



# FAR NORTH QUEENSLAND ELECTRICITY USERS NETWORK

"Advocating on behalf of peak FNQ industry and social organisations  
for affordable and reliable electricity in FNQ"

## Submission to the Queensland Productivity Commission Inquiry into Electricity Pricing – Draft Report

**14 April 2016**

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### **DISCLAIMER**

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The views expressed in this document do not necessarily reflect the views of the Energy Consumers Australia."

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## Queensland Productivity Commission: Electricity Pricing Inquiry Draft Report

### 1. THE ROLE OF THE QUEENSLAND PRODUCTIVITY COMMISSION (QPC)

The Queensland Productivity Commission's role is to provide independent advice on complex economic and regulatory issues, and propose policy reforms, with the objective of driving economic growth, lifting productivity, and improving living standards across Queensland. Open and transparent public consultation will underpin these functions.

The objective of the Electricity Price Inquiry is to examine electricity pricing in Queensland and provide the Government with options that improve outcomes for consumers, while balancing the objectives of:

- a competitive electricity market
- productivity growth in the energy industry and among energy users
- appropriate reliability, safety and security of electricity supply
- efficient investment and operation of electricity infrastructure
- environmental outcomes
- fairness and equity
- minimising impacts on vulnerable customers; and
- responsible and measured management of the State's finances.

### 2. THE TERMS OF REFERENCE FOR THE ELECTRICITY PRICE INQUIRY

The Terms of Reference ask the Queensland Productivity Commission to provide options to:

- promote the long-term interests of electricity consumers
- place downward pressure on electricity prices; and
- ensure a dynamic and responsive pricing framework.

The Inquiry is to examine the underlying drivers of electricity prices to develop options which can deliver a net benefit to the economy while protecting vulnerable customers.

## Queensland Productivity Commission: Electricity Pricing Inquiry Draft Report

### 3. OVERVIEW

The Executive Summary of the Queensland Productivity Commission's Draft Report states:

*"Since 2006-07 Queensland's electricity prices have increased in real terms by 87 percent.....Queensland's average electricity prices are still amongst the lowest of the major states."*

The Queensland Productivity Commission has not listened to the businesses, industries and the residents of Queensland. Electricity prices are already at unsustainable levels in Queensland and must be reduced immediately for all customers.

The Executive Summary also states that:

*"Evidence already shows that electricity prices are unlikely to grow at the same rate over the coming period, but electricity costs remain a concern for business, industry and households seeking price relief."*

On 23<sup>rd</sup> March 2016, the Queensland Competition Authority, under a delegation from the Queensland Government, released a draft proposal to increase 2016-17 electricity prices by around 10 percent for businesses located in regional Queensland.

This is on top of the 87 percent real increase in electricity prices over the past 10 years and puts regional Queensland on track for another 87 percent increase over the next 10 years.

We reiterate, over 733,000 customers in regional Queensland are seeking a price reduction now.

The cost of electricity is the only input that affects virtually all businesses and all households.

It is no longer just about power bills. It's about the cost of living, the economy and jobs.

An increase in power bills in 10 weeks' time will flow through to almost every product and service bought from a regional Queensland business. Products such as the essentials of fruit, vegetables and meat will incur higher electricity costs in every step of their journey from paddock to plate. The service industries are not immune; they too are struggling to cope with higher electricity costs incurred through the essential need to operate in air-conditioned offices and workshops.

The Terms of Reference for the Electricity Pricing Inquiry instructs the Queensland Productivity Commission to find ways to place downward pressure on electricity prices whilst delivering a net benefit to the Queensland economy.

Ergon Energy, the wholly owned Queensland Government electricity retailer, is effectively the only retailer servicing 97 percent of the geographic area of Queensland. In 2014-15 Ergon Energy made a profit of \$991 million for the Queensland Government. The Queensland Government under the Uniform Tariff Policy outlaid \$596 million in 2014-15 to ensure customers in regional Queensland paid the same price for electricity as the customers in the other 3 percent of Queensland.

Without policies that result in affordable and reliable electricity for regional Queensland there is no net benefit to the Queensland economy. The Queensland Productivity Commission has failed to acknowledge the true drivers of falling economic productivity in regional Queensland and to provide recommendations that would provide a smooth transition to a renewable energy future.

## Queensland Productivity Commission: Electricity Pricing Inquiry Draft Report

### 3.1 The Recommendations Ignore the Queensland Government's Dependence on Electricity Dividends

The Queensland Productivity Commission has developed 54 draft recommendations.

The recommendations are supposed to place downward pressure on electricity prices and improve the Queensland economy.

The recommendations do not address the real cause of rising electricity prices nor do they provide a practical road map for a smooth transition to a renewable energy future.

The QPC draft report is silent on how reliant the Queensland Government is on the returns from its 100 percent Queensland Government owned electricity businesses. The Queensland Government owns 100 percent of Queensland's distribution & transmission/poles and wires network (Ergon Energy Network, Energex & Powerlink) and 65 percent of Queensland's generation capacity (Stanwell and CS Energy) and what is effectively the only retailer of electricity in regional Queensland (Ergon Energy Retail).

The Queensland Government owned electricity businesses provide extraordinary returns to the Queensland Government by way of dividends and tax equivalent payments.

In the 2015-16 Budget, the Queensland Government estimated a total return from government owned electricity businesses of \$1.921 billion being dividends of \$1.323 (see Table 1) and tax equivalent payments of \$0.598 billion (see Table 2).

**Table 1: Dividends paid to Queensland Government in 2015-16 Budget**

	2013-14 Actual \$ million	2014-15 Budget \$ million	2014-15 Est. Act. \$ million	2015-16 Budget \$ million	2016-17 Projection \$million	2017-18 Projection \$ million	2018-19 Projection \$ million
Electricity Networks	965	1,007	1,326	1,198	1,038	690	577
Electricity Generation	97	98	56	125	210	182	209
Transport	262	264	257	216	287	296	325
Water	48	51	20	50	52	59	57
Other	..	..	..	..	..	..	..
<b>Total PNFC Sector Dividends</b>	<b>1,372</b>	<b>1,420</b>	<b>1,659</b>	<b>1,590</b>	<b>1,587</b>	<b>1,227</b>	<b>1,168</b>
Notes:							
1. Numbers may not add due to rounding.							
2. The above dividends do not include amounts from the Public Financial Corporations Sector.							
3. Dividends are declared as part of end-of-year accounting arrangements and paid in the following November.							

Source: Queensland Budget 2015-16, Budget Strategy and Outlook, Public Non-Financial Corporations Sector

Queensland Productivity Commission: Electricity Pricing Inquiry Draft Report

**Table 2: Tax Equivalent Payments to Queensland Government in 2015-16 Budget**

	2013-14 Actual \$ million	2014-15 Budget \$ million	2014-15 Est. Act. \$ million	2015-16 Budget \$ million	2016-17 Projection \$million	2017-18 Projection \$ million	2018-19 Projection \$ million
Electricity Networks	196	389	425	514	445	298	253
Electricity Generation	44	56	27	84	129	107	118
Transport	110	146	139	113	146	140	151
Water	10	7	30	20	45	56	54
Other	2	6	4	1	1	1	1
<b>Total PNFC Sector tax equivalents</b>	<b>361</b>	<b>604</b>	<b>625</b>	<b>733</b>	<b>767</b>	<b>602</b>	<b>577</b>
Note: 1. Numbers may not add due to rounding.							

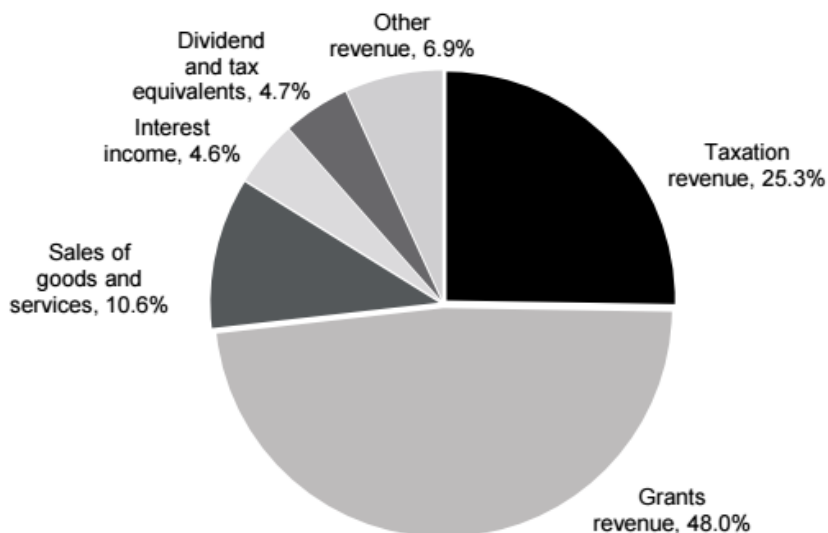
Source: Queensland Budget 2015-16, Budget Strategy and Outlook - Public Non-Financial Corporations Sector

However, in 2014-15 the Queensland Government declared a 100 percent dividend from Ergon Energy and Energex. This resulted in dividends to the Queensland Government of \$3.22 billion; \$1.925 billion from Ergon Energy (see Table 3) and \$1.295 billion from Energex (see Table 4).

The increased dividends are sourced from the retained earnings and reserves of Ergon Energy and Energex.

To put the electricity dividends into perspective, the general sector revenue of the Queensland Budget in 2015-16 was estimated at \$51.186 billion (see Figure 1).

**Figure 1: Queensland Government revenue by operating statement category 2015-16**



Notes:

1. Numbers may not add due to rounding.
2. The major component of other revenue is royalties and land rents (4.8% of total revenue).

Source: Queensland Budget 2015-16, Budget Strategy and Outlook - Revenue

**Queensland Productivity Commission: Electricity Pricing Inquiry Draft Report**
**Table 3: Dividend paid by Ergon Energy to the Queensland Government in 2014-15**

	CONSOLIDATED		THE COMPANY	
	2015 \$'000	2014 \$'000	2015 \$'000	2014 \$'000
<b>REVENUE</b>				
Community service obligations	596,071	518,925	-	-
Revenue from State of Queensland controlled entities	216,637	228,348	130,546	138,352
Pensioner rebate revenue from Department of Communities	49,544	41,812	-	-
Interest received on deposits with QTC	13,564	12,266	3,406	3,349
<b>EXPENSES</b>				
Costs paid to State of Queensland controlled entities	334,312	341,041	334,312	341,041
Interest on QTC borrowings (includes administration fees)	276,415	323,240	275,992	323,240
Competitive neutrality fee paid to Queensland Treasury	56,364	54,983	56,364	54,983
Electricity trading with State of Queensland controlled entities	144,085	31,403	-	-
Derivative transactions with State of Queensland controlled entities	1,649	1,323	-	-
<b>ASSETS</b>				
Deposits held with QTC	313,788	210,236	32,147	102,441
Community service obligations amounts receivable	108,959	92,640	-	-
Trade receivable from State of Queensland controlled entities	10,533	10,831	6,587	6,134
<b>LIABILITIES</b>				
Accrued interest and fees payable to QTC	67,424	78,929	67,424	78,929
Trade payable to State of Queensland controlled entities	27,614	32,527	27,614	29,474
Community Ambulance Cover Levy payable to Office of State Revenue	-	11	-	-
Dividends payable to Queensland Treasury	1,924,910	392,619	1,924,910	392,619
Borrowings from QTC	5,273,418	5,115,457	5,273,418	5,115,457
Accrued competitive neutrality fee payable to Queensland Treasury	14,341	14,002	14,341	14,002
Electricity trading with State of Queensland controlled entities	16,282	3,053	-	-

Source: Ergon Energy Annual Financial Statements for 2014-15



**Queensland Productivity Commission: Electricity Pricing Inquiry Draft Report**
**Table 4: Dividend paid by Energex to the Queensland Government in 2014-15**

As at 30 June	2011	2012	2013	2014	2015 <sup>1</sup>
<b>Profit and Loss (\$M)</b>					
<b>Total revenue</b>	<b>1,736</b>	<b>2,005</b>	<b>2,274</b>	<b>2,594</b>	<b>2,575</b>
Materials and consumables	(50)	(48)	(50)	(51)	(63)
Solar photovoltaic feed-in tariff expense	(19)	(74)	(167)	(227)	(204)
Transmission use of system charges	(344)	(390)	(394)	(404)	(388)
Employee expenses	(202)	(198)	(203)	(199)	(205)
Termination benefits	(1)	(10)	(51)	(18)	(26)
Depreciation, amortisation and impairment	(286)	(329)	(365)	(385)	(444)
Contractors and consultants	(156)	(183)	(119)	(135)	(136)
Borrowing costs	(294)	(328)	(366)	(400)	(326)
Other operating expenses	(52)	(42)	(57)	(52)	(50)
<b>Total operating expenses</b>	<b>(1,404)</b>	<b>(1,602)</b>	<b>(1,772)</b>	<b>(1,871)</b>	<b>(1,842)</b>
<b>Operating profit before income tax</b>	<b>332</b>	<b>403</b>	<b>502</b>	<b>723</b>	<b>733</b>
Income tax equivalent	(97)	(121)	(151)	(215)	(221)
<b>Net profit</b>	<b>235</b>	<b>282</b>	<b>351</b>	<b>508</b>	<b>512</b>
<b>Earnings before interest and tax (EBIT)</b>	<b>626</b>	<b>731</b>	<b>868</b>	<b>1,123</b>	<b>1,059</b>
<b>Earnings before interest and tax and depreciation adjusted (EBITDA)<sup>2</sup></b>	<b>912</b>	<b>1,061</b>	<b>1,233</b>	<b>1,508</b>	<b>1,503</b>
Capitalised interest	28	29	26	21	13
<b>Balance Sheet (\$M)</b>					
Total assets	9,812	11,021	11,916	13,291	12,475
Total debt	4,770	5,465	6,001	6,465	6,811
Total shareholders' equity	2,922	3,117	3,335	3,825	2,073
<b>Capital Expenditure (\$M)</b>					
Corporate initiated augmentation	483	422	340	277	184
Asset replacement	145	191	245	257	277
Customer initiated capital works	186	184	184	160	181
Other	172	198	226	135	181
<b>Total Capital Expenditure</b>	<b>986</b>	<b>995</b>	<b>995</b>	<b>829</b>	<b>823</b>
<b>Share Information</b>					
<b>Dividends (\$M)<sup>3</sup></b>	<b>188</b>	<b>226</b>	<b>294</b>	<b>406</b>	<b>1,295</b>
Dividends per share (¢)	21.4	25.8	33.6	46.4	147.9
Dividends/Net profit (%)	80.0	80.0	83.8	80.0	252.9
<b>Ratios</b>					
Earnings per share (¢)	26.8	32.3	40.2	58.0	58.5
Return on average shareholders' equity (%) <sup>4</sup>	8.5	9.4	10.9	14.2	17.4
Debt/(Debt + Equity) (%)	62.0	63.7	64.3	62.8	76.7
Return on average total assets (%) <sup>5</sup>	6.8	7.0	7.6	8.9	8.2
Current ratio (%) <sup>6</sup>	110.6	121.2	79.7	98.1	42.0
EBITDA interest cover (times) <sup>7</sup>	2.8	3.0	3.1	3.6	4.4

**Note** <sup>3</sup>. The 2015 dividend includes an additional \$783 million declared from retained earnings and reserves

Source: Energex Annual Performance Report 2014-15, Part A

The question is; what would happen if the Queensland Government reduced the extraordinary returns/dividends it reaps from its electricity businesses?

The simple answer is; electricity prices could fall dramatically.

More importantly, lower electricity prices would benefit almost every sector of the economy by maintaining the viability of businesses, stimulating industry and jobs growth and boosting revenue to the Queensland Government.



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Homes throughout Queensland would breathe a sigh of relief and the extra household income would be spent on products and services rather than paying power bills. For regional Queensland a large portion of the extra income would support regional businesses by circulating money in regional cities, towns and communities.

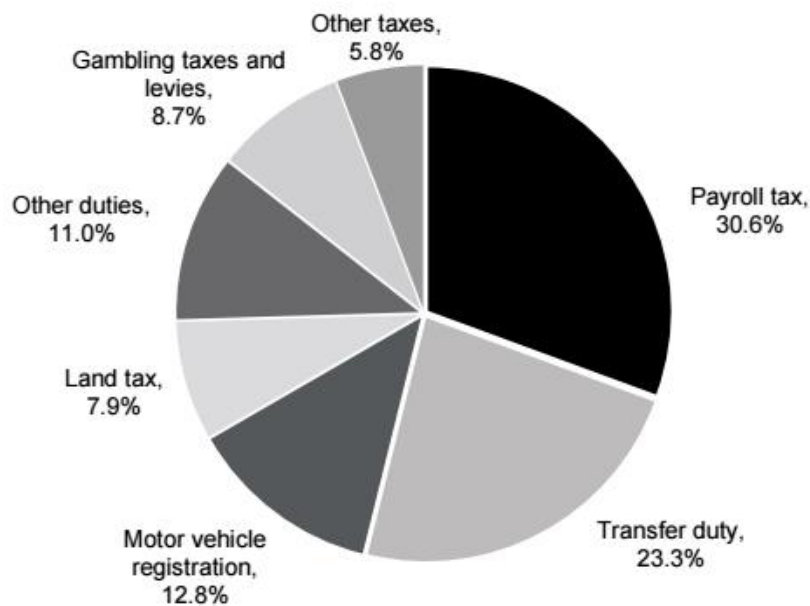
The Queensland Government argues that the profits from its electricity businesses are necessary to build schools, roads and hospitals.

We believe the Queensland Government will have more revenue to build schools, roads and hospitals, if it allowed the businesses and industries of Queensland to remain viable and prosper with a reduction in electricity prices for all residential and business customers.

A stronger Queensland economy will pay more in state taxation; payroll tax (more jobs) and transfer duty & land tax (a stronger economy builds confidence in the residential and non-residential property market). Together the three taxes account for around 62 percent of estimated State taxation revenue for 2015-16 (see Figure 2).

State taxation revenue in 2015-16 represented 25.3 percent of Queensland Government revenue (see Figure 1).

**Figure 2: Taxation by tax category 2015-16**



**Note:**

1. Percentage may not add to 100% due to rounding. "Other duties" includes vehicle registration duty, insurance duty and other minor duties. "Other taxes" includes the Emergency Management Levy, guarantee fees and other minor taxes.

Source: Queensland Budget 2015-16, Budget Strategy and Outlook - Revenue

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As per our submission to the Queensland Productivity Commission's Issues Paper, Queensland's dependence on the mining industry for jobs and revenue cannot be underestimated, particularly in regional Queensland. In 2014-15 the \$15.8 billion coal industry accounted for 20,247 direct jobs and indirectly employed 96,918 people. This together with the rest of the minerals sector generates valuable royalties.

In the 2015-16 Queensland Budget royalties and land rents were estimated to provide revenue of \$2.444 billion (see Table 5).

**Table 5: Royalties and land rents**

	2013-14 Actual \$ million	2014-15 Est. Act. \$ million	2015-16 Budget \$ million
Coal	1,947	1,610	1,684
Petroleum <sup>2</sup>	69	51	129
Other royalties <sup>3</sup>	363	392	463
Land rents	158	167	167
<b>Total royalties and land rents</b>	<b>2,537</b>	<b>2,220</b>	<b>2,444</b>
Notes:			
1. Numbers may not add due to rounding.			
2. Includes CSG.			
3. Includes base and precious metal and other minerals royalties.			

Source: Queensland Budget 2015-16, Budget Strategy and Outlook - Revenue

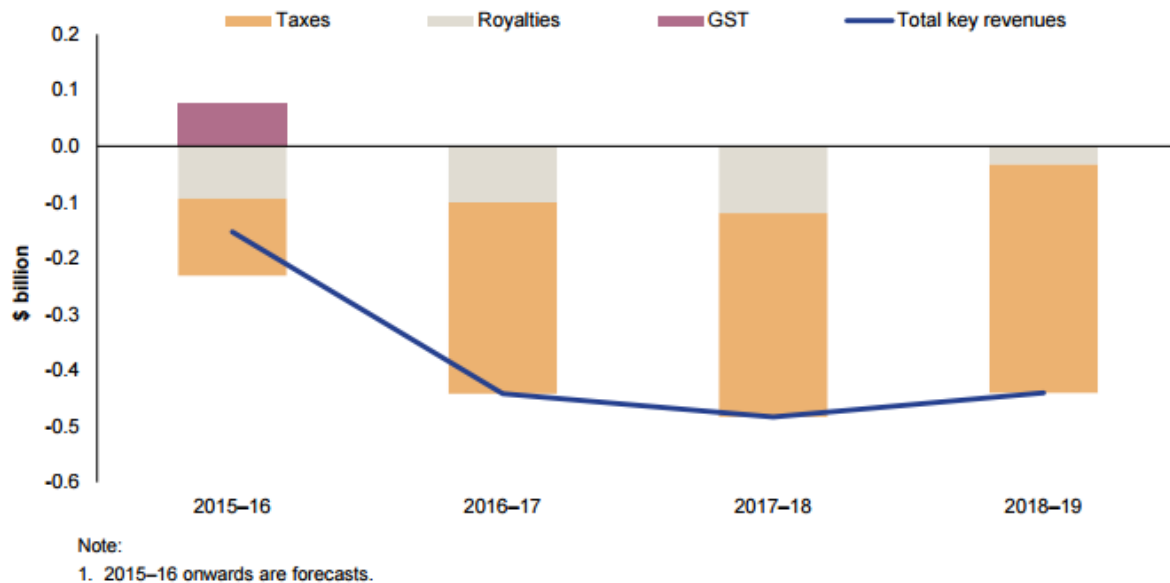
The mining and mineral processing industries, like the agriculture, manufacturing, construction and tourism industries, need a reduction in electricity prices to remain viable. The slowing Queensland economy, particularly in regional Queensland, will reduce government revenue through less payroll tax, less transfer duty, less land tax and falling royalties. For regional Queensland the loss of valuable regional jobs will result in less money circulating in regional cities, towns and communities.

The Mid-Year Fiscal and Economic Review released in December showed a decline in revenue since the Queensland budget was announced on 14 July 2015 (see Figure 3).

The Queensland Government is undermining Queensland's economy by insisting on exorbitant dividends from its electricity businesses. Exorbitant dividends to the government are easily the single most contributing factor in rising electricity prices, yet are not addressed in the 54 recommendations of the Queensland Productivity Commission.

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Figure 3: Revisions to key revenue forecasts since 2015-16 Budget<sup>1</sup>



Source: Queensland Government Mid-Year Fiscal and Economic Review 2015-16

### 3.2 The Critical Flaw

The Queensland Government’s reliance on dividends from its electricity businesses has serious short and long term adverse implications for the State Budget.

As electricity prices continue to rise more customers will be incentivised to move off the Queensland Government owned poles and wires network by installing solar PV panels in their homes and businesses. The 100 percent state owned network/grid and 100 percent state owned wholesale generation will effectively become the electricity supplier of last resort. As more customers remove the bulk of their electricity consumption from the grid, those unable to leave the \$30 billion Queensland network/ grid will have to share the cost of maintaining the state owned grid with an ever decreasing amount of customers.

The Queensland Government has actively incentivised the customer movement away from their network and generation businesses with the introduction of three government policies; the 44 cent Solar Bonus Scheme, the one million rooftop solar PVs by 2020 and most importantly the adoption of the National Energy Customer Framework.

The critical flaw is the cash cow that the Queensland Government has been milking as a hidden tax, needs customers if it is to continue to provide lucrative dividends to the Queensland Government. The three Queensland Government policies above are reducing annual consumption from the state owned network/grid but increasing peak demand (see Table 5). This is akin to buying a big bus for passengers for the morning and afternoon peak but running the same big bus 24 hours a day 7 days a week with limited and even falling passenger numbers outside the peak periods.

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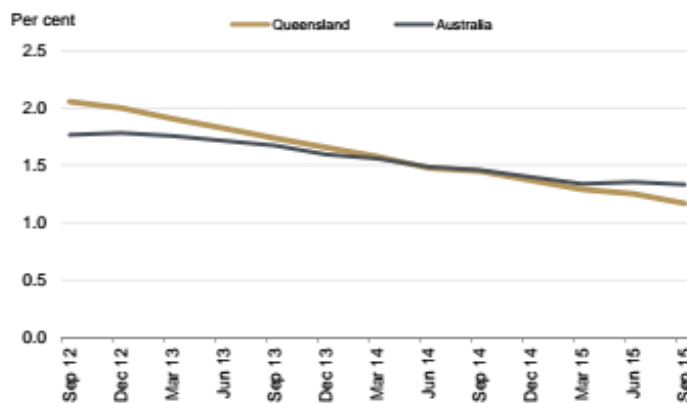
The Australian Energy Market Operator, the national regulatory authority tasked with ensuring there is adequate electricity supply in the national grid, stated in June 2015 that the driver of residential and commercial consumption in Queensland was the 2 percent annual population growth. Queensland recorded a population growth rate of 1.2 percent in the 12 months to 30 September 2015, below the national average of 1.3 percent (see Figure 5). This is likely to result in AEMO revising down Queensland’s annual consumption from the grid.

**Table 6: Queensland summer 10 % POE (Probability of Exceedance) for operational maximum demand**

	2015 NEFR (MW)	2015 NEFR update (MW)
2014-15	9,465	9,216
2015-16	9,691	9,263
2016-17	10,130	9,832
2017-18	10,282	10,015
2018-19	10,366	10,103
2019-20	10,493	10,230
2020-21	10,630	10,366
2021-22	10,610	10,347
2022-23	10,767	10,505
2023-24	10,832	10,570

Source: AEMO National Electricity Forecasting Report Update, December 2015

**Figure 5: Annual population growth rate, Queensland and Australia**



Source: Queensland Government Statistician’s Office – Population Growth, September quarter 2015

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To compound the problem, the Queensland Government has significantly increased the debt level carried by State owned electricity assets (see Table 7).

**Table 7: Borrowings for Queensland Government Public Non-Financial Corporations Sector**

	2013-14 Actual \$ million	2014-15 Budget \$ million	2014-15 Est. Act. \$ million	2015-16 Budget \$ million	2016-17 Projection \$million	2017-18 Projection \$ million	2018-19 Projection \$ million
Electricity Networks	15,994	16,791	16,760	20,692	21,820	22,723	23,446
Electricity Generation	1,600	1,588	2,117	1,914	1,648	1,494	1,457
Transport	3,631	3,654	3,622	3,811	3,941	3,941	3,957
Water	9,913	9,970	9,808	9,799	9,756	9,713	9,515
Other	175	(189)	(40)	(254)	(269)	(283)	(298)
<b>Total PNFC Sector borrowings</b>	<b>31,313</b>	<b>31,814</b>	<b>32,268</b>	<b>35,962</b>	<b>36,896</b>	<b>37,587</b>	<b>38,078</b>
Note:							
1. Numbers may not add due to rounding. Bracketed numbers represent negative amounts.							

Source: Queensland Budget 2015-16, Budget Strategy and Outlook, Public Non-Financial Corporations Sector

The question is; is it prudent management to increase borrowings if a business is facing falling utilisation levels that show no sign of improvement?

There is also the question of reserves for the disposal and rehabilitation of defunct or obsolete electricity assets as customers move their consumption partially or completely off the State owned grid.

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### 3.3 Community Service Obligations - Electricity and Transport

As discussed earlier, Ergon Energy and Energex have provided extraordinary dividends to the Queensland Government for numerous years. The combined profit before income tax (and they don't pay tax) in 2014-15 was \$1.724 billion being \$991 million from Ergon Energy and \$773 million from Energex in 2014-15. However, regional Queenslanders are constantly reminded of the Community Service Obligation paid by the Queensland Government to Ergon Retail which in 2014-15 totalled \$596 million and was estimated in the 2014-15 budget at \$683 million (see Table 8). Ergon Retail is basically the only electricity retailer for residential and small business customers in regional Queensland. The Community Service Obligation ensures regional Queensland customers, regardless of their geographic location, pay a reasonable price for electricity.

Without the Community Service Obligation payment, unaffordable electricity would literally cause the lights to go out in some regional homes and some regional businesses would close due to being uncompetitive with South East Queensland businesses. Affordable electricity is critical.

Little mention is made of the \$1,122 million Community Service Obligation for general public transport concessions in South East Queensland compared to the transport CSO for regional Queensland of \$217.7 million (see Table 9). The public transport CSOs might be regarded as necessary, but the consequence of unaffordable electricity prices in regional Queensland has far more serious implications.

**Table 8: Community Service Obligations and Transport Service Contracts receipts<sup>1</sup>**

#### Budget 2015-16

	2013-14 Actual \$million	2014-15 Budget \$ million	2014-15 Est. Act. \$ million	2015-16 Budget \$ million	2016-17 Projection \$million	2017-18 Projection \$ million	2018-19 Projection \$ million
Electricity Networks	523	683	626	432	540	566	632
Electricity Generation	..	..	..	..	..	..	..
Transport <sup>2</sup>	1,620	1,699	1,535	1,598	1,758	1,758	1,758
Water	13	14	14	12	6	3	3
Other	..	..	..	..	..	..	..
<b>Total PNFC Sector CSO and TSC</b>	<b>2,155</b>	<b>2,396</b>	<b>2,175</b>	<b>2,042</b>	<b>2,303</b>	<b>2,327</b>	<b>2,392</b>
Notes:							
1. Numbers may not add due to rounding.							
2. The presentation of Transport revenue is not directly comparable to CSO revenue disclosed in the 2013-14 Budget Paper 2, as it now includes patronage revenue received by Queensland Rail and remitted to the Department of Transport and Main Roads under integrated ticketing arrangements.							

Source: Queensland Budget 2015-16, Budget Strategy and Outlook, Public Non-Financial Corporations Sector



## Queensland Productivity Commission: Electricity Pricing Inquiry Draft Report

Table 9: Department of Transport and Main Roads Concessions, Budget 2014-15

	2013-14 Est. Act. \$ million	2014-15 Est. Act. \$ million
General Public Transport Concessions (South East Queensland) <sup>21</sup>	1,063.6	1,122.0
General Public Transport Concessions (Regional Queensland) <sup>22</sup>	198.5	217.7
TransLink Transport Concessions (South East Queensland) <sup>23</sup>	106.6	120.2
Other transport concessions (Regional Queensland) and taxi subsidies	25.9	26.7
Designated Public Transport Concessions for Seniors Card Holders <sup>24</sup>	3.8	..
Rail Network and Infrastructure Funding	546.9	556.7
Rail Concession Scheme	36.9	36.0
Aurizon - Livestock and Regional Freight Contracts <sup>25</sup>	144.9	156.7
School Transport Assistance Scheme	138.4	139.3
Vehicle and boat registration concessions <sup>26</sup>	131.0	133.7
Commercial ship registration and licensing	9.5	9.5
Practical Driving Test	6.4	6.7
	<b>2013-14 Est. Act. \$ million</b>	<b>2014-15 Estimate \$ million</b>
<b>General Public Transport Concessions (South East Queensland)</b>	<b>1,063.6</b>	<b>1,122.0</b>

This concession represents the direct funding contribution that Government makes towards the cost of operating public transport services within South East Queensland. This contribution effectively reduces the ticket price paid by all public transport users on bus, rail and ferry services, increasing the affordability of these services.

This concession incorporates Government decisions to introduce free go card travel each week after nine trips in that week and to increase fares by 7.5% in 2013 and 2014, compared to the 15% annual increases announced by the former Government. The average cost of the concession per passenger trip (bus, rail and ferry) is estimated to be \$7.10 in 2014-15.

	2013-14 Est. Act. \$ million	2014-15 Estimate \$ million
General Public Transport Concessions (Regional Queensland)	198.5	217.7

This concession identifies the financial contribution that Government provides across a range of transport services in regional Queensland. The impact of this contribution benefits all public transport users through reduced transport fares. This concession covers:

- TravelTrain (excluding the 'Rail Concession Scheme' for eligible pensioners, veterans and seniors)
- subsidies for regional bus and ferry operators (excluding concessional top up amounts and School Transport Assistance Scheme related amounts)
- subsidies for the Rail XPT Service (Sydney-Brisbane) and Savannahlander (Atherton Tableland)
- subsidies for air services to remote and rural communities within the State
- subsidies for long distance coach services to rural and remote communities within the State.

Source: Queensland Budget 2014-15, Concessions Statement



## Queensland Productivity Commission: Electricity Pricing Inquiry Draft Report

### 3.4 The Queensland Government Needs to Provide What the Customer Wants Not What It Needs

There is no doubt the electricity industry is in a great state of flux in relation to technology, pricing and supply. This unprecedented change is severely impacting on households, businesses and whole industries and this is borne out in statistics collated at a state and federal level.

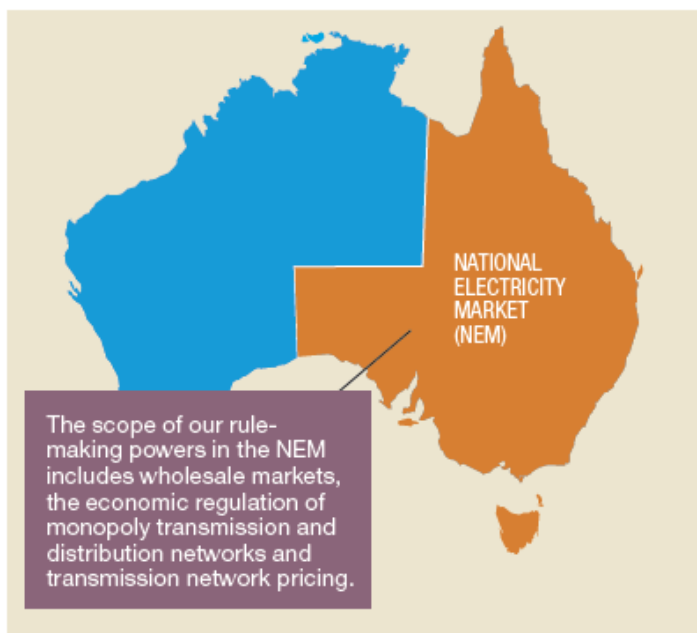
The Queensland Productivity Commission's 54 recommendations have found very little consumer support as it is silent on curbing the main driver of price increases over the past decade; the exorbitant dividends paid by state owned network businesses to the Queensland Government. The recommendations also underestimate the impact of state Government's policies on the speed by which renewable energy will transform or cannibalise the grid as we know it today. This poses massive challenges to the Queensland budget which will negatively impact on the economy and the services the Queensland Government is able to provide eg schools, roads and hospitals. Most of all regional Queensland residents and businesses will be the first to feel the pain and will be the hardest hit.

Until recently electricity policy was dominated by the state governments or private companies that owned generation, network (poles and wires) & retailing assets. Consumer engagement and participation was largely absent and not welcome.

The national grid is governed by the National Electricity Rules set by the Council of Australian Governments' Energy Council, with Queensland being represented by the Queensland Minister for Energy.

The National Electricity Rules apply in the National Electricity Market which comprises of Queensland, New South Wales, Victoria, South Australia, Tasmania and the Australian Capital Territory (see Figure 6).

**Figure 6: National Electricity Market**

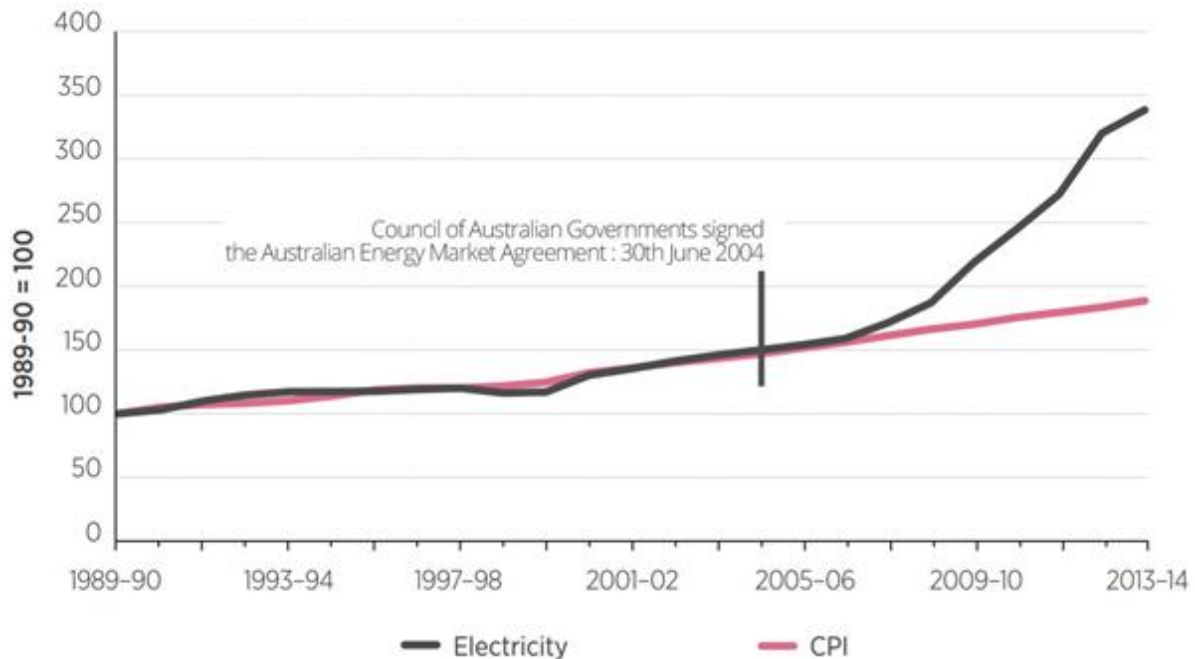


Source: Australian Energy Market Commission website

## Queensland Productivity Commission: Electricity Pricing Inquiry Draft Report

A relatively recent change in the National Electricity Rules has given consumers a voice but the complexity of the electricity industry has severely hindered consumer participation. The National Electricity Rules are supposed to exist so that market participants understand their rights and responsibilities and there is appropriate regulation to ensure consumers do not pay more than necessary for their electricity. If the National Electricity Rules were working in the long term interest of consumers, the price of electricity across the national grid would not show the dramatic rise and separation from the Consumer Price Index (CPI) as shown in Figure 7.

**Figure 7: National retail electricity price index, 1989-90 to 2013-14**



*Source: Australian Government Energy White Paper, April 2015*

For the first time in history consumers are now challenging the regulatory authorities formed to administer the National Electricity Rules. It is no surprise that the challenges now in the Federal Court are directed at reducing electricity prices.

Consumer organisations throughout the national grid are seeking real reductions to unsustainable prices and real assurances that their jobs are safe. Consumers are demanding that their voices are heard and the National Electricity Objective is achieved.

The National Electricity Objective, as stated in the National Electricity Law, is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to –

- (a) *price, quality, safety, reliability, and security of supply of electricity and;*
- (b) *the reliability, safety and security of the national electricity system.*

## Queensland Productivity Commission: Electricity Pricing Inquiry Draft Report

We therefore strongly recommend the Queensland Government:

1. Reduce 2016-17 regulated retail prices in regional Queensland by a minimum of 5 percent to all residential and business customers. This would at least equate to the removal of the 5 percent headroom charge which cannot be justified as there is effectively no retail competition benefits in regional Queensland.
2. Introduce a food, fibre and manufacturing tariff for regional Queensland which increases network utilisation and provides efficient use of surplus energy generated by solar PVs.
3. Through its seat on the COAG Energy Council, set National Electricity Rules that are in the long term interest of consumers not the entity that owns or leases electricity businesses/assets and specifically the National Electricity Rules which govern the revenue cap of network businesses need to be changed.
4. Through its seat on the COAG Energy Council, immediately implement a review of the impact of Solar Power Purchase Agreements, allowed under the individual exemption class of the National Energy Customer Framework, on the future financial viability and reliability of the whole national grid and its individually owned sections.
5. Adopt a 24 month no-harm policy in relation to the introduction of smart meters and time-of-use tariffs in regional Queensland and provide a firm commitment to work cooperatively and collaboratively with consumer organisations representing regional Queensland on the roll out of smart meters.
6. Adopt a standard format for all Queensland electricity bills to assist consumers to understand electricity bills and adapt to changes in the retail market.
7. Actively invest in technology to reduce emissions from fossil fuelled power stations.
8. Actively invest in renewable energy technology research and invest in pilot projects.
9. Actively promote the adoption of apps and technology that will reduce peak demand.
10. Work with consumer organisations to improve demand forecasts.
11. Provide a business case to consumers on the viability of cyclone insurance for Ergon.
12. Commit to a no pass through cost for the merger of Ergon and Energex.
13. Commit to a no pass through cost for a retail separation of Ergon Retail from Ergon Network.
14. Maintain the Uniform Tariff Policy.
15. Implement cost effective measures for the safe disposal of renewable energy components such as batteries.
16. Commit to a buy back of the Solar Bonus Scheme.

The Far North Queensland Electricity Users Network advocates for a smooth transition to a renewable energy future whilst maintaining access to affordable and reliable electricity for residential and business customers.

The responsibility for Queensland's food, energy and economic security rests with the Queensland Government. As electricity is critical to our food, energy and economic security we seek assurances that the Queensland Government will accept full responsibility for electricity prices and will immediately cancel their delegation to the Queensland Competition Authority.



# FAR NORTH QUEENSLAND ELECTRICITY USERS NETWORK

## APPENDIX 1



# FAR NORTH QUEENSLAND ELECTRICITY USERS NETWORK

"Advocating on behalf of peak FNQ industry and social organisations  
for affordable and reliable electricity in FNQ"

## Submission to the Queensland Productivity Commission Inquiry into Electricity Pricing – Issues Paper

**16 November 2015**

PO Box 2148, Cairns QLD 4870 | T : (07) 40312888 | F : (07) 40311108 | [research@cummings.net.au](mailto:research@cummings.net.au)

### **DISCLAIMER**

"This project was funded by Energy Consumers Australia ([www.energyconsumersaustralia.com.au](http://www.energyconsumersaustralia.com.au)) as part of its grants process for consumer advocacy projects and research projects for the benefit of consumers of electricity and natural gas.

The views expressed in this document do not necessarily reflect the views of the Energy Consumers Australia Panel or the Australian Energy Market Commission."

## Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper

### THE ROLE OF THE QUEENSLAND PRODUCTIVITY COMMISSION (QPC)

The Queensland Productivity Commission's role is to provide independent advice on complex economic and regulatory issues, and propose policy reforms, with the objective of driving economic growth, lifting productivity, and improving living standards across Queensland. Open and transparent public consultation will underpin these functions.

The objective of the Electricity Price Inquiry is to examine electricity pricing in Queensland and provide the Government with options that improve outcomes for consumers, while balancing the objectives of:

- a competitive electricity market
- productivity growth in the energy industry and among energy users
- appropriate reliability, safety and security of electricity supply
- efficient investment and operation of electricity infrastructure
- environmental outcomes
- fairness and equity
- minimising impacts on vulnerable customers; and
- responsible and measured management of the State's finances.

### THE TERMS OF REFERENCE FOR THE ELECTRICITY PRICE INQUIRY

The Terms of Reference ask the Queensland Productivity Commission to provide options to:

- promote the long-term interests of electricity consumers
- place downward pressure on electricity prices; and
- ensure a dynamic and responsive pricing framework.

The Inquiry is to examine the underlying drivers of electricity prices to develop options which can deliver a net benefit to the economy while protecting vulnerable customers.

## Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper

### OVERVIEW

Queensland electricity prices are at unsustainable levels for all customers, not just “vulnerable” customers. Electricity prices need to be urgently reduced for all customers.

The current Queensland regulated retail price ends on 30<sup>th</sup> June 2016. The signs are strong that electricity prices will continue their upward spiral from 1<sup>st</sup> July 2016. The continued hike in electricity prices will be driven by State and Federal government policies and the Council of Australian Governments’ National Electricity Rules which are not in the long term interests of consumers.

The regulated retail price set by the Queensland Government through a Ministerial delegation to the Queensland Competition Authority is bringing a new meaning to the term “vulnerable” customers. Electricity is a component of almost every item and every service purchased by a Queenslanders or Queensland business. The effect of unsustainable power prices goes well beyond excessive power bills.

With more than 80 percent of Queensland officially drought declared many irrigators faced with ongoing exorbitant power bills are being forced to turn off their pumps. This desperate action is a result of power bills increasing by as much 96 percent since 2009. CPI over the same period was 15 percent. The recently announced Rural Debt Survey will uncover the desperate circumstances being experienced across the Queensland agricultural sector. Reduced agricultural production will be reflected in the price, range and quality of fruit, vegetables and meat in a weekly grocery shop. But it’s not just food. Businesses such as health professionals and computer repairers need to operate in air-conditioned premises and service businesses will incorporate the high cost of electricity into the charge for their service. Many services, like electricity, are not optional. The service is essential for a reasonable standard of living.

For 15,003 Queensland households on electricity hardship programs the financial pain has reached breaking point. For 8,216 Queensland customers disconnected due to non-payment in June Quarter 2015 the lights have actually gone off along with essential appliances such as fridges. Of the homes left in darkness 77 percent comprised of working families, couples and individuals. Not your typical “vulnerable” customer.

For Queensland’s major income earning industries such as mining, agriculture and tourism the cost of electricity is reducing their viability in a globally competitive market. Industries pay taxes and royalties which provide the funds for the Queensland Government to fund infrastructure such as schools, roads and hospitals. Electricity has become the “hidden” tax that successive Queensland Governments have milked from every Queensland electricity account holder.

Governments are constantly seeking ways to “stimulate” the economy in an effort to fix their shrinking budgets. Simply by reducing electricity prices the Queensland Government can stimulate the economy, improve Queensland’s productivity, lower the unemployment rate and ensure a reasonable standard of living for all Queenslanders.

The Queensland Government has the ability to reduce electricity prices as it owns 100 percent of the transmission and distribution networks, 65 percent of Queensland’s generation, 100 percent of the retailer who services 97 percent of Queensland and it possesses the legal authority to set regulated retail prices. All the Queensland Government needs is the courage to reduce the electricity price in return for more taxes and royalties created from a more productive Queensland that is thriving not surviving.



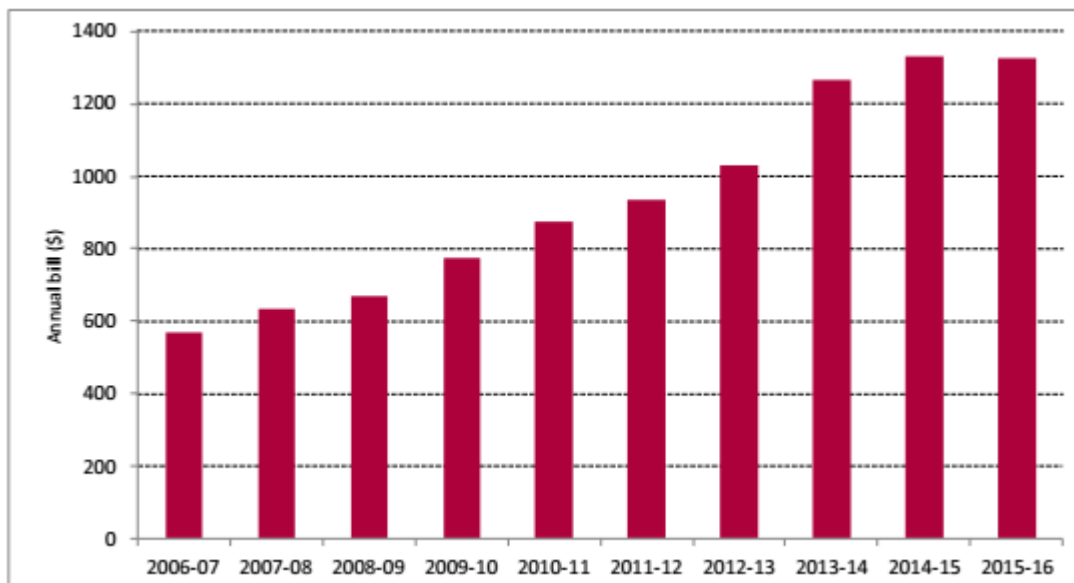
**Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper**

**Electricity prices are at unsustainable levels for all customers & must be urgently reduced**

The failure of the Queensland Government to recognise the financial stress caused by unsustainable electricity prices to all residential customers, not just ‘vulnerable’ customers, is due to the Queensland Government’s interpretation and public presentation of what constitutes a typical residential customer on Tariff 11. Tariff 11 is the primary household tariff in Queensland.

The Queensland Productivity Commission states that the annual bill for a typical (average) residential customer on Tariff 11 using **4,053 kWh** per annum is **\$1,326** in 2015-16 (see **Figure 1**).

**Figure 1: Average Queensland residential (Tariff 11) annual bills 2006-07 to 2015-16 (\$, nominal)**



Source: Department of Energy and Water Supply, based on average usage of 4,053 kWh/annum

Based on a consumption of **4,053 kWh**, the Queensland Government regards an average residential customer in Queensland to be a 1 person household in Gladstone in January 2015 or a 1 person household in Townsville in November 2015 (see **Table 1**).

In 2012-13, the average electricity use per household in the Ergon area ie regional Queensland was 6,811 kWh per annum ranging from 5,370 kWh per annum in the Wide Bay region to 7,872 kWh per annum in the Townsville region (see **Table 2**).

Based on an annual bill of **\$1,326**, the Queensland Government regards an average residential customer in Queensland to be a 1 person household in Mackay in November 2015 (see **Table 1**).

**Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper**
**Table 1: Queensland electricity consumption and annual bill by postcode**

<u>Location/Postcode</u>	<u>1 person</u>		<u>2 person</u>		<u>3 person</u>		<u>4 person</u>		<u>6 (5)person (a)</u>	
	<u>kWh</u> <u>year</u>	<u>kWh</u> <u>day</u>	<u>kWh</u> <u>year</u>	<u>kWh</u> <u>day</u>	<u>kWh</u> <u>year</u>	<u>kWh</u> <u>day</u>	<u>kWh</u> <u>year</u>	<u>kWh</u> <u>day</u>	<u>kWh</u> <u>year</u>	<u>kWh</u> <u>day</u>
1 <b>Brisbane (4000)</b>	3837	10.5	5114	14	6390	17.5	7666	21	10220	28
2	3178	8.7	4909	13.4	5501	15.1	6971	19.1	7456	20.4
Lowest offer \$/yr	\$1,170		\$1,568		\$1,704		\$2,042		\$2,154	
1 <b>Toowoomba (4350)</b>	3709	10.2	4943	13.5	6178	16.9	7412	20.3	9880	27.1
2	3114	8.5	4811	13.2	5390	14.7	6831	18.7	7306	20.0
Lowest offer \$/yr	\$1,190		\$1,605		\$1,747		\$2,099		\$2,216	
1 <b>Bundaberg (4670)</b>	3376	9.2	4497	12.3	5620	15.4	6742	18.5	8987	24.6
2	3053	8.4	4717	12.9	5285	14.4	6698	18.4	7163	19.6
Lowest offer \$/yr	\$1,175		\$1,582		\$1,721		\$2,067		\$2,181	
1 <b>Gladstone (4680)</b>	4093	11.2	5454	14.9	6816	18.7	8177	22.4	10900	29.9
2	3436	9.4	5307	14.5	5947	16.3	7536	20.6	8060	22.1
Lowest offer \$/yr	\$1,269		\$1,727		\$1,883		\$2,272		\$2,400	
1 <b>Mackay (4740)</b>	4363	12	5815	15.9	7267	19.9	8719	23.9	11621	31.8
2	3534	9.7	5494	15.1	6270	17.2	8059	22.1	8148	22.3
Lowest offer \$/yr	\$1,293		\$1,772		\$1,962		\$2,400		\$2,422	
1 <b>Townsville (4810)</b>	4870	13.3	6490	17.8	8111	22.2	9370	26.7	12970	35.5
2	3945	10.8	6131	16.8	6998	19.2	8995	24.6	9094	24.9
Lowest offer \$/yr	\$1,393		\$1,928		\$2,140		\$2,629		\$2,653	
1 <b>Cairns (4870)</b>	4276	11.7	5698	15.6	7121	19.5	8544	23.4	11387	31.2
2	3463	9.5	5383	14.7	6144	16.8	7897	21.6	7984	21.9
Lowest offer \$/yr	\$1,276		\$1,745		\$1,931		\$2,360		\$2,382	

**Note (a):** Data in italics relates to a 5 person household as no data is available for a 6 person household in November 2015.

*Source: (1) Energy Made Easy, Australian Energy Regulator accessed January 2015.*

*(2) Energy Made Easy, Australian Energy Regulator accessed November 2015.*

**Table 2: Average electricity use per household in the Ergon regions**

<u>Ergon Region</u>	<u>Average Electricity Use</u> <u>per Household in</u> <u>2012/13 (kWh)</u>	<u>Average Electricity Use</u> <u>per Household in</u> <u>2013/14 (kWh)</u>	<u>Percentage difference</u>
South West	6068	5672	-6.5
Wide Bay	5370	5009	-6.7
Central Qld	7039	6602	-6.2
Mackay	7324	6849	-6.5
North Qld	7872	7334	-6.8
Far North Qld	6985	6678	-4.4
Ergon Qld Average Electricity Use per Household 2012/13	6811	n/a	

*Source: Data supplied by Ergon Energy.*

## Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper

The Queensland Productivity Commission states that electricity makes up about 1.6 percent of a middle income household's annual disposable income and for low income households (without a concession) represents around 4.8 percent of their annual disposable income.

There are two problems with this.

The continual representation of 4,053 kWh as the average residential customer on Tariff 11 is misleading. Based on Ergon's 2012-13 average electricity use per household of 6,811 kWh, the average cost of an annual electricity bill in regional Queensland in 2015-16 is \$1,929 or 45 percent more than what the Queensland Productivity Commission's average annual bill of \$1,326 based on 4,053 kWh.

The second is that median (as opposed to mean) disposable income is lower and more appropriate to use. Median disposable income for Australia was \$70,408 per annum in 2013-14. "Equivalent" median disposable income that takes into account household size is lower at \$43,888 (see ABS Cat 6503.0).

On the basis of average cost of a household bill being \$1,929 per annum, percentage of median household disposable income would be 2.7% and on "equivalised" household disposable income 4.4%. Impact on lowest quartile would be 7.5% of median household disposable income and "equivalised" 9.0%.

According to the Australian Energy Regulator's "*Energy Made Easy*" on 14<sup>th</sup> November 2015, a four-person household in Cairns could spend \$2,360 annually on electricity (see Table 1). If this household was in the lowest quartile of median disposable income, the proportion would be 9.2%.

The immediate effect on regional economies of high electricity prices is to reduce local activity as households reduce their consumption spending to pay their electricity bills. Most of the electricity bill flows outside the region including a large part to State Government revenue.

The evidence of hardship is undeniable based on official statistics collected by the Queensland Competition Authority. Hardship programs for residential customers have risen by 60 percent in one year from 9,402 to 15,003 in June Quarter 2015. That's 15,003 households unable to pay the normal 90 day electricity bill (see Table 3).

Vulnerable customers are no longer restricted to pensioners and concession card holders. Official Queensland statistics show that 77 percent of small customers disconnected due to non-payment are working families, couples and individuals (see Table 4).

The number of business customers disconnected due to non-payment rose 70 percent between December Quarter 2012 and June Quarter 2015 to 630 businesses (see Table 4). How many lost Queensland jobs this represents is unknown although every Queensland job is valued. Major Queensland businesses and industries are now at risk in Queensland. This could represent thousands of jobs particularly in regional Queensland where alternative employment is difficult to find. Importantly, businesses do not have access to hardship programs.

Clearly the definition of "vulnerable" needs to be expanded. Concessions and rebates are not the sole solution for "vulnerable" customers. The primary solution is to reduce electricity prices for all residential and business customers in Queensland.

**Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper**
**Table 3: Customers in Queensland on a Hardship Program**

<u>Period</u>	<u>Participating in a hardship program (#)</u>	<u>% in a hardship program in Ergon area</u>	<u>Av. Debt on entry into a hardship program (\$)</u>	<u>Av. Length of time a customer remained in a hardship program (days)</u>
Jun Quarter 2015	15003		n/a	n/a
- Ergon only	5515	36.76%	301	127
Mar Quarter 2015	14438		n/a	n/a
- Ergon only	5087	35.23%	365	154
Dec Quarter 2014	12757		n/a	n/a
- Ergon only	3603	28.24%	390	174
Sept Quarter 2014	11422		n/a	n/a
- Ergon only	3242	28.38%	726	190
June Quarter 2014	9402		n/a	n/a
- Ergon only	3209	34.13%	388	196
Mar Quarter 2014	8633		n/a	n/a
- Ergon only	2938	34.03%	311	230
Dec Quarter 2013	7104		n/a	n/a
- Ergon only	2461	34.64%	389	264
Sept Quarter 2013	8497		n/a	n/a
- Ergon only	2998	35.28%	648	236
Dec Quarter 2012	8950		n/a	n/a
- Ergon only	5184	57.92%	768	292
Sept Quarter 2012	8653		n/a	n/a
- Ergon only	5293	61.17%	731	250
Dec Quarter 2011	7512		n/a	n/a
- Ergon only	4580	60.97%	645	247
Sept Quarter 2011	7309		n/a	n/a
- Ergon only	4454	60.94%	696	181
Dec Quarter 2010	5311		n/a	n/a
- Ergon only	2659	50.07%	633	191
Sept Quarter 2010	4932		n/a	n/a
- Ergon only	2367	47.99%	663	163

Source: Queensland Competition Authority.

**Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper**
**Table 4: Total Queensland Disconnections and Percentage of Pension/ Concession Card Holders Disconnected due to non-payment**

Period	Business Customer		Residential Customer				Total Customers		% Business Customers Disconnected (using Distributor data)	% Pension/ Concession Card Holders (using Retailer data)
	Retailer data	Distributor data	Retailer data			Distributor data	Retailer data	Distributor data		
			Pension/ Concession Card Holder	Others	Total					
Jun Qtr 2015	461	630	1773	5886	7659	7586	8120	8216	7.67%	23.15%
- Ergon only	141	141	762	2847	3609	3606	3750	3747	3.76%	21.11%
Mar Qtr 2015	540	720	1830	6545	8375	8420	8915	9140	7.88%	21.85%
- Ergon only	199	199	832	2949	3781	3781	3980	3980	5.00%	22.00%
Dec Qtr 2014	436	581	1502	5072	6574	6525	7010	7106	8.18%	22.85%
- Ergon only	142	142	698	1911	2609	2609	2751	2751	5.16%	26.75%
Sept Qtr 2014	622	758	1404	5680	7084	7301	7706	8059	9.41%	19.82%
- Ergon only	180	180	752	2243	2995	2995	3175	3175	5.67%	23.69%
June Qtr 2014	549	647	1351	5409	6760	6953	7309	7600	8.51%	19.99%
- Ergon only	162	162	891	2590	3481	3481	3643	3643	4.65%	25.60%
Mar Qtr 2014	508	551	1210	5408	6618	6713	7126	7264	7.59%	18.28%
- Ergon only	106	106	733	2227	2960	2960	3066	3066	3.46%	24.76%
Dec Qtr 2014	436	581	1502	5072	6574	6525	7010	7106	8.18%	22.85%
Dec Qtr 2013	495	446	1378	4300	5678	6048	6173	6494	6.87%	24.27%
Dec Qtr 2012	355	373	1071	3888	4959	4976	5314	5349	6.97%	21.60%
Dec Qtr 2011	320	356	959	4452	5411	5527	5731	5883	6.05%	17.72%
Dec Qtr 2010	357	360	881	4052	4933	4986	5290	5346	6.73%	17.86%

Source: Queensland Competition Authority.

## Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper

### The immediate removal of the headroom charge to reduce electricity prices by 5 percent

The Queensland Government has included a headroom charge in all electricity tariffs (see Tables 5 and 6).

The headroom charge was introduced by the Queensland Government to promote retail competition in Queensland. Retail competition has been in effect in South East Queensland since 2007. There is only one retailer in regional Queensland; the 100 percent Queensland Government owned Ergon Energy. Ergon's profit before tax in 2014-15 was \$991 million and Ergon pay tax equivalent to the Queensland Government ie with 100% dividend the Queensland Government received \$991 million in 2014-15.

There is no logical foundation for adding 5 percent to all electricity bills to promote retail competition when there is only one retailer. The headroom charge has been added to all electricity bills for years. A hidden 'tax' on every Queensland electricity account.

The removal of the nonsensical 5 percent headroom charge will reduce electricity bills by 5 percent. More importantly, it will lower the cost of living for all Queenslanders as electricity is a component of almost every item and service purchased.

**Table 5: Various residential regulated retail tariffs in Queensland**

Retail tariff	Tariff component	Fixed charge	Demand charge (flat/off-peak)	Demand charge (peak)	Variable charge (flat/off-peak)	Variable charge (shoulder)	Variable charge (peak)
		c/day	\$/kW/mth	\$/kW/mth	c/kWh	c/kWh	c/kWh
Tariff 11 - Residential (flat rate)	Network	49.400			12.130		
	Energy				7.803		
	SRES Cost Pass Through				0.039		
	Retail	46.452					
	Margin	5.794			1.207		
	Headroom	5.082			1.059		
	Total <sup>a</sup>	106.728			22.238		
Tariff 31 - Night rate (super economy)	Network				6.280		
	Energy				4.860		
	SRES Cost Pass Through				0.039		
	Retail						
	Margin				0.676		
	Headroom				0.593		
	Total <sup>a</sup>				12.448		
Tariff 33 - Controlled supply (economy)	Network				10.528		
	Energy				6.382		
	SRES Cost Pass Through				0.039		
	Retail						
	Margin				1.024		
	Headroom				0.899		
	Total <sup>a</sup>				18.872		



**Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper**

Source: Queensland Competition Authority 2015-16 Final Determination

**Table 6: Various business regulated retail tariffs in Queensland**

Retail tariff	Tariff component	Fixed charge	Demand charge (flat/off-peak)	Demand charge (peak)	Variable charge (flat/off-peak)	Variable charge (shoulder)	Variable charge (peak)
		c/day	\$/kW/mth	\$/kW/mth	c/kWh	c/kWh	c/kWh
Tariff 20 - Business (flat rate)	Network	70.800			12.348		
	Energy				7.803		
	SRES Cost Pass Through				0.039		
	Retail	46.452					
	Margin	7.087			1.220		
	Headroom	6.217			1.071		
	Total <sup>b</sup>	130.556			22.481		

Retail tariff	Tariff component	Fixed charge	Demand charge (flat/off-peak)	Demand charge (peak)	Variable charge (flat/off-peak)	Variable charge (peak)
		c/day	\$/kW/mth	\$/kW/mth	c/kWh	c/kWh
Tariff 44 - Over 100 MWh small (demand)	Network	4,347.600	33.885		2.087	
	Energy				7.327	
	SRES Cost Pass Through				0.042	
	Retail	207.647				
	Margin	275.344	2.048		0.572	
	Headroom	241.530	1.797		0.501	
	Total <sup>b</sup>	5,072.121	37.730		10.529	
Tariff 45 - Over 100 MWh medium (demand)	Network	14,481.300	28.396		2.044	
	Energy				7.327	
	SRES Cost Pass Through				0.042	
	Retail	207.647				
	Margin	2,373.838	1.482		0.577	
	Headroom	2,082.314	1.300		0.506	
	Total <sup>b</sup>	43,728.599	27.295		10.623	
Tariff 47 - High voltage (demand)	Network	34,833.500	21.826		1.816	
	Energy				6.955	
	SRES Cost Pass Through				0.039	
	Retail	207.647				
	Margin	2,118.076	1.319		0.533	
	Headroom	1,857.961	1.157		0.467	
	Total <sup>b</sup>	39,017.184	24.302		9.810	

Source: Queensland Competition Authority 2015-16 Final Determination



## Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper

### Reduce electricity price increases caused by a 'cyclone' pass through event

The Queensland Government has announced electricity prices should stabilise over the next few years due largely to the Australian Energy Regulator's final determination on Ergon Energy's 2015-2020 "poles and wires distribution network".

Under the National Electricity Rules the Queensland Government owned corporations of Ergon and Energex must advise the Australian Energy Regulator if there is a change in their annual revenue of 1 percent or greater. The 2015-16 annual allowed revenue for Ergon is \$1,558 million and the revenue is similar each year through to 2019-2020.

Ergon prepared its capital expenditure forecasts for its' 2015-2020 regulatory proposal to the Australian Energy Regulator on the basis of Ergon taking out parametric insurance. The purpose of the parametric insurance is to cover the financial impact of extreme wind generated weather events and to allow works delivery and expenditure requirements to not be materially disrupted by extreme weather events. Ergon has not previously held parametric insurance. The \$66 million parametric insurance policy was rejected by the AER. The AER stated "*We consider Ergon Energy has not sufficiently demonstrated it would be more efficient to purchase the new policy rather than to retain the risk itself.*" Ergon has consistently argued that any significant fall in revenue would result in Ergon not being able to absorb extreme weather events such as cyclones. The AER's final decision resulted in Ergon receiving 19.3 percent less revenue than its' revised regulatory proposal. It is now up to the Queensland Government to decide whether to insure Ergon's \$11 billion 'poles and wires distribution network."

If the Queensland Government does not insure Ergon's distribution network for \$66 million over 5 years, Ergon can request the AER for a pass through in the event of cyclone/s. It is reported that the localised Cyclone Marcia caused around \$40 million in damage in 2014-15. Ergon could have requested a pass through for Cyclone Marcia as it was more than 1 percent of Ergon's annual revenue. A pass through event would be reflected in an increase in network charges. Network charges are approximately 47 percent of an electricity price (see Figure 2 and 3).

Queensland is currently experiencing an El Nino weather event. There is some discussion as to whether parametric insurance is justified in an El Nino year as El Nino weather events tend to bring less cyclones of less severity. There is also some conjecture as to the real strength of Cyclone Marcia which is listed by Ergon as a Category 5 cyclone. If Cyclone Marcia was a Category 3 cyclone for most of its destructive path it still managed to cost around \$40 million. To date Category 5 cyclones such as Larry and Yasi have severely affected smaller population centres rather than large regional cities such as Cairns, Townsville or Mackay. The Queensland Government needs to seriously assess the value of a \$13 million per annum parametric insurance policy for its \$11 billion Ergon distribution network.

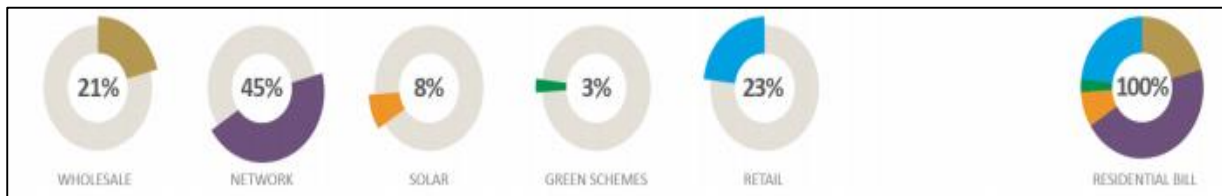
If Ergon is not able to provide adequate operational levels after a cyclone due to lack of funds or a parametric insurance policy, businesses will be not be able to operate efficiently and this will affect Queensland's productivity. It will also severely impact on the ability of affected Queenslanders to maintain a reasonable standard of living.

Although the AER has rejected the parametric insurance, the decision to take out parametric insurance rests with the Queensland Government/Ergon. Without a parametric insurance policy the Queensland Government/Ergon can request a pass through for a cyclone/s to recover cyclone related capital and operational expenditure.

## Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper

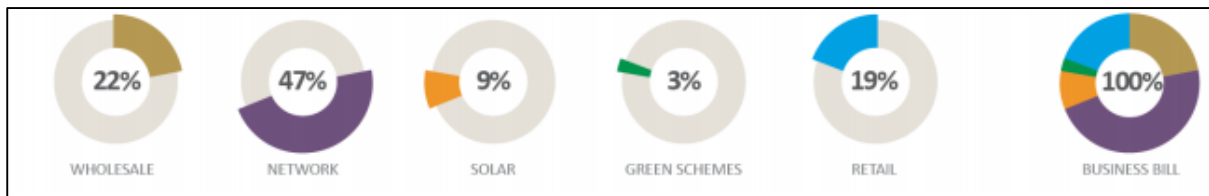
It is important that Ergon do not inflate pass through requests to supplement the recent major drop in their allowed operational and capital expenditure over the period 2015-2020. Pass throughs for cyclone/s will result in higher network charges for Queensland customers. Network charges represent around 45 percent of a residential bill or 47 percent of a business electricity bill (see Figure 2 and 3).

**Figure 2: Percentage of a residential bill**



Source: Queensland Competition Authority 2015-16 Regulated Retail Prices

**Figure 3: Percentage of a business bill**



Source: Queensland Competition Authority 2015-16 Regulated Retail Prices

### Reduce electricity price increases caused by a ‘merger’ pass through event

The Queensland Government is considering a merger of the 100 percent Queensland Government owned network businesses of Ergon Energy, Energex and Powerlink. The merger is being touted as a cost saving and therefore should result in a reduction in electricity prices.

However, Ergon applied for a “merger” event pass through in its 2015-2020 ‘revised’ regulatory proposal to the AER. This implies a cost to customers not a saving.

The AER rejected the “merger” event as the merger would be covered under other clauses in the National Electricity Rules.

The cost of a merger event would likely be passed through by the Queensland Government to electricity customers via increased network charges. Network charges make up around 47 percent of an electricity bill.

### Reduce electricity price increases caused by a ‘retail separation’ pass through event

The Queensland Government is considering retail de-regulation in regional Queensland. This would require the retail separation of Ergon Networks from Ergon Retail and the Isolated Network System.

The AER rejected the pass through under the auspices of “retail separation” in its 2015-2020 Ergon Determination. The AER stated Ergon would be covered for a pass through for retail separation under other clauses in the National Electricity Rules.

## Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper

The cost of a retail separation event would likely be passed through by the Queensland Government to electricity customers via increased network charges. Network charges make up around 47 percent of an electricity bill.

### **Reduce electricity price increases caused by pass through events**

Queensland electricity customers could be faced with footing the bill for cyclones, mergers and retail separation due to a request by the Queensland Government to the AER to pass through these events under the legal framework of the National Electricity Rules. The National Electricity Rules are set by the Council of Australian Governments Energy Council which includes all State and Territory Government Energy Ministers and the Federal Government Energy Minister.

The Queensland Government can choose to absorb the costs or pass the costs through to the customers in the network charge of all electricity bills. In relation to cyclones the Queensland Government can choose to mitigate all or some of the pass through cost by taking out parametric insurance.

### **Electricity prices can be decreased by reducing peak demand**

Electricity distribution networks like Ergon and Energex must provide sufficient electricity to supply all customers within set reliability standards. The minimum service standards set limits in relation to the frequency and duration of interruptions to distribution network services.

The demand on the distribution network varies according to the time of day and the season. Distribution network businesses such as Ergon and Energex must build and maintain a network to service the 'peak' demand. This results in a distribution network that is only used for around 10 percent of the time.

To reduce distribution network costs and therefore reduce electricity prices it is necessary to reduce the 'peak' demand. The installation of more solar PVs is not reducing peak demand in either winter or summer.

Queensland summer peak demand fell about 5 percent from 2009-10 to 2013-14 to 8465 MW. In 2014-15 the peak demand rose to 8969 MW, similar to the 2009-10 summer peak demand of 8933 MW.

Winter peak demand fell about 6 percent from 2009 to 2013 to 7233 MW. In 2014 the downward trend reversed and by the winter of 2015 winter peak demand exceeded the 2009 winter peak demand by 4 percent. Peak winter demand for 2015 was 8006 MW.

More solar PV installations are reducing the consumption/demand from the distribution network and delaying the peak demand until later in the day. Both of these consequences increase the cost of electricity through higher network charges which is passed on to all customers.

A large contributor to 'peak' demand is the demand generated by air-conditioning. In an effort to lower the air-conditioning demand during peak times the Queensland Government has conducted energy efficiency campaigns to entice customers to set their air-conditioners at 25°C. Faced with a growing summer peak demand more emphasis needs to be placed on load control via retailers not customers. Customers need to be made aware of the potential benefits of installing DRED (Demand Response Enabling Device) appliances. A member of the Far North

## Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper

Queensland Electricity Users Network recently paid \$2,400 to replace his broken \$600 office air-conditioner. The member considered the air-conditioner an investment and calculated the payback period on current electricity prices. With an increasing electricity bill the member will be upset if his new air-conditioner is not fitted with a DRED system.

It is unclear if a DRED system can be retrofitted and thus customers need to know in advance if the appliance being purchased is DRED enabled. Our understanding of a DRED enabled air-conditioner is that the retailer is able to change the operation of the air-conditioner to reduce power consumption and therefore minimise the risk of network outages. The air-conditioner will continue to circulate air (not cold air) as the compressor will be turned off by the retailer until the demand is low enough not to cause outages. In return for the load control the customer is offered a financial incentive either through a permanent lower tariff (similar to off-peak tariffs for hot water systems and pool pumps) or a reduction in the electricity bill for each time the air-conditioner is load controlled eg \$25 per load control.

Appliances which can be remotely switched on or off by the customer should also be actively promoted. For example, this would allow office workers to turn on their air-conditioners whilst at work allowing the home to cool on a lower tariff and then switching off the air-conditioner upon arrival at home. This would assist to reduce the main peak demand period and lower the customer's electricity bill particularly once Time of Use Tariffs are enforced in the near future.

To lower the over investment in the distribution network caused by increasing peak demand, the Queensland Government needs to be pro-active in its promotion of DRED appliances controlled by the retailer and other appliances that can be remotely switched on/off by the customer. Lower peak demand will reduce electricity prices to all customers.

### **The potential adverse effect of 'smart' or 'Time of Use' meters on electricity prices**

From 1<sup>st</sup> July 2015 metering charges will no longer be included in the service fee (fixed charge component) of an electricity bill. This is because metering is now a contestable service which means Queensland distribution networks no longer have a monopoly on metering services. Instead the metering charge will be a new line item on an electricity bill. The metering charge includes an amount to recover the capital cost of a customer's existing meter/s and an additional amount to cover the cost of maintaining, operating and reading meters.

All customers will incur a metering charge for their primary tariff, for residential customers the metering charge will be \$0.09668 per day. For each additional tariff the customer will have another meter. For a residential controlled load eg Tariff 31 and Tariff 33, the metering charge will be \$0.02899 per day. For a solar tariff the metering charge will be \$0.06767 per day.

For customers with 4 meters ie common residential Tariff 11, hot water Tariff 31, pool pump Tariff 33 and solar PV on their premises their metering charge will be \$0.22234 per day excluding GST.

From 1<sup>st</sup> August 2015, customers who have a new meter installed will be charged an upfront fee to cover the cost of the new meter. The cost of new meters is significant (see Table 7).

**Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper**
**Table 7: Upfront meter charges**

<b>Meter type</b>	<b>Upfront meter charge - \$/meter (excl. GST)</b>
Single phase - Primary	\$259.21
Single Phase - Primary + Solar	\$273.28
Dual Element - Primary + Controlled Load	\$384.97
Dual Element - Primary + Controlled Load + Solar	\$366.20
Polyphase - Primary	\$550.51
Polyphase - Primary + Solar	\$564.57
Additional Single Phase meter for controlled load purposes	\$292.05
Additional PolyPhase meter for controlled load purposes	\$583.34
Additional Single Phase meter to accommodate additional tariffs other than controlled load	\$306.11
Additional PolyPhase meter to accommodate additional tariffs other than controlled load	\$597.40
New Single Phase meter to accommodate solar installation	\$273.28
New PolyPhase meter to accommodate solar installation	\$564.57

Source: Ergon Energy website

The Queensland Government believes the way to promote energy efficiency is to send a message to customers via high peak charges to reduce usage during periods of peak demand. This can be achieved by introducing Time of Use Tariffs.

To introduce Time of Use Tariffs a customer must have a 'smart' meter. A few months ago we understand there were fewer than 100 smart meters in the Ergon area. Ergon has 733,000 customers spread across an area which covers 97 percent of Queensland. Each customer has at least one meter. The cost of a changeover to smart meters will be significant burden to many customers.

The complexity of smart metering is borne out in this statement by the Australian Energy Market Commission which is responsible for the setting of the National Electricity Rules on smart meters:

*On 2 July 2015, the AEMC extended the period of time for publication of the final rule determination on the Competition in Metering and Related Services rule change request. The extension is necessary to consider complex issues raised in stakeholder submissions around the details of implementing a competitive framework for metering. The final determination will be published on 26 November 2015.*

Ergon applied to the AER to introduce a voluntary Seasonal Time of Use Tariff from 1<sup>st</sup> July 2015.

## Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper

The FNQEUN advocated for a more cautious approach mindful that many customers particularly businesses have inelastic demand and are unable to reduce their demand during peak demand periods eg dairy farmers milk their cows at the same time every day and shopping centres are generally open from 9 to 5 each day.

Ergon's new Seasonal Time of Use Tariff classifies the time period for peak demand as:

- 10.00 am to 8.00 pm weekdays for business and
- 3.00 pm to 9.30 pm any day of the week for residential customers

The new voluntary Time of Use Tariff was approved by the Australian Energy Regulator for 2015-16 and came into effect on 1<sup>st</sup> July 2015.

We strongly recommend the Queensland Government learns from the mistakes of the Victorian Government's compulsory roll out of smart meters and the subsequent introduction of Time of Use Tariffs.

An Auditor General's report tabled in the Victorian Parliament in September 2015 found that:

- Victorians have paid more than \$2 billion for the roll out of smart meters and received few benefits
- A Victorian Government review of the program in 2011 said there would be no overall benefit to consumers but instead a likely cost of \$319 million. It said the cost was likely to climb further and there was a risk consumers would not see any benefits
- Victorian consumers have been paying for the roll out of smart meters since 2009 when they were introduced to try to help consumers save money on their electricity bills
- The Auditor-General's report found just 0.27 percent of consumers had subscribed to flexible pricing offers associated with smart meters, well below the target of 4 percent by 2014 and 15 percent by 2017
- Two thirds of Victorians did not understand the benefits of smart meters

The FNQEUN also has concerns regarding the reliability of smart meters and the accuracy of readings due to weather conditions in tropical humid Far North Queensland and hot western Queensland and their susceptibility to lightning strikes. Servicing meters in Victoria with millions of consumers in a small area is very different to Ergon's network that covers 97 % of Queensland.

A recent complaint notified to Ergon highlights the inadequacies of Ergon's current policy regarding broken meters in a non-urban area.

More metering problems could proliferate if the Queensland Government/Ergon rolls out smart meters without adequate consultation and field experience to 733,000 Ergon customers spread across 1.7 million km<sup>2</sup>.

One of the benefits of smart meters is the ability to remotely read a meter. Remote reading should be a financial benefit passed onto customers through cheaper metering charges. The Victorian experience is this benefit has been pocketed by the electricity retailers. As Ergon is the only retailer servicing regional Queensland the FNQEUN recommends that Ergon pass on the financial benefits of remotely read meters to the customer. In a de-regulated retail market all retailers must be made to pass on the financial benefits of remote reading.



## Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper

The FNQEUN recommends that the Queensland Government instruct Ergon to collaborate with a range of industry organisations to trial smart meters and Time of Use Tariffs prior to any rollout of smart meters. This offer has been made to Ergon but Ergon have refused, preferring to conduct their own trials without industry assistance.

**Map 1: Victoria in comparison to the size of Queensland and Far North Queensland**





**Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper**

**Electricity prices can be decreased by increasing utilisation through new tariffs**

Electricity pricing is not as complicated as the industry would have you believe.

Just like there is good debt and bad debt, there is also good energy and bad energy.

Bad energy is energy that is being wasted by actions such as air-conditioners running at temperatures below 25°C or leaving appliances switched on when not in use.

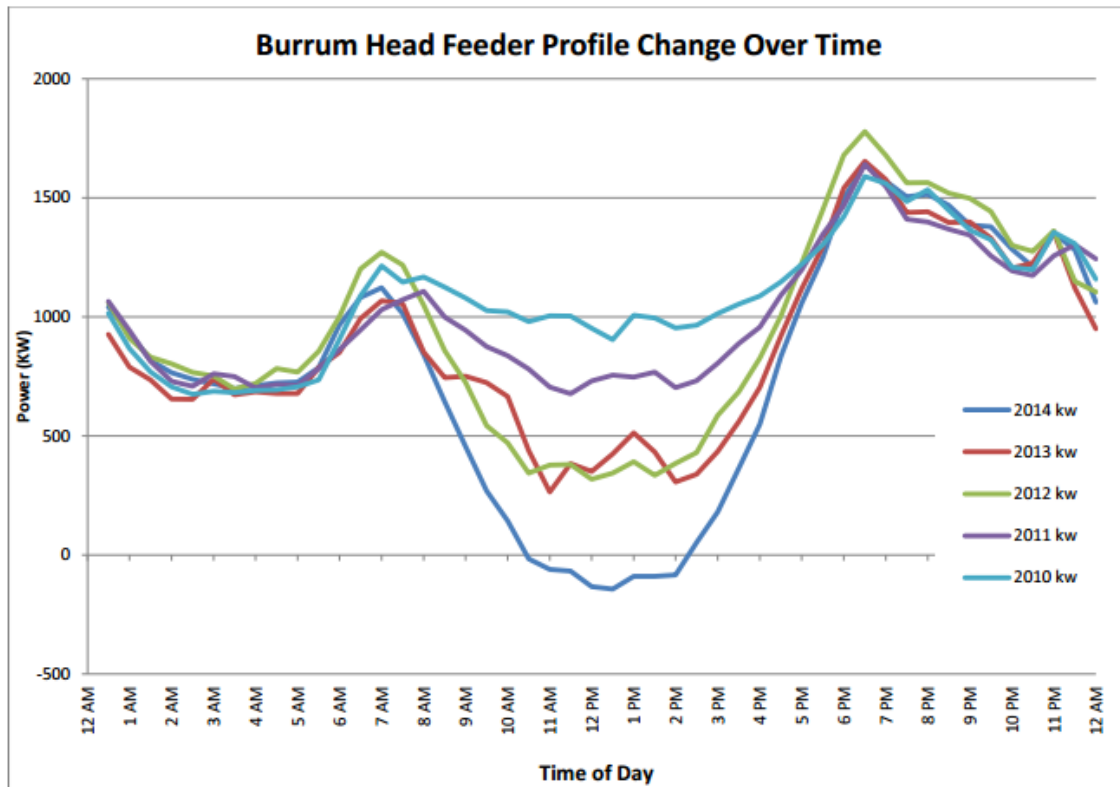
Good energy increases productivity and jobs in Queensland by producing goods and jobs that would otherwise not be produced

One of the keys to lower electricity prices is to reduce ‘peak’ demand and fill in the troughs on the demand curve with good energy initiatives which consequently improve network utilisation.

From Figure 4 it is clear troughs in a demand curve are getting deeper. Each feeder will have a different profile depending on the penetration of solar PV in a particular area. The Queensland Government has a policy of 1 million solar PVs by 2020. The troughs will continue to get deeper unless the customers can be incentivised to use electricity in periods of low demand and high solar PV output.

Ergon’s network utilisation is poor (see Figure 5) and we understand has fallen even further to 37 percent. The other Queensland Government owned distribution network, Energex, has an even poorer utilisation than Ergon (see Figure 6).

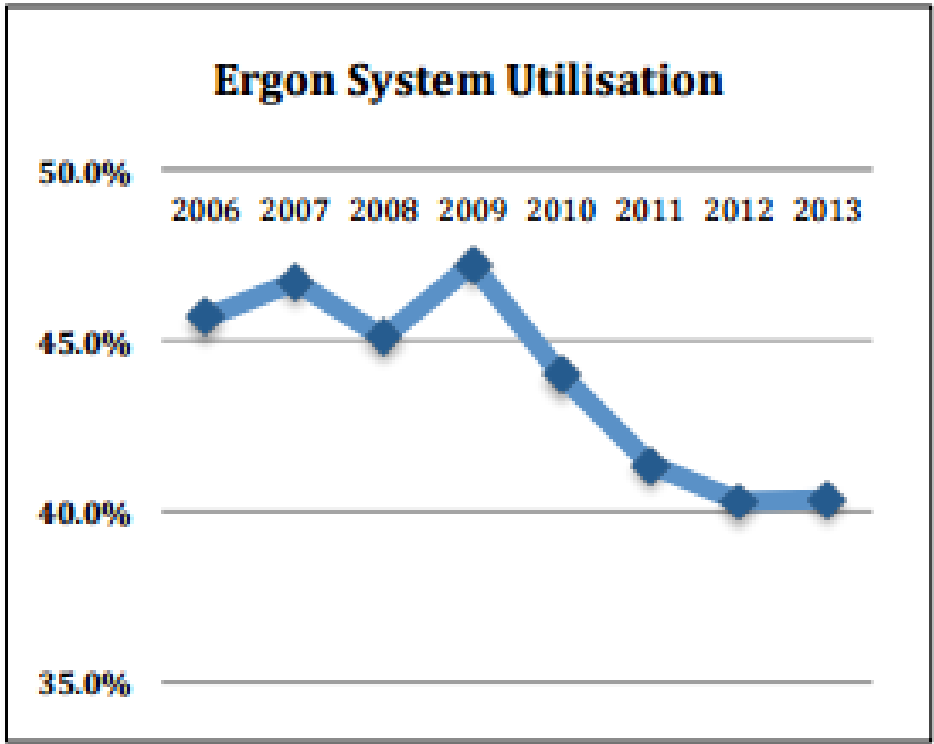
**Figure 4: Feeder profile annual changes**



Source: Ergon Distribution Annual Planning Report 2015-16 to 2019-20

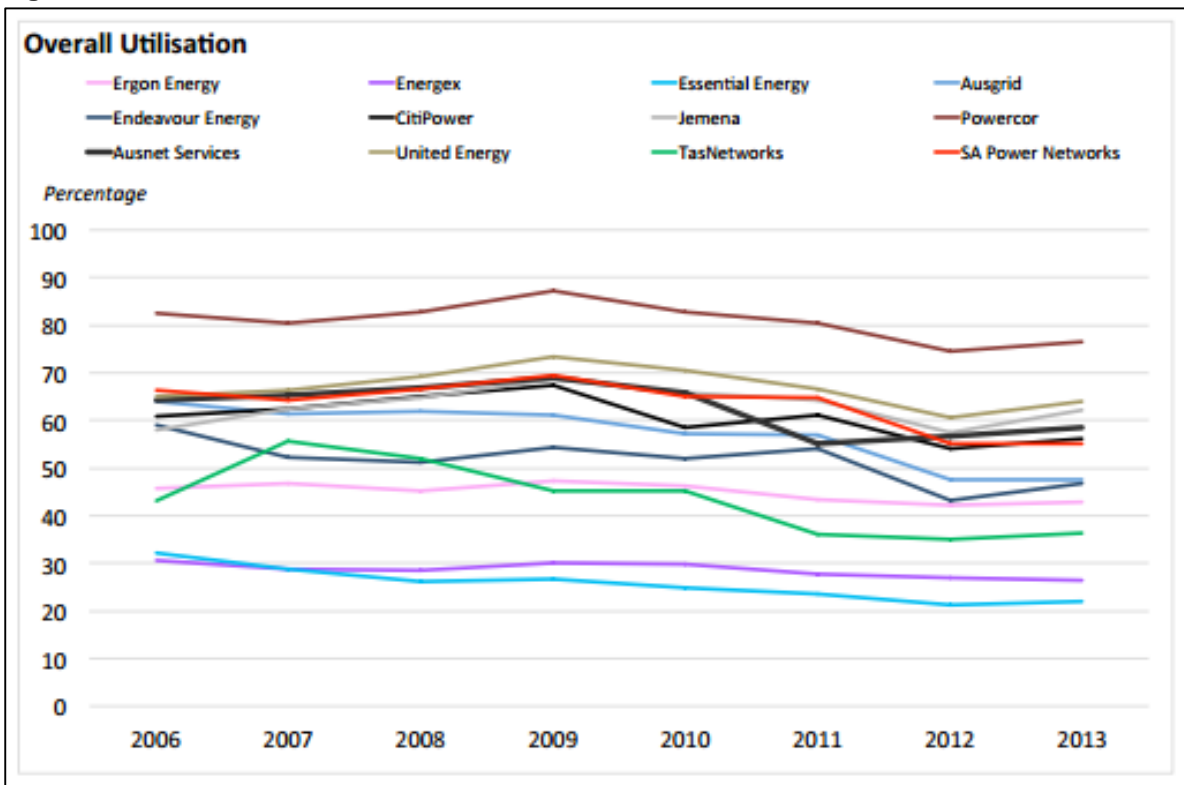
Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper

Figure 5: Ergon system utilisation



Source: Hugh Grant, member of AER Consumer Challenge Panel, Submission to AER, 3 Sep 2015.

Figure 6: Network utilisation



Source: Regulatory Information Notices, CME Analysis

## Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper

The industry organisation, Canegrowers, has long campaigned for the introduction of a Food and Fibre Tariff to fill in the troughs and increase system utilisation.

Canegrowers' modelling demonstrates that a Food and Fibre Tariff, at a 33 percent discount to irrigation Tariffs 62, 65 and 66 will:

- Reverse the fall in utilisation across the Ergon network
- Increase off-peak consumption from irrigation in key regional areas
- Does not require a Queensland Government subsidy
- Will allow sugarcane growers to maximise the volume of cane production therefore securing the cane supply to sugar mills and securing thousands of "at risk" jobs in regional Queensland

Far North Queensland accounts for 20 percent of the sugar produced in Queensland. Electricity prices to canegrowers have risen 96 percent with irrigated canegrowers experiencing a double whammy of a 57 percent increase in water costs. Irrigated cane currently accounts for just over 1 million tonnes or two thirds of the combined crush of the Tableland and Mossman sugar mills. Due to the combination of high electricity prices and the high waters costs, irrigated sugarcane production could fall significantly, placing at risk the future viability of both sugar mills.

This puts at risk a direct workforce of about 400 people, a sugar mill workforce of around 95 and productivity valued at \$600 million at the farm gate. Across Queensland the sugar industry employs 15,600 directly and 70,200 indirectly, accounting for 15 percent of employees in coastal Queensland.

The impact of electricity costs on agricultural productivity and profitability is not confined to the sugar industry. The financial pain is replicated across irrigated agriculture and non-irrigated agriculture. Fruit and vegetable farmers rely on irrigation to produce their crops and are unable to predict irrigation requirements as irrigation is highly weather dependent. Multiple animal industries rely on irrigated crops for their existence. Dairy and beef cattle require feed sourced from irrigation such as molasses, cottonseed and hay as part of their normal management practices and as part of a strategy to cope with drought, lower than normal rainfall or a later than normal wet season. The broiler and layer industries require grain and protein meal sourced from irrigated crops such as corn and cotton.

Electricity is also needed to run vital equipment on farms such as coldrooms and fans in chicken sheds. Agricultural processing industries such as abattoirs, butchers and milk factories are impacted by high electricity costs.

This places at risk Queensland's food security and increases the cost of every trolley of groceries.

To maintain and grow the economy and jobs, particularly in regional Queensland, electricity prices need to be reduced immediately and new tariffs introduced to improve the falling utilisation of Queensland's government owned networks.

The failure to introduce new "good energy" tariffs will unleash a wave of industry and business contractions and closures with minimal employment opportunities for sacked workers. The effect will be most evident in regional Queensland where the Queensland Government's Rural Debt Survey, the first since 2011, will uncover the rising financial stress experienced by a range of agricultural industries and the rural & regional towns that rely on them.

## Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper

### **Big business (over 100 MWh per annum) crucial for productivity & lower electricity prices**

A massive 90 percent of Ergon's 'network' revenue is sourced from Standard Asset Customers which comprise of residential and small business customers (see Table 8).

Although big business may only represent 10 percent of network revenue, big business consumes 40 percent of the electricity on Ergon's network. The role of big business customers such as mining and processing in reducing electricity prices and increasing Queensland's productivity cannot be ignored.

The Queensland Government has heavily relied upon mining taxes and royalties to pay for government infrastructure such as schools, roads and hospitals. Despite the slowing mining boom the Queensland Government is still highly reliant on mining taxes and royalties.

For many regional areas such as Far North Queensland, the high salaries of miners support businesses in regional towns and the increased population from resident mining families sustain community services such as health clinics and schools.

Big business operates in a highly competitive global market. Big business will only operate and employ thousands of Queenslanders and pay millions of dollars in taxes if the business is viable. The Queensland Government has championed the new LNG industry and new coal mines in the Galilee Basin. It should not take for granted existing big business. To remain globally competitive electricity prices need to be reduced to allow big business to survive and thrive.

If the demand from big business falls, the shortfall in network revenue will be recovered from the other users of the distribution network, primarily residential and small business customers.

The new demand tariffs for big business customers will also trigger higher living costs for Queenslanders. Large water and sewerage plants operated by councils are now some of the big business customers facing higher electricity costs brought about by exorbitant 'fixed' demand charges in big business tariffs. The increased electricity costs caused by the unavoidable demand charges will need to be passed onto ratepayers through higher council rates and tenants through higher rents.

As discussed earlier it is no longer just about power bills. It is very much about the increasing cost of living caused by unsustainable electricity prices affecting every item and service purchased by Queenslanders and Queensland businesses.

**Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper**
**Table 8: Ergon's weighted average annual revenue (GST exclusive)**

Weighted average revenue (GST exclusive) \$				
Tariff Class	2013/14	%	2014/15	%
Individually Calculated Customer (Pre 30 June 2010) – East	44,270,700		48,240,871	
Individually Calculated Customer (Pre 30 June 2010) – West	15,511,040		18,041,871	
Individually Calculated Customer (Pre 30 June 2010) – Mount Isa	0		0	
Individually Calculated Customer (Post 30 June 2010) – East	1,047,655		1,289,757	
Individually Calculated Customer (Post 30 June 2010) – West	0		0	
Individually Calculated Customer (Post 30 June 2010) – Mount Isa	0		0	
<b>Sub total</b>	<b>60,829,395</b>	<b>3.78%</b>	<b>67,572,499</b>	<b>3.68%</b>
Connection Asset Customers (Pre 30 June 2010) – East	82,146,869		94,942,500	
Connection Asset Customers (Pre 30 June 2010) – West	11,441,634		13,797,156	
Connection Asset Customers (Pre 30 June 2010) – Mount Isa	0		0	
Connection Asset Customers (Post 30 June 2010) – East	4,876,636		5,651,283	
Connection Asset Customers (Post 30 June 2010) – West	866,628		1,005,700	
Connection Asset Customers (Post 30 June 2010) – Mount Isa	0		0	
<b>Sub total</b>	<b>99,331,767</b>	<b>6.18%</b>	<b>115,396,639</b>	<b>6.28%</b>
Embedded Generation (Pre 30 June 2010) – East	3,580,389		4,071,633	
Embedded Generation (Pre 30 June 2010) – West	310,152		360,741	
Embedded Generation (Pre 30 June 2010) – Mount Isa	0		0	
Embedded Generation (Post 30 June 2010) – East	16,494		19,810	
Embedded Generation (Post 30 June 2010) – West	0		0	
Embedded Generation (Post 30 June 2010) – Mount Isa	0		0	
<b>Sub total</b>	<b>3,907,035</b>	<b>0.24%</b>	<b>4,452,184</b>	<b>0.24%</b>
Standard Asset Customer – Large (>100 MWh p.a.) – East	310,116,943		354,170,263	
Standard Asset Customer – Large (>100 MWh p.a.) – West	81,279,897		90,257,050	
Standard Asset Customer – Large (>100 MWh p.a.) – Mount Isa	4,990,591		5,490,010	
Standard Asset Customer – Small (<100 MWh p.a.) – East	790,684,818		914,514,252	
Standard Asset Customer – Small (<100 MWh p.a.) – West	221,097,418		252,077,832	
Standard Asset Customer – Small (<100 MWh p.a.) – Mount Isa	13,163,973		14,799,536	
Standard Asset Customer – Unmetered – East	19,033,098		16,936,247	
Standard Asset Customer – Unmetered – West	2,783,367		2,250,645	
Standard Asset Customer – Unmetered – Mount Isa	319,229		351,957	
<b>Sub total</b>	<b>1,443,469,334</b>	<b>89.79%</b>	<b>1,650,847,792</b>	<b>89.80%</b>
<b>Total</b>	<b>1,607,537,531</b>	<b>100.00%</b>	<b>1,838,269,114</b>	<b>100.00%</b>

Source: Compiled from Ergon 2014-15 Pricing Proposal – Version 1.1 – AER approved

**Investing in clean emission technology essential for productivity & lower electricity prices**

Queensland is still highly reliant on coal fired generation (see Figure 7).

The Queensland Government owns or controls 65 percent of the all the generation connected to the national grid in Queensland which includes the following coal fired generation:

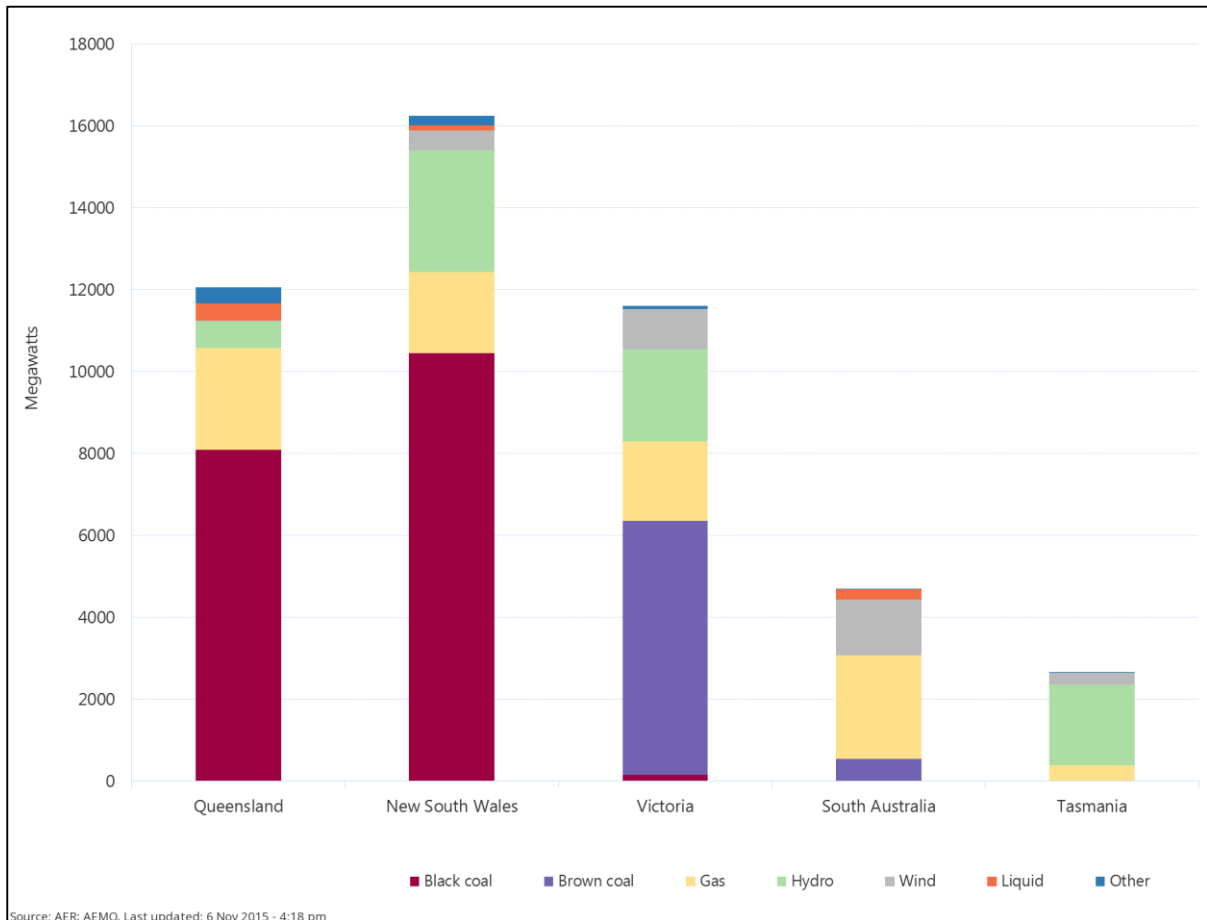
- Stanwell (100 percent owned) - 3,303 MW
- CS Energy (100 percent owned) - 2,380 MW coal fired generation plus an agreement to trade the output of the coal fired 1,680 MW Gladstone Power Station in excess of the Boyne Aluminium Smelter

**Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper**

Coal fired generation primarily provides baseload power. Baseload power flows through the national grid (which includes the Queensland Government owned Ergon, Energex and Powerlink networks) and allows customers to receive reliable power 24/7 regardless of whether the sun is shining or the wind is blowing.

Changes to the wholesale generation ‘mix’ will affect the wholesale generation component of an electricity price. Wholesale generation currently makes up 21 percent of a residential bill and 22 percent of a business bill (see Figure 2 and 3). Changes to the mix will affect the profitability of Queensland owned assets and the number of coal fired power station employees in regional Qld.

**Figure 7: Registered capacity in regions by fuel source**



Source: AER website

Queensland is also highly reliant on the productivity (\$31,924 million) and jobs (38,461) generated by the minerals and energy sector. Importantly, over 50 percent of the total direct spending flows into towns and communities outside Brisbane and 78 percent of the employees reside in regional Queensland (see Table 9).

## Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper

Table 9: Direct Impact of Queensland Minerals and Energy Sector by Region, 2014/15

<b>Table E1: Direct Impact of Queensland Minerals and Energy Sector by Region, 2014/15</b>				
<b>Region</b>	<b>Residing employees (FTEs)</b>	<b>Associated salaries (\$M)</b>	<b>Business purchases, community and local govt payments (\$M)</b>	<b>Total direct spending (\$M)</b>
Brisbane	8,317.0	1,343.0	13,588.4	14,931.4
Central West	47.3	6.9	14.9	21.8
Darling Downs	1,122.3	162.8	1,322.8	1,485.6
Far North	1,846.2	177.4	255.7	433.1
Fitzroy	8,530.2	1,107.5	4,457.4	5,564.9
Gold Coast	652.6	84.0	189.8	273.8
Mackay	8,099.2	1,053.4	2,802.7	3,856.1
North West	3,513.5	470.8	802.8	1,273.6
Northern	3,805.9	421.9	685.5	1,107.4
South West	176.8	22.7	215.9	238.6
Sunshine Coast	1,047.9	140.8	244.7	385.5
West Moreton	236.4	30.9	31.0	61.9
Wide Bay-Burnett	1,066.1	132.1	127.0	259.0
Undefined <sup>(a)</sup>	0.0	0.0	0.0	2,032.1
<b>Total Queensland</b>	<b>38,461.3</b>	<b>5,154.2</b>	<b>24,738.6</b>	<b>31,924.8</b>

Note: (a) Includes State Government payments, which are not region specific.

Source: *Economic Impact of the Minerals & Energy Sector on the Queensland Economy 2014/15*, Lawrence Consulting, October 2015

The largest contributor to the total direct spending in of the minerals and energy sector in 2014-15 was coal mining with approximately \$15.8 billion.

The coal industry accounted for 20,247 of the 38,461 direct jobs in the minerals and energy sector. Importantly, the coal industry indirectly employed 96,918 people in 2014-15 (see Table 10).

The introduction of a carbon tax is again being publicly canvassed.

To ensure Queensland lowers its carbon emissions and the cost of electricity should a carbon tax be introduced, the Queensland Government needs to further invest in clean emission technology.

In 2011 the Queensland Government invested \$1 million in Phase 1 of an Australian first project at their coal fired Tarong Power Station. The project used algae to absorb carbon emissions. The algae biomass was then used to make biofuels which can create valuable products such as stockfeed and oils for transport fuels. It appears the company pioneering this ground breaking technology which could fundamentally change the emissions from coalfired power stations has taken its trials to Thailand.

We strongly recommend the Queensland Government further invest in clean emission technology to lower carbon emissions produced in Australia and from the coal exported from Queensland to overseas coal fired power stations. Lower emissions will also lower the wholesale generation component of an electricity price if a carbon tax is introduced.



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Table 10: Economic Impact of Queensland Minerals and Energy Sector, 2014-15

<b>Table E2: Economic Impact of Queensland Minerals and Energy Sector, 2014/15</b>					
	<b>Coal</b>	<b>CSG/LNG</b>	<b>Metals</b>	<b>Other</b>	<b>Total</b>
<b>Value Added (\$M)</b>					
Direct	15,829	10,603	4,439	1,054	31,925
% of GSP/GDP	5.3	3.6	1.5	0.4	10.8
Indirect	10,604	7,604	2,780	725	21,713
<b>Total value added (Type I)</b>	<b>26,433</b>	<b>18,207</b>	<b>7,219</b>	<b>1,779</b>	<b>53,638</b>
% of GSP/GDP	8.9	6.1	2.4	0.6	18.1
Consumption-induced	5,601	3,862	1,291	387	11,141
<b>Total value added (Type II)</b>	<b>32,034</b>	<b>22,069</b>	<b>8,510</b>	<b>2,166</b>	<b>64,779</b>
% of GSP/GDP	10.8	7.4	2.9	0.7	21.9
<b>Employment (FTEs)</b>					
Direct	20,247	5,268	10,341	2,606	38,461
% of total state/national employment	0.9	0.2	0.4	0.1	1.7
Indirect	96,918	64,132	28,706	6,950	196,706
<b>Total employment (Type I)</b>	<b>117,164</b>	<b>69,399</b>	<b>39,047</b>	<b>9,556</b>	<b>235,167</b>
% of total state/national employment	5.0	3.0	1.7	0.4	10.1
Consumption-induced	66,253	44,962	15,098	4,386	130,699
<b>Total employment (Type II)</b>	<b>183,417</b>	<b>114,361</b>	<b>54,145</b>	<b>13,942</b>	<b>365,866</b>
% of total state/national employment	7.9	4.9	2.3	0.6	15.7
<b>Business spend (incl. community contributions and govt payments) (\$M)</b>					
Direct	13,210	9,648	3,241	672	26,771
Indirect	8,194	6,020	2,003	547	16,764
<b>Total business spend (Type I)</b>	<b>21,403</b>	<b>15,669</b>	<b>5,244</b>	<b>1,219</b>	<b>43,535</b>
Consumption-induced	11,623	8,036	2,654	793	23,104
<b>Total business spend (Type II)</b>	<b>33,026</b>	<b>23,704</b>	<b>7,897</b>	<b>2,012</b>	<b>66,639</b>
<b>Wages &amp; salaries (\$M)</b>					
Direct	2,620	954	1,199	382	5,154
Indirect	6,064	4,139	1,448	402	12,051

Source: *Economic Impact of the Minerals & Energy Sector on the Queensland Economy 2014/15*, Lawrence Consulting, October 2015

### Solar Power Purchase Agreements – a risk to electricity prices & the national grid

The National Energy Retail Law requires that anyone selling electricity to a customer for use at premises where the sale is reflected in a separate discrete charge for electricity must hold a retailer authorisation or a valid exemption.

The AER is authorised to exempt persons or classes of persons from the requirement to hold a retailer authorisation.

The Retail Rules provide for three different types of exemption:

- Deemed exemptions
- Registrable exemptions and
- Individual exemptions

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Deemed exemptions apply to a range of entities but most commonly include caravan parks or holiday parks that sell metered electricity to people in short term holiday accommodation.

Entities that require a registrable exemption include retirement villages or caravan parks who sell metered electricity to permanent residents.

Where the sale of electricity is not covered by a deemed or registrable class exemption, a business or person may apply to the AER for an individual exemption.

Individual exemptions are allowed under the National Energy Retail Law. The National Energy Retail Law together with the National Energy Retail Rules and National Energy Retail Regulations are part of the National Energy Customer Framework (Customer Framework). In order for the Customer Framework to apply, each participating jurisdiction needs to pass its own legislation adopting the Retail Law, Rules and Regulations.

According to the AER website *"A State or territory may choose to change the way that the Law or the Rules apply eg by creating additional or different protections and obligations for customers and businesses in that State or Territory."*

According to the AER website on the 9<sup>th</sup> November 2015 :

*"The framework has commenced in the Australian Capital Territory, Tasmania, South Australia and New South Wales. Victoria will commence the Customer Framework as soon as is practicable. Queensland is yet to consider its position on application of the Customer Framework. In states that have yet to adopt the Customer Framework, state and territory governments will remain responsible for regulating retail energy markets. Western Australia and the Northern Territory do not propose to implement the reforms."*

Yet according to a media statement released by the Queensland Minister for Energy and Water Supply, Mark Bailey, on 30 June 2015:

*"Energy Minister Mark Bailey said the new protective measures for energy consumers follows Queensland's decision to sign up to the National Energy Customer Framework."*

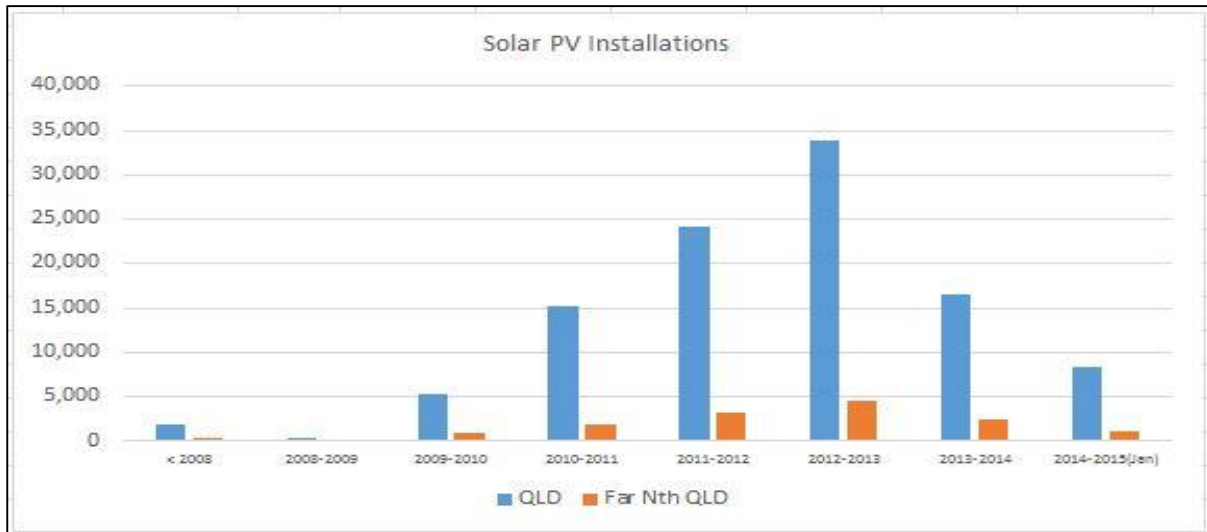
The Far North Queensland Electricity Users Network has been actively engaged with AER Networks in the Ergon Energy 2015-2020 Determination for the past two years. We are still at loss to understand what the Queensland Government has signed up to and if Queensland consumers are subject to any differences in the way the Customer Framework is rolled out in Queensland.

We have major concerns regarding the impact of individual exemptions on Queensland's electricity prices and on the viability of the Queensland Government owned distribution and transmission networks ie Ergon, Energex and Powerlink.

To date the installation of solar PVs in Queensland have closely mirrored the Queensland Government's Solar Bonus Scheme (see Figure 8).

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Figure 8: Solar PV installations in the Ergon Energy Area



Source: Compiled from Ergon Energy data

Applications for the Queensland Government’s generous 44 cents per kWh Solar Bonus Scheme closed on 9<sup>th</sup> July 2012. The current Solar Feed- In Tariff of 6.348 cents per kWh has severely stifled solar PV installations and without further government incentives puts in doubt the Queensland Government’s target of 1 million solar PVs by 2020.

The major barrier to solar PV installation is cost.

This barrier was removed on 1<sup>st</sup> July 2015 when the Queensland Government supposedly adopted the Customer Framework which allows the AER to grant individual exemptions. Once an individual exemption is granted a person or business can operate a Solar Power Purchase Agreement in any jurisdiction that has adopted the Customer Framework.

From reading AER’s set questions on a number of applications for an individual exemption, it is clear the AER have failed to grasp the nature of the change that SPPAs will unleash.

The AER have been quick to point out the positives of SPPAs but due to low consumer engagement on SPPAs in Queensland, the obstacles and ramifications have not been explored.

In the past there have been a relatively small number of authorised retailers which has enabled the AER to collate statistics which enable the AER and the Australian Energy Market Operator to determine how the electricity market is performing.

Solar Power Purchase Agreements have terms of up to 20 years. If customer switching is an indicator of a healthy de-regulated retail market, how will the Queensland Government or AER determine its health if customers are tied up for long and unknown periods of time and the SPPA company does not have to legally provide details on the length of contracts by jurisdiction?

The Australian Energy Market Operator needs to accurately estimate the national demand for grid electricity as it holds the responsibility for ensuring adequate supply to the grid within set reliability standards. The SPPAs clearly inform customers that an SPPA will not affect their ability

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to access reliable electricity as **“a condition of an SPPA is that the customer remains connected to the grid via an authorised retailer”**. As demand falls from the national grid the cost of building and maintaining the multi-billion grid (about \$30 billion of the grid is Queensland’s Ergon, Energex and Powerlink) will be passed on to SPPA customers and non-SPPA customers through higher fixed network charges.

In 2015-16, Queensland’s fixed charges on a residential electricity bill increased by a minimum of 36 percent. Fixed charges are set to balloon significantly as networks scramble to recover the revenue lost due to reduced demand/consumption from SPPA customers.

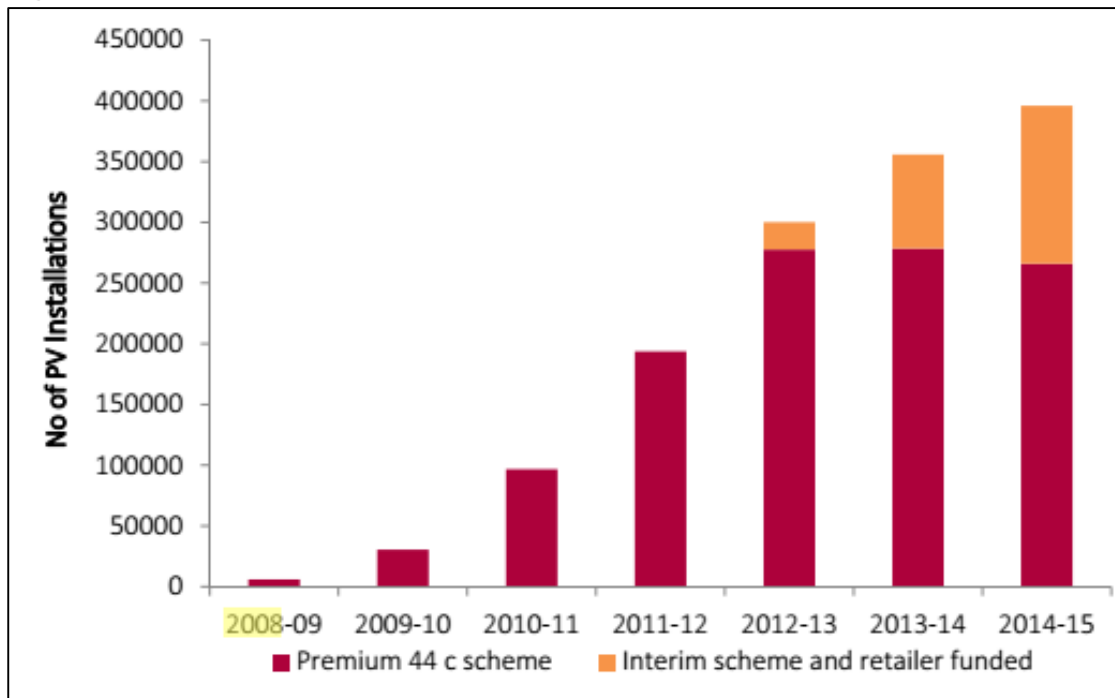
We urgently call on the Queensland Government to fully explore the implications of Solar Power Purchase Agreements on the viability of the national grid and their effect on electricity prices in Queensland, particularly regional customers captive to Ergon’s distribution network that covers 97 percent of Queensland.

**Reduce electricity prices through a partial buy back of the Solar Bonus Scheme**

In 2008 the Queensland Government introduced the 44 cent per kWh Solar Bonus Scheme to incentivise Queenslanders to install rooftop solar PV.

The 44 cent per kWh Solar Bonus Scheme ended on 9<sup>th</sup> July 2012 and the 2015-16 solar feed-in tariff for regional Queensland is 6.348 cents per kWh. Solar PV installations have consequently fallen significantly due to the lower feed-in tariff (see Figure 8). Most of the rooftop solar PVs currently installed in Queensland are receiving the 44 cent per kWh feed-in tariff from the now ceased Solar Bonus Scheme (see Figure 9).

**Figure 9: Solar rooftop PV installation in Queensland 2008-09 to 2014-15**



Source: Solar feed-in pricing in Queensland Issues Paper, Queensland Productivity Commission

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The cost of the Solar Bonus Scheme is borne by every Queensland electricity account holder. As per Figure 2 and Figure 3 the Solar Bonus Scheme now makes up 8 percent of every residential bill and 9 percent of every business bill. The Solar Bonus Scheme is estimated to cost over \$3 billion before it expires in 2028. This means that those without solar PV are subsidising those with solar PV until 2028.

The cost burden is only one of the problems of the Solar Bonus Scheme. The 44 cent feed-in tariff is causing consumption behaviour which is detrimental to network costs. Ergon has 80,000 customers in regional Queensland on the 44 cent feed-in tariff. To maximise their earnings the customers with the Solar Bonus Scheme are more likely to use minimum electricity during the day (maximising exports) and then switching on their appliances during the evening peak. As discussed earlier one of the major keys to lowering electricity prices is to reduce peak consumption. The Solar Bonus Scheme is adding to peak consumption and consequently increasing electricity prices through both the Solar Bonus Scheme and higher network charges.

The Queensland Government needs to reduce electricity prices & the subsidisation of those without rooftop solar PVs to those with solar PVs, through a partial voluntary buy back of the Solar Bonus Scheme.

### **Retain the Uniform Tariff Policy**

The Queensland Government has stated it is committed to retaining the Uniform Tariff Policy. The Uniform Tariff Policy is at odds with the 'cost reflective' policies of the COAG Energy Council (of which the Queensland Government is part of) and the National Electricity Rules.

Without the Uniform Tariff Policy the Queensland Competition Authority estimated in its Final Determination for 2015-16 regulated retail prices that:

*“a typical tariff 11 customer (consuming 4,053 kWh per year) paying cost reflective prices in 2014–15 would pay at least 30% more if they lived in regional Queensland, instead of south east Queensland. Regional customers in western areas of the state or in isolated communities would pay at least 140% more”.*

We urge the Queensland Government to maintain its commitment to the Uniform Tariff Policy.

### **Better demand forecasts central to a SMOOTH transition to renewables & lower prices**

The electricity demand and generation forecasts for regional Queensland require major improvement.

The cost of Ergon's \$11 billion network is largely fixed. One million rooftop solar PVs by 2020 will mean less consumption/demand from the network and little, if no decrease in the peak network demand. This will result in Ergon's largely fixed network costs being spread amongst a falling number of customers, many of whom are captive to the grid. Captive customers will bear the brunt of higher network charges.

Statistics show electricity distributed by Ergon has fallen from 15,678 GWh in 2009-10 to 15,140 GWh in 2014-15. The Solar Bonus Scheme commenced in 2008.

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Statistics from the Australian Energy Regulator show that Queensland's peak demand in summer 2014-15 was similar to the peak summer demand of 2009-10. The peak winter demand in 2015 exceeded the peak winter demand of 2009.

The Queensland Government's Solar Bonus Scheme policy shifted peak demand to later in the day and together with falling consumption, has assisted to escalate electricity prices to the thousands of Queensland customers captive to the grid eg apartment blocks, office blocks and farms.

Ergon connected 13,300 customers with solar PVs in 2014-15 and currently has around 110,000 customers with solar PVs connected to the Ergon network.

If the Queensland Government achieves its policy of 1 million rooftops with solar PVs by 2020, there could potentially be 250,000 customers with solar PVs connected to the Ergon network.

To recover the falling network revenue caused by solar PVs and a sluggish Queensland economy, the Queensland Government will continue to ramp up fixed charges to offset the loss of revenue from variable consumption charges.

This has already occurred in 2015-16 when the Queensland Government increased fixed charges on a residential bill by 36 percent or more. The fixed charge or service fee on a residential bill rose from 91.75 cents per day including all metering charges in 2014-15 to 124.76 cents per day including costs for only one meter in 2015-16. The price hike will be larger for customers with multiple meters such as meters for off-peak tariffs 31 and 33.

Many customers have watched in dismay as their consumption has fallen and their power bills have risen. This is particularly stressful for one and two person households that contain a high percentage of people on a fixed pension income. The 2015-16 fixed charge/service fee for a customer with one meter equates to \$455 per year. Using the AER's annual power bills in Table 1 the fixed charge/service fee represents 36 percent of a power bill for a 1 person household in Cairns and 26 percent for a 2 person household in Cairns. The fixed charge/service fee is unavoidable unless the customer disconnects from the grid. One and two person households are particularly vulnerable to any predatory practices of companies offering Solar Power Purchase Agreements (SPPAs).

The SPPA agreements may offer lower electricity prices but may fail to inform potential customers that a condition of the SPPA is the customer must stay connected to the grid. The customer has to stay connected to the grid to receive 24/7 reliable power as the solar PVs owned by the SPPA company on the customers roof only generate power when the sun is shining. The SPPA company may also fail to adequately inform the customer that they are captive to the SPPA company for up to 20 years ie the customer's ability to switch to another electricity retailer in that extended time period is limited.

This means that both SPPA customers and non-SPPA customers are still connected to the grid and both are affected by increased network charges particularly unavoidable fixed/service fee charges.

Ergon needs to work closely with industry and social organisations to estimate the impact of high power prices on grid supplied demand and the pace with which customers will go off grid in an attempt to rid themselves of unaffordable power bills.



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Importantly, Ergon must better utilise its database to code all electricity bills to align with the standard reporting of economic statistics. Too much emphasis is placed on Ergon's historical demand data which fails to adequately estimate the pressures faced by major industries eg construction, mining and agriculture. The effect of Solar Power Purchase Agreements on the Ergon network is significantly underestimated by Ergon and other network businesses. Large private companies such as AGL are changing the electricity retailing business forever as they embrace Solar Power Purchase Agreements and actively pursue customers that would normally be supplied from the grid and Ergon.

Ergon must also utilise its database to understand how many customers it really has. Ergon states that it has 733,000 customers. This is not exactly correct. Ergon has 733,000 points of connection which translates to 733,000 accounts. Many businesses have more than one account eg farms can have 4 or more accounts. In simple terms if a business closes Ergon may lose multiple accounts but only one customer. If Ergon utilised its database to identify customers with multiple accounts and classify the customer into industry type and household size, it would better appreciate the financial pressures affecting that particular industry/household in that particular region and the incentive high power prices are giving that group of customers to move off grid.

For example, if Ergon identified how many customers on the Atherton Tableland are dairy farmers it would understand that the number of dairy farmers is reaching a critical point. In July 2000 the Atherton Tableland had 185 farmers, the number is now 52. If the dairy factory closed due to insufficient milk supply, in addition to the direct dairy farm jobs the town of Malanda would lose 70 jobs at the Malanda dairy factory. Ergon would be left with underutilised assets which would still need to be maintained with less revenue. Dairy farms use more electricity than beef cattle which is the likely alternative use for an ex dairy farm on the Atherton Tablelands. Understanding the cost pressures of its customers would allow Ergon to understand that electricity prices are at unsustainable levels and must be reduced. The Queensland Government through Ergon are failing to get the message that electricity prices must fall to keep demand. Customers will ultimately either vote with their feet and leave the grid, sign up to a Solar Power Purchase Agreement or close/reduce or change their business. All these options affect the Queensland Government through reduced returns from its network & generation assets and the loss of productivity and jobs.

The Queensland Government and Ergon need to significantly improve their demand forecasts to enable a smooth transition to renewable energy.

### **Changes to Queensland's 'mix' of generation should be at a pace to promote productivity**

A major increase in rooftop solar PV generation is being promoted by the Queensland Government in an environment of surplus generation capacity in Queensland, and in a situation where the Queensland Government owns 65 percent of Queensland's generation capacity, most of which is coal fired.

In August 2015, the Australian Energy Market Operator in its Electricity Statement of Opportunities (ESOO) estimated that under a low and medium demand scenario Queensland will not require any more generation until after 2024-25.



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Queensland currently has 13,085 MW of existing generation. Despite surplus generation for the next 10 years, there is 4,430 MW of ‘proposed’ generation (mostly open cycle gas turbine and wind) and 44 MW of ‘committed’ generation (all solar) planned for Queensland. Only 925 MW is withdrawn, mostly coal and gas (see Table 12). There is no reference to the generation of solar from 1 million Queensland rooftops.

**Table 12: Queensland generation and project capacity by generation type (MW)**

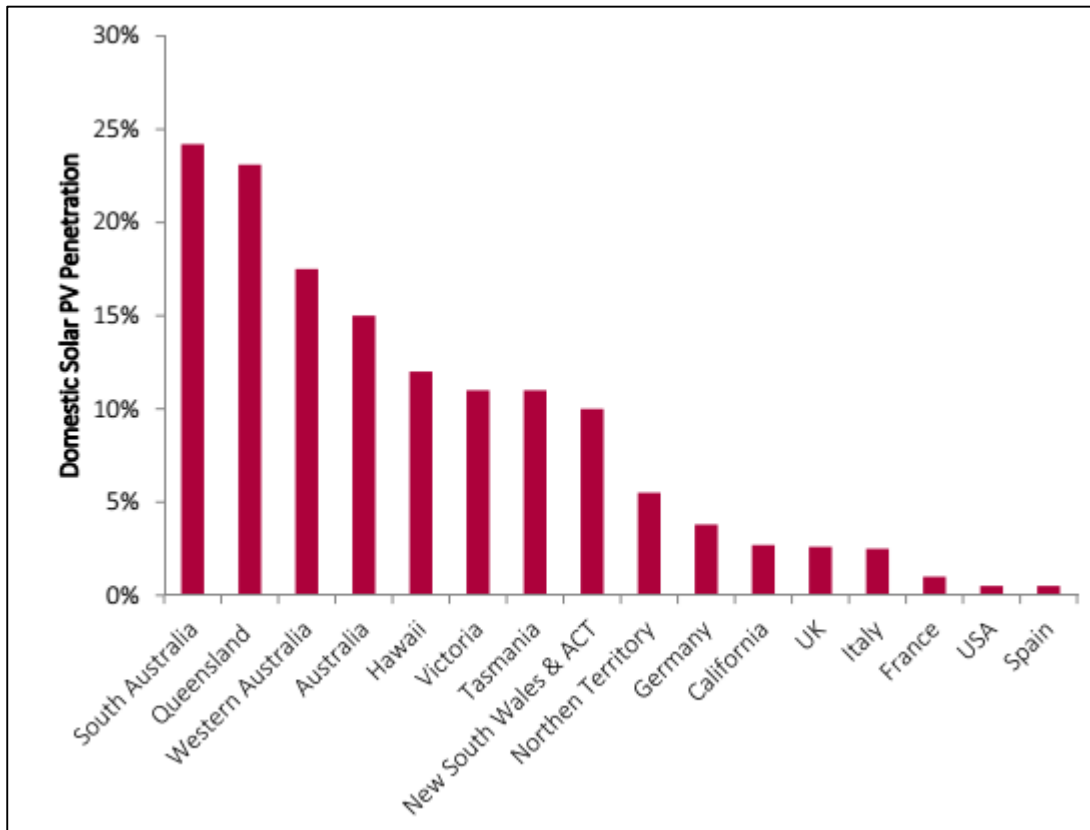
Status/Type	Coal	CCGT <sup>a</sup>	OCGT <sup>b</sup>	Gas other	Solar	Wind	Water	Biomass	Other	Total
Existing <sup>c</sup>	8,406.0	1,626.5	1,857.3	167.8	0.4	12.0	663.9	350.4	1.0	13,085.3
Committed	-	-	-	-	44.0	-	-	-	-	44.0
Proposed	-	-	2,545.0	-	70.0	1,328.0	330.0	7.6	150.0	4,430.6
Withdrawn	540.0	385.0	-	-	-	-	-	-	-	925.0
Publicly announced withdrawals <sup>d</sup>	-	-	-	-	-	-	-	-	-	-

a. Combined-cycle gas turbine.  
 b. Open-cycle gas turbine.  
 c. Existing includes withdrawn and publicly announced withdrawals  
 d. These are withdrawals that have been announced to occur within the next 10 years.

Source: AEMO Electricity Statement of Opportunities, August 2015

According to the Queensland Competition Authority, Queensland already has one of the highest levels of solar PV penetration in the world (see Figure 10).

**Figure 10: Proportion of households with solar PV by country/state**



Source: Solar feed-in pricing in Queensland Issues Paper, Queensland Productivity Commission

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The Queensland Government has also initiated an investigation into how Queensland can achieve a target of 50 percent renewable energy by 2030.

Coal fired generation is traditionally the cheapest generation and is available 24/7. The majority of the coal fired generation in Queensland is owned by the Queensland Government.

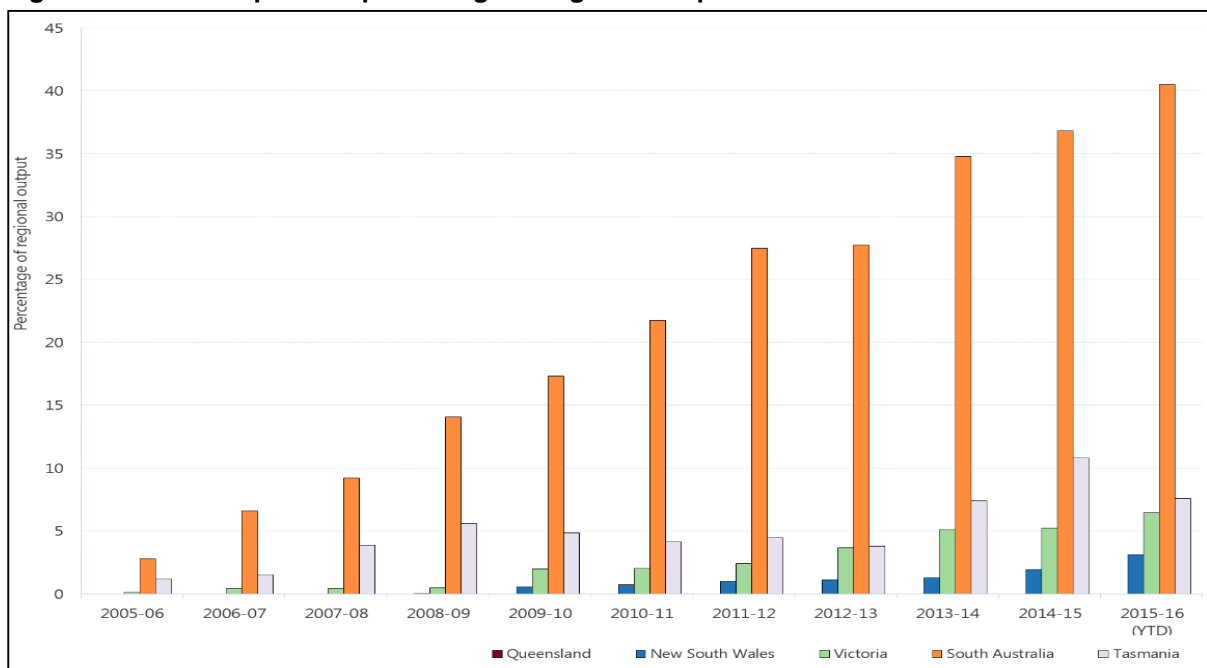
On 26 October 2015, the Australian Energy Market Operator issued an ESSOO Update because of an earlier than expected withdrawal of 786 MW (or 15%) of South Australia’s generation capacity. The earlier than expected withdrawal of two South Australian coal fired power stations will impact on South Australia’s supply demand balance from summer 2016-17 under extreme conditions.

For South Australia to have sufficient supply during periods of high demand it will rely (to a greater extent in the next three years than was projected in the 2015 ES00) on the:

- Availability of wind generation
- Imports via interconnection from Victoria
- Reliability of existing generating units

In a scenario of high demand and low wind generation South Australia will be heavily reliant on meeting its demand from electricity generated in Victoria. South Australia has a high dependency on wind generation (Figure 11) and Victoria has a high dependency on brown coal generation (Figure 12).

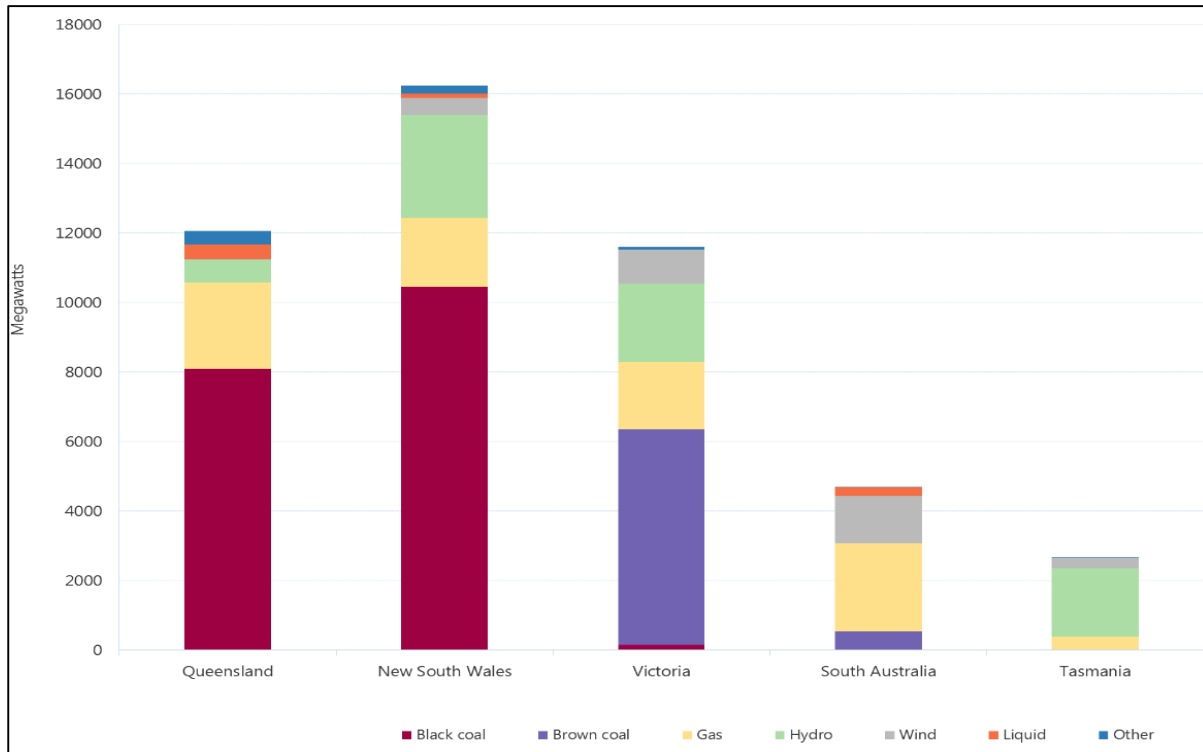
**Figure 11: Wind output as a percentage of regional output**



Source: AER wholesale statistics

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Figure 12: Registered capacity in regions by fuel source



Source: AER wholesale statistics

According to the Australian Energy Market Operator’s August 2015 ES00, South Australia’s dependency on wind generation is set to increase from 1,473 MW to 4,436 MW should all the proposed wind generation projects (2,963 MW) eventuate.

Wind is more expensive than coal and does not operate 24/7.

Queensland could find itself in a similar situation with solar as solar is more expensive than coal and does not operate 24/7 making Queensland highly reliant on imports from New South Wales.

Changing the generation mix affects the electricity price and potentially the reliability of supply.

Already small and large businesses who represent the majority of the electricity consumed from the grid are clearly sending a message that ‘current’ electricity prices are at unsustainable levels and must fall.

The Queensland Government in its 2015-16 Budget transferred \$4 billion of Queensland’s general debt to the Queensland Government owned network businesses of Ergon, Energex and Powerlink. Against falling demand for their product the electricity network businesses are now carrying gearing ratios in excess of 70 percent.

An analogy would be a shoe shop (Ergon, Energex and Powerlink) buying more shoes despite experiencing difficulties selling its existing stock and faced with competition from a new shoe shop (private companies selling Solar Power Purchase Agreements and solar PVs) opening next door and advertising the same shoes at a discounted price. Ultimately the existing shoe shop, which had never previously had competitors, could be forced to close or lay off staff.

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The problem is some customers can't access the new shoe shop as it does not have a ramp (solar is not effective in particular locations and regions) and therefore are captive to the existing shoe shop who continues to increase its prices as less customers patronise the existing shop (less customers to spread the operating and fixed costs).

The FNQEUN advocates for a SMOOTH transition to a renewable energy future, a transition which ensures a thriving Queensland economy and jobs growth. Unplanned and unconsidered solar PV policy puts the smooth transition at great risk and severely lessens the value of the \$25 billion plus Queensland Government owned network and generation businesses. More importantly, unplanned and unconsidered solar PV policy will increase the cost of electricity and consequently lower productivity and increase unemployment, particularly in regional Queensland. The Queensland Government should, in light of increasing competition to the network and generation businesses, lower the recent increased gearing ratios and instigate a full review of the impact of Solar Power Purchase Agreements on Queensland electricity prices and reliability of grid supplied electricity.

### **Safety standards & disposal concerns for solar and battery installations a cost factor**

New technology brings new challenges. The pace of regulation in the renewable sector has in some areas not kept pace with a very competitive and changing market place.

Concerns have been expressed regarding the 2 second inverter response time for solar PV installations. We understand that within 2 seconds the voltage passing through the inverter from the solar panels can vary outside the statutory limits set for supply to residential customers. Most of the time, the voltage rise is absorbed by the distribution network. If not, the voltage spike could affect a neighbour's sensitive digital equipment and/or pose a personal safety risk.

As we continue to embrace technology which allows customers to use energy smarter, the neighbour's sensitive digital equipment could be a control switch that manages electricity supply to appliances such as security lights and fridges. It could also affect a neighbour living at home with life- saving medical devices.

A recall of a particular component of a solar system could result in a difficult situation as electricity is an essential service and the problem will need to be fixed by a licenced person.

There is also a concern that once customers go off grid ie isolated from the distribution network, the Queensland Electricity Safety Act and Regulations are silent on do-it-yourself solar PV and battery installations.

Solar battery technology is evolving so fast that Australia is yet to set an Australian standard. With batteries becoming more attractive to customers seeking to avoid exorbitant power bills, issues surrounding standards and the disposal of batteries (particularly lithium batteries) need to be urgently addressed.

The cost competitiveness of solar installations should depend on both the initial cost of the solar installation system and its end of life disposal. A good example of an end of life cost is car tyres. The new purchase decision involves a cost for safe disposal of the old tyres.

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To ensure the safety of Queenslanders and the unnecessary installation of sub-standard renewable energy equipment, the Queensland Government needs to address issues surrounding the standards, safety regulations and disposal of solar PV systems. This information should be common knowledge in the market place and available on a Queensland Government website. If the Queensland Government achieves its 1 million rooftop solar PVs by 2020 there will be a least another 600, 000 customers making decisions on solar PV installations in the very near future.

### **A de-regulated retail market in regional Queensland poses a risk to consumers & retailers**

As of 30<sup>th</sup> June 2015, Queensland had 2,129,826 customers paying an electricity bill (Table 13).

In the small customer category (ie residential and small businesses consuming less than 100 MWh per annum), 46.5 percent are still on non-market contracts ie customers accessing contracts based on the regulated retail prices set by the Queensland Government through a delegation to the Queensland Competition Authority.

Ergon is the only retailer in regional Queensland for small customers and had 733,000 customers in 2014-15.

**Table 13: Market and non-market customers, Queensland – as at 30 June 2015**

<i>Customer type</i>	<i>Market customers</i>	<i>Non-market customers</i>	<i>Total customers</i>	<i>% on market contracts</i>
Small	971,782	1,132,739	2,104,521	46.2
Large	18,320	6,985	25,305	72.4
All	<b>990,102</b>	<b>1,139,724</b>	<b>2,129,826</b>	<b>46.5</b>

*Source: Queensland Competition Authority, Quarterly retailer statistics*

Based on 30<sup>th</sup> June 2015 statistics above, in addition to 733, 000 regional customers on non-market (regulated retail price) contracts there are also around 400,000 households and small businesses in Southeast Queensland that have not embraced market contracts.

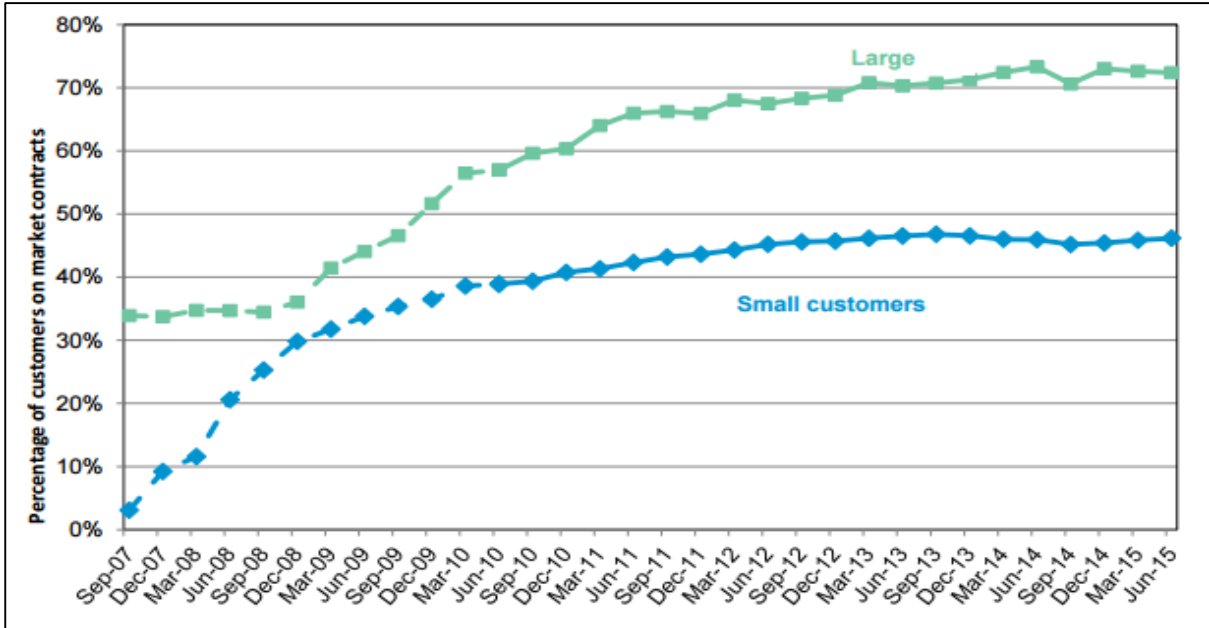
Southeast Queensland has operated in a de-regulated retail market since 2007 yet 9 years on around 400,000 customers are still on non-market contracts. The 16 retailers struggling to convince small customers in Southeast Queensland to convert to their 'market' contracts cover a footprint of only 3 percent of Queensland.

In contrast regional Queensland has 733,000 customers and covers an area of 1.7 million km<sup>2</sup> or 97 percent of Queensland. Residential and small business customers in regional Queensland buy their electricity from the only retailer in regional Queensland - the Queensland Government owned Ergon Retail.

Clearly hundreds of thousands of households and small businesses in Southeast Queensland do not understand or do not believe that the retail prices offered by the 16 active Southeast Queensland retailers are of benefit to their household or business. This is evidenced by an uptake that has plateaued for both small and large customers for the last 5 years (see Figure 13).

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Figure 13: Proportion of small and large customers on market contracts in Queensland

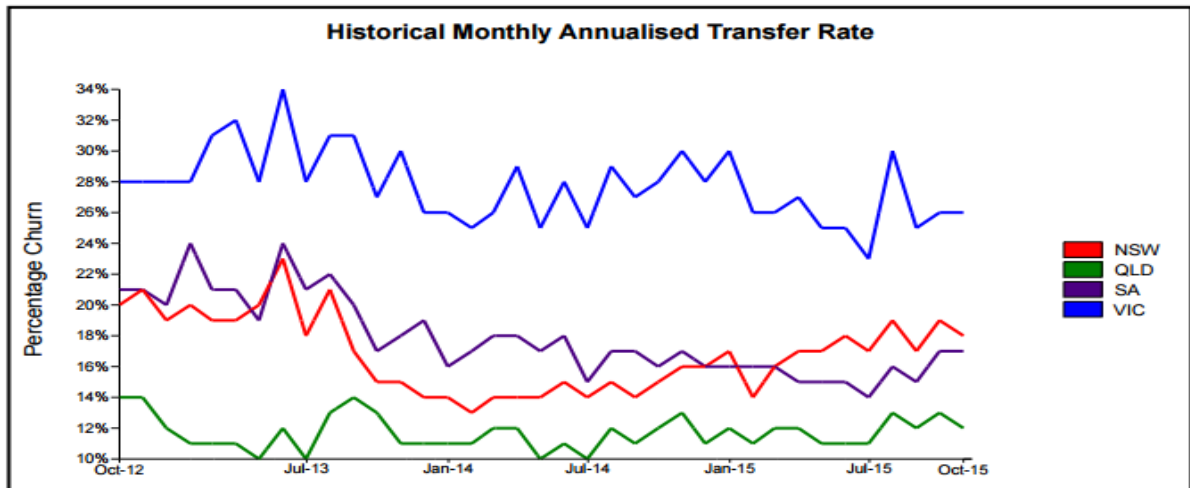


Source: Queensland Competition Authority, Quarterly retailer statistics

Companies that offer retail contracts now have additional competition for both small and large customers in the form of Solar Power Purchase Agreements (SPPAs). The Queensland Government has adopted the National Energy Customer Framework which has allowed SPPAs to operate in Queensland since 1<sup>st</sup> July 2015. The Queensland Government has failed to consult with consumer organisations regarding the impact of Solar Power Purchase Agreements on consumers and on Queensland’s retail prices.

As per an earlier section of this submission, one of the leading indicators of a ‘healthy’ retail market is market churn or the transfer/switching of customers on market contracts between retailers. The churn in Queensland compared to other States is low and decreasing (see Figure 14 and Table 14) and shows an ineffective retail market in Southeast Queensland, a retail market facing major competition from Solar Power Purchase Agreements.

Figure 14: Historical monthly annualised transfer rate



Source: AEMO National Electricity Market Monthly Retail Transfer Statistics, October 2015

**Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper**
**Table 14: Electricity customer switching**

Quarter	QLD	NSW	VIC	SA
Sep-09	4.4	3.4	7.1	3.5
Dec-09	7.6	3.8	6.6	3.3
Mar-10	3.8	3.0	6.1	3.8
Jun-10	4.2	2.9	6.7	3.6
Sep-10	4.9	3.8	6.8	3.9
Dec-10	4.8	3.6	6.7	4.7
Mar-11	4.2	3.7	7.4	5.3
Jun-11	4.4	4.0	7.0	4.8
Sep-11	4.9	5.1	7.6	5.3
Dec-11	3.7	5.9	6.7	5.2
Mar-12	3.3	5.1	6.5	5.6
Jun-12	3.5	5.5	6.7	6.0
Sep-12	3.8	6.3	6.9	5.8
Dec-12	3.5	6.8	7.7	5.4
Mar-13	2.9	6.1	8.2	5.7
Jun-13	3.2	6.6	8.3	5.5
Sep-13	6.0	5.9	8.0	5.3
Dec-13	4.3	4.3	7.2	4.6
Mar-14	2.9	4.0	7.0	4.5
Jun-14	3.4	6.3	10.8	4.2
Sep-14	3.0	4.9	7.3	4.2
Dec-14	3.1	5.1	7.8	4.1
Mar-15	2.9	4.3	6.8	4.0
Jun-15	2.7	4.6	6.3	3.8

Source: AER Retail statistics

Experience in other states has shown that although there can be multiple retailers, the majority of small customers on market contracts are with 2 or 3 very large retailers. This would mean a large amount of the current profits of the Queensland Government owned Ergon would flow to large private retailers and their shareholders. At least a Queensland Government owned retailer can choose to forego profits in return for cheaper tariffs and greater productivity in Queensland.



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**Table 15: Number of small customers in New South Wales**

<b>Retailer</b>	<b>ELEC June 2014</b>	<b>ELEC June 2015</b>
AGL	766506	756472
EnergyAustralia	1003642	1012329
Origin Energy	1261606	1235660
Other retailers	240291	315511
<b>TOTAL</b>	<b>3272045</b>	<b>3319972</b>

Source: AER retail statistics

**Table 16: Number of small customers in South Australia**

<b>Retailer</b>	<b>ELEC June 2013</b>	<b>ELEC June 2014</b>	<b>ELEC June 2015</b>
AGL	410146	400275	390734
EnergyAustralia	85143	83805	83754
Origin Energy	160023	161838	163307
Other retailers	165052	184693	203246
<b>TOTAL</b>	<b>820364</b>	<b>830611</b>	<b>841041</b>

Source: AER retail statistics

**Table 17: Number of small customers in the Australian Capital Territory**

<b>Retailer</b>	<b>ELEC June 2013</b>	<b>ELEC June 2014</b>	<b>ELEC June 2015</b>
ActewAGL	160463	164464	164429
Other retailers	6465	6491	8877
<b>TOTAL</b>	<b>166928</b>	<b>170955</b>	<b>173306</b>

Source: AER retail statistics

**Table 18: Number of small customers in Tasmania**

<b>Retailer</b>	<b>ELEC June 2013</b>	<b>ELEC June 2014</b>	<b>ELEC June 2015</b>
Aurora Energy	264422	266113	270429
Other retailers	0	4	63
<b>TOTAL</b>	<b>264422</b>	<b>266117</b>	<b>270492</b>

Source: AER retail statistics

## Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper

Customers will not embrace retail competition unless there is a benefit to the customer.

The change to itemised metering charges on 1<sup>st</sup> July 2015, due to a recent change in the National Electricity Rules, has been poorly understood by customers and poorly explained by retailers.

Contestable metering is the first step in the roll out of smart meters in Queensland. Smart meters will unleash Time of Use Tariffs on all customers regardless of their size, type or location within Queensland. The Victorian experience has shown that smart metering may eventually cost the customer.

Customers will not embrace technological change unless there is a benefit to the customer.

New battery technology is being championed in the media as the ultimate way to rid a customer of high power bills forever. Every customer who disconnects from the grid due to improved battery technology is one less customer for a retailer in a de-regulated market.

Retailers in a de-regulated market will also have to contend with a changing mix of generation which resulted in the highest electricity prices ever paid last summer. If a retailer is not also a generator eg AGL is the largest generator and retailer in the National Electricity Market, a retailer must have prudent management practices to avoid financial losses. If a retailer is declared bankrupt, the customer will need to negotiate with another retailer which could result in higher electricity prices than originally budgeted for in a home or business.

A de-regulated market in Queensland is not the panacea that some are promoting.

Before Queensland introduces full retail competition a thorough investigation must be made of the cost pressures/margins of the 16 active Southeast Queensland retailers and the benefits that will accrue to regional customers from the de-regulation of retail markets.

An investigation will re-ignite the debate on the Uniform Tariff Policy – a policy which ensures regional Queenslanders pay the same price for electricity as customers in Southeast Queensland.

A de-regulated retail market is about cost reflective pricing whereas the Uniform Tariff Policy is about equalising the differences in prices via a Community Service Obligation payment by the Queensland Government to Ergon Retail. Without the Uniform Tariff Policy the Queensland Competition Authority estimated that electricity prices in 2015-16 would increase by 30 to 140 percent in regional Queensland.

The Uniform Tariff Policy and cost reflective pricing are polar opposite policies, yet the Queensland Government has committed to maintaining the Uniform Tariff Policy whilst paving the way for a de-regulated retail market. The Queensland Government needs to clearly explain to consumer organisations how it intends to maintain the Uniform Tariff Policy.

### **Affordable & reliable electricity is critical to increased productivity in ‘Northern Australia’**

State and Federal Governments have shown bipartisan support for the development of ‘Northern Australia’, an area that already accounts for around 50 percent of Australia’s exports.

Billions of dollars will be invested in infrastructure to increase productivity and diversify the industries of northern Australia.

However, existing mining and agricultural industries operating in northern Australia believe electricity prices are already at unsustainable levels. Without a reduction in electricity prices, the increased productivity of a diversified and populated northern Australia is likely to be retarded.

## Queensland Productivity Commission: Electricity Pricing Inquiry Issues Paper

### SUMMARY

The definition of customers 'vulnerable' to unaffordable electricity bills must be expanded.

The cost of electricity in Queensland is unsustainable for all customers and must fall immediately.

Exorbitant electricity prices are included in every item and service purchased by a Queensland household or purchased by a Queensland business. It is significantly impacting on the cost of living and the cost of doing business in Queensland. It is also impacting on Queensland's food security. It is no longer just about the direct impact of unaffordable power bills.

Electricity is a hidden tax collected by the Queensland Government from regional Queensland, a tax which is often not returned to regional Queensland.

Regulated retail prices set by the Queensland Government expire on 30<sup>th</sup> June 2016.

From 1<sup>st</sup> July 2016 the Queensland Government is considering full retail competition throughout Queensland. This could potentially increase regional electricity prices if the Queensland Government does not maintain its commitment to the Uniform Tariff Policy. The Uniform Tariff Policy ensures that residential and small business customers in regional Queensland pay the same price for electricity as customers in Southeast Queensland. Southeast Queensland has double the number of customers in 3 percent of the geographic area of Queensland.

Current indications are that components of an electricity price; networks, wholesale generation and retail costs will increase in 2016-17 driven by the policies of the Queensland Government and the Council of Australian Governments Energy Council (of which Queensland is a member).

Any increase in electricity prices will lower productivity due to the increase in the cost of doing business and reduced household expenditure.

The easiest way to stimulate productivity and promote jobs growth is to lower the one cost affecting every Queensland business and household – electricity.

A lower electricity price can be achieved by:

- Removing the nonsensical 'headroom charge' immediately
- Not requesting the Australian Energy Regulator for network pass through events
- Delaying the roll out of smart meters until the benefits to customers are quantified
- Introducing new tariffs that increase network utilisation & increase Qld's productivity
- Further investing in clean emission technology
- Conducting an immediate review of the impact of Solar Power Purchase Agreements
- A voluntary partial buy back of the 44 cent per kWh Solar Bonus Scheme
- Retaining the Uniform Tariff Policy
- Improving demand forecasts
- A change to the generation mix which promotes productivity and jobs in Queensland
- Introducing and promoting standards for solar & battery installations & DRED appliances
- Quantifying the benefit of retail de-regulation in regional Queensland
- Changing the National Electricity Rules to ensure the long term interests of consumers

All the Queensland Government needs is the courage to reduce electricity prices in return for more taxes, royalties and jobs created from a more productive Queensland that is thriving not surviving.

## Appendix 1

The following is a list of organisations involved in the FNQ Electricity Users Network:

1. Cairns Regional Council
2. Tablelands Regional Council
3. Cook Shire Council
4. Far North Queensland Regional Organisation of Councils
5. Advance Cairns
6. Tourism Tropical North Queensland
7. Regional Development Australia FNQ & Torres Strait
8. Cairns Chamber of Commerce
9. Mareeba Chamber of Commerce
10. Atherton Tablelands Chamber of Commerce
11. Innisfail District Chamber of Commerce, Industry and Tourism
12. Urban Development Institute of Australia (Cairns branch)
13. Consolidated Tin Mines Ltd
14. Canegrowers - Tablelands
15. North Queensland Miners Association
16. Australians in Retirement (Cairns branch)
17. Queensland Dairyfarmers Organisation (Northern Division)
18. Mareeba District Fruit and Vegetable Growers Association
19. Mareeba Shire Council