

Gwydir Valley Irrigators Association Inc.

458 Frome St, PO Box 1451, Moree NSW 2400

10 May 2012

Independent Pricing and Regulatory Tribunal
PO Box Q290
QVB POST OFFICE NSW 1230

SENT VIA ELECTRONIC MAIL

**Re: Submission on Changes to Regulated Electricity Retail Pricing from
1 July 2012**

To Whom It May Concern:

The Gwydir Valley Irrigators Association (GVIA) is becoming increasingly concerned with the continued rise of electricity pricing both for usage costs as determined by IPART and for network costs as recommended by the Australian Energy Regulator (AER).

Our submission aims to provide background to the pricing issues that are facing the irrigation industry as a whole and the local industry in the Gwydir Valley.

The GVIA are concerned that for the industry to exist and remain sustainable there needs to be intervention into this up-ward trend of electricity pricing as a matter of urgency. As every price rise is undermining the investment and future of our industry.

We look forward to working with IPART to further develop the ideas proposed in our submission.

Regards



Zara Lowien
Executive Officer
Gwydir Valley Irrigators Association

Enc. Submission to IPART *Draft Determination No.3 of Determination 2010 - Retail Electricity Pricing in NSW*

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Submission to the Independent Pricing and Regulatory Tribunal

Draft Determination No.3 of Determination 2010 - Retail Electricity Pricing in NSW

Table of Contents

1. Purpose of this Submission	2
2. About the Association.....	2
2.1. Where we are and what we do	2
2.2. Association Contacts	3
3. General Comments and Concerns	3
4.1. A local case study.....	6
5. Conclusion.....	9

List of Tables

Table 1 Energy Intensity by Industry, 2008-09 and 2009-10.....	4
Table 2 Case study – metered sites for comparison in the Gwydir Valley	7

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May 2012**

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1. Purpose of this Submission

This document has been developed by the Gwydir Valley Irrigators Association (GVIA) on behalf of its members as a formal submission for consideration by the Independent Pricing and Regulatory Tribunal (IPART) when finalising the retail pricing determination for electricity prices to take effect on 1 July 2012.

This document represents the concerns and views of GVIA's members. However, each member reserves the right to express their own opinion and is entitled to make their own submission.

2. About the Association

2.1. Where we are and what we do

The Gwydir Valley Irrigators Association (GVIA) represents in excess of 250 water entitlement holders in the Gwydir Valley, centred around the town of Moree in North-West New South Wales. Our mission is to build a secure future for its members, the environment and the Gwydir Valley community through irrigated agriculture.

Our members hold entitlements within the Gwydir regulated and un-regulated surface water areas, in addition to groundwater resources. All of which are managed through water sharing plans although the Water Sharing Plan for the Gwydir Unregulated and Lower Gwydir Alluvial Water Sources remains in draft at the time of preparing this submission.

The main broadacre irrigated crop is cotton with irrigated wheat, barley and Lucerne also occurring depending on commodity prices. Currently there are also pecans, walnuts, oranges and olives being grown within the region covering approximately 1,500 hectares. There is however, significant and potential for expansion into horticulture.

The Gwydir Valley Irrigators Association organisation is voluntary, funded by a cents/megalitre levy on regulated, unregulated and groundwater irrigation entitlement. In 2010/11 the levy was paid on in excess of 87% of the eligible entitlement (excludes entitlement held by the State and Federal Government).

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The Association is managed by a committee of 11 irrigators and employs a full-time executive officer and a part-time administrative assistant, as well as hosting a Regional Landcare Co-ordinator.

Much of the activity the association revolves around negotiating with government at a Federal, State and Local level to ensure the rights of irrigators are maintained and respected.

While the core activities of the Association are funded entirely through a voluntary levy, the Association does from time to time, undertakes special projects, which can be funded by government.

The GVIA and its members are members of both the National Irrigators Council and the NSW Irrigators Council.

2.2. Association Contacts

Gwydir Valley Irrigations Association
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Executive Officer: Zara Lowien

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3. General Comments and Concerns

The Gwydir Valley Irrigators Association (GVIA) is becoming increasingly concerned with the continued rise of electricity pricing both for usage costs as determined by IPART and for network costs as recommended by the Australian Energy Regulator (AER).

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The current pricing process that separates use and networks costs is inefficient and is resulting in network costs not being monitored for cost efficiency. As such the GVIA believe that the current National Energy Rules should be reviewed as a matter of urgency.

The current pricing process also lacks the flexibility to provide users with *real* choice, allowing them to match their business energy needs to an appropriate pricing structure. The GVIA believe that current pricing choices available are insufficient in representing electricity use by our industry.

The GVIA requests that IPART and the AER engage with the irrigation industry to consider developing a pricing structure that best represents the usage patterns of our industry and allows for extended periods for network infrastructure works, so that industry efficiency is maintained and investment encouraged.

The GVIA also would support IPART providing more guidance for individual electricity retailers on appropriate industry tariff rates that allow for an efficient and cost effective use of infrastructure on-farm and enable a closer alignment with the electricity demands of the irrigation industry.

The current pricing structure and inconsistency between determination timeframes for regulated and non-regulated pricing determinations is creating additional confusion. The GVIA believe that determinations should be undertaken simultaneously and that IPART should be given the opportunity to assess the efficiency of proposed network charges.

As stated, the GVIA are a member of the NSW Irrigators Council and as a result, also endorse the submission made by the Council on behalf of the NSW irrigation industry.

Typically the agricultural sector has be a relatively low user of energy when compared to other major industries. This is highlighted by Table 1 below where energy intensity as measured by gigajoules of energy consumed per million dollars of Industry Gross Value Added product (GJ/\$m IGVA) for major Australian industry sectors compared.

However, energy intensity within the agriculture sector has increased from 3,676 – 3,783 GJ/\$m IGVA from 2008-2010¹ or alternatively reported as a 0.8 percent increase in the annual average energy intensity rate as measured from 1989-2008².

Table 1 Energy Intensity by Industry, 2008-09 and 2009-10

¹ Energy Account, Australia, 2009-10, Australian Bureau of Statistics, 2011

² End use energy intensity in the Australian Economy, ABARE-BRS, 2010

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Industry	2008-09			2009-10		
	Energy use	IGVA(a)	Energy intensity	Energy use	IGVA(a)	Energy intensity
	PJ	\$m	GJ/\$m IGVA	PJ	\$m	GJ/\$m IGVA
Agriculture(b)	107	29 109	3 676	109	28 764	3 783
Mining	519	90 507	5 736	543	96 105	5 651
Manufacturing	1 041	106 363	9 787	1 034	107 707	9 600
Water supply and waste services(c)(d)	22	9 332	2 342	21	9 786	2 129
Construction	144	95 292	1 527	144	95 804	1 529
Transport	531	63 885	8 330	544	65 392	8 291
Commercial and services	433	661 113	651	429	677 380	636
Total	2 797	1 055 601	2 650	2 824	1 080 963	2 613

(a) Industry Gross Value Added

(b) Includes Forestry and fishing

(c) Includes Water supply, sewerage and drainage services and waste collection, treatment and disposal services

(d) Excludes Electricity supply and gas supply

Note: One petajoule (PJ) = 1,000,000 gigajoules (GJ)

This trend by the agriculture sector occurred contrary to most other sectors that either decreased in intensity or maintained their intensity level. The only other sector to record such an increasing was the mining sector, which was due to the much reported 'resources boom'.

Whereas the upward trend for agriculture cannot be attributed to a boom market, rather the opposite and is believed to be in response to reduced outputs following drought conditions². This would be true for dry land agriculture alone, but irrigated agriculture has had the added pressure of reduced surface water availability resulting in structural changes to maintain viability and becoming more water efficient.

Over the last 10 years or so, irrigators in the Gwydir Valley have increased their water use efficiency by more than 40% in response to prolonged reduced surface water availability and public and political demands on the industry to be more efficient. This has made many of the commodities produced in Australia, the most water efficient in the world.

Significantly this has been undertaken via substantial investment in infrastructure to be more efficient, including the installation of pressurized systems and on-farm reticulation systems. All of which have directly increased the energy intensity and electricity demand on-farm.

With surface water scarce, there has also been increase annual utilisation of groundwater resources within planned allowances but it has also resulted in increased energy intensity to access water. Groundwater is viewed as highly reliable with 100% access in comparison to a 38% reliability factor for general security entitlement from surface water sources in the Gwydir. Hence groundwater

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entitlements can also sure-up production and businesses during low surface water availability years.

The end result is that irrigators are now more heavily reliant on electricity to sustainably produce water efficient products than ever before. In response to increasing electricity costs, irrigators now have to make decisions and trade-offs between being water-efficient and energy efficient, which in many instances is resulting in adverse environmental outcomes.

The GVIA also believes that without intervention, this continued upward trend of rising energy costs will undermine the significant investment by not only individuals but also the NSW and Commonwealth Government's in water efficiency savings across the region. Such investment is being spearheaded through the Commonwealth Government's Water for the Future fund under the commitment by the Commonwealth to 'bridge the gap' for water recovery required under the Murray Darling Basin Plan.

Furthermore, rising energy costs have reduced the possibility of investment and diversification on-farm by reducing the profitability of expanding into other crops like horticulture. The Gwydir region is well suited to horticulture and the GVIA believe there is the capacity to increase the area up to 3,000 hectares. Currently considering the economic climatic, the high Australian dollar and increase pressure on input costs the decision to diversify and intensify irrigation is extremely challenging.

4.1. A local case study

The following is an example of the usage of a conjunctive surface water and groundwater irrigator within the Gwydir Valley. Water for irrigation is used for predominately cotton although for this case study there is also up to 200 hectares of drip irrigated horticulture.

A number of locations were chosen from two different suppliers to assess the variation in costs across the farming business. This irrigator has identified rising energy costs as their main priority due to their reliance on groundwater to ensure reliability of use and the development of parts of the farm for intensified irrigation.

Five locations were selected for the case study as presented below in Table 2. 'TN Bore 3 and 6' has two groundwater pumps linked to the one metered site, 'TN Bore 2' is a single groundwater bore, 'TN River pump' is the pump used to access surface

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Table 2 Case study – metered sites for comparison in the Gwydir Valley

Site	TN Bore 3 and 6		TN Bore 2		TN River pump		B Drip Shed		L 4x Bores	
Supplier	TRU Energy		Country Energy		Country Energy		TRU Energy		TRU Energy	
NMI #	40012104102		40012236321		40012243821		4.40012E+11		44012142975	
Meter #	40046093		40064809		40047283		40061449		40057754	
Peak use (kWh)	3661.63		58399		2607		15103.86		31545.75	
Shoulder use (kWh)	7255.43		118141		5987		32276.26		63771.19	
Off Peak use (kWh)	13455.37		220802		14212		51754.76		116108.04	
Total use until March (kWh)	24372.43		397342		22806		99134.88		211424.98	
Charges and rates	Energy Use (kWh)	Network Use (kVa)	Energy Use (kWh)	Network Use (kVa)	Energy Use (kWh)	Network Use (kVa)	Energy Use (kWh)	Network Use (kVa)	Energy Use (kWh)	Network Use (kVa)
Peak rates (\$/unit)	0.07231	0.175784	0.262	0.042829	0.262	0.042829	0.07231	0.042829	0.07231	0.042829
Shoulder rate (\$/unit)	0.07231	0.175784	0.262	0.042829	0.262	0.042829	0.07231	0.042829	0.07231	0.042829
Off Peak rate (\$/unit)	0.02572	0.08099	0.14999	0.024728	0.14999	0.024728	0.02572	0.024728	0.02572	0.024728
Demand peak (\$/unit)		N/A		12.9		12.9		12.9043		12.9043
Demand Shoulder (\$/unit)		N/A		12.9		12.9		12.9043		12.9043
Demand Off Peak *\$/unit)		N/A		3.49		3.49		3.49992		3.49992
Costs per rates/use	1135.484725 ^f	3008.794891	79325.67158 ^f	13021.02352	4381.05144 ^f	719.506762	4757.188904 ^f	3309.034865	9878.66672	6953.448836
Total Billing Cost 2011/12 - IV \$	2,578.44	\$ 4,716.76	\$ 8,573.27	\$ 347.33	\$ 4,572.68	\$ 847.74	\$ 8,559.61	\$ 41,237.24	\$ 12,181.39	\$ 19,871.43
Water		171.2		129.7		576		331.7		869
Cost/ML 2012	\$	42.61	\$	69.78	\$	9.41	\$	150.13	\$	36.88

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water entitlement and 'B Drip shed' is a groundwater bore but also delivers pumped water through the drip lines around the farm and 'L 4x Bores' is a site linked with four bores to the one transformer.

The sites were selected as they represented the variety of off take/pumping sites and uses for irrigators in the valley.

Although these sites occur on three different farms in close proximity to each other, the business operations are linked.

Essentially there is no variation in the behaviour or demand between sites as the bulk of water is required in August through to December and it is then stored on farm for utilisation throughout summer and into winter. The exception being in this instance surface water pumping (TN River pump site) is opportunistic and occurs only when available but often over a number of days as this irrigator is accessing supplementary water only. Groundwater use is consistent and occurs throughout the key months with the pumps normally not stopped. Whereas the drip shed site is delivering water every day to the horticulture crop for a specific number of hours, during daylight hours only.

Using the billed costs to March 2012, the cost to pump and access water varies across the metered sites in response to the set-up of the site (i.e. the number of pumps linked together) and the negotiated contracted rate for that site, which varies considerably.

The cheapest to operate this year has been the TN River pump at \$9.41/ML water (per megalitre of water) in comparison to groundwater sites, which could cost up to \$69.78/ML for a single bore pump per megalitre of water obtained. Costs are presented prior to water charges and licence fees and therefore, the total cost to the irrigator is much higher again.

At almost \$70.00/ML of water to pump, groundwater is becoming uneconomical to access in comparison to river water. However the reliability and timing of access is vastly different.

Furthermore, the fact that 'B Drip shed' pumps water at almost double that rate at \$150.13/ML of water the cost of pressurising and utilising more water efficient irrigation methods is increasingly cost prohibitive. This is further highlighted by the exuberant network charges incurred to deliver the daily water requirements that the horticulture crop needs.

These costs presented in Table 2 are the current price per kilo-watt of power, applying the proposed increase on average of 16.4% will place further pressure on this business to trade-off water efficiency gains by improving on-farm technology to decrease energy use.

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Using this current year as an example, the 'TN Bore 2' site would cost approximately \$80.06/ML of water and the 'B Drip shed' \$174.75/ML. This essentially cripples the investment made on farm to become more water efficient and is diametrically opposed to the reform agenda being encouraged via public investment in irrigation efficiency projects by the Commonwealth Government.

5. Conclusion

The irrigation industry as a whole and particularly in the Gwydir has become more energy intensive as a means to meet demands to be more water efficient and maintain production with less water. Water efficiency has been encouraged by all levels of government as a means to maintain the industries and our region's future.

The GVIA is concerned that with the continued rise in energy costs, irrigators will be forced to continue to shift decision making from being water-efficient to energy efficient, reversing more than 10-years of on-farm improvement. Ultimately this will be done at the cost of the environment's and our industry's sustainability.

Our submission clearly outlines that there are already visible impacts from previous electricity price increases on the irrigation industry. These impacts are mostly a result of higher per unit costs for network services and the varying demand patterns for electricity during different time periods. This submission highlights the fact that current price setting by individual retailers does not allow for an efficient use of capital investment on-farm and hence results in higher costs than necessary for the provision of electricity.

Clearly the time has arrived for there to be greater leadership and consistency in energy pricing in NSW and the GVIA request that IPART play a greater role into the future.

The GVIA request that there is a review of the current National Energy Rules and that there is consideration given to aligning determination periods for all electricity prices, so that IPART can have a role in assessing the efficiency of infrastructure upgrades and how they are priced as part of network charges.

The GVIA also request that IPART and the AER engage with the irrigation industry to consider developing a pricing structure that best represents the usage patterns of our industry and allows for extended periods for network infrastructure works, so that industry efficiency is maintained and investment encouraged.

Finally, as the irrigation industry is now more reliant on energy than ever before the increasing trend in costs and the significant cost-burden for network charges, are

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undermining the private and public investment in our industry. For the industry to exist and remain sustainable there needs to be intervention into this up-ward trend of pricing as a matter of urgency.

The GVIA look forward to working with IPART to further develop the ideas proposed in this submission.

Submission ends...

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