead network (more than 99% by length) not unlike other DNSPs that service sparsely populated areas such as SP Ausnet, Powercor, SA Power Networks and Aurora. Furthermore, Ergon has the highest energy density (MWh sales per connection) in the NEM and this would suggest lower average costs compared to networks that serve many smaller customers with lower average sales.

More generally, stepping back from the contemporary comparison, we find that in the period that Ergon's network costs have risen so much, its network density has actually improved. Even if network density might explain relatively higher costs for Ergon than other DNSPs – and we are not suggesting it does – it certainly can not explain why Ergon's costs and assets have risen as much as they have over the last decade. Low customer density can also not explain Ergon's extraordinary profitability.

## 2.3 Uniform Tariff Policy, CSO and Ergon's Profits

Under Queensland's Uniform Tariff Policy (UTP), non-market customers of the same class generally have access to the same regulated retail prices (notified prices)

throughout Queensland. It applies to all customers accessing regulated prices. Regulated prices are not available to large customers consuming more than 100 MWh per year in South East Queensland.

The QCA suggests that although the objective of the UTP has not been clearly defined, such policies are generally justified on equity or fairness grounds. The application of the UTP however is fairly clear: subject to transitional arrangements for various electricity users, those who consume electricity in Ergon's area of supply are able to access the same regulated tariffs in Ergon's area of supply. The higher network charges levied by Ergon, we presume, are used in the calculation of part of the Common Service Obligation (CSO) although precisely how this is done (and the CSO calculated) is not clear. The CSO is paid by the Government to Ergon.

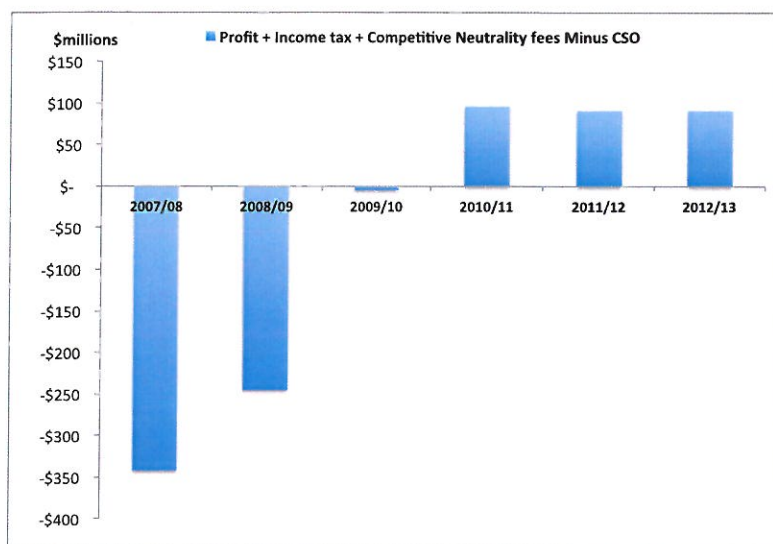
The QCA reports that the scope of the UTP might be too broad because it is also available to business customers, including very large commercial businesses and that the biggest customers of electricity receive some of the greatest benefits. The QCA suggests that some very large customers received individual subsidies worth more than \$1 million each during 2012-13.

While the implementation of the UTP and the consequential CSO is reasonably clear, the detail of the CSO's calculation is not. For the past seven years the CSO paid to Ergon has varied between \$585m in 2007/8 to less than half that (\$252m) in 2010/11 to more than double that (\$573m) in 2012/13. The annual value of the CSO does not seem to have any predictable relationship to the difference between Energex and Ergon's network tariffs as one might expect, since its main purpose is to make up for that difference.

Whatever might be the mechanics for the calculation of the CSO, it is paid by the Queensland Government to Ergon and since the Government owns Ergon, the government collects the gains in Ergon's profits that result from Ergon's receipt of the CSO. In this sense, the CSO is no more than the Government paying itself, albeit via a circuitous route. The CSP does however seem to provide an incentive for Ergon to inflate its network tariffs in the knowledge that the impact of this is not to increase prices paid by the regulated customers supplied by Ergon, but rather to increase the CSO it receives.

In Figure 6 below we show the Queensland Government's financial entitlements from Ergon (i.e. Ergon's after tax profits plus its Competitive Neutrality Fee plus its Income Tax) less the CSO it received. This moved from strongly negative in 2007/8 to stable at around \$100m per year in 2012/13.

Figure 6. Queensland Government's financial entitlements relating to Ergon (\$millions)



Source: published financial reports, CME analysis

The amounts in Figure 6 can be shown per connection served by Ergon, as shown in Figure 7. The numbers in this chart show that Ergon's after tax profits plus debt fees plus competitive neutrality fees less CSO receipt has been roughly constant at around \$130 per connection for the last three years.

Adding the CSO per connection in 2012/13 of around \$800, gives Ergon's actual net profit after tax plus CNF plus income tax of around \$930 per connection as shown in Figure 5. To put these profits per connection into context, SA Power Networks' reported net profit attributable to shareholders of \$430 per connection in 2012/13 while UK Power Networks reported net profit attributable to shareholders of \$100 per connection in 2012/13.

In other words, after receipt of the CSO, Ergon delivers more than twice as much to the Queensland Government per connection as SAPN delivers to its shareholders and more than nine times as much as UK Power Networks delivers to its shareholders.

Even before the CSO, in 2012/13 Ergon delivered greater financial benefit<sup>1</sup> per connection (\$130 per connection) to the Queensland Government than UK Power Networks delivered to its shareholders (\$100 per connection).

It might however be argued that this level of profit, although higher per connection is still only equivalent to a return of 2.5% on the \$3700m equity in Ergon's balance sheet. Since 2.5% is far below a reasonable return on equity, by implication Ergon is returning far less than reasonable. However, this criticism is fallible to the observation that \$2082m of the \$3715m equity in Ergon in 2012/13 is just an asset revaluation reserve rather than retained earnings or subscribed capital (it represented the accumulated upward revaluation of Ergon's assets). Adjusting for this revaluation reserve the return

<sup>1</sup> This is calculated as \$611m pre-tax profit plus \$53m in Competitive Neutrality fee less \$573m in CSO, which equals \$91m.

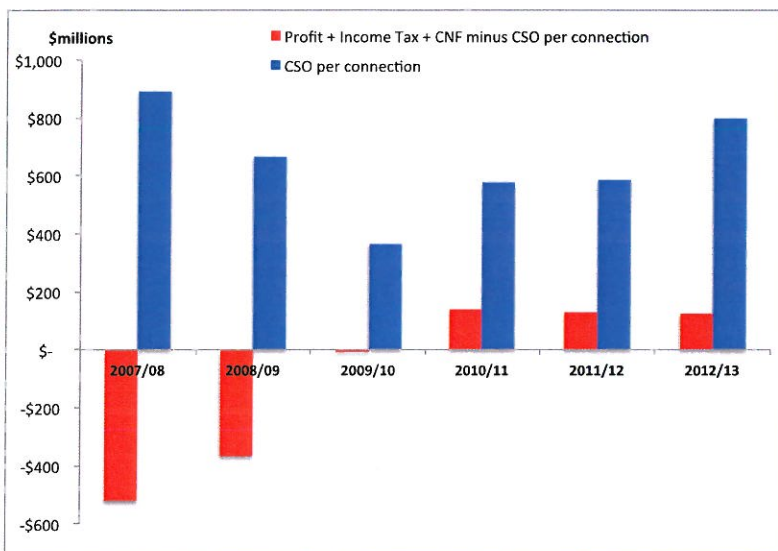
<sup>2</sup> If their tariff was calculated on the basis of Ergon's network charges rather than Energex's network charges.

<sup>3</sup> For example, the utilisation of Queensland's network has decline over the last decade as capacity has expanded has increased far faster than demand. For example Ergon's Regulatory

on subscribed and retained equity – assuming no CSO payment – rises to 5.6%. While not a fabulous rate of return on equity, it has to be questioned why much shareholders might reasonably expect much higher given Ergon’s very high costs and apparent comparative inefficiency.

We are also aware that some readers might question our calculation of Ergon’s profitability, i.e. that we have included the Government’s receipt of Competitive Neutrality Fees and income tax equivalents in our calculation of the return on equity. We defend this on the following grounds: the competitive neutrality fee is ultimately just a fee and constitutes income to the government. It does not compensate costs incurred by the Government. Likewise the Government’s receipt of income tax equivalents is a receipt that is contingent on profits and its shareholding. In this sense it is no different to any other profit and ownership-contingent return.

**Figure 7. Queensland Governments’ Ergon entitlements and CSO paid per connection (\$/connection)**

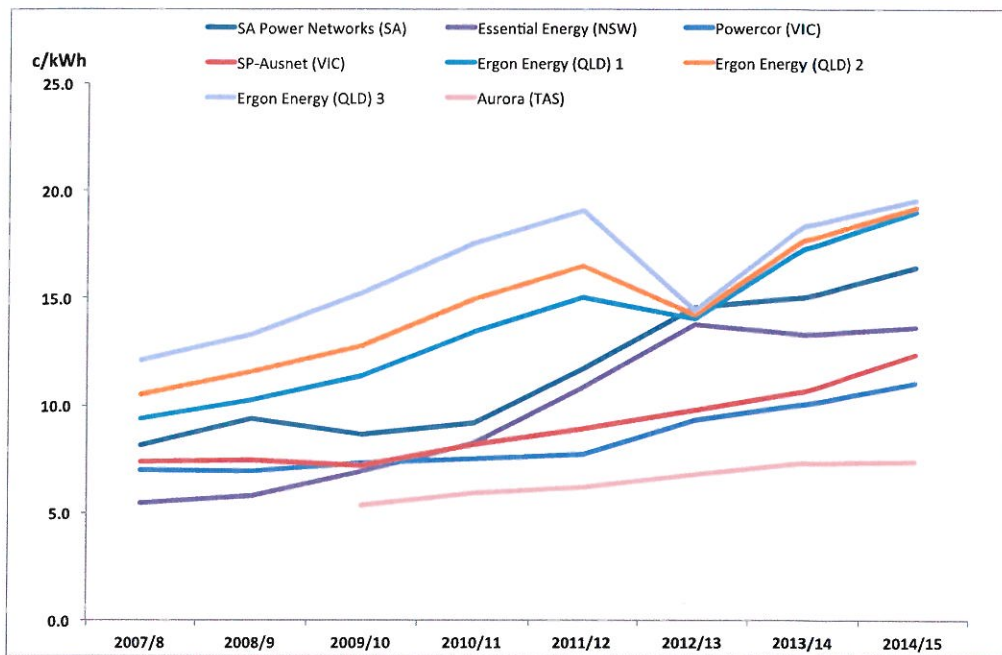


## 2.4 Irrigation tariffs in Queensland compared those elsewhere

We have analysed Ergon’s network tariffs applicable to irrigators (Standard Asset Customer (SAC) <100MWh per annum East Region 1- EVLT1, 2014/15 - Business IBT) and compared it to the network tariffs that irrigators would pay – assuming the same consumption profile and the same average consumption as for irrigators in Queensland. The results are shown in Figure 8. It shows that irrigators in Ergon’s zone 1, 2 and 3 would consistently pay more for network services<sup>2</sup> than they would if they were purchasing network services from network service providers that operate elsewhere in the NEM. Although this gap narrowed in 2012/13, it has widened again since then. While Ergon’s network tariffs are not relevant in the calculation of the prices paid by irrigators in Queensland, they are relevant to the calculation of the CSO.

<sup>2</sup> If their tariff was calculated on the basis of Ergon’s network charges rather than Energex’s network charges.

Figure 8. Average network prices paid by irrigators in Queensland compared to prices paid in other parts of Australia (cents per kWh)





### 3 Critique of QCA's conclusions in relation to Canegrowers' proposals

Canegrowers has made various proposals on changes to tariffs for irrigators in Queensland. The QCA has rejected Canegrower's proposals and concluded that in 2013/14, irrigators on Tariffs 62, 65 and 66 (would be) receiving subsidies worth more than \$32million. This section examines this.

Canegrowers supplied data to us for the average consumption, number and average bill of irrigators in South, Central and North tariff zones of the Eastern Region, for 2012/13. This was data that Ergon had previously supplied to Canegrowers. From these data we calculated that in 2012/13, irrigators in Queensland purchased 336 GWh from Ergon and paid \$71m to Ergon for it. The tariffs were 10% higher in 2013/14 than in 2012/13 and so assuming their consumption was unchanged in 2013/14, in 2013/14 irrigators would have paid \$78m in 2013/14.

Using these data we calculated the "subsidy" as a result of irrigators paying Energex rather than Ergon network tariffs was around half the amount that the QCA had calculated. This set off a process of interaction with the QCA during which the following became evident:

1. The data that Ergon had initially supplied to Canegrowers had inadvertently included GST and had excluded a reasonable amount of the revenue associated with fixed charges on Tariff 66.
2. Fourteen percent of irrigation sales on Tariff 62, 65 and 66 is for electricity sold in Ergon's Western Zone.
3. The QCA told us that the average Ergon network charge including sales on Tariff 66 and taking account of sales in Ergon's western zones was 21.4 cents per kWh.

Once adjusting for this, our estimate of the "subsidy" was \$38m, compared to QCA's revised estimate of around \$35m. The relatively small difference can be explained by various factors whose complexity and relative insignificance does not merit discussion. We conclude that the QCA's estimate of the "subsidy" as they have defined it, seems reasonable.

However, the information discovered through this analysis raises many significant concerns.

1. The AER's regulatory control for Ergon anticipates an average sales price for network services in 2013/14 of 8.3 cents per kWh. Yet Ergon would be charging irrigators an average price of 21.4 cents per kWh if they were paying Ergon's network tariffs. Irrigators consume on average 18.2 MWh per year, compared to average sales per customer on Ergon's network of 15.5 MWh per year. In other words, Ergon's irrigation customers are larger than Ergon's average customers but are paying around 2.5 three times Ergon's average price. How can this be? This is concerning and should be investigated.

2. Irrigators in Ergon's Western zone would be paying an average price for network services of 44.7 cents per kWh if they were paying Ergon's network tariff, while those in the east would be paying 17.2 cents per kWh in 2013/14. As shown in Figure 8, Ergon's Eastern zone prices are higher than irrigators elsewhere in the NEM are paying. Its Western Zone prices are therefore much higher than elsewhere in the NEM. While it may certainly be the case that the Western zone is sparsely populated, this is also true for other parts of Australia served by the networks show in Figure 8. How can it be, again, that Ergon's tariffs are so much higher?

Bringing these observations together with the evidence in the previous section of excessive costs and asset values, and incentives under the UTP to inflate network prices, we do not believe that Ergon's SAC <100 MWh network tariff is "cost reflective" and hence that the difference relative to Energex's 8800 network tariffs, which irrigators currently pay, might reasonably be called a "subsidy".

## 4 Comment on Canegrowers' tariff proposals

We have been asked to comment on Canegrower's tariff proposals to QCA. Canegrowers proposed to QCA that their electricity tariffs be reduced significantly. Underpinning Canegrowers' proposals is analysis of the price elasticity of demand. This analysis concluded that if prices were reduced, consumption would increase so that Ergon would not receive less income from the food and fibre customers to whom the reduced tariff would apply.

QCA has rejected Canegrowers' proposals on the basis that Canegrowers' price elasticity estimates are wrong and irrigators are already being subsidised. On the second of these, we disagree based on the analysis presented in earlier sections and extended in the concluding section. On the first, we cannot comment on the detail of the price elasticity calculations. Such analyses are always speculative. But this does not mean that Canegrowers' estimates are wrong: actual revenue may well increase significantly if prices reduce significantly. It would be surprising if this were not the case.

The substantial issue raised by Canegrowers' proposals is valid: electricity prices are too high and demand will decline unless this is changed. This is an issue for irrigators, many households and industrial energy users in Queensland. A loss of demand for grid-supplied electricity is a loss of utility to electricity users. This translates into an economic loss for the Queensland economy as electricity users either stop getting the benefit of their electricity consumption or if as a result of excessive charges they invest in their own production sources to meet the demand that would otherwise be supplied by the grid. Over time this can result in the worst of all worlds: an economically stranded grid-based electricity system, unmet consumer demand and possibly also large amounts of distributed generation much of which would not be needed if the grid-supplied electricity was more competitive.

It might also be argued that reducing prices will stimulate demand in a way that induces additional network investment and therefore that charging less than it costs, will result in inefficient expansion of network capacity. But there seems to be significant excess capacity in Ergon's electrical system<sup>3</sup>.

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<sup>3</sup> For example, the utilisation of Queensland's network has decline over the last decade as capacity has expanded has increased far faster than demand. For example Ergon's Regulatory Information Notice data shows an average network utilization of just 43% in 2013. While this is an aggregate average, and local conditions also matter, since irrigator demand has been declining for several years it seems reasonable to suggest that there is likely to be significant localized network capacity surpluses in the feeders and shared network serving irrigators.

## 5 Analysis of tariff issues affecting sugar millers

Our brief for this assignment includes an analysis of the network tariffs that Queensland's sugar millers are currently paying, and how these will change when sugar millers are required to take up Ergon's Tariff 48.

To do the calculation, the Australian Sugar Milling Council obtained relevant consumption and demand data for 15 sites from its members and provided that data, anonymously, to us. These sites import around 33.4 GWh in total or 2.2 GWh on average per year and export around 567 GWh. Their non-simultaneous peak demand is around 45 MW from June to November and drops to around half that in the remaining months.

We estimate the average network charge that these millers are currently paying on Tariff 22 (large). Ergon was not able to nominate a network tariff to be used as the basis of the calculation of the network element of Tariff 22 (large). So, we have had no option but to use Energex's 8800 peak/off-peak tariff which is used in the calculation of the network tariff for small users on Tariff 22. Using the 8800 tariff, we calculate the network element of Tariff 22 (large) is on average 12.4 cents per kWh. The highest network price paid at a site is 12.9 cents/kWh and the lowest is 11.8 cents/kWh.

If these millers were to be purchasing electricity on Ergon's Tariff 48 (which is what we understand is intended to be the case after a transition period) the relevant network tariff becomes Ergon's EDHT1 tariff. We calculate that with this network tariff the average network price for millers will rise to 35.8 cents per kWh. The lowest network price at a site will be 17 cents/kWh and the highest 64 cents / kWh.

A pairwise comparison of the two tariffs for all 15 sites in total, distinguishing the payments on their various charges, is shown in Table 1 below.

**Table 1. Network tariff charges on current and future tariffs.**

	Tariff 22 (network)	Tariff 48 (network)
Fixed	\$4,407	\$1,966,193
Demand	0	\$8,829,881
Consumption	\$4,127,546	\$237,366
<b>TOTAL</b>	<b>\$4,131,953</b>	<b>\$11,033,440</b>

The average annual consumption by millers is 2,200 MWh or 142 times higher than Ergon's average customer. Yet the average price paid by millers for network services – 12.4 cents per kWh is 48% higher than Ergon's current average price. The transition to Tariff 48 would make the average price paid by millers for network services 4.3 times higher than Ergon's current average price. It is not clear why millers are paying 48% more than Ergon's current average energy user considering that they consume 142 times more per year. Needless to say it even less clear why Ergon is proposing to triple their network charge.

We suggest that the current average network price paid by millers – 12.4 cents per kWh – is likely to be higher (very much higher in some cases) than energy users consuming around 2.2 GWh per annum elsewhere in the NEM would be paying.

At the retail level (i.e. network plus non-network charges) the relative change between Tariff 22 and Tariff 48 is shown in Table 2 below.

**Table 2. Retail tariff charges on current and future tariffs.**

	Tariff 22 (retail)	Tariff 48 (retail)
Fixed	\$ 8,815	\$ 1,966,193
Demand	0	\$ 9,715,798
Consumption	\$ 10,049,540	\$ 4,093,070
<b>TOTAL</b>	<b>\$ 10,058,355</b>	<b>\$ 15,775,061</b>

The relative change in charges at the retail level (from Tariff 22 to Tariff 48) is less severe than the change in network charges. However the average retail price paid by millers seems to be extraordinary. On the current Tariff 22 (large) millers are paying an average (retail) price of 30.3 cents/kWh. On Tariff 48 this will rise to 50.2 cents/kWh (with the lowest site at 33 cents/kWh and the highest site at 83 cents /kWh). By comparison, large electricity users in Victoria are currently paying around 13 cents per kWh.

Other particularly remarkable features of the network tariff underlying Tariff 48 include that it does not provide any time-of-use differentiation and a significant proportion of the charge is fixed. It is difficult to imagine a tariff design that could be less “cost reflective” in terms of structure or level.

## 6 Conclusions

### Value of “subsidies” to irrigators

Since Ergon revised the data that it had previously provided to Canegrowers, we agree with QCA’s estimate of “subsidies” received by irrigators, as the QCA has defined this.

The AER’s regulatory control for Ergon anticipates an average sales price for network services in 2013/14 of 8.3 cents per kWh. Yet Ergon would be charging irrigators an average price of 21.4 cents per kWh if they were paying Ergon’s network tariffs. Irrigators consume on average 18.2 MWh per year, compared to average sales per customer on Ergon’s network of 15.5 MWh per year. In other words, Ergon’s irrigation customers are larger than Ergon’s average customers but are paying around 2.5 three times Ergon’s average price. How can this be? This is concerning and should be investigated.

Irrigators in Ergon’s Western zone would be paying an average price for network services of 44.7 cents per kWh if they were paying Ergon’s network tariff, while those in the east would be paying 17.2 cents per kWh in 2013/14. As shown in Figure 8, Ergon’s Eastern zone prices are higher than irrigators elsewhere in the NEM are paying. Its Western Zone prices are therefore much higher than elsewhere in the NEM. While it may certainly be the case that the Western zone is sparsely populated, this is also true for other parts of Australia served by the networks show in Figure 8. How can it be, again, that Ergon’s tariffs are so much higher?

Bringing these observations together with the evidence of excessive costs and asset values, and incentives under the UTP to inflate network prices, we do not believe that Ergon’s SAC <100 MWh network tariff is “cost reflective” and hence that the difference relative to Energex’s 8800 network tariffs, which irrigators currently pay, might reasonably be called a “subsidy”.

### Sugar cane miller tariffs

The average annual consumption by millers is 2,200 MWh or 142 times higher than Ergon’s average customer. Yet the average price paid by millers for network services – 12.4 cents per kWh is 48% higher than Ergon’s current average price. The transition to Tariff 48 would make the average price paid by millers for network services 4.3 times higher than Ergon’s current average price. It is not clear why millers are paying 48% more than Ergon’s current average energy user considering that they consume 142 times more per year. Needless to say it even less clear why Ergon is proposing to triple their network charge.

The network tariff underlying Tariff 48 has very high fixed charges and no time of use differentiation. This has been described by the QCA and Ergon as a cost reflective tariff. We think it is difficult to imagine a tariff design that could be less cost reflective. Two aspects seem particularly disturbing: the lack of time of use or seasonal differentiation in demand or energy charges; and the very large increase in fixed charges. The large increase in fixed charges is highly regressive and reflects Ergon’s desire to recover sunk costs through fixed charges. There is absolutely no support for

such an approach in the economic theory under-pinning the design of economically efficient tariffs<sup>4</sup>. This approach risks stranding the investments that customers have made. Sugar millers would be in their rights on the basis of their own welfare and on the basis of sensible economic policy to strenuously oppose the current proposals.

### **Community Service Obligation**

It might be argued that the Community Service Obligation – the payment by the Queensland Government to Ergon in pursuit of the Government's Uniform Tariff Policy - justifies the description of the shortfall for irrigators (whatever the exact calculation may be) as a subsidy, from the Government to Queensland's rural electricity users. We do not think that this is a reasonable description of the CSO. The CSO is, in effect, a payment by the Government to itself albeit via the circuitous route of a payment to a corporation that the Government wholly owns, which improves the profits of that corporation which the Government then collects.

If Ergon did not receive any CSO payment and its network tariffs (used in regulated retail tariffs) were mainly based on Energex's (as now), Ergon would still be more profitable per connection than, for example, the privately owned distribution network service providers in Britain. As a rate of return on equity, without a CSO the rate of return on Ergon would not be high, though it would improve significantly after setting aside its asset revaluation reserve – which accounts for most of Ergon's equity but which does not represent retained profits or subscribed capital. Further improvements in returns should be possible by addressing what seem to be very high costs and low efficiency.

### **Canegrowers' proposals for tariff reductions**

We were asked to opine on Canegrowers' proposal that its tariffs be significantly reduced. While we cannot comment on the magnitude of the reduction or the price elasticity studies supporting their proposal, their proposal for reduced rates in each exchange for higher consumption is well-founded economically. Electricity network charges in Queensland are too high and many electricity users are seeking ways to reduce consumption or produce themselves to meet their own demand. Canegrowers' proposal is one way to attempt to deal with the problem of stranded network assets.

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<sup>4</sup> In this regard we refer to the seminal texts: Hotelling, H. (1938). "The General Welfare in Relation to Problems of Taxation and of Railway and Utility Rates." *Econometrica* 6(3): 242-269.; Coase, R. H. (1946). "The Marginal Cost Controversy." *Economica* 13(51): 169-182, Houthakker, H. S. (1951). "Electricity Tariffs in Theory and Practice." *The Economic Journal* 61(241): 1-25, Boiteux, M. (1960). "Peak-Load Pricing." *The Journal of Business* 33(2): 157-179, Williamson, O. E. (1966). "Peak-Load Pricing and Optimal Capacity under Indivisibility Constraints." *The American Economic Review* 56(4): 810-827, Turvey, R. (1968). "Peak-Load Pricing." *Journal of Political Economy* 76(1): 101-113, Littlechild, S. C. (1975). "Two-Part Tariffs and Consumption Externalities." *The Bell Journal of Economics* 6(2): 661-670, Joskow, P. L. (1976). "Contributions to the Theory of Marginal Cost Pricing." *Ibid.* 7(1): 197-206.

However the concerns that Canegrowers have raised apply also to other electricity users served by Ergon, including sugar millers as covered in this report. Indeed the concerns also apply to households: Ergon's network tariffs for households are far higher than any other network service provider and their fixed charges as a proportion of the total bill is again much higher than any other distribution network service provider in Australia or New Zealand, Britain and Demark<sup>5</sup>.

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<sup>5</sup> Mountain, B. R. (2014 ). Network tariffs applicable to households in Australia: empirical evidence. Prepared for Uniting Care Australia. (*forthcoming*)



## **7 Recommendations**

Problems with Ergon's asset valuation, the design of its network tariffs, the Government's tariff equalisation policy and the design and conduct of economic regulation underlie the tariff issues discussed in this report. These problems are deep-seated and will not be resolved easily. The scope of this report does not extend to making detailed recommendations, but we suggest a few issues that Canegrowers and ASMC might consider in shaping their future activities in this area.

### **Accountability**

There seems to be a culture of blame shifting between the QCA, Queensland Government, the AER, the AEMC and consumers. It would be helpful to bring this to an end. The Queensland Government owns Ergon and determines the Uniform Tariff Policy and its implementation. While the AER has an important role in setting Ergon's maximum allowable regulated revenues, the Government is at liberty to instruct Ergon to recover less than the AER determines.

While the Government can rightly be held accountable for the outcomes Ergon delivers, it should be recognised that within the Government there are likely to be differences of opinion on some issues for example between the Treasury and the Energy ministries. Canegrowers and the ASMC should seek to ensure that their concerns capture the attention of the most senior levels of Government, where such internal conflicts can be resolved.

### **Consumer engagement**

It is clear that Canegrowers has made extraordinary effort to engage with Ergon, the QCA and Government over a long period of time. However its concerns seem have drawn defensive responses from the industry and at times also from the QCA. A mentality described by the metaphor "the hospitals would work much better if it was not for the patients" seems to, at times, characterise Ergon's attitude to its customers.

Resource constraints have limited the ability of electricity consumers to participate effectively in regulatory debates. In desperation, quite understandably, some consumers have focussed on short-term wins. Greater organisation and professionalisation of energy consumer advocacy will offer bigger and more enduring improvements.

A Queensland Electricity Consumer Committee representing a diverse range of electricity consumers, and focussed primarily on Ergon's electricity network tariffs, at least initially, may help to deliver the necessary organisation. While establishing such a broad-based committee will consume time and resources, it has the potential to significantly improve the ability of electricity consumers to advocate their interests. The Government might be asked to fund technical and other support to ensure that the Committee is resourced to participate effectively.

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