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18 November 2015

Mr Kim Wood
Commissioner
Queensland Productivity Commission
PO Box 12112
George Street
BRISBANE QLD 4003

Dear Mr Wood

ELECTRICITY PRICING IN QUEENSLAND – ISSUES PAPER

Ergon Energy Corporation Limited (Ergon Energy), in its capacity as a Distribution Network Service Provider (DNSP) in Queensland, welcomes the opportunity to provide a submission to the Queensland Productivity Commission (QPC) on its *Electricity Pricing in Queensland – Issues Paper*.

Should you require any additional information or wish to discuss any aspect of this submission, please do not hesitate to contact the Group Manager Regulatory Affairs, Jenny Doyle, on (07) 3851 6416.

Yours sincerely

Ian McLeod
CHIEF EXECUTIVE

enc *Attachment: Ergon Energy Corporation Limited submission*

Submission on the *Electricity Pricing in Queensland – Issues Paper*

18 November 2015

Submission on the *Electricity Pricing in Queensland – Issues Paper*

Queensland Productivity Commission

18 November 2015

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

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Introduction

Ergon Energy Corporation Limited (Ergon Energy), in its capacity as a Distribution Network Service Provider (DNSP) in Queensland, welcomes the opportunity to provide comment to the Queensland Productivity Commission (QPC) on its *Electricity Pricing in Queensland – Issues Paper* (Issues Paper).

In response to the QPC's invitation to provide comments on the Issues Paper, Ergon Energy has focused on the issues raised by the QPC, but has also provided background material on the history of cost drivers and Ergon Energy's response to the regulatory environment and government policy positions which have shaped electricity prices in Queensland. Ergon Energy is available to discuss this submission or provide further detail regarding the issues raised, should the QPC require.

Ergon Energy understands and acknowledges key government commitments for the energy sector and customers and our role in assisting deliver them. Ergon Energy also supports detailed work and initiatives that support our customer commitments:

- We've listened to our customers to build a clear understanding of what they value. We recognise concern in the community about electricity prices. We also understand that our customers still want the peace of mind that comes from having a safe, dependable electricity service. Our customers also increasingly want greater choice and control with their energy supply solutions
- Peace of mind from a safe, dependable service. Our customers do not want us to compromise on safety. They recognise that reliability has improved and are no longer looking for higher reliability standards (except in areas where reliability remains below expectations). They value our local presence, and our disaster response, and see investing in the network's resilience to severe weather as important. They want improvements in new connections, including solar.
- A future of greater choice and control. A significant proportion of our customers feel they have done all they can to reduce their usage and save on their bill, and others are investing in technologies like solar and battery storage to address costs. Our customers want us to look to a future where users are empowered with technologies and options for their electricity supply, and to consider transitioning towards a 'smart' network. While some customer segments indicate they need more information to fully understand the benefits of 'smart meters' (advanced electronic or interval meters), they see value in access to better information to help them manage energy use.
- Best possible price, best overall value. The cost of electricity is a significant issue, with affordability concerns rising with prices. Ergon Energy will work with customers to develop a good understanding of cost drivers and customer options.

Ergon Energy continues to identify and act on opportunities to create jobs and investment in the Queensland economy, particularly in the non-regulated sector, continuing to identify operational efficiencies that will result in improved financial performance and commitments to deliver an open access platform and a network enabling the update of renewable sources of energy.

Specific Comments

The following section comprises two parts. The first section includes background material on the history of cost drivers behind network and retail prices. This section will provide context to the QPC on the drivers of electricity pricing which has primarily been shaped by the regulatory environment and government policy. Ergon Energy has operated within this environment with an aim to provide the most optimum customer and business outcomes.

The second section addresses a number of the areas which the QPC has raised for comment.

Background – history of cost drivers

Up until mid-2000, Queenslanders enjoyed relatively stable and low retail electricity prices. This was largely a function of the regulatory and policy processes in place at the time, with regulated retail prices being escalated by the consumer price index or sometimes not increasing at all. This meant that retail prices did not change in line with underlying input cost changes.

Reliability

From early 2000, Ergon Energy's investment on new, replacement and augmented assets in the network increased in response to an ageing network, population growth and shift, the mining boom, increased demand per capita and in an effort to meet our customers' changing expectations around reliability and quality of supply driven by the uptake of lifestyle appliances.[1] Additional network investment was required from 2004 to meet the higher reliability standards introduced in response to the Electricity Distribution Service Delivery (EDSD) Review.

To achieve the higher reliability standards each of the Queensland DNSPs had to undertake a number of measures. For Ergon Energy, this meant the obligation to achieve N-1 security on bulk supply substations and large zone substations (5MVA and above) and sub-transmission feeders. Steps also needed to be taken to improve network planning processes, improve maintenance programs and to better communicate with customers on network outages. Whilst it was acknowledged by the EDSD Review Panel at the time that these recommendations would result in significant capital and operating expenditure, the impact of these reforms on price was not fully quantified.

Although already recognised as an issue in Ergon Energy's strategic planning horizons for some years, by 2010 'affordability' had clearly become the issue of greatest concern to stakeholders, with 'reliability and security of electricity supply' and 'disaster management' ranked 4th and 6th, respectively.[2]

Ergon Energy recognised the cost pressures created by the higher reliability standards introduced following the EDSD Review, and in 2007-08 we investigated alternative methods (Energy Conservation & Demand Management Paper 2008) and commenced pilots and trials and initiated actions for achieving security of supply on the distribution network that may be more cost effective and efficient in the long-term. Based on this work and our belief that greater flexibility was required

[1] Ergon Energy 2007 Annual Report 2006-07, p19.
[2] Ergon Energy, 2010. Annual Stakeholder Report 2009-10, p2.

to adapt to change and deliver value and choice to our customers, we commenced discussions with the Queensland Government and made submissions to the 2011 Electricity Network Capital Program (ENCAP) Review for a change in the policy settings[11]. This review ultimately recommended a relaxation of the security criteria (N-1) and changes to Minimum Service Standards (MSS).

In response to the ENCAP Review, Ergon Energy received a direction notice in February 2012 from the Queensland Government not to seek revenue associated with the expected reduction in capital expenditure arising from the implementation of the recommendations of the ENCAP Review, by excluding it from the annual network pricing proposal. Over the period up to the end of 2014-15, this revenue would have been approximately $99 million.

In an effort to address the change in customer attitudes to price and reliability Ergon Energy continued discussions which lead to a new Distribution Authority issued by the Queensland Government in September 2014 which flat-lined the MSS at 2010-11 levels and introduced probabilistic standards (as opposed to a deterministic N-1 approach) and a Safety Net. This has in turn led to significant reduction in the level of augmentation required and this was reflected in Ergon Energy's Revised Regulatory Proposal for 2015-2020.

Cost reflective pricing

Since 2007, electricity affordability has become a key issue of concern for our customers. A major contributor to rising electricity prices has been changes in the policy environment for setting retail prices in an effort to move towards full cost reflective prices (i.e. the introduction of full retail competition and Benchmark Retail Cost Index (BRCI) were the first steps in this process). As a result, the cost of the capital investment programs undertaken by the DNSPs to address the EDSD Review's recommendations, started to be passed through to customers[3]. This had a significant impact on retail prices with various reports indicating:

- network costs generally represent approximately 47 per cent of a typical residential retail bill[4]
- network cost contribution to retail bills (distribution and transmission) has grown over recent years.[5]

Recent policy changes such as the effects of moving to the N+R framework (for setting regulated retail prices)[6] and renewable energy prices (e.g. Solar Bonus Scheme) have also contributed to higher electricity prices. Ergon Energy notes that based on analysis undertaken in 2014, the cost of green schemes to Ergon Energy's customers was approximately $1,600 million over the 2010-15 period.

Demand

At the time of the Australian Energy Regulator's (AER) 2010-15 Distribution Determination, the key drivers for Ergon Energy were expected to be continued growth in peak demand driven by a

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[3] Noting that under the BRCI approach average network costs were used to calculate regulated retail prices meaning there was still divergence between regulated retail prices and underlying cost changes.
[4] QCA 2014 Electricity pricing from 1 July 2014 – updated 24 July 2104: Factsheet.
[5] Queensland Government 2013 Independent Committee on Electricity Sector Reform: Report to Government, May, p25.
[6] Notified prices for 2012-13 were the first set of retail tariffs that had been determined on the basis of the N+R methodology.

"mining Tsunami", high State Domestic Product growth projections, economic and population growth in regional Queensland; continued investment to meet increasing reliability obligations; and reasonable customer expectations for the safety, quality and reliability of their power supply. Furthermore, our customers had just started to develop an interest in energy supply alternatives, both to procure and use electricity.

These key drivers framed expectations for demand over the 2010-15 regulatory control period and associated forecast expenditure (capital and operating and maintenance). The AER's consultant forecast maximum demand and energy consumption to grow on average by 3.4 per cent and 3.0 per cent respectively. The AER determined that over $6.9 billion ($2009-10) in total expenditure needed to be invested in or spent maintaining, the distribution network over the regulatory control period.

Within 12-18 months of the 2010-15 regulatory control period commencing, many of these drivers and assumptions had materially changed due to one or more of the following factors acting either independently or collectively:

- The price impact of the reliability standards introduced by the Queensland Government following the EDSD Review, have had a greater impact on network prices than initially anticipated at the time the standards were introduced. Since the EDSD Review, reports indicate that annual capital expenditure on the Queensland network has essentially doubled.[7]
- Weaker global economic conditions. While both Queensland and the rest of Australia have experienced slower economic growth in recent years, the moderation in growth has been more pronounced in Queensland. The effect of severe weather events in 2010-11, which flooded mining operations, also had a specific effect in Queensland (and was not replicated in the rest of Australia) leading to a drop in electricity consumption in that year.[8] The subsequent high $AUD has also dampened trade-exposed economic activity, particularly in the manufacturing sector.
- Queensland households are becoming increasingly price sensitive as a result of substantial ongoing electricity price rises. As consumers have become more concerned about the cost of electricity they have adopted measures to reduce usage. Whilst these measures have resulted in an overall fall in consumption they have not necessarily resulted in reduced retail bills. As a result consumers are increasingly questioning what more they can do to reduce their bills.
- Consumption patterns have changed markedly since 2010 as a result of higher prices for electricity, the adoption of strategies to enhance energy efficiency and broad take-up of demand management initiatives.
- Energy conservation and efficiency became a key lever for reducing carbon and mitigating climate change impacts.
- Climate change policies and subsidies for rooftop solar photovoltaic (PV) installations have led to a rapid increase in a number of households and businesses with solar PV. The uptake for solar PV has exceeded initial expectations with more than 29.1% per cent of Queensland households now with solar energy systems. Despite many of the government incentives to encourage the installation of solar PV being removed, in 2013, 15 per cent of Queenslanders

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[7] Queensland Government, 2011. *Electricity Network Capital Program Review 2011: Detailed report of the independent panel,* p65. (https://www.business.qld.gov.au/__data/assets/pdf_file/0018/9117/ENCAP_Review_Final_Report_3_new.pdf)

[8] Queensland Commissioner of Audit, 2013. *Final Report – Volume 2.* February, p5.

indicated they were looking to either purchase more panels or acquire solar PV in the next two years.[9]

- The installation of solar PV has a twofold effect on the network:
    1. It introduces an additional source of power for which, in the main, the networks were not designed; and
    2. The pattern of solar generation is such that the peak demand has not significantly dropped, whereas overall consumption has. The net effect is that the DNSPs must still build networks to cater for the peak, yet there are less units of electricity being distributed through which the majority of revenue was recovered, therefore leading to higher prices.

Early in the 2010-15 regulatory control period it became apparent to Ergon Energy that a number of these developments represented, or had led to, permanent changes in our operating environment.

Cost Reductions

Our understanding of the increasing gap between our customers' expectations of the reliability of electricity service they receive and the price they must pay for it, led to a number of areas being identified where we could improve our operational performance including:

- our demand forecasting methodologies
- areas of unacceptable service reliability in relation to our worst performing feeders on the long rural part of the network.

We also became aware of the need to reduce costs to match the contraction in energy sales volume and demand, suppressed customer network connections and to improve efficiency across the range of Ergon Energy's operations while meeting regulatory, safety and customer service requirements.

Ergon Energy realised that an immediate and proactive response was required to address the electricity affordability issue rather than wait until the end of the regulatory control period 2010-15. In addition to the reliability measures discussed above, Ergon Energy built on its "get fit" efficiency drive from 2007, in the latter half of 2011, by adopting a strategic goal to limit increases to average network charges to less than the CPI over the medium to longer term. This saw the commencement of a number of efficiency and effectiveness initiatives in 2011 covering both direct and indirect expenditure to identify the areas offering the greatest cost reduction opportunities. The initiatives covered all elements of the business, for example HR, ICT, Procurement, and Property and Fleet, and sought to identify cost savings that were now available as a result of the changed operating, policy and regulatory environment.

The efficiency and effectiveness initiatives mentioned above were complemented by independent analysis and interrogation of our underlying expenditure. Our approach to reducing costs and improving efficiency was also informed by the various energy industry sector efficiency and productivity reviews (both at State and Federal level) that occurred over the course of the 2012-13 year and the results of various global benchmarking surveys regarding the efficiency of energy utilities.

[9] Colmar Brunton, 2013. Queensland Household Energy Survey 2013 – Strategic Insights Report, April. p1

In response to concerns raised by the AER during the 2010 regulatory re-set, we took significant steps toward improving the robustness and accuracy of our demand forecasting methodologies. Our new load forecasting process is based on expert advice from external consultants on how to improve our forecasting methodology. The new forecasting process is econometrically based and explicitly accounts for demand management programs, impact of solar generation and air conditioning growth. It also more accurately captures changing economic conditions than the existing trend based process.

As reported in our Statement of Corporate Intent for 2012-13, in excess of $100 million in benefits have been achieved from various efficiency initiatives, supported by an organisational restructure and reduction in the size of our workforce (employees and contractors) of over 600 positions. Over the course of the 2013-14 and 2014-15 years, we ensured these gains were maintained for the remainder of the period, and continued to focus on reducing our cost to serve our customers.

Our Demand Management program resulted in a diversified load the equivalent of a regional city the size of Rockhampton being taken off the grid and deferred or avoided capital costs of around $660M.

Coupled with the capital expenditure savings identified by Ergon Energy and ENCAP, Ergon Energy reduced its expenditure by $1.7 billion against the approved regulatory allowances. Our analysis suggests that this reduction, combined with more favourable market conditions for debt financing in the 2015-20 period, will deliver substantial benefits for customers from 1 July 2015. **Customers were facing a double-digit increase** in the network component of their bill for 2015-16 if the expenditure reductions had not been made and financing costs had remained the same.

Over the regulatory control period 2010-15, in addition to the ENCAP direction notice from the Queensland Government, Ergon Energy absorbed the financial impact of the following events:

- $40.9 million in revenue associated with the Australian Competition Tribunal's decision on gamma (under direction of the Queensland Government)
- the full financial cost impact of Cyclone Yasi and Cyclone Oswald, with our costs for these two events totalling approximately $120 million.

Collectively these measures mean our starting point for prices in 2015-20 are lower than they would have otherwise been. Further, Ergon Energy submitted a Revised Regulatory Proposal for the 2015-20 regulatory control period that had expenditure levels $1 billion lower than our actual expenditure in 2010-15. The AER's Final Determination handed down a 10 per cent reduction from total expenditure proposed in our Revised Regulatory Proposal. The AER's Final Determination also noted that they expected a typical residential bill to reduce between 1 and 2 per cent per annum over the 2015-20 regulatory control period, noting this analysis is based on Energex's costs given regulated retail prices in Queensland are based on Energex's costs. Our final Tariff Structure Statement (TSS) will include 5 years of indicative network prices and will be submitted to the AER on 27 November 2015.

Benchmarking

Ergon Energy notes that referenced benchmarking by the AER as evidence that Ergon Energy is inefficient and that has influenced retail tariffs. The AER's reliance on benchmarking in making its Regulatory Determination for Ergon Energy for the period 2015-20, infers, that Ergon Energy's out-turn costs are materially inefficient. However, independent consultants engaged by Ergon Energy (Huegin Consulting Group) to review the benchmarking methodology and outcomes, following the

Release of the AER's Preliminary Determination, contended that the AER's benchmarking does not provide sufficient evidence that Ergon Energy's base year operating expenditure (opex) or forecast of opex for the next (now current) period is materially inefficient, for the following reasons:

- The use of more sophisticated economic benchmarking models and the inclusion of international data to increase the statistical precision of the models does not guarantee a more appropriate forecast of opex in the presence of heterogeneity and missing variable effects. For Ergon Energy, the preferred model of the AER is not an appropriate substitute for forecasting opex, based as it is on an assumed common industry cost function from a data sample with materially different attributes to Ergon Energy.
- Other regulators with long experience in economic benchmarking take appropriate steps to mitigate the unavoidable bias when relying upon a single model to test inefficiency or substitute forecasts. Whilst the AER references a very limited range of other models that it considers validates its preferred model, other regulators combine the results of multiple models (including with the service provider forecast in some cases), recognise a cost range, make regional adjustments or exclude costs that are difficult to compare.
- Sensitivity testing shows that the results of economic benchmarking do not exhibit the necessary consistency for application as a forecast of substitute opex. Small changes in assumptions demonstrate the significant variation in the outcome. There is compelling evidence that the modelling is unfit for the purpose of judging Ergon Energy's base year opex due to the strong influence of costs and conditions from up to a decade ago. Dramatically lower spend by the frontier businesses prior to 2009 is masked by the 8 year average which in turn inflates the current efficiency target. Even using the AER model, Ergon Energy's base year is efficient when data from 2006-08 is excluded.
- Ergon Energy's vast service areas, with multiple clusters of population centres separated by large distances, is the greatest exogenous driver of its costs. Unlike the Northern Territory which is made up of very few isolated networks, Ergon Energy's network is still connected across a great number of clusters. Unlike South Australia, the population of which is concentrated in the southeast corner, Ergon Energy must service more than half of the State. Networked assets in states such as Queensland and New South Wales are inherently more expensive to operate and maintain; failure to recognise this in the benchmarking overstates model error as inefficiency.

Therefore, in response to the AER's Preliminary Determination, Ergon Energy submitted to the AER that the use of its economic benchmarking outcomes, to the exclusion of other assessment techniques or relevant and pertinent information in determining an efficient base year for Ergon Energy, has not resulted in a forecast of opex that gives due consideration to the National Electricity Rules (NER). Furthermore, Ergon Energy maintained that the adjusted base year opex and forecast opex for the 2015-20 regulatory period reflects efficient and prudent expenditure required by Ergon Energy to meet its NER requirements and to effect both the pricing principles of the National Electricity Law (NEL) and delivery of the National Electricity Objectives (NEO). Additionally, as demonstrated in Huegin's latest report, Ergon Energy's revised forecast operating expenditure, using more up to date information, including a more current base year demonstrates improvements in overall opex efficiency and associated productivity gain greater than any other NEM business.

Further benchmarking analysis undertaken by Huegin determined:

- The use of 2009-2013 data would determine an efficient opex for Ergon Energy in 2013 of $331.7 million ($2014-15) instead of $304.6 million ($2014-15) benchmarked.

- Benchmarking from 2006-2019[10] would place Ergon Energy 8 per cent from the frontier (using the same operating environment factors (OEF)) as opposed to the distance of 22 per cent from the midpoint of the 2006-13 period.
- Using data from 2009-2019 and applying the OEFs identified by the AER, would result in Ergon Energy's opex over the regulatory period 2015-20 being deemed efficient.

Ergon Energy's network covers 97 per cent of the area of Queensland. Our focus is on customers who live in rural and regional Queensland. With such a large network area, it is inevitable that we experience varying levels of customer density and must distribute electricity across large distances.

As a consequence of our rural and regional focus we have a generally low overall customer density, and some areas with a very low customer density. It is servicing these areas that provides significant challenges and can attract a cost premium. The limitations of the Powerlink transmission network also provide challenges in providing bulk supply to more isolated network areas.

Even if OEFs are accounted for there is no reason to expect that Ergon Energy can provide network services to its population at the same cost as Powercor and SA Power. There are fundamental differences between these networks that mean it is more costly to run Ergon Energy's network. [11]

Huegin's analysis of service area on costs and benchmarking outcomes demonstrates that customer dispersion has a significant impact on costs. Servicing low density areas incurs a higher cost premium as the network service provider will either incur sell optimised costs, associated with providing a local presence, or incur greater costs associated with moving labour to service the area when required. Huegin notes:

> *Ergon Energy's network, as a result of the requirement that it deliver electricity over a space that is significantly larger than that of SA Power Networks and Powercor is likely to face diseconomies of scale that will be construed as inefficiency if not taken into consideration, either through the inclusion in the AER's SFA model of a proxy for service area or an OEF adjustment to the comparison point used by the AER.*[12]

Since the release of the AER's Final Determination for Queensland and South Australia and its Preliminary Determinations for Victoria, Ergon Energy has undertaken additional analysis which indicates that we have the lowest real opex growth over the period 2006 to 2019. Ergon Energy notes that Ausgrid and ActewAGL have negative growth in opex which is a result of the AER's reduction in base year opex. However, this outcome is the subject of Merits Review and is subject to change.

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[10] Data has been collected using the Reset RIN's from each of the DNSPs in the NEM. As TasNetworks was not published at the time their data is included to 2014 and they are not included within the frontier DNSPs.
[11] For example, refer **Error! Reference source not found.**~~Figure 3~~ below.
[12] Huegin Review – AER Benchmarking of Ergon Energy Opex, p 45

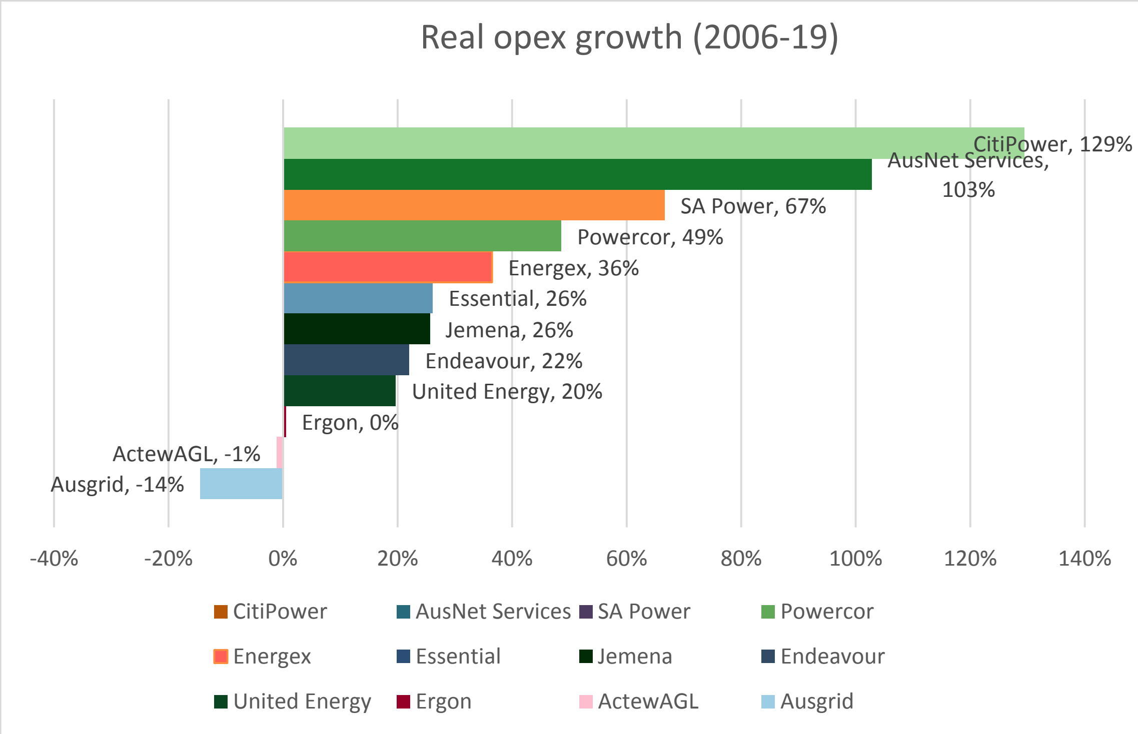

Figure 1

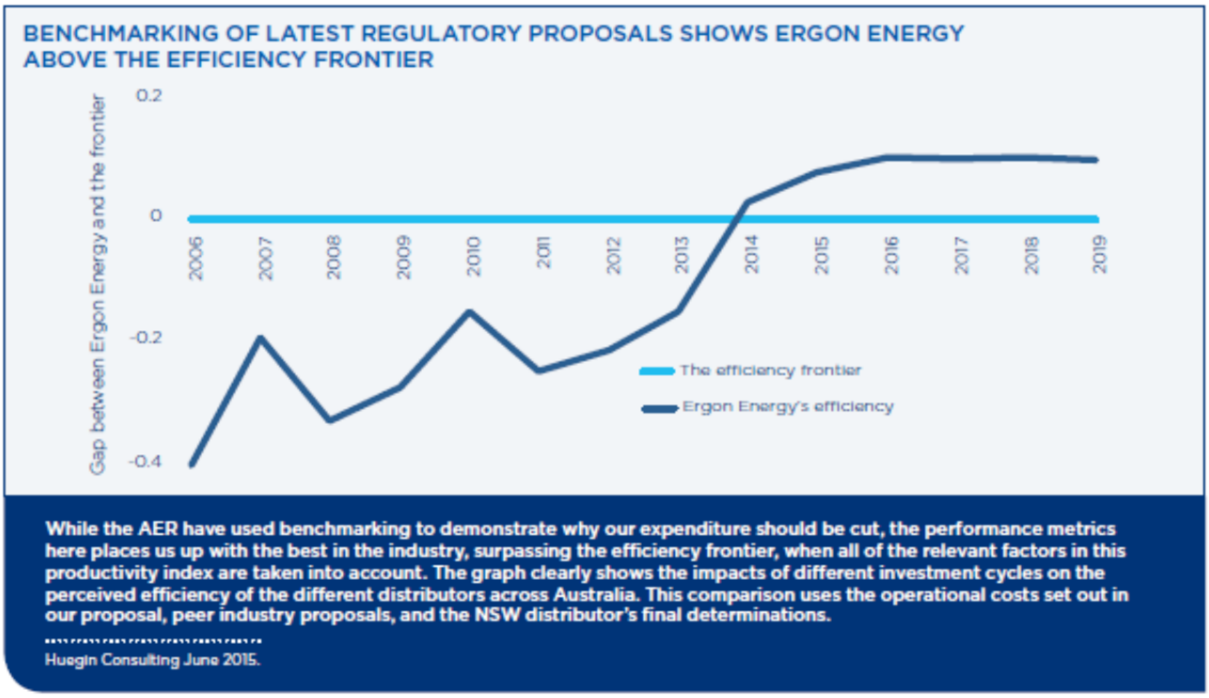

Figure 2

Response to Questions Raised in the Consultation Paper

Productivity in the Electricity Supply Chain

Question 2.1. Are there any changes to the structure of the electricity supply chain and its regulation that might improve the efficient delivery of a reliable supply of electricity to customers?

Given the pace and scale of change occurring across electricity systems, many jurisdictions are reconsidering historical approaches to economic regulation. It is essential that there is a clear conversation about the purpose and expectations of regulation. It is important that this results in a clear framework for defining what is regulated and why, and providing well-defined options for regulating services at different stages of contestability. The regulatory framework should be:

- Focussed on the long term interests of customers;
- Flexible and enable emerging technology;
- provide clear revenue and profit opportunities from delivering services that create value for customers;
- well justified and proportional to the risks of a clearly defined problem taking into account both costs and benefits of any intervention;
- non-discriminatory in that networks should be able to provide valued, efficient energy service solutions to customers; and
- regulations should be enforced independently, in a transparent and accountable manner.

In this regard, Ergon Energy suggests that network businesses should be able to develop and commercialise their innovative solutions and intellectual property in order to have unregulated income to support regulated activities and put downward pressure on prices.

Further, a higher degree of flexibility surrounding the installation of advanced meters will enable the delivery of a broader range of efficient energy services to customers.

It should be recognised that the margin for value is centred around the customer and how they use their energy. Appropriate price signals and alternative energy solutions provide for competition and liquidity in the market and lower costs. Over regulation of participants and exclusion based on old supply models will lead to higher prices.

Question 2.2. What are the key areas for productivity improvement across the electricity sector, and how could these influence Queensland's overall economic productivity?

Ergon Energy recommends encouraging large loads into Queensland, capitalising on the existing capacity of the electricity network (as well as supporting infrastructure such as road, rail and port easements) in order to improve utilisation of the current infrastructure.

Generation

Question 2.3. What are the potential benefits and risks in the Queensland Government's renewable energy plans, including solar targets, for electricity sector productivity and electricity prices in the longer term?

Ergon Energy believes consideration should be given to generation mix to ensure that there is diversity in generation source. Consideration could be given to providing focus on market fostering and support and rewarding availability (i.e. the ability to supply when needed) in order to avoid market and network stability issues, and reduced value creation and this should be done on a technology neutral basis.

Policy decisions should be carefully considered with appropriate consultation through-out the development, and draw on lessons learnt from previous incentives.

Policies should be technology agnostic and should not favour one solution over the other through the use of subsidies. Policies and subsidies that favour a particular solution may crowd out more cost effective and efficient solutions.

Question 2.4. What objectives do these plans and targets best support, and are there alternative levers or methods that might be considered?

The objectives support the advancement of renewables and an increase in the renewable penetration across the network. Consideration should be given to enabling capabilities that ensure the benefit of renewables is maximised. Ensuring that strategies enable supporting technologies such as energy storage and demand response should be considered.

Networks (Transmission and Distribution)

Question 2.9. What is the best way to recover the network costs associated with demand from electricity consumers more efficiently and equitably?

Network costs associated with demand are best recovered through kW and KVA charges which are reflective of actual peak demand in both season and time. Notwithstanding, fixed charges are also required for ongoing operational expenditure which is independent of demand.

Ergon Energy has undertaken significant network tariff reform, with a new suite of network tariffs approved in 2014-15 to cost-effectively provide transparency and cost reflectivity of Ergon Energy's cost drivers and structures. This reform also supports more economic usage of the network by customers, thereby optimising their use of the network and the value realised. In 2015-16 unprecedented tariff reform across all tariff classes was achieved at both the network and retail tariff layers. In the course of two years, Ergon Energy's network tariffs have moved from arguably the least cost reflective, to leading edge in the national arena, through the implementation of cost reflective long run marginal costs (LRMC) based tariffs, including penetration through to the retail layer.

Question 2.10. How should volume risk be shared between NSPs and electricity consumers?

Ergon Energy appreciates the requirement to appropriately balance volume risk between NSPs and electricity customers and we note that this issue was relatively recently considered by the AER in its Framework and Approach Paper for NSW DNSPs[13]. Specifically, the AER considered the merits of both a weighted average price cap (WAPC) and a revenue cap. In doing so, the AER considered that theoretically a WAPC provides an incentive to set efficient prices as DNSPs can retain revenue recovered above the expected revenue calculated by the AER. That is, DNSPs are able to increase profit by reducing the price on price sensitive services towards marginal cost,

[13] AER, 2013. *Stage 1 Framework and Approach Paper, Ausgrid, Endeavour Energy and Essential Energy*,

while simultaneously increasing the price on price insensitive services. However, the AER went on to suggest this has not eventuated as the underlying assumptions do not always apply to DNSPs. Alternatively, the AER contended that a revenue cap better meets the requirements of clause 6.2.5(c) of the National Electricity Rules (NER) with benefits including individual tariff price stability, efficient cost recovery and incentives for demand side management.

As this analysis by the AER demonstrates, there are benefits and disadvantages associated with each approach, which should be carefully considered prior to any decision to apply a definitive requirement in this regard.

Question 2.11. Do Queensland's network reliability standards effectively allocate risk between consumers and businesses, and to the extent they exist, mitigate any risks?

Prior to 2014, Ergon Energy used deterministic security of supply criteria to decide when network augmentation was to take place. Whilst this approach provided a high, predictable and consistent standard of reliability, it had the effect of loading investment expenditure early in the life cycle of the asset which in some cases led to both underutilisation of the asset and underutilisation of capital. In recognition of these effects, and of the likely move towards more probabilistic planning approaches at the national level, during the regulatory control period 2010-15, Ergon Energy worked closely with Energex and our Queensland Government shareholders to enable the distribution networks in Queensland to transition away from deterministic N-1 security of supply standards, to a probabilistic model for reliability planning.

The probabilistic model uses unsupplied energy to determine risk in a system, and the cost of that risk. It examines in detail, the load on a system, the chance of failure of a network component, and the chance of that failure occurring at precisely the time when the load is in excess of the system N-1 rating. A key advantage of a probabilistic approach to network planning is the ability for the "poles and wires" to be driven further, allowing better utilisation of assets and consequently reductions in capital investment and overall costs to Ergon Energy and our customers. As evidenced by our most recent Regulatory Proposal to the AER, the transition to a probabilistic model for reliability planning will help to deliver improved pricing outcomes for customers and reduce the level of network capital investment required in the long-term. Specifically, based on the latest available assessment of the impacts of the changes in our security and network planning criteria contained in our most recent Distribution Authority (effective from 1 July 2014) and our forward planning for non-network expenditure, we expect that our overall capital expenditure for the current regulatory control period will be significantly less. This is presented in, our Revised Regulatory Proposal (RRP) which demonstrates that the initial years of the period are characterised by a larger percentage of works in progress, and then expenditure decreases further from 2018-19. The forecast expenditure is consistent with the load forecast for the network and is expected to achieve an acceptable balance between risk, reliability and the expressed expectations of our customers.

Question 2.12. What are the potential benefits and risks of emerging technologies for the electricity networks in terms of electricity prices and supply chain productivity?

Emerging technologies such as energy generation and storage devices, have the potential to benefit network operation through, for example, support for demand reduction initiatives. However notwithstanding this, these technologies also present a significant risk to the management and integrity of network infrastructure.

Generally, while new technologies often result in lower kWh, they don't reduce kW, and do introduce voltage issues, thereby resulting in under recovery of revenue of the existing network, but also introducing the need for additional investment to address voltage issues. Overall, this puts greater upwards pressure on prices.

Notwithstanding, they also provide the opportunity for non-traditional, lower cost, network-side solutions, and contractual or broad-based solutions on the customer side of a meter. Having the ability to use resources beyond the meter, such as smart meters etc. would better utilise excess capacity in the grid.

Noting the benefits that can be realised through the integration of these technologies, Ergon Energy strongly suggests that any regulatory instruments which impede their integration to deliver lower cost alternatives to traditional network augmentation, whilst not derogating from system safety, performance and reliability, should be reviewed and amended as required.

Question 2.13. What is the role of economic regulation of networks in the face of increasing competition from non-network services and products?

Economic regulation makes the opportunity for innovation more cumbersome. In a time of industry change, innovation will be necessary to ensure efficient services. Ergon Energy refers to the earlier discussion on changes to the regulatory framework.

Environmental Policies

Question 2.19. What are the implications of uncertainty over climate change policy on productivity in the generation sector and electricity prices?

Ergon Energy suggests that given the large lag time in conversion of generation stock, measures should be taken now to only allow low/no carbon generation to be established in order to future proof the State, in light of future costs for carbon intense industry.

Innovation in the State should also be leveraged and fostered in order to develop State-grown solutions and businesses that can sell to the national and international market (as the rest of the world responds to climate change also).

Question 2.20. What would be a better alternative for funding the Solar Bonus Scheme?

To avoid continuation of the cross-subsidy that exists between recipients of the Solar Bonus Scheme (SBS) and non-SBS customers, Ergon Energy suggests that consideration be given to alternative funding mechanisms that may result in customer benefits.

New Technologies

Question 2.21. What are the likely or potential impacts of new technology on the productivity of the electricity supply sector and its component parts, and electricity prices?

Managed well, new technologies could improve utilisation of the network, help stabilise network voltages, provide greater flexibility in Demand Management (DM) and Demand Response (DR), and support dynamic network models, such as microgrids. Managed poorly, they have the potential to exacerbate existing network demand peaks or create new ones, and degrade power quality, potentially resulting in greater need for capital and operational expenditure. Coupled with generation, such as solar PV, new technologies such as storage could also facilitate the disconnection of customers or reduce the energy volumes impacting business models and pricing structures. In order to avoid such negative impacts, it is critical that network price signals are passed through to customers and not distorted by regulators or retailers (e.g. moving to cost reflective pricing but retailers still only offering volumetric tariffs).

Some of the impacts of new technologies could include a changing consumer demand profile, which has the potential to impact consumer value, generation investments, and market price. The potential to impact investments in network infrastructure, both to increase and decrease, may be high.

Question 2.22. How could existing regulatory and institutional arrangements in the Queensland electricity sector support the efficient adoption of emerging technology across the electricity supply chain?

There is a need for the regulatory and institutional arrangements in Queensland to support industry participants' ability to proactively respond to new technologies. Furthermore, the regulatory and institutional arrangements must facilitate the adoption/integration of these new technologies in such a way as to minimise network risk and enable utilities to adopt innovative supply chain options for consumers who wish to adopt these new technologies.

Effectiveness of Regulation and Governance

Question 2.24. What are the risks and costs to customers and industry in Queensland arising from failure to harmonise regulation underpinning the NEM?

Ergon Energy suggests that failing to harmonise regulation underpinning the NEM will create greater complexity, and due to the lower customer numbers (compared to other States) there will be less incentive for energy related businesses to work in Queensland, which will in-turn be exacerbated by unfamiliarity with processes and regulatory requirements. Queensland may be left with an overly prescriptive legislative framework in comparison, for example, our current 240V standard and Ring-Fencing requirements being out of sync with other jurisdictions.

Question 2.25. What are the key opportunities remaining for national harmonisation in regulation and governance of the NEM, and benefits from these reforms for productivity and prices?

Ergon Energy considers one of the key remaining opportunities is for the benefits of maximising the value of demand side participation in a national framework, to be realised.

Question 2.26. What aspects of the Electricity Act should be considered for review in support of the longer-term provision of a more responsive and efficient electricity industry?

As noted above, there should be clarity about the purpose and expectations of regulation. Any review of the Electricity Act should be considered in this light and any changes assessed against the principles discussed earlier.

Question 2.27. What aspects of other Queensland laws and regulation potentially act as barriers to improving the efficiency of electricity supply in Queensland?

The current regulatory framework in Queensland does not effectively provide for the supply of energy from alternative supply arrangements for customers who are currently connected to the network but may be better served from a renewable energy system independent of the network. In particular, while there is no legislative impediment to a customer disconnecting from the grid and taking supply through an alternative arrangement (i.e. a stand-alone power system), Ergon Energy's current Distribution Authority clearly distinguishes a stand-alone power system from a system that is connected to the supply network of the distribution entity named in the Authority. As a consequence, the connection obligation to that customer is not extinguished on the basis of the new supply arrangements, meaning that DNSPs such as Ergon Energy must continue to maintain infrastructure to supply that customer if requested in the future, or alternatively must fund the installation of new infrastructure in order to meet a future connection obligation. Additionally, where customers elect to take supply through an alternative arrangement, the current customer protections afforded to them under the National Energy Customer Framework, would cease to apply. With these issues in mind, Ergon Energy strongly recommends that distribution entities in Queensland be given the authority to use alternative and innovative technologies in satisfaction of the obligation, under the *Electricity Act 1994*, to comply with the conditions of their Distribution Authority.

Schedule 8 of the *Electricity Regulation 2006* currently caps the price DNSPs can charge for some Alternative Control Services. Ergon Energy believes these price caps should be reviewed and ultimately amended as they are leading to distortionary and uneconomic outcomes:

- The current price caps will cause retailers to request services that they do not need, and which are expensive for Ergon Energy to provide.
    - For example, retailers will be incentivised to demand customer disconnections (which are free under Schedule 8) rather than a final meter reading because a disconnection mitigates the retailer's wholesale risk. This is despite a disconnection being far more expensive for Ergon Energy to provide;
    - Ergon Energy also notes that the price caps imposed on special meter readings and meter tests are resulting in a distortion of the economic signal sent to retailers. In general, where a customer queries their retail bill, a retailer may generally request a special read in the first instance to confirm the meter reading used to calculate the bill. Only after this has been performed may a retailer request a meter test if the customer is still not happy with the outcome. A meter test requires a specialist crew to attend the site and is significantly more costly than a special read service. However, the price caps in the *Electricity Regulation 2006* result in a higher price being charged for a special read than a meter test. This means retailers are incentivised to request the more costly meter test service in the first instance rather than a special meter read.
- Retailers, rather than customers, will capture the benefits of the Government's capped charges; and
- The financial impact on Ergon Energy resulting from the current price caps will increase. In particular, Ergon Energy expects that future higher demand for costly services (which are free under the Regulation) will require Ergon Energy to acquire more resources at an ever increasing cost.

Deregulation in South East Queensland

Ergon Energy supports the development of a competitive market in South East Queensland.

Regional Queensland

Increasing Competition in Regional Queensland

Question 4.1. What objective(s) should the UTP be designed to achieve and how effective is the current UTP at achieving the objective(s)?

In broad terms, the Uniform Tariff Policy (UTP) has historically been designed to equalise (from a customer's perspective) the total cost of electricity supply, irrespective of a customer's location in the State.

Ergon Energy understands the UTP was achieved in 1986 after decades of price adjustments. That is, uniform tariffs applicable to the same customer class, but independent of geographical location or load shape within that customer class. At the time there was no effective means of targeting the different elements of the costs of supply – the network (transportation) costs, the costs of energy, and the retailer costs, in the original policy development. Therefore, the UTP was understandably focussed on achieving retail tariff price consistency.

In Queensland, the funding of the UTP through a Community Service Obligation (CSO) payment from consolidated revenue commenced with the corporatisation of the Queensland Government's electricity assets. Since 1998, the Queensland Government, similar to other State and Territory Governments, has as part of the National Energy Reform Agenda, gradually introduced competition to the jurisdictional electricity market, with the introduction of full retail competition for domestic and small business customers in Queensland from 1 July 2007.

While successive Queensland Governments have maintained the UTP, the commencement of the competitive retail market triggered the first deviation from what Ergon Energy understands to be the original intent of the UTP, as from that point customers could pay different prices for electricity.

There have been a number of significant changes to the original intent of the UTP as well as the operating environment, including:

- The industry has been restructured since 1995 into distinct transmission, distribution, generation and retail components, allowing an increased understanding and transparency of the underlying cost drivers in the industry
- Large customers in South East Queensland became ineligible for Notified Prices from 1 July 2012
- The Queensland Competition Authority (QCA) and Government supported the use of Ergon Energy's network cost component (Ergon N) as the basis for calculating Notified Prices for Large Customers.

Price reflectivity is a desired long term goal and the UTP should be considered as part of this.

Question 4.2. Could the UTP be targeted more effectively to better achieve these objectives?

Ergon Energy believes that ultimately retail prices should be cost reflective and free from subsidies and cross-subsidisation. By seeing cost reflective prices, customers are able to make informed decisions which result in the best economic outcome for all. However, it is recognised that this can have impacts for some customer groups. Given the unique geographical challenges involved in supplying electricity to sparsely populated areas in Queensland, there will likely always be a requirement to subsidise some regional customers. This has been a fundamental driver of the UTP since its inception and Ergon Energy expects that this issue will remain.

To the extent the Government wants to subsidise all or a subset of customers, this should be done through direct and transparent means. To the extent a decision is made to do this through electricity prices, it should also be transparent and not distort price signals.

Ergon Energy suggests that as part of defining any future UTP arrangement, it is critical that the following key issues are considered:

- The arrangements should support retail competition
- The overall cost of subsidies provided under the arrangement
- Customer eligibility
- Promotion of regional development, including employment opportunities
- Enable efficient electricity supply and DM
- Social policy considerations such as affordability and hardship
- Implementation and administration costs.

Question 4.8. What evidence is there of the characteristics of competition beginning to develop in regional Queensland

Ergon Energy notes that the traditional measure of competition is the level of customer churn. On this basis there is a low level of competition in regional Queensland. However, with the changes in the electricity market, competition should be viewed on a broader level. At a network level, customers now have choice in how their energy is provided. As noted earlier, 29.1% of residential customers have solar PV in Queensland. There are over 110,000 small customers with solar PV in Ergon Energy's area.

At the retail level, alternative forms of competition are also being introduced. Ergon Energy notes that Origin Energy has partnered with Horan and Bird (an electrical contract business) to provide power purchase agreements in the form of solar battery hybrid and commercial solar products to Townsville customers.

Question 4.14. What is the most efficient approach to setting Notified Prices in regional Queensland that will support a UTP and why?

Ergon Energy believes the most efficient approach to setting Notified Prices in regional Queensland is by using Ergon Energy network charges and tariff structures as the basis for the N component. Appropriate structures will send the right signals to encourage desired behavioural changes.

As noted earlier, Ergon Energy has undergone a significant network tariff strategy reform program, which commenced in late 2012 following internal realisation that our tariffs did not align with our cost structures. When incorporated into retail prices (i.e. N+R) the pricing signals that were being communicated to customers did not show time or seasonal based cost differences, made limited use of demand (kW/kVA) signals and had too much reliance on volume (kWh) charges. Tariffs presented limited incentives for customers to change behaviour. The structures also incentivised inefficient investment in beyond the meter technologies (e.g. PV and air-conditioners) with resultant cross-subsidies. With future developments such as electric vehicles and battery storage emerging, it was recognised that it was important to lay the foundation to get appropriate network price signals out to customers so that they could make optimal decisions around usage of these and other potential game-changers based on the demand and costs they place on the network.

A significant level of external stakeholder consultation has been undertaken on Ergon Energy's proposed network tariff structure changes and associated implementation pathway throughout the strategy development process. Stakeholder input has both influenced development and been directly incorporated into the tariff outcomes.

Extensive modelling has indicated that the Standard Time of Use Demand (STOUD) tariffs offer significant benefits to customers primarily in the areas of network price growth, reduced community cost and reduced cross subsidy. Our website contains a range of information and analysis that supports the introduction of STOUD tariffs.

In 2015-16, extraordinary tariff reform across all tariff classes was achieved at both the network and retail tariff layers realising outcomes far in excess of those anticipated in 2013, implementing cost reflective LRMC based tariffs.

Question 4.15. What are the benefits and impacts of using Ergon Energy's network charges and tariff structures to form the basis of regulated prices in regional Queensland?

As noted above, using Ergon Energy's network charges and tariff structures allows customers to make informed choices around electricity usage which will result in the most efficient outcomes for all customers.

Farming and Irrigation and other Rural/Regional Industries

Question 4.17. What approaches should be considered to help customers on transitional tariffs?

Customers on transitional tariffs should be enabled with opportunities to transform their load profiles to profiles that have minimal impact on network operations and should also be enabled to access a variety of different tariffs with their new capabilities. Ergon Energy engages closely with irrigators and other farming customers to improve input costs associated with energy and to utilise energy more efficiently. Ergon Energy has recently partnered with the Queensland Farmers Federation to undertake energy audits of 34 irrigators and 50 other farming customers. Almost all irrigators have completed or are undertaking to implement the recommendations of the audits.

Notwithstanding, Ergon Energy has found that customers are reluctant to move off transitional tariffs, even where they would benefit from moving to a new tariff. For example, in late 2014 Ergon Energy engaged with around 2000 customers, covering around 2800 accounts to explain the benefits of moving off the transitional tariff. However, following this engagement, it is estimated that less than 100 customers moved to an alternative tariff. Therefore, consideration of what assistance should be provided needs to balance customer assistance with the risk that it may delay implementation of full cost reflectivity and the benefits this can provide. Further, as noted above any assistance should be provided in a transparent manner.

Question 4.18. What are stakeholders' views on the effectiveness of energy efficiency and demand management measures in helping alleviate electricity bills for customers on transitional or obsolete tariffs, and are there other options that should be considered?

Distributor led DM initiatives are generally only applied in areas of network constraint. The AER indicated that DNSPs should not be engaging in broad based DM activities. Broad based DM activities are where an offer for DM is made available to everyone, regardless of location. These types of DM products result in additional costs to Ergon Energy as demand is procured where there is no value. There is also no mechanism to fund DM where there is not a constraint and funding within a Regulatory Control Period to fix it.

Energy efficiency methods generally save energy volume, with less impact on demand. Where the transitional tariff has a large volume component there would be a benefit for customers. However, the value of benefit derived will be on a case-by-case basis depending on the customer and the transitional tariffs. As network tariffs are transitioning away from volume based tariffs, the value derived from energy efficiency savings may be reduced in the future. However, as noted above there are opportunities for customers to transform their load profiles to profiles that have minimal impact on network operations and Ergon Energy is working with customers on this issue.

Demand management is a useful tool for mitigating the demand component of a customer's energy bill. In order to do so, DM would need to either generate additional revenue for the customer, or change the demand profile of the customer.

Changing the demand profile of the customer is dependent on the customer's load profile, energy consumption and technology on site and one size approach is unlikely to fit all customers.

Generating alternate revenue streams would require the customer to participate in a load curtailment agreement and would require a level of automation or a sizeable load to ensure the load curtailment was economically viable.

Customer Participation and Support in the Electricity Market

Consumer Behaviour and Engagement

Question 5.1. What are the barriers to improving consumer participation in the electricity market?

Ergon Energy believes there is a general lack of consumer understanding in Queensland of the market structure, key players, the regulated process, how prices are established, the UTP in Queensland and how this compares with other regions etc. In the absence of understanding, consumers are unlikely to proactively participate in market initiatives and as such, Ergon Energy recognises the need for more targeted engagement on these issues. In fact, proactive engagement with consumers during the development of Ergon Energy's Network Tariff Strategy has demonstrated the benefits of facilitating consumer understanding of certain key aspects of the market as they relate to network pricing and therefore consumer energy costs.

Question 5.2. What are the barriers to productivity of the electricity market and broader supply chain in increasing customer participation, and how can these benefits be measured?

Overcoming the barriers noted above and increasing consumer participation, particularly in demand side participation, should enable increased use of intermittent generation sources and help to make demand available to networks for mitigating constraint risks.

Question 5.4. How will future developments, including changes in technology and the growth of new markets and business models, influence consumers' participation in electricity markets?

Customers' participation in the electricity market may be supported by having access to appropriate technologies to assist them to make informed choices about their energy consumption and costs. However, although technology such as PV, Demand Management and energy storage can be employed to reduce energy costs, only those customers with the knowledge and funds to invest in such technology will benefit through the uptake of such technology. For example, the cost of installing smart meters, which will be required to facilitate the integration of many of these new technologies, may present a significant barrier to the uptake of such technologies. Also, it is unlikely that access to all consumer deployable energy resources (note that most Solar rooftop installations are on mandatory Feed In Tariffs) will be needed to manage energy markets and network constraints. Therefore inclusion will depend on the market. Ergon Energy already has around 700MW of load under control that it has a right to switch at its discretion under Tariff 31 & 33. Improved technology and customer communication should enable significant portions of the required market and network benefits to be realised without further broad base customer programs.

Consumer Access to Information, Education and Support

Question 5.5. What are the key information gaps in consumer knowledge and understanding of electricity markets?

As noted in our response to 5.2 above, Ergon Energy considers there is a genuine broad lack of understanding of the electricity market structure and operating model in Queensland. In particular many customers do not understand the mechanism by which network businesses recover their costs and therefore the way in which prices are determined. Similarly, many customers are genuinely unaware of the existence of cross-subsidies, particularly in relation to the SBS, nor the direct correlation between cost and reliability and initiatives that have been implemented over time to reduce cost.

Customer Impacts of Network Tariff Reform

Question 5.7. What are the potential benefits and risks in the transition to cost-reflective pricing in terms of electricity prices and supply chain productivity?

As discussed above, cost reflective pricing will result in the best overall outcome in terms of network price, community costs and the level of cross subsidisation. Consideration should be given to including even more transparency of costs on customer bills.

Question 5.8. In what ways could customers be better supported and equipped to understand and accept more cost-reflective tariff structures?

As noted above, there is a lack of understanding of the electricity market and the need for more cost-reflective tariff structures. Therefore communication of this information is an important element in ensuring acceptance of new tariff structures. As noted above, consideration should be given to including more transparency of costs on customer bills.

Due to some past policy decisions, moving to cost reflective tariffs will have impacts for customers, and government will need to decide who, if any, should be supported through this process. One method of supporting customers could be through transitional tariffs, for existing customers. However, as noted earlier in this submission in the section relating to farming and irrigation, there is a genuine risk that some customers may not move off these transitional tariffs, as envisaged under a transitional model.

Customers may also be supported by having access to appropriate technologies to assist them to make informed choices about their energy consumption and costs. This could include things such as load control standards and energy efficiency standards. While energy efficiency and DM standards have the potential to drive up the short term cost of products, they provide enduring benefits to consumers and reduce the long term marginal cost. Further, standards provide a significant opportunity to ensure that the market is enabled with the capabilities to manage energy costs as the market evolves.

Question 5.9. What barriers and costs does a voluntary uptake of advanced metering present for the rate at which cost-reflective tariffs are able to be adopted?

The cost of installing smart meters is a significant barrier to the uptake of new tariffs. The additional cost of the metering necessary to support moving to a new tariff increases the timeframe in which customers are able to see real savings associated with the change. This barrier is even more significant in an environment where customers are already concerned that the transition may not provide any energy cost savings. Moreover, a voluntary uptake of smart meters reduces the market size for ancillary services. If there are only a few thousand people with smart meters scattered across the State the value for a service provider is greatly reduced.

Question 5.10. What are the benefits and risks of cost-reflective pricing?

Although technology such as PV and energy storage can be employed to reduce energy costs, only those customers with the knowledge and funds to invest in such technology will benefit through the uptake of such technology. Therefore, Ergon Energy suggests pricing should incentivise changes in behaviour, rather than require an investment in technology.

Question 5.11. What strategies or safeguards could support low-income and vulnerable consumers in the transition to new tariff structures?

Ergon Energy appreciates the need to review the effectiveness of support provided to energy customers in the face of significant changes within the energy market. Furthermore, we note that in recognition of this issue, the Energy Networks Association (ENA) recently commissioned HoustonKemp Economists to prepare an options paper for supporting vulnerable energy customers.[14] Ergon Energy agrees, with the statement in the paper that current policies and programs to support vulnerable customers have not been designed to provide support in the current, changing market environments.[15] We also agree with the suggestion in the paper that governments should have a central role in supporting vulnerable customers in accordance with their social welfare functions. However, there is also a role for retailers and not-for-profit organisations, as well as network businesses. The options for improving the assistance to vulnerable customers proposed by HoustonKemp include:

- Governments could harmonise the value of financial assistance across jurisdictions, addressing gaps in assistance and replacing lump sum concession payments with payments based on a percentage of the energy bill;
- Governments could consider whether eligibility for financial assistance needs to be more targeted ;

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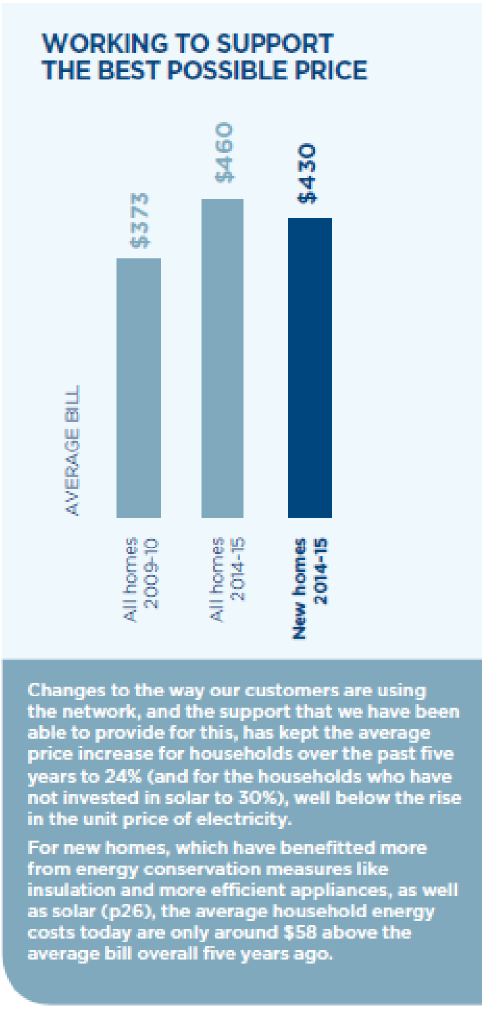
[14] HoustonKemp, 2015. *Supporting Vulnerable Energy Customers – An Options Paper for the Energy Networks Association*

[15] Ibid, p i.

- Governments could address the needs of customers with long term vulnerability or clusters of vulnerable customers through providing assistance for households or community investments (e.g. insulation, technology to manage their use, energy efficiency) in place of paying financial assistance;
- Networks could consider options for providing greater access to information for all customers (vulnerable and non-vulnerable alike) that will enable them to make more informed choices and choose the most appropriate retail tariff for their circumstances; and
- Networks could consider the case for and against social tariffs, as an option to assist vulnerable customers, and their potential usefulness in enabling the transition to more cost reflective network pricing.

Question 5.13. In what ways do the benefits of energy efficiency and demand management programs help consumers offset price risks?

These technologies enable consumers to make decisions about energy costs, i.e. allow full utility or retail control over the appliance operation or to self-manage the operation and cost. Demand management helps in avoiding increases in future network costs while efficiency enables the customer to reduce their price risk. The diagram below shows that average bill increases have been significantly less that average price increases



Question 5.15. What are the benefits and risk in the Queensland Government providing incentives for households, businesses and industries to become more energy efficient or manage their peak levels of demand, including implementing energy efficiency standards for sectors within its jurisdictional authority?

Energy efficiency and DM standards have the potential to drive up the short term costs of products, and will also put upward pressure on network prices for all customers but they provide ongoing benefits to consumers and reducing the long term marginal cost. Standards provide a significant opportunity to ensure that the market is enabled with the capabilities to manage energy costs as the market evolves.

Broad base technology incentive programs should be avoided due to their distortionary impact on the market. Incentives targeted at welfare support or industry transformation would be beneficial.

Question 5.16. What barriers and costs does a voluntary uptake of advanced metering present for energy efficiency and demand management tools?

Voluntary uptake reduces the market size for ancillary services and network monitoring. If there are only a few thousand people with smart meters scattered across the state the value for a service provider is greatly reduced.

Concessions

Question 5.20. How could electricity concessions be better targeted to assist customers most in need?

Ergon Energy supports the provision of assistance to customers in a direct and transparent manner. For example, placing hot water devices under Tariff 33 load control offers a simple way to save on energy costs. Current nationwide concession schemes should be considered as part of any eligibility for customer assistance.