



# Submission on Transitional Issues Consultation Paper Regulated Retail Electricity Prices 2013 – 14

## 1.1 Changes to Price Setting Methodology

### (a) Network Charges

- Agricultural / irrigation tariffs do not exist within the Energex network tariff structures. It is because of the price being determined on the Energex network tariffs that the agricultural / irrigation tariffs have been deemed obsolete. From the perspective of agricultural irrigation users, the tariffs are NOT obsolete, they are well used. Their deemed obsolescence reflects a failure of the regulatory framework, not a lack of commercial value in agricultural irrigation tariffs.
- We urge QCA, Energex and Ergon to realise agricultural / irrigation tariffs in order to include them in the N + R price determination calculation. The MDIA Council will also be lobbying State Government in this regard.
- Irrigators are base load and predominately off peak users of electricity. As such we do not contribute to critical peak load.
- The retention of Agricultural / irrigation tariffs is integral to the sustainability of our agricultural sector and to the Queensland Government pledge to support the growth of Agriculture as one of the four pillars of the state's economy.

### (b) Energy Costs

- From 2015, Electricity retailers will be able to pass on the price of the Solar Rebate Scheme to all electricity users. The future effect of the Solar Rebate Scheme in contributing to increasing electricity prices is not widely known and requires more work to determine the impact.
- Farmers will be paying for 'Environmental costs' such as the Solar Rebate Scheme and the Carbon Tax through increased electricity costs, but unlike other businesses farmers will have to attempt to absorb those increased costs given that they are price takers and are unable to pass them on. The increases in electricity cost in the past 10 years have put an enormous burden on agricultural businesses.
- The State government's vision to double food production could occur tomorrow if it was cost effective for growers but unfortunately markets restricted by Australia's population size and continuous irresponsible imports of commodities already produced in Australia are hindering this growth and constant increases in Energy costs will result in less food production and result in higher prices to the consumer.

## 3.2 Options for Transitioning to Cost-reflective Tariffs

### (a) How should the Authority determine whether transitional arrangements are necessary for each obsolete tariff?

- Below are 3 business cases which outline farm size, electricity usage pattern on existing tariff, farm infrastructure investment for current electricity tariff, price increase if existing tariff is made obsolete, cost of electricity as a % of farm costs and alternatives if forced off existing tariffs.
- Also included are other examples of the price increases being faced by irrigators in the Mareeba Dimbulah irrigation area due to irrigation tariffs being made obsolete. These examples ARE NOT isolated examples. The majority of irrigators in this area face increases if irrigation tariffs are not retained and for most these increases are significant.
- It should be clear from the examples below that transitional arrangements are necessary for Irrigation Tariffs such as Tariffs 62, 65 and 66 while State Government and Industry work together to develop 'time of use' and 'flat rate' irrigation tariffs to be retained in the longer term.

Business Case 1 – Mango Farm in the Dimbulah Area

1) Area under Irrigation- 45ha

2) Typical farm electricity usage- Packing shed: 4 months of year; Irrigation pumps: 12 months of year currently on tariff 62 so approx. 85% off peak use and 15% on peak. 1 out of 4 irrigation pumps is not used as much during wet season due to the Walsh River being too dirty to pump from.

3) Cost Increase if Forced from Tariff 62 to Tariff 22 for Irrigation Pumps

|                                 |  | KWh         | Kwh             | KWh  |
|---------------------------------|--|-------------|-----------------|--|
|                                 |  | <i>peak</i> | <i>off peak</i> | <i>Total</i>   |
| Total                           |  | 6272        | 36331           | 42603  |
| Percentage use                  |  | 15%         | 85%             | 100%   |
| Average KWh per day             |  | 17.18       | 99.54           | 116.72   |
| Average KWh per year            |  | 6272.00     | 36331.00        | 42,603.00  |
| Average T62 (using 12/13 Price) |  | \$ 2,042.85 | \$ 4,184.24     | \$ 6,427.60<br><small>(includes service fee)</small> |
| Average T22 (using 12/13 Price) |  | \$ 1,266.94 | \$ 6,582.45     | \$ 8,241.53<br><small>(includes service fee)</small> |
| Forced T62 to T22 increase      |  |             |                 | \$ 1,813.93  |
| Percentage increase             |  |             |                 | 28%  |

4) (a) What infrastructure have you put in place specifically for your current electricity tariff - have installed automation so as can irrigate and fertigate during the night when it is the most efficient. Have a controller installed in the house so as it can be changed at ease when needed. All trees have micro sprinklers underneath them and all fertiliser application at the moment is through the fertigation system. Pumps are all new and are the most efficient for the capacity that we are pumping.

(b) Cost of infrastructure - We have spent well over \$100,000 on upgrading the irrigation to the farm so that it can be used during the night with ease - we don't need to get up and open up taps on each row of trees and are able to irrigate larger numbers of trees for a shorter amount of time. We changed one diesel pump to electricity pump.

5) What % of your costs does electricity make up

Current total of all electricity on farm: \$15,508 for 2011/2012 financial year = 5% of costs

If forced onto T22: 28% increase extra \$4,342 = \$19,850 = 7% of costs

6) If you were forced to the new tariffs what other alternative would you explore?

- Re-install diesel pump and install solar power on at least one pump and/or the packing shed. Forcing irrigators off of the electricity grid and on to alternate energy will further increase power prices.
- If we were forced to tariff 22 we would irrigate during the day as there would be no incentive to irrigate at night. This would shift us from being off peak users to on peak users.
- Our other option would be to reduce amount of irrigation and fertigation which would in turn lead to loss of production. Increased electricity prices will lead to loss of production on all irrigated farms making it difficult for the LNP Government to reach their target of doubling agriculture by 2040.

Business Case 2 – Cane Farm in Mareeba Area. Pump Station #1

1) Area under Irrigation- 117ha

2) Typical farm electricity usage- 2 x 55Kw pumps (twin pumps on one meter) with a combined average annual consumption of 150,000 Kwh per year T62 so now deemed a 'large user' by Ergon Energy. Pumping time is 1,350 hrs per pump per year. 94% off peak use and 6% on peak use.

3) Cost Increase if forced from Tariff 62 to Tariff 44

|                                 |             | <i>KWh peak</i> | <i>KWh off peak</i> | <i>KWh Total</i>                       |
|---------------------------------|-------------|-----------------|---------------------|--|
| Total                           |             | 58182           | 846717              | 904899                                 |
| Percentage use                  |             | 6%              | 94%                 | 100%                                   |
| Average KWh per day             |             | 26.59           | 386.98              | 413.57                                 |
| Average KWh per year            |             | 9705.86         | 141248.49           | 150,954.36                             |
| Average T62 (using 12/13 price) | \$ 3,161.30 |                 | \$ 16,267.59        | \$ 19,629.39<br>(includes service fee) |
| Average T44 (using 12/13 price) |             |                 |                     | \$ 58,513.55                           |
| Forced T62 to T44 increase      |             |                 |                     | \$38,884.17                            |
| Percentage increase             |             |                 |                     | 198%                                   |

4) (a) What infrastructure have you put in place specifically for your current electricity tariff - Twin pumps at this station were installed simply due to the fact that one pump could not irrigate 117Ha of sugar cane during the off peak time on T62 (price diff between peak and off peak is 2.8 times).

(b) Cost of infrastructure - The capital cost to install the second pump to utilise the off peak time was approx. \$22,000

5) What % of your costs does electricity make up?

- This pump station irrigates 117ha of Cane Production Area (CPA). 15% of CPA is fallowed on a yearly basis.
- Based on 99.5Ha @ 98 tonnes/ha the cost of cane production for this pump station once forced to T44 in 2013 will increase by \$3.98/tonne or 14.74% (based on current production costs of \$27/tonne).
- The current cost of T62 represents 4.25% of the gross value of cane or 10% of gross margin
- The 2013 forced move to T44 would represent 12.76% of the gross value of cane or 30% of gross margin.
- Being forced to Tariff 44 the gross margin will reduce from \$20/tonne (\$47 gross value of cane – growing costs \$27) to \$16/tonne or a reduction of 20%

6) If you were forced to the new tariffs what other alternative would you explore?

- On the 06/12/12 the revenue metering at this pump station was split into two with the intention that this pump station will now become two small customers and not one large customer to get away from the proposed T44 impact in 2013. The electrical reconfiguration for this installation is approx. \$25,000. Note: the **increase** for this pump station in 2013/14 if forced to T44 as one large customer will be \$38,000.

- Now that we have split our metering we have one pump on the transitional T62 and one pump on T22. From July 1 2013 when both pumps will be on T22 there will be very little incentive for us to irrigate during off peak times so we will change to peak time usage.

- As another example I have 93ha sugar cane currently irrigated on T66 using 1 x 55 KW pump pumping 150,000 KW hrs per year. Pump running time = 2,500 hours per year.

If forced onto T44 as a large user we will look at installing and extra pump and meter (have 1 x 45KW pump and keep the 1 x 55KW pump) so that we remain a small user.

The cost of purchasing & installing the new metering and purchasing and installing the pump would cost in excess of \$50,000. Note: the **increase** for this pump station in 2013/14 if forced to T44 as one large customer will be \$13,794.52

With the current pump on Tariff 66 we are a base load user pumping 24/7. Once we split meters and install the new pump we would run them on tariff 22 or 20 therefore becoming a daytime peak load user of two pumps simultaneously.

7) Other information that should be pointed out to OCA is that if large irrigation customers begin to split their metering and installing multiple pumps simply to get away from a demand tariff, then this actually will have a double whammy effect on the Load Factor of the network as there will be 2 pump being used in peak time rather than one in off peak, as there is now no incentive to irrigate during off peak times with T22.

T66 customers with round clock irrigation who spilt metering will install an extra pump and have two pumps running as peak load users rather than one running 24/7 as a base load user.

### Business Case 3 – Cane Farm in Walkamin Area

1) Area under Irrigation- 100 ha

2) Typical farm electricity usage- 2 x 90kw pumps on the same meter (they cannot be run concurrently). One pumping from the channel and the other from a dam. Combined annual consumption of over 100,000 Kwh per year on tariff 66 so now deemed a 'large user' by Ergon Energy. The cropping and irrigating cycle on this area is supplementary during the summer months and then full irrigation for spring crops of some 40ha. Electricity usage from these pumps is constant when they are in use so we consider ourselves 'base load users'.

3) Cost Increase if forced from Tariff 66 to Tariff 44

| Based on Peak Load of 90KW      |  | KWh Total    |
|---------------------------------|--|--------------|
| Total                           |  | 271,259.00   |
| Average KWh per day             |  | 741.14       |
| Average KWh per year            |  | 271,259.00   |
| Average T66 (using 12/13 Price) |  | \$ 44,030.34 |
| Average T44 (using 12/13 Price) |  | \$ 64,005.73 |
| Forced T66 to T44 increase      |  | \$ 19,975.38 |
| Percentage increase             |  | 45%          |

4) (a) What infrastructure have you put in place specifically for your current electricity tariff - We used to run a diesel pump on the dam but converted to electricity as a cleaner, more efficient and cheaper option onto tariff 66.

(b) Cost of infrastructure - We spent in excess of \$200,000 to convert over to the electric pump from a diesel system.

5) What % of your costs does electricity make up?

Currently electricity makes up approx. 4 % of costs on an average year. Should we experience dry years this could triple as we need to keep our crops growing during the summer months.

If forced off of our current tariffs 62 and 66 and forced onto Large User tariffs this would have a catastrophic effect on our costs in a normal year let alone an El Niño season.

6) If you were forced to the new tariffs what other alternative would you explore?

- If we were forced off of tariff 66 we would move back to a diesel system on the dam pump to save money. If a wave of forced change by irrigators to diesel pumps takes place usage will reduce to such a level that much of the currently high cost infrastructure which has been installed to meet increased demand will become unviable.

- Use the channel pump as little as possible which would force us to reduce our production which goes against the LNP's proposal to double food production in Queensland by 2040.

7) Other Information that should be pointed out to QCA is that the perception of a large user of electricity being 100 MW/hours per year is ridiculous when you look at the fact that we area only irrigating 100ha to use that much electricity and 100ha is not a large area! I believe that Minister McArdle has the authority to lift the definition of a large user and QCA should be including a recommendation in their report for the State Government to do so. How will the Minister increase his food supply if a large user is only farming 100ha?

Other Examples of Electricity Price Increases from electricity usage data provided by irrigators in our district

**Tariff 66 Large User**

| Based on a peak load of 168KW   |  | KWh Total    |
|---------------------------------|--|--------------|
| Total                           |  | 114170       |
| Average KWh per day             |  | 312.79       |
| Average KWh per year            |  | 114,170.00   |
| Average T66 (using 12/13 Price) |  | \$ 28,932.80 |
| Average T44 (using 12/13 Price) |  | \$ 75,468.83 |
| Forced T66 to T44 increase      |  | \$ 46,536.03 |
| Percentage increase             |  | 161%         |

**\* Tariff 62 Large User**

|                                 | KWh<br><i>peak</i> | Kwh<br><i>off peak</i> | KWh<br><i>Total</i>                                   |
|---------------------------------|--------------------|------------------------|---|
| Total                           | 11235              | 93022                  | 104257  |
| Percentage use                  | 11%                | 89%                    | 100%  |
| Average KWh per day             | 30.70              | 254.16                 | 284.86  |
| Average KWh per year            | 11204.30           | 92767.84               | 103972.14   |
| Average T62 (using 12/13 Price) | \$ 3,649.35        | \$ 10,684.07           | \$ 14,533.93<br><small>(includes service fee)</small> |
| Average T44 (using 12/13 Price) |                    |                        | \$ 53,529.21  |
| Forced T62 to T44 increase      |                    |                        | \$38,995.28   |
| Percentage increase             |                    |                        | 268%  |

**\*\* Tariff 62 Small User**

|                                 | KWh<br><i>peak</i> | Kwh<br><i>off peak</i> | KWh<br><i>Total</i>                                   |
|---------------------------------|--------------------|------------------------|---|
| Total                           | 11235              | 93022                  | 104257  |
| Percentage use                  | 11%                | 89%                    | 100%  |
| Average KWh per day             | 30.70              | 254.16                 | 284.86  |
| Average KWh per year            | 11204.30           | 92767.84               | 103972.14   |
| Average T62 (using 12/13 Price) | \$ 3,649.35        | \$ 10,684.07           | \$ 14,533.93<br><small>(includes service fee)</small> |
| Average T22 (using 12/13 Price) | \$ 2,263.27        | \$ 16,807.68           | \$ 19,463.08<br><small>(includes service fee)</small> |
| Forced T62 to T22 increase      |                    |                        | \$ 4,929.15   |
| Percentage increase             |                    |                        | 34%   |

Note: The examples above of a Tariff 62 Large and Small User demoted with \* and \*\* shows the price increase of being deemed an over 100MW/hrs per year 'Large User' being forced off of tariff 62. The increase is 34% if forced from tariff 62 to tariff 22 as a small user and 268% if forced of tariff 62 to tariff 44 as a large user

**Tariff 62 Small User**

|                                 | KWh<br><i>peak</i> | Kwh<br><i>off peak</i> | KWh<br><i>Total</i>                                  |
|---------------------------------|--------------------|------------------------|--|
| Total                           | 2420               | 30585                  | 33005  |
| Percentage use                  | 7%                 | 93%                    | 100%   |
| Average KWh per day             | 6.56               | 82.89                  | 89.44  |
| Average KWh per year            | 2393.77            | 30253.46               | 32647.22   |
| Average T62 (using 12/13 Price) | \$ 779.67          | \$ 3,484.29            | \$ 4,464.47<br><small>(includes service fee)</small> |
| Average T22 (using 12/13 Price) | \$ 483.54          | \$ 5,481.32            | \$ 6,357.00  |

|                            |  |  |  |                        |
|----------------------------|--|--|--|------------------------|
|                            |  |  |  | (includes service fee) |
| Forced T62 to T22 increase |  |  |  | <b>\$ 1,892.53</b>     |
| Percentage increase        |  |  |  | <b>42%</b>             |

(b) Are there any non-financial reasons why obsolete tariffs should be retained or other transitional arrangements put in place?

- Full utilisation of network infrastructure should reduce costs whereas forcing customers off of the infrastructure will increase costs
- Forcing customers to alternate energy sources will cost the remaining customers more
- Forcing farmers off of irrigation tariffs will force them to change their usage patterns from base load or off- peak users to on- peak users
- Forcing farmers to install extra pumps and split meters to stop them from becoming 'large customers' will mean extra meter reading and administration costs for the electricity companies which will ultimately be passed on to all customers
- Should irrigators not be given the incentives to use off peak power this will ultimately result in black outs in the on peak periods and over loading of excessive power in the off peak period. The irrigation Tariff 62 was introduced to average the load and given that irrigation systems have at least tripled in numbers since the introduction of that tariff, irrigators will have as much right to use the power at their discretion and the electricity companies will be unable to control this usage.

Issues affecting electricity pricing which are out of QCA's Control

- The AER has set a Rate of Return of around 9.5% for Powerlink, Ergon & Energex. This is massively over-inflated – very few businesses in Australia receive these rates of returns!
- The State Government Regulation which deems 100MW/hr per year usage a 'Large User' must be reviewed and increased.
- Irrigation tariffs need to be included in Energex Network Tariffs structures to ensure irrigators access to specific time of use and flat rate tariffs.
- The power transmission company (Powerlink) needs to provide incentives for Ergon & Energex to offer customers 'off peak' tariffs