



# National Irrigators' Council

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## Select Committee on Electricity Prices

**Submission by the National Irrigators' Council**

**September 2012**

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## Executive Summary

The National Irrigators' Council (NIC) is the peak body representing irrigators in Australia. NIC currently has 33 member organisations covering all MDB states, regions and commodities. Our members represent water entitlements of about 7 million megalitres. While this Submission has been prepared by the NIC, each member reserves the right to independent policy on issues that directly relate to their areas of operation, or expertise, or any other issues that they may deem relevant.

Rapidly escalating energy costs have already seriously impacted on the ability of irrigators to implement water use efficiencies. The cost of utilising water efficient pressurised piped systems is now considered too expensive for many irrigators and irrigation water delivery operators.

The National Water Commissions' (NWC) ['National Performance Report 2010–11: rural water service providers'](#) highlights the contradictory messages Governments are sending the irrigation industry. The Murray Darling Basin reforms are in part about making water use more efficient. Yet in becoming more water efficient, through the use of energy intensive pumps, pipes and improved application methods, irrigators are being priced out of the market place.

This is most apparent by comparing the statistics of two water users in the report. The report considers the Central Irrigation Trust (CIT) to be one of our most 'efficient' water users. CIT operates a water supply network, and in 2010-11 it delivered 68,326 ML of water through its 744km pressurised pipe system. Its efficiency rating for this year was 96.7%, but its carbon footprint was 9466.2 tonnes. In contrast, Murray Irrigation Ltd, in the same year, delivered 1,049,552 ML of water through its 2954km gravity fed channel system. Murray Irrigations delivery efficiency was 91%; however its carbon footprint was less than 1 tonne.

Irrigators have constantly been told by Governments to do everything they can to preserve water and become more efficient (which we have done at considerable cost), yet changes to energy tariffs in some States are sending a mixed message. These changes may result in growers applying more water during the day, which would lead to increase evaporation and higher water usage. This would also increase the amount of peak load use that energy providers would need to supply, leading to shortages in the network capacity and/or additional capital investment.

We are concerned that State and Federal Government policies are delivering these types of perverse outcomes. We are also concerned that the changes to the day/night tariffs and peak usage can be counterproductive and are sending conflicting messages to food and fibre producers.

Increases in energy costs are also leading to sharp increases in costs of production for irrigators. Farmers are price takers, often on international markets, and consequently have no way of passing increased costs on to consumers. Already labour costs, the high dollar, the supermarket duopoly, cheap imports, low commodity prices and the global financial crisis are negatively impacting on our irrigator's bottom line. These factors have resulted in input costs exceeding returns in many cases, meaning many farming practices have become unviable. This has led to a number of irrigators choosing to leave the industry. It is simply uneconomical to grow food and fibre when energy costs and tariff regimes alone are forcing some irrigators to pay up to \$2500 per megalitre. This is unsustainable and must be addressed. From the case studies included in this submission it is obvious that something must change.

There are too many conflicting and contradictory schemes contributing to end user energy prices. For example there are both State and Federal Government renewable energy schemes. These schemes have been introduced in an incoherent, ad hoc and disjointed way and they should be streamlined, amalgamated or abolished, and the savings passed back to consumers.

The National Irrigators' Council has made it no secret that we are concerned by Government policies which are artificially increasing the cost of energy through mechanisms such as the Carbon Tax. We believe that users' energy behaviours were already changing, prior to the introduction of these policies, as a direct result of escalating energy prices.

We are at a loss to explain why on one hand the Government has a deliberate policy to increase energy prices and on the other is demanding that energy prices decrease. A clear energy policy position needs to be enunciated. Either Governments want energy prices to increase or they don't. If they don't, then they should rethink taxes, fees, charges, levies, renewable energy schemes, 'gold plating' assets, and tariff structures which deliberately and artificially drive up energy prices.

Governments cannot keep increasing energy prices like they have been. Energy costs for some have businesses doubled in the four years prior to the introduction of the Carbon Tax. This alone was achieving the Governments goal of decreasing energy use and changing consumer's energy consumption behaviours. Therefore there was no need for the imposition of a Carbon Tax which may result in the destruction of many otherwise viable businesses.

There are many things that Governments can do to lower the costs of energy. We certainly welcome moves to end the 'gold-plating' of infrastructure and to reform the Australian Energy Regulator. We urge the Committee to thoroughly examine the role of the Australian Energy Regulator in driving up the cost of energy, and to consider how it might be better used to provide some relief from high prices.

For example the peak demands might only occur for a few hours on a few days per year. Irrigators should be offered an opportunity to play a role in reducing these peak demand periods which may help decrease the need for expensive infrastructure.

We note that escalating cost inputs, especially energy inputs are not an issue unique to any one State, and the three case studies of irrigation infrastructure operators, in NSW, South Australia and Queensland are included in this submission. These studies are indicative of the current situation in all State jurisdictions amongst the National Irrigators' Council member organisations.

# Case Study One - Murrumbidgee Irrigation Limited (NSW)

## Regional Overview

The Murrumbidgee Irrigation Area is within the New South Wales Murray–Darling Basin. Blowering Dam on the Tumut River and Burrinjuck Dam on the upper Murrumbidgee River are the major water storages in the region.

According to the National Water Commission the Murrumbidgee Irrigation Area is one of the most diverse and productive agricultural and horticultural regions in Australia, with a gross value of production estimated at more than \$400 million per annum. In particular, the region is one of Australia's largest producers of rice, with an annual value of more than \$200 million.

In addition to rice, the region is a major producer of horticultural crops such as grapes and citrus fruits. The region accounts for around 90% of New South Wales citrus fruit production (which equates to about 30% of Australian production) and approximately 20% of Australian red and white grape production. The total production of citrus in 2003 was estimated at 182 000 tonnes with a farm-gate value of \$40 million. Total production of grapes was 230 000 tonnes, and the farm-gate value was \$107 million.

The region was significantly affected by ongoing drought, resulting in challenging seasonal conditions with reduced water availability over the period from 2006–07 to 2009–10. Drought eased during 2010–11 with above-average rainfall, and both high and general security allocations reached 100%. Major flooding occurred on the Murrumbidgee River, and both Burrinjuck and Blowering dams exceeded 100% capacity. These conditions led to the Riverina being declared drought free after nine years.

[Murrumbidgee Irrigation Limited \(Murrumbidgee Irrigation\)](#) manages and operates the Murrumbidgee Irrigation Area in south-west New South Wales. Murray Irrigation is a public company with its irrigator customers as its shareholders. It provides irrigation water and drainage services to an area of approximately 660 000 hectares, of which about 120 000 hectares is irrigated.

Water for the area is diverted from the Murrumbidgee River at Berembed Weir and the Gogeldrie Weir near Leeton. The system comprises a network of some 3500 km of supply channels and 2160 km of drainage channels. Of the supply channels, 250 km are cement lined, 100 km are piped and the remainder are earthen channels.

## Background:

Murrumbidgee Irrigation Ltd (MI), as part of the agreed asset refurbishment funding deed with the NSW Government, was progressively refurbishing old concrete and earthen channels with state of the art pressure pipelines servicing horticultural farms in the Murrumbidgee Irrigation Area (Integrated Horticulture System program - IHS).

In the absence of the IHS program, the conversion of farms to drip irrigation would still take place but without capturing the improved system operations and water efficiency that comes with decommissioning channels.

The IHS program is no longer viable due to unintended energy billing issues. Electricity in NSW is billed according to at least two tariff regimes, **franchise tariff** rates or **contestable tariff** rates. MI now runs nine IHS pumping stations. Eight stations are contestable tariff sites due to their size (greater than 160,000 kWh per annum) and one is a franchise tariff site. The franchise tariff has a small fixed metering charge and a large variable charge.

The contestable tariff comprises of four key elements, all of which are regulated by IPART apart from the energy charge, which is subject to market competition :-

- Energy (kWh) – typically 30% of the bill and highly competitive with franchise rates
- Market Participation (kWh) – typically 5% of the bill
- Network (kWh, kVA, access charge) – **typically 60% of the bill\***.
- Metering and other charges (kWh, access) – typically 5% of the bill

\*The **Network Charge** is heavily influenced by the maximum demand or loading on Country Energy's network in any 30 minute block applied across the whole of the 30 day billing period. This is designed to smooth demand, minimise infrastructure sizing costs as well as Country Energy's risk of having to purchase blocks of energy on short term markets.

### Issues from Murrumbidgee Irrigation's perspective

1. In the absence of collective Integrated Horticulture System (IHS) schemes and the aggregation of energy demand (and a shift into the contestable tariff regime), customers would have invested in their own on farm works and remained in the franchise tariff regime. Whilst this would have increased the energy component of the bill, it would have avoided the kVA "peak load charge" which is having the biggest impact on pricing;
2. The total energy costs for customers on our contestable sites are significantly higher than our franchise sites and similarly higher than individual farm pump stations. **Peak rates as high as \$2500/ML water for contestable sites versus peak rates of \$56/ML of water for franchise sites;**
3. Sentiment towards drip irrigation conversions is at an all time low, particularly for our collective pipeline schemes, due to energy pricing. Timing could not be worse given the pressures of the impending Murray-Darling Basin Plan.
4. Contestable tariff is really designed for big energy users who use a fair bit of energy, but spread over a whole day (a constant rate). It is charged based on a KVA loading. – see below. It does not suit most irrigators' usage patterns.
5. There is no greater demand on energy infrastructure by being on an IHS system compared to an individual system – in fact it is more cost effective for energy companies based on the information provided above.
6. We are being penalised for being more water efficient
7. One IHS system has converted and put in more meters to reflect individual usage and move back to a franchise tariff vs. contestable tariff. The energy costs have decreased as a result of this, even though there is MORE infrastructure needed and their energy usage has stayed the same.

As an interesting aside, water efficiency projects MI put forward as part of Commonwealth Government's Private Irrigation Infrastructure Operators Program that included renewable source of energy for pump stations (e.g. solar), had the solar aspect of the project deemed "inappropriate" as it didn't directly contribute to water savings.

The water reform program in the Murray Darling Basin is directing irrigators and farmers towards more energy intensive ways of delivering water (many believe the only way to save water is to pipe and pump it). When this is done, irrigators are slogged with increased energy costs in response to another aspect of government reform, namely the carbon tax.

Table 1: KVA Demand Patterns

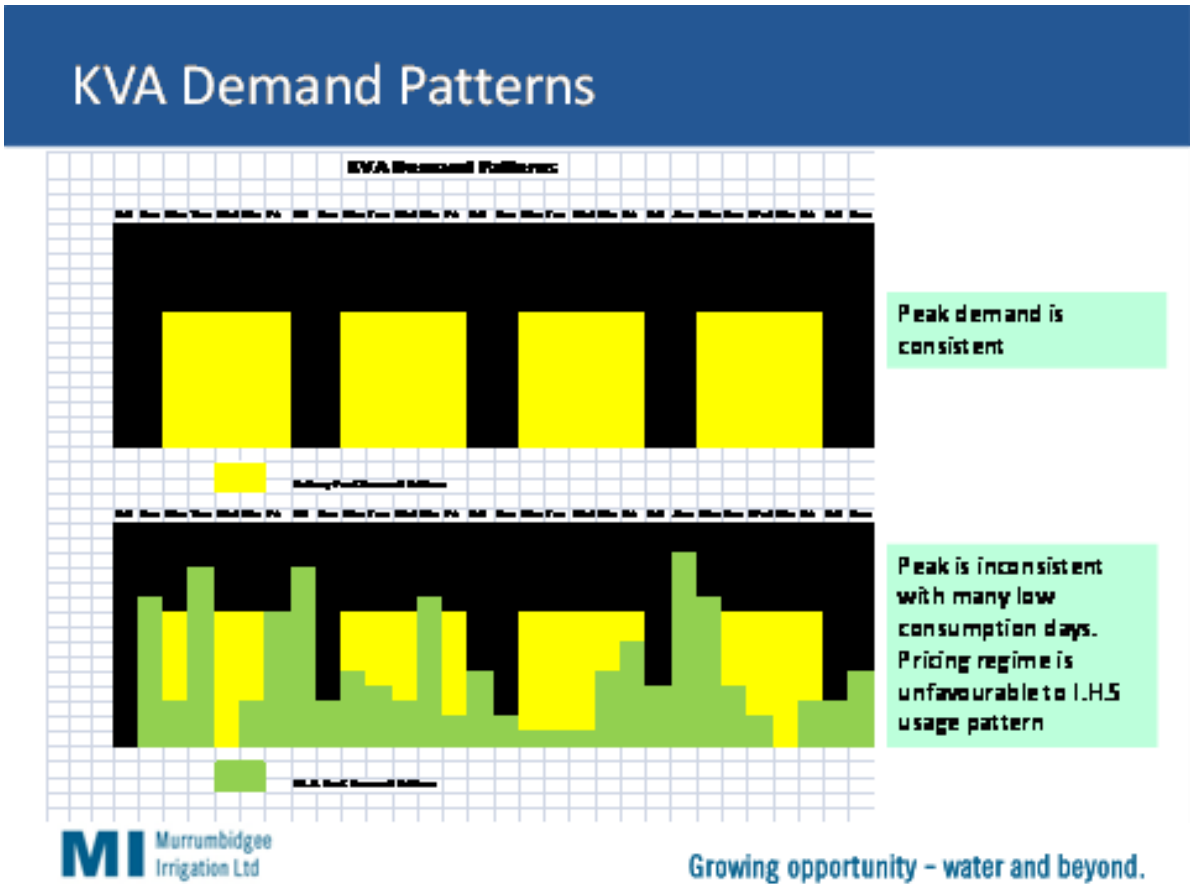


Table 2: KWH Energy Pricing \$

# KWH Energy Pricing \$

**KWH Energy Peak has increased by a factor of 1.9 over the period. (almost doubled)**

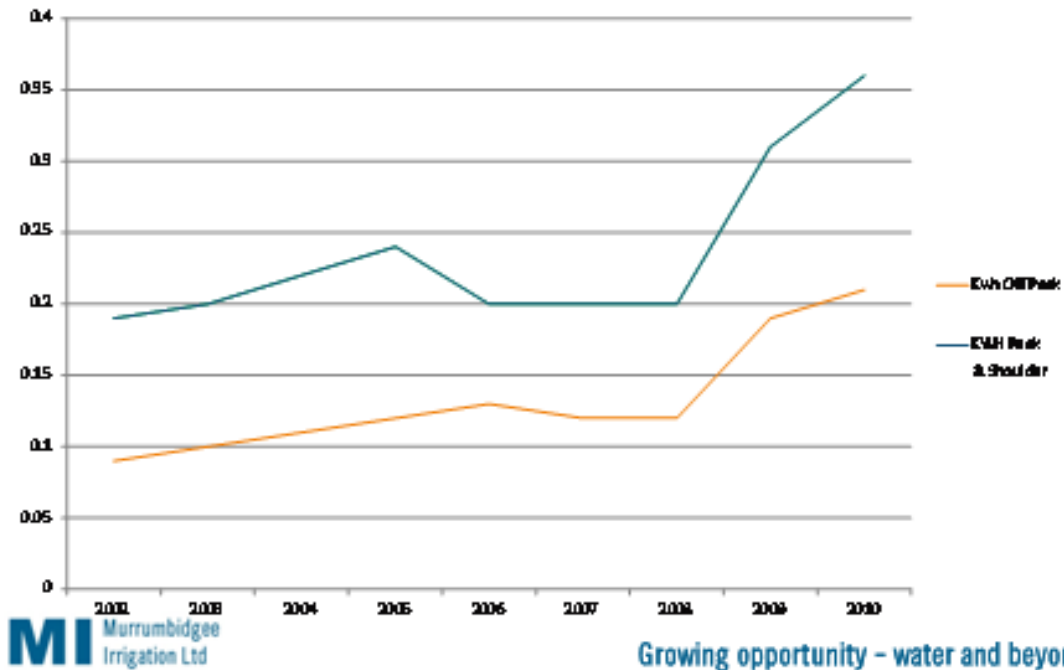
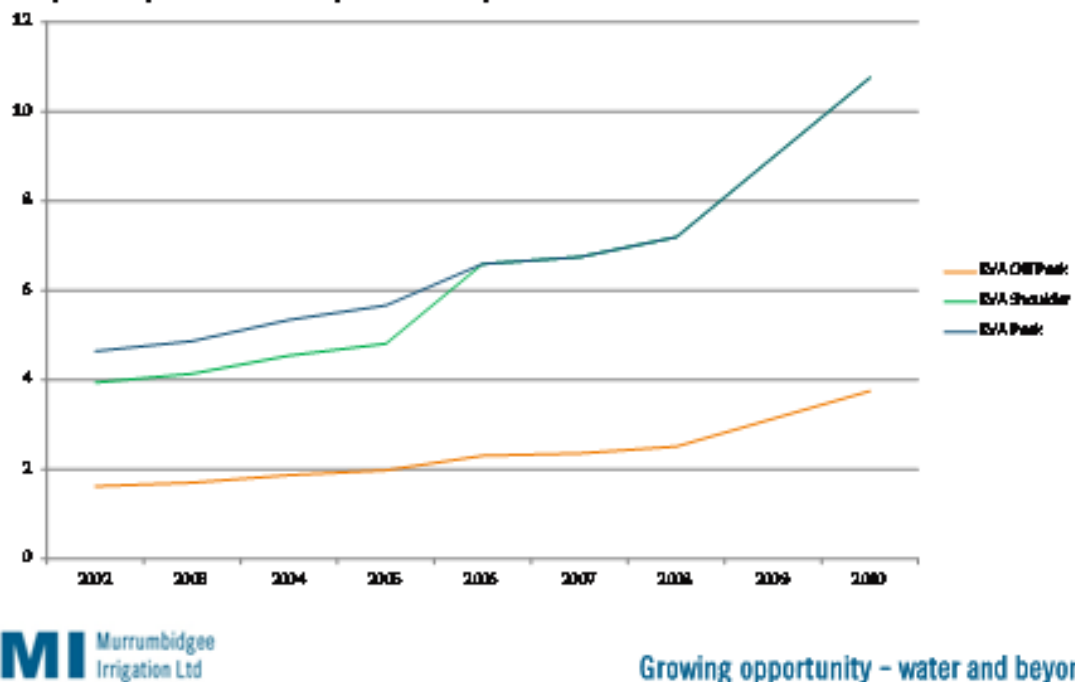


Table 3: KVA Energy Pricing \$

# KVA Demand Pricing \$

**KVA Demand Peak has increased by a factor of 2.3 over the period (over double the price of 2002)**





## Case Study Two – Central Irrigation Trust (SA)

### Regional Overview

The National Water Commission reports the broader CIT region has a population of approximately 33 000. It includes some 1400 farms totalling around 15 000 hectares of mostly vineyards and orchards, over 95% of which are irrigated using sprinkler, micro or drip irrigation systems. The regional economy is highly dependent on irrigation, and wineries, packing sheds and other food processing operations are reliant on a consistent supply of irrigated crops. Assuming no drought, the annual gross value of irrigated agricultural production in the region is estimated at \$500 million.

The broader CIT region is Australia's largest wine-producing region, growing more than 50% of South Australia's wine grapes. The region is also well known for its production and processing of citrus, stone fruit, almonds and vegetables. The Riverland area is also a producer of cherries and olives. The location of high-quality horticultural soils adjacent to the Murray is a key advantage for the region. The area also has a manufacturing industry and is a strategic location for transport between Adelaide, Mildura and Sydney.

From 2006–07 to 2009–10, the CIT region was severely affected by drought, resulting in a series of low allocations (final allocations in some districts were as low as 18%). Low water allocations, combined with low prices, resulted in some 6000 hectares of perennial plantings being dried off throughout the region.<sup>68</sup> Above-average rainfall in 2010–11 eased the impact of drought for the region as water availability increased.

[The Central Irrigation Trust \(CIT\)](#) is responsible for the management of 10 irrigation districts in the Riverland and Lower Murray region of South Australia. CIT is a private company located in Barmera, 220 km north-east of Adelaide. CIT manages and administers 12 irrigation trusts (Berri, Cadell, Chaffey, Cobdogla, Golden Heights, Kingston, Loxton, Lyrup, Moorook, Mypolonga, Sunlands and Waikerie) on the River Murray or its anabranches in South Australia. Each of the 12 irrigation districts is owned by its irrigators, and CIT manages and operates the irrigation systems on behalf of the districts.

CIT services approximately 15 400 hectares of horticultural crops, providing irrigation and drainage services to 1400 farms, as well as domestic water to 2800 households and industries in the region. CIT pumps water from the River Murray through a modern water delivery system that includes fully automated pumping stations, closed pipeline delivery networks, and fully metered water supplies to every farm or factory business and household.

### Background

As the following series of graphs highlights, energy costs are the major cost input for the Central Irrigation Trust (CIT). Other than the retail price of energy which is contestable and cost of which has dropped significantly, the major cost increases in energy prices are beyond the capacity of CIT to control.

The management of CIT have spent considerable time and effort in order to understand the individual components which go into making up the final energy costs and it should be noted that it was an extraordinary time consuming and frustrating process to uncover the individual cost increases and what or who was responsible for each of these policies and increases. There needs to be far more transparency and accessibility of the separate cost components which make up the actual cost to the end users of energy.

What the graphs show is that the rapidly escalating cost increases are not being caused by a single factor, and there is plenty of blame to be shared around between State and Commonwealth Government policies. There needs to be greater co-ordination of policy goals and outcomes by the State and Commonwealth Governments if there is to be a coherent energy policy in Australia.

**Table 1: Central Irrigation Trust Budget 2011/12 and 2012/13**

<b>BUDGET</b>	<b>2011/12</b>	<b>2012/13</b>
<b>INCOME</b>	<b>(\$000)</b>	<b>(\$000)</b>
IRRIGATION CHARGES	7,293	7,861
DOMESTIC/INDUSTRIAL/PARKS & OVALS CHARGES	1,579	1,769
INTEREST ON ASSET REPLACEMENT RESERVE	953	946
NRM LEVY COLLECTED	730	709
TERMINATION FEE INCOME	518	532
SUNDRY INCOME	142	127
FEES, CHARGES & INTEREST ON OVERDUE ACCOUNTS	127	138
INTEREST ON OPERATING ACCOUNT	91	51
<b>TOTAL OPERATING INCOME</b>	<b>11,433</b>	<b>12,133</b>
<b>EXPENDITURE</b>		
ELECTRICITY	3,444	4,047
PROVISION FOR INFRASTRUCTURE REPLACEMENT	2,933	2,926
SALARIES, WAGES & ONCOSTS	2,004	2,045
REPAIRS & MAINTENANCE	845	873
NRM LEVY PAID	737	716
ADMINISTRATION EXPENSES	412	434
GENERAL OPERATING EXPENSES	457	464
DEPRECIATION (NON INFRASTRUCTURE)	205	226
DIRECTORS FEES	189	192
<b>TOTAL OPERATING EXPENDITURE</b>	<b>11,226</b>	<b>11,923</b>
<b>OPERATING SURPLUS</b>	<b>207</b>	<b>210</b>

This table highlights the dilemma for many irrigation infrastructure operators such as the Central Irrigation Trust whose major expense is electricity (31% of total costs in 2011/12 to 34% in 2012/13 to pump water to its customers. It either cuts services and staff to pay for its major cost inputs, which in this case is electricity or it passes it back onto its' irrigator customers. The irrigators are left bearing the brunt of the costs as both the owners of the Trust or as price takers for the crops they produce in a global market place.

The escalating increases in energy are unsustainable. CIT has been modifying its energy consumption behaviour as a direct result of pricing signals even before the Carbon Tax came into effect and spent millions of dollars upgrading pumping equipment to try and reduce energy costs. The advent of the Carbon Tax is further compounding cost pressures and effectively penalising one of the most water efficient delivery companies in the world for being efficient.

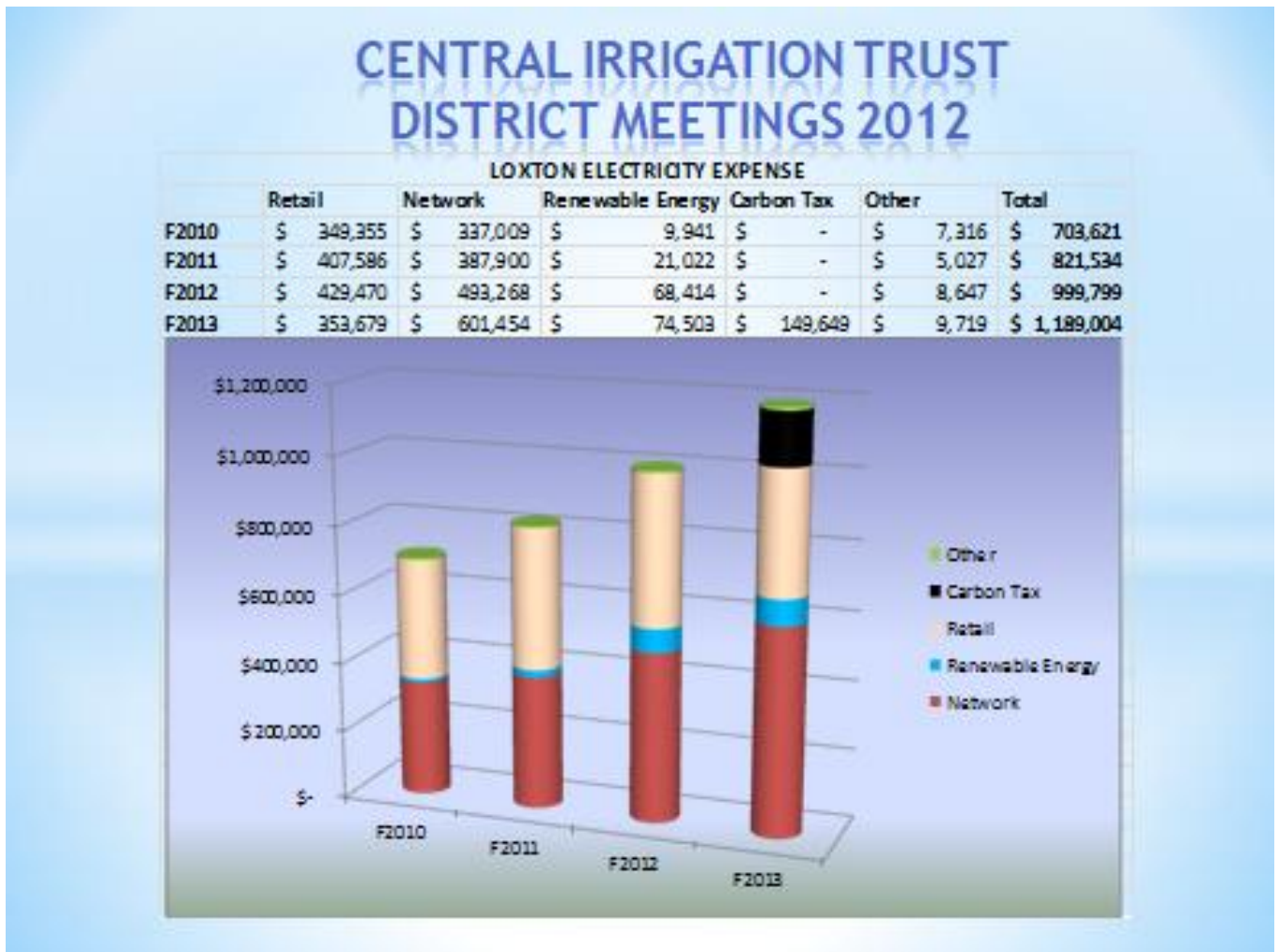
**Table 2: Breakdown of Cost Changes in Energy Prices from 2011/12 to 2012/13**

<b>COST CHANGES</b>	
CARBON TAX	449
ELECTRICITY NETWORK CHARGES INCREASE	394
RETAIL ELECTRICITY CHARGES DECREASE	(243)
ALL OTHER COST CHANGES	97
<b>TOTAL COST CHANGES</b>	<b>697</b>
<b>RECOVERED BY</b>	
INCREASED INCOME FROM IRRIGATION CUSTOMERS	568
INCREASED INCOME - OTHER CUSTOMERS	190
ALL OTHER INCOME CHANGES	(58)
INCREASED OPERATING SURPLUS	(3)
<b>TOTAL</b>	<b>697</b>

This table shows the breakdown of the cost increases and how CIT has attempted to recover the rapidly escalating costs. It should be noted that the in the one area that CIT can have some influence over, namely the contestable retail market, retail electricity charges have decreased from 2011/12 to 2012/13 by \$243,000.

Whilst not directly affected by the Carbon tax, the Central Irrigation Trust is indirectly affected and will be passing on all the costs back to its irrigator customers, who are price takers and cannot pass the additional \$449,000 onto their customers. In effect it is irrigators who are left paying the increased cost of electricity. The Central Irrigation Trust is has tried to absorb as much of the rising energy costs as it can as evidenced in Table 1.

**Table 3: Loxton Electricity Expense**



CIT operates a number of different pumping stations along the Murray River and this graph shows the Loxton pumping station costs. CIT can provide the committee with a similar breakdown of each of its pumping stations if needed.

The graph highlights the unsustainable escalation of electricity prices over the past four years.

## Case Study 3: Bundaberg Regional Irrigators Group (BRIG)

The Bundaberg Regional Irrigators Group (BRIG) represents member irrigators within the Bundaberg Regional Council Area in Queensland

BRIG members farm on approximately 36,000ha and use an estimated 1100 irrigation pumps and associated distribution systems to irrigate a variety of crops. A significant percentage of these systems (circa 90%) are powered by electricity.

Electricity is a significant cost to irrigators. This cost can be amplified depending on the actual farm location and source of irrigation water in terms of the amount of head that water is required to be pumped and the volume of water required.

In the past a number of our members have worked closely with Ergon Energy representatives and irrigation equipment providers to have their pumping system designed and matched to the most suitable, sustainable and efficient tariff available. Significant infrastructure and capital has been installed and is currently operating based on the characteristics of the specific tariff. The downside consequences of removing these tariffs may be immediate and severe.

The following case study provides a very concise example of why we are extremely concerned.

*The Loeskow family operates Relmay Pty Ltd and are members of Bundaberg CANEGROWERS.*

*Relmay Pty Ltd was first registered 05 June 1986. Mr. Neville Loeskow is the driving force of the Loeskow agribusiness operation and has been involved in the sugar and agribusiness industry in excess of 40 years.*

*The family run operation produces around 100,000 tonnes of sugar cane annually from 1,200 hectares. Rotational crops include peanuts. An aquaculture operation and macadamias are also grown to diversify and mitigate risk.*

*The vision and leadership that Mr Loeskow and his family have demonstrated in establishing and developing the enterprise is well known and they are widely respected by the Queensland sugar industry.*

*In 2005 Relmay embarked on a large scale project to install additional irrigation infrastructure to improve water availability to the Loeskow agribusiness farming operation from intercepted overland flows and water harvesting and to increase existing water storage capacity by 100%.*

*This enabled the supplementation of existing groundwater entitlements in an area where groundwater resources were limited and the aquifer at risk to saltwater intrusion.*

*Other benefits included:*

- *Reduced reliance on groundwater resources and consequent risk attributed to reduced allocation; i.e. drought proofing.*
- *Improved cane productivity due to ability to supply irrigation at the right time with the right amount.*

- *Maximisation of the efficacy and the value of all existing farm capital including the ring tank, laser levelled fields, irrigation delivery systems equipment and machinery by more completely utilising these components of the production function embraced by the Loeskow Agribusiness operation.*
- *Improved environmental management by:*
  - *Retaining all irrigation and farm run-off within the farm so that there is minimal risk of offsite nutrient and/or pesticide displacement.*
  - *Reducing energy usage*
  - *Targeted and efficient water use, reducing reliance and pressure on the groundwater dependant ecosystem in the Bundaberg District Groundwater area*
- *Increased mill throughput for production of an additional 4,200 tonnes sugar per season*

*Direct beneficiaries included the owners, Loeskow agribusiness employees and harvesting contractors and Bundaberg Sugar's Millaquin sugar mill.*

*Indirect beneficiaries included the Bundaberg District Groundwater Area. This area is defined by the proclaimed sub artesian groundwater area centred around Bundaberg, Gooburrum, Woongarra and Barns Systems and the undeclared areas including Isis, and South Kolan.*

*The Loeskow's spent an estimated \$ 514,000 (Table 1) in matching electricity and irrigation infrastructure pumping requirements to improve the environmental, economic and social sustainability of their enterprise. This expenditure was based on discussion and advice received from Ergon Energy and was aimed at optimising the tariff structure with the physical and agronomic factors of the crop and to maximize use of off peak (night time) tariffs.*

**Table 1: Cost of works to maximise off peak power usage**



***Relmay Pty Ltd***  
 252 Avoca Road, Bundaberg 4670

Ph: 07 41 521074  
 Fax: 07 41 534211  
 Email: relmay@bigpond.com.au

**Cost of Works to Maxamise Off Peak Power Usage**

Sunfam	May	2012	Automation & Monitoring	\$35,066.20
Sunfam	May	2012	Thiels Bore	\$3,750.88
Sunfam	April	2012	Wills Mainlie	\$11,122.80
Sunfam	March	2012	Thiels Bore	\$2,908.60
Sunfam	February	2012	Pump & Motor Bore 2	\$4,022.81
Sunfam	January	2012	Motors	\$2,260.00
Sunfam	December	2011	Footvalve	\$1,345.50
Sunfam	December	2011	75kw Motor	\$4,656.80
Sunfam	December	2011	Valves	\$1,834.00
Sunfam	December	2011	Footvalve	\$2,077.47
Sunfam	December	2011	75kw Pump fittings	\$7,596.21
Sunfam	November	2011	Dam Pump 16	\$2,310.58
Sunfam	October	2011	Pump 5	\$3,390.00
Sunfam	October	2011	Excavatur Hire	\$5,720.00
Sunfam	August	2011	Bronze Pump	\$5,685.00
Zunker Electrical	December	2011	UFD Sorter Connection	\$1,611.50
Zunker Electrical	November	2011	Install Hour Run Meter	\$1,185.00
Zunker Electrical	September	2011	Install Electricity Mains	\$6,838.80
Zunker Electrical	April	2011	Mains & Switchboard	\$6,425.10
Zunker Electrical	September	2010	Enclosure & Ganges	\$1,452.00
Sunfam	June	2011	375mm Main Line Fittings	\$6,713.59
Sunfam	May	2011	Pump Hi Flo Davey	\$3,180.00
Sunfam	February	2011	Conduit Electrical	\$2,504.00
Sunfam	January	2011	2kms 375mm Mainline	\$185,028.30
Sunfam	January	2011	Crane Truck Plant Hire	\$1,100.00
Sunfam	November	2010	Excavatur Plant Hire	\$5,075.90
Contractors - Nov 2010 to Nov 2011 Plant Hire Excavators, Laser Bucket etc dig 850metres supply channel with 2 culverts @ \$170.00 per metre				\$144,500.00
Plant Hire Excavators & labour dig trench 2kms lay mainline & backfill trench & compact 2020metres @ \$25.00 per metre				\$55,500.00
<b>Total Cost for 2020metres 375mm Mainline &amp; fittings installed</b>				<b><u>\$514,861.04</u></b>

**Table 2: Relmay's latest quarterly electricity accounts with the resultant cost should the QCA recommended price path tariffs be implemented.**

User information per quarter		Relmay Irrigation Electricity Use Profile										Draft QCA - Tariff 72			Difference		
Farm Name	Account #	Billing period	kWh	Current Bill - Tariff 62 / 65		Tariff 62		Tariff 65		Tariff 72		Total Cost	Cost	Service Fees	Total Cost	\$ Increase	% Increase
				Use time	Tariff Charges	Service Fees	Cost	Total Cost	Tariff	Cost							
Relmay	7767 5240	1/05/2012	892	Day	29.61 €/kWh	\$ 264.12	\$ 15.2/month	\$ 264.12	20.159 €/kWh	\$ 179.82	\$ 505.55	\$ 179.82	\$ 33.26/month	\$ 505.55	\$ 64.85	15%	
		1/05/2012	1,251	Night	10.47 €/kWh	\$ 130.98	\$ 130.98	18.062 €/kWh	\$ 225.96	\$ 225.96							
Relmay	7767 5363	1/05/2012	12,184	Day	29.61 €/kWh	\$ 3,607.68	\$ 15.2/month	\$ 3,607.68	20.159 €/kWh	\$ 2,456.17	\$ 7,242.14	\$ 2,456.17	\$ 33.26/month	\$ 7,242.14	\$ 872.41	14%	
		1/05/2012	25,945	Night	10.47 €/kWh	\$ 2,716.44	\$ 2,716.44	18.062 €/kWh	\$ 4,686.19	\$ 4,686.19							
Relmay	7767 7081	1/05/2012	780	Day	29.61 €/kWh	\$ 230.96	\$ 230.96	20.159 €/kWh	\$ 157.24	\$ 157.24							
		1/05/2012	9,493	Night	10.47 €/kWh	\$ 993.92	\$ 993.92	18.062 €/kWh	\$ 1,714.63	\$ 1,714.63							
Relmay	7767 3361	1/05/2012	6,038	Day	29.61 €/kWh	\$ 1,787.85	\$ 1,787.85	20.159 €/kWh	\$ 1,217.20	\$ 1,217.20							
		1/05/2012	12,110	Night	10.47 €/kWh	\$ 1,267.92	\$ 1,267.92	18.062 €/kWh	\$ 2,187.31	\$ 2,187.31							
Relmay	7767 7544	1/05/2012	21,182	Day	29.61 €/kWh	\$ 6,271.99	\$ 6,271.99	20.159 €/kWh	\$ 4,270.08	\$ 4,270.08							
		1/05/2012	46,099	Night	10.47 €/kWh	\$ 4,826.57	\$ 4,826.57	18.062 €/kWh	\$ 8,326.40	\$ 8,326.40							
Relmay	7767 7315	1/05/2012	857	Day	29.61 €/kWh	\$ 253.76	\$ 253.76	20.159 €/kWh	\$ 172.76	\$ 172.76							
		1/05/2012	3,794	Night	10.47 €/kWh	\$ 397.32	\$ 397.32	18.062 €/kWh	\$ 685.27	\$ 685.27							
Relmay	7767 7331	1/05/2012	1,346	Day	29.61 €/kWh	\$ 398.55	\$ 398.55	20.159 €/kWh	\$ 271.34	\$ 271.34							
		1/05/2012	4,623	Night	10.47 €/kWh	\$ 484.03	\$ 484.03	18.062 €/kWh	\$ 835.01	\$ 835.01							
Relmay	7767 7358	1/05/2012	27,451	Day	29.61 €/kWh	\$ 2,874.12	\$ 2,874.12	20.159 €/kWh	\$ 4,958.20	\$ 4,958.20							
		30/04/2012	516	Night	10.47 €/kWh	\$ 552.79	\$ 552.79	18.062 €/kWh	\$ 104.02	\$ 104.02							
Relmay	7767 7374	30/04/2012	1,938	Day	29.61 €/kWh	\$ 202.91	\$ 202.91	20.159 €/kWh	\$ 350.04	\$ 350.04							
		30/04/2012	5,299	Night	10.47 €/kWh	\$ 1,569.03	\$ 1,569.03	18.062 €/kWh	\$ 1,068.23	\$ 1,068.23							
Relmay	7842 8670	1/05/2012	1,804	Day	29.61 €/kWh	\$ 188.88	\$ 188.88	20.159 €/kWh	\$ 325.84	\$ 325.84							
		1/05/2012	13,016	Night	10.47 €/kWh	\$ 1,362.78	\$ 1,362.78	18.062 €/kWh	\$ 2,350.95	\$ 2,350.95							
Relmay	7767 7536	1/05/2012	185	Day	29.61 €/kWh	\$ 54.78	\$ 54.78	20.159 €/kWh	\$ 37.29	\$ 37.29							
		1/05/2012	413	Night	10.47 €/kWh	\$ 43.24	\$ 43.24	18.062 €/kWh	\$ 74.60	\$ 74.60							
Relmay	7937 3992	1/05/2012	6,547	Day	29.61 €/kWh	\$ 1,938.57	\$ 1,938.57	20.159 €/kWh	\$ 1,319.81	\$ 1,319.81							
		1/05/2012	4,008	Night	10.47 €/kWh	\$ 419.64	\$ 419.64	18.062 €/kWh	\$ 723.92	\$ 723.92							
Relmay	7767 5555	1/05/2012	366	Day	29.61 €/kWh	\$ 108.37	\$ 108.37	20.159 €/kWh	\$ 73.78	\$ 73.78							
		1/05/2012	295	Night	10.47 €/kWh	\$ 30.89	\$ 30.89	18.062 €/kWh	\$ 53.28	\$ 53.28							
Relmay	7767 5312	1/05/2012	4,837	Day	29.61 €/kWh	\$ 1,432.24	\$ 1,432.24	20.159 €/kWh	\$ 975.09	\$ 975.09							
		1/05/2012	7,326	Night	10.47 €/kWh	\$ 767.03	\$ 767.03	18.062 €/kWh	\$ 1,323.22	\$ 1,323.22							
Relmay	7767 5291	1/05/2012	87	Day	29.61 €/kWh	\$ 16.88	\$ 16.88	20.159 €/kWh	\$ 11.49	\$ 11.49							
		1/05/2012	57	Night	10.47 €/kWh	\$ 9.11	\$ 9.11	18.062 €/kWh	\$ 15.71	\$ 15.71							
Relmay	7767 5371	1/05/2012	1,333	Day	29.61 €/kWh	\$ 394.70	\$ 394.70	20.159 €/kWh	\$ 288.72	\$ 288.72							
		1/05/2012	3,318	Night	10.47 €/kWh	\$ 347.39	\$ 347.39	18.062 €/kWh	\$ 599.30	\$ 599.30							
Relmay	7767 4812	1/05/2012	323	Day	29.61 €/kWh	\$ 95.64	\$ 95.64	20.159 €/kWh	\$ 65.11	\$ 65.11							
		1/05/2012	5,848	Night	10.47 €/kWh	\$ 1,731.59	\$ 1,731.59	18.062 €/kWh	\$ 1,178.90	\$ 1,178.90							
Relmay	7767 7579	1/05/2012	6,556	Day	29.61 €/kWh	\$ 686.41	\$ 686.41	20.159 €/kWh	\$ 1,184.14	\$ 1,184.14							
		1/05/2012	3,454	Night	10.47 €/kWh	\$ 1,022.73	\$ 1,022.73	18.062 €/kWh	\$ 696.29	\$ 696.29							
Relmay	7767 7323	1/05/2012	8,557	Day	29.61 €/kWh	\$ 895.92	\$ 895.92	20.159 €/kWh	\$ 1,545.67	\$ 1,545.67							
		1/05/2012	2,550	Night	10.47 €/kWh	\$ 755.06	\$ 755.06	18.062 €/kWh	\$ 514.05	\$ 514.05							
Relmay	7767 7340	1/05/2012	5,410	Day	29.61 €/kWh	\$ 566.43	\$ 566.43	20.159 €/kWh	\$ 977.15	\$ 977.15							
		1/05/2012	2,120	Night	10.47 €/kWh	\$ 627.73	\$ 627.73	18.062 €/kWh	\$ 427.37	\$ 427.37							
Relmay	7767 7366	1/05/2012	4,565	Day	29.61 €/kWh	\$ 898.66	\$ 898.66	20.159 €/kWh	\$ 1,095.46	\$ 1,095.46							
		30/04/2012	3,035	Night	10.47 €/kWh	\$ 635.01	\$ 635.01	18.062 €/kWh	\$ 1,095.12	\$ 1,095.12							
Relmay	7767 7650	30/04/2012	6,065	Day	29.61 €/kWh	\$ 1,799.27	\$ 1,799.27	20.159 €/kWh	\$ 1,359.12	\$ 1,359.12							
		1/05/2012	2,472	Night	10.47 €/kWh	\$ 2,588.82	\$ 2,588.82	18.062 €/kWh	\$ 446.49	\$ 446.49							
Relmay	7850 5861	1/05/2012	7,004	Day	29.61 €/kWh	\$ 2,073.88	\$ 2,073.88	20.159 €/kWh	\$ 1,411.94	\$ 1,411.94							
		1/05/2012	2,004	Night	10.47 €/kWh	\$ 1,099.78	\$ 1,099.78	18.062 €/kWh	\$ 1,793.74	\$ 1,793.74							
Relmay	7913 6834	1/05/2012	9,931	Day	29.61 €/kWh	\$ 117.26	\$ 117.26	20.159 €/kWh	\$ 79.83	\$ 79.83							
		2/05/2012	396	Night	10.47 €/kWh	\$ 320.70	\$ 320.70	18.062 €/kWh	\$ 553.24	\$ 553.24							
Relmay	9638 4867	2/05/2012	3,063	Day	29.61 €/kWh	\$ 791.98	\$ 791.98	20.159 €/kWh	\$ 675.93	\$ 675.93							
		1/05/2012	3,353	Night	10.47 €/kWh	\$ 440.91	\$ 440.91	18.062 €/kWh	\$ 612.12	\$ 612.12							
Relmay	7913 2898	1/05/2012	3,389	Day	29.61 €/kWh	\$ 497.20	\$ 497.20	20.159 €/kWh	\$ 380.95	\$ 380.95							
		3/05/2012	2,105	Night	10.47 €/kWh	\$ 274.38	\$ 274.38	18.062 €/kWh	\$ 434.55	\$ 434.55							
Relmay	9638 4913	3/05/2012	2,109	Day	29.61 €/kWh	\$ 817.18	\$ 817.18	20.159 €/kWh	\$ 637.85	\$ 637.85							
		1/05/2012	3,063	Night	10.47 €/kWh	\$ 320.70	\$ 320.70	18.062 €/kWh	\$ 553.24	\$ 553.24							
		Total use:	322,977	Total kWh:		\$ 55,465.74		\$ 55,465.74	Total kWh:		\$ 63,789.21		\$ 63,789.21		\$ 8,323.47	15%*	

NB: Does not include sheds or aquaculture enterprise.



Whilst the weighted average increase is (15%) there is a 72.5% increase in the off-peak (night) component of the account.

In essence, what these proposed tariff changes are signalling to Relmay and indeed all irrigators on Tariffs 62/65 is to use more electricity in the peak period. The existing transmission and electricity production infrastructure and supply arrangements are not capable of meeting the shift in demand that will arise from these price signals.

Clearly the proposed tariffs are fundamentally flawed in economic and environmental terms and have the potential to cause significant social upheaval.

Following representation by BRIG and other peak body and irrigation groups the Minister McArdle and the new Queensland Government announced the retention of the Tariff structure for tariffs 20, 62, 65, and 66 with a 10% increase for the 2012/13 year as a temporary measure to enable full investigation of the impact on irrigators.

## **Conclusion**

The National Irrigators' Council is extremely concerned by the rapidly escalating energy costs. We believe that these costs will directly and indirectly result in the closure of many, otherwise viable Australian businesses. Irrigation industries are price takers, often in a global environment, and do not have the ability to pass on increased energy costs to consumers, as has been suggested by some policy experts.

We would be more than willing to appear before the committee to expand further on the case studies, and to provide some practical solutions on how the Senate Select Committee can help Australian irrigation businesses and individuals struggling due to the impact of out of control energy price increases.