



Energy White Paper Taskforce  
Department of Industry  
GPO Box 1564  
Canberra ACT 2601  
by email: [ewp@industry.gov.au](mailto:ewp@industry.gov.au)

7 February 2014

Dear Energy White Paper Taskforce

Cotton Australia welcomes the opportunity to comment on the Government's Energy White Paper: Issues Paper. Cotton Australia is the key representative body for Australia's cotton growing industry. The cotton industry is a small but integral part of the Australian economy, worth over \$2 billion in export earnings and employing 8 000 people.

The range of topics covered in the Issues Paper is broad and our comments are directed at the areas of the paper that concern the agricultural sector, specifically the cotton industry:

- electricity prices and energy market reform
- the impact of coal seam gas mining development on agriculture.

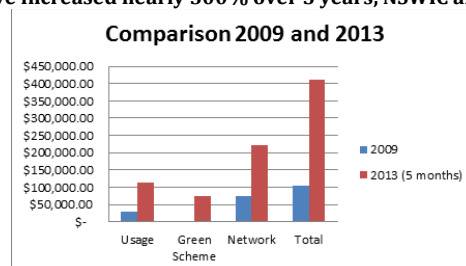
Cotton Australia is a member of the National Farmers' Federation (NFF), the NSW Irrigators' Council (NSWIC), the National Irrigators' Council (NIC) and the Energy Users Association of Australia (EUAA) and the comments contained in our submission reflect consultations with these organisations. Should there be any divergence in views expressed by the four other organisations then Cotton Australia's position is the one outlined in this paper.

### **Electricity prices and energy market reform**

***Electricity price rises (up to 300% over 5 years) are jeopardising the profitability and competitiveness of cotton growing businesses.***

We are very concerned about the impact of increasing electricity prices on farm profitability. Data gathered by NSWIC and Cotton Australia shows that irrigators have faced total electricity bill price rises of up to 300% since 2009 (Figure 1).

**Figure 1: Electricity charges have increased nearly 300% over 5 years, NSWIC and Cotton Australia 2013**



**COTTON AUSTRALIA LIMITED** – A.B.N 24 054 122 879  
**HEAD OFFICE:** SUITE 4.01, 247 COWARD ST, MASCOT NSW 2020 P (02) 9669 5222 F (02) 9669 5511  
**TOOWOOMBA OFFICE:** 115 CAMPBELL ST, TOOWOOMBA QLD 4350  
**NARRABRI OFFICE:** LEVEL 2, 2 LLOYD ST, NARRABRI NSW 2390

[www.cottonaustralia.com.au](http://www.cottonaustralia.com.au)

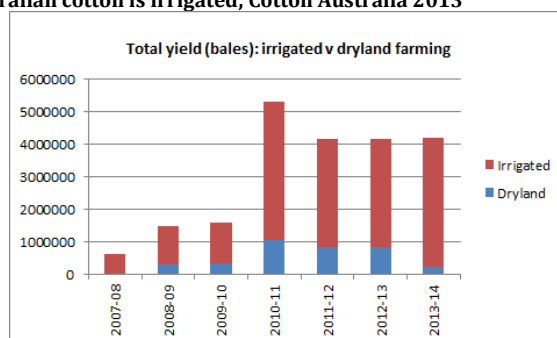


In the past decade, the cotton industry has achieved a 40% increase in water productivity by making structural adjustments which include the introduction of drip and lateral movement irrigation systems. But these systems require more energy to operate. Over 80% of Australian cotton is irrigated, with the remainder dry land grown (Figure 2). As such, most cotton growers are highly exposed to electricity price fluctuation. Even a small cost increase has a large impact on farm business income and productivity. There is already some evidence to suggest that the rapid escalation in electricity price has forced some growers to abandon drip irrigation systems in favour of lower energy use methods.

If the irrigated cotton growers were to switch entirely to dry land farming methods, there would be a significant fall in Australian cotton production. The yield per hectare for irrigated cotton is nearly double that of dry land (9.7 bales per hectare, compared to 4.8 bales per hectare).

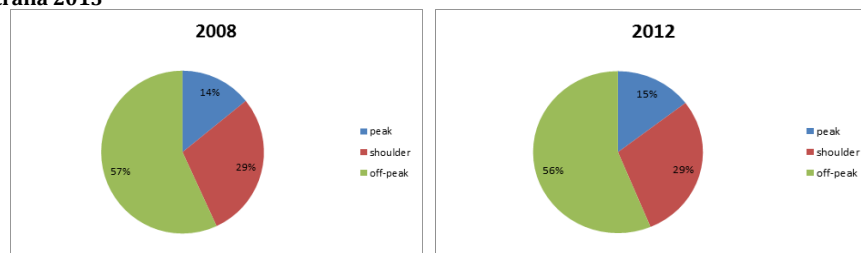
It is worth noting that Australia's cotton growers are world's best in terms of yield of cotton per hectare and per mega litre, producing two and a half times the global average yield.

**Figure 2: Over 80% of Australian cotton is irrigated, Cotton Australia 2013**



Further, cotton farmers have minimal scope for adjusting energy use patterns to minimize costs and take advantage of off-peak pricing. As seen in Figure 3, despite the significant price hikes over the past five years, there has been little change in the usage patterns of irrigators as on-farm electricity demand is driven by the need of the crop, weather patterns and water licence conditions. Regardless, there is often insufficient difference between peak and shoulder charging structures to provide incentive to change irrigation patterns.

**Figure 3: There has been little change in peak, shoulder and off-peak use between 2008 and 2012, NSWIC and Cotton Australia 2013**



**COTTON AUSTRALIA LIMITED – A.B.N 24 054 122 879**

**HEAD OFFICE:** SUITE 4.01, 247 COWARD ST, MASCOT NSW 2020 P (02) 9669 5222 F (02) 9669 5511

**TOOWOOMBA OFFICE:** 115 CAMPBELL ST, TOOWOOMBA QLD 4350

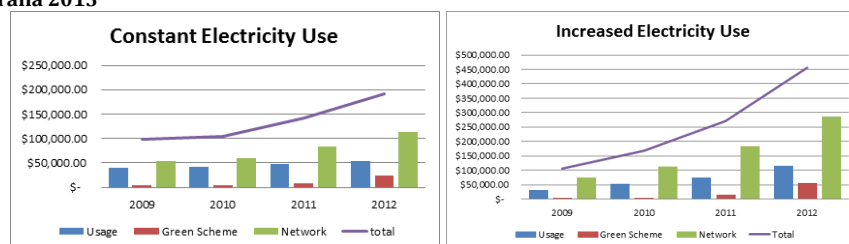
**NARRABRI OFFICE:** LEVEL 2, 2 LLOYD ST, NARRABRI NSW 2390

[www.cottonaustralia.com.au](http://www.cottonaustralia.com.au)



The increase in electricity bills has been largely driven by increases in network costs, which comprise 55–65 per cent of a cotton grower's electricity bill and in most cases these costs are well over \$100,000. As shown in Figure 4, the network cost charge increased 110% for one grower despite a limited increase in electricity usage over the period. In another example, the network cost charge increased 300% relative to an increase in electricity use of 200%.

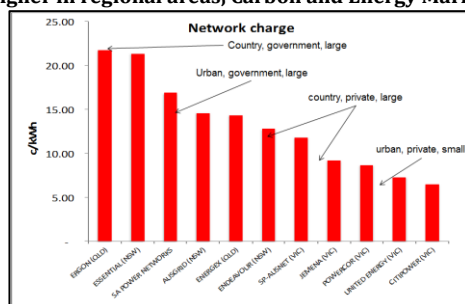
**Figure 4: Electricity bill increases 2008 to 2012: constant electricity use and increased electricity use, NSWIC and Cotton Australia 2013**



The network charge is so significant that some growers have placed locks over their irrigation pump switches to prevent accidentally incurring an electricity bill. In one case, a monthly bill amounted to \$20 000, of which just \$1 000 related to actual electricity consumption.

We are also that concerned that modelling by Carbon and Energy Markets shows a clear imbalance in network charges between the regions and urban areas. The network charge for regional Queensland and NSW is around 30% than the network charge for urban areas of those states (Figure 5).

**Figure 5: Network charges are higher in regional areas, Carbon and Energy Markets 2013**



***Recommendation 1: Farm business or 'food and fibre' tariffs should be tailored to suit the needs of agricultural industries.***

Farmers should have access to 'food and fibre' electricity tariffs that are designed to suit the energy demand of their industry and we ask the Government to work with COAG to encourage electricity providers to provide such tariffs.

Irrigators are unfairly penalised under network demand based tariffs, as their electricity demand is highly contingent on water licence conditions. Ideally a farm business tariff would be volume based (not network demand driven), and would include an option for a weekend tariff rate.



NSWIC have identified the following principles for tariff design to suit the needs of irrigators, which can be applied to all farming businesses:

- tariffs and the associated charges must be positively correlated to the usage patterned of an individual irrigator (farmer). If there is a decrease in use or a modification in the usage pattern towards 'shoulder' and 'off-peak' this must trigger a decrease in overall prices for electricity.
- the tariff and the associated charges must be at levels that do not discourage irrigators (farmers) from participating in national and state water efficiency and land care programs and/or utilising technologies and infrastructure that contribute to the national goal of increased food and fibre production.
- the tariffs must allow for an efficient use of energy related equipment. This includes wires, poles and meters.
- the tariffs must allow for optimal water application that best assists plant growth.
- the tariffs must avoid perverse pricing outcomes, especially in the context of demand charges. Such demand charges must be tailored to the specific farm operation and the equipment used on farm.

As market participation charges comprise up to 20% of an irrigator's electricity bill, we welcome the Government's commitment to remove the carbon tax and review the appropriateness and effectiveness of the Renewable Energy Target.

***Recommendation 2: To ensure the long term competitiveness of the agricultural sector, the Government should provide support for on-farm energy efficiency measures.***

As the Government develops its Energy White Paper, we ask that it considers the areas of overlap with other processes such as the Agricultural Competitiveness White Paper and the Emissions Reduction White Paper. In particular, we ask the Government to consider introducing a range of measures targeted specifically at the agricultural sector that will serve to underpin its competitiveness by enabling farmers to control the cost of their energy consumption (a key production input), as well as reduce emissions.

We would like to see an energy efficiency education campaign targeted at the agricultural sector, including rebates for on farm energy efficiency audits and online farm energy use calculators. We recommend the Government consider encouraging active demand side participation by farmers by offering assistance to identify energy improvements, such as upgrades to pumps or the installation of power factor correcting capacitors has the potential to make significant savings in electricity costs for farmers. Such a measure would have the dual benefit of increasing farm profitability and competitiveness by offsetting rising electricity costs and reducing emissions.

We are concerned that the agriculture sector will not have an opportunity to participate in the Emissions Reduction Fund, as the lowest cost abatement opportunities exist in the industrial and energy intensive sectors. Nevertheless, the cotton industry is keen to be involved in carbon abatement and we would like to see the Government encourage farmers to take direct action to reduce their on farm emissions through energy efficiency audits and upgrades to farming equipment.

**COTTON AUSTRALIA LIMITED – A.B.N 24 054 122 879**

**HEAD OFFICE:** SUITE 4.01, 247 COWARD ST, MASCOT NSW 2020 P (02) 9669 5222 F (02) 9669 5511

**TOOWOOMBA OFFICE:** 115 CAMPBELL ST, TOOWOOMBA QLD 4350

**NARRABRI OFFICE:** LEVEL 2, 2 LLOYD ST, NARRABRI NSW 2390

[www.cottonaustralia.com.au](http://www.cottonaustralia.com.au)



***Recommendation 3: The Government should prepare demand and transmission line modelling of the regional network that includes options for investing in renewables, rather than grid supplied electricity.***

Supplying grid electricity to regional and remote towns can be inefficient and expensive. However these regions can be readily supplied with renewable energy, particularly solar and wind which while having large land-mass footprints, have little impact on the productive capacity of a cotton farm.

Renewable power stations could be installed to meet regional power demand, with any excess fed into the national grid. For example, Cotton Australia in conjunction with QFF, Ergon and Lower Balonne irrigators are looking at renewable energy solutions to meet peak load demands in the St George/Dirranbandi region, without the need to duplicate the Roma-St George transmission line.

We recommend that the Government prepare demand and transmission line modelling of the regional network that considers options for investing in renewables, rather than grid supplied electricity. We also ask the Government to continue to provide support for deployment of renewable energy in regional Australia.

***The impact of coal seam gas mining development on the agricultural sector  
The need to develop energy sources should not undermine Australia's agricultural sector.***

The coal seam gas industry is rapidly expanding and its operations overlap with cotton production in many areas of Central and Southern Queensland, the Riverina and North-Western regions of NSW. Cotton Australia recognises the need to develop these energy sources, but we are increasingly concerned about the impact on the water resources and production cycles that underpin the productive capacity of the industry from mining and gas extraction activities.

Coal seam gas and other mining developments compete with agriculture for land and water resources. The production of cotton relies on access to water, and we are particularly concerned that not enough effort has been made to understand the impacts of coal seam mining operations on water balance and quality of both ground and surface water.

We recognise the role of the *National Partnership Agreement on Coal Seam Gas and Large Mining* and the Independent Expert Scientific Committee. However, we ask the Government to continue to work through COAG to promote a nationally consistent framework that supports coexistence, while including safeguards that will protect the productive value of agricultural land.



***Recommendation 4: To ensure that the impacts of CSG and large mining proposals are systematically assessed at the national level, the Commonwealth should retain environmental approval of CSG projects under the federal Environment Protection and Biodiversity Conservation Act 1999 water trigger.***

Approvals process must maintain water assessment at Commonwealth level and the 'water trigger' under the EPBC Act continues to operate without any amendment.

***Recommendation 5: A national and publicly available environmental monitoring system of mining and gas operations should be established to build a comprehensive understanding of the impact of CSG and mining projects on existing farms and farming areas.***

We need to better understand the impact of CSG operations. Not only the impact on the quality and quantity of ground and surface water sources, but also on the health and wellbeing of the rural communities in which they operate. We recommend a federal repository of environmental, health and safety monitoring data for mining and gas projects be established.

***Recommendation 6: Consistent application of the Standing Council of Energy and Resource's Multiple Land Use Framework.***

We would like to see the consistent application of the guiding principles of the Standing Council's Multiple Land Use Framework Land (agreed in December 2013). The principles are designed to resolve apparent or real conflicts of land use.

***Recommendation 7: Farmers should have the right to say no to coal seam gas and mining development on their farms***

Farmers should have the right to say no to mining development on their farms.

Cotton Australia commends the Government's recent efforts to assist farmers in relation to both energy market reform and coal seam gas mining development. We particularly support the commitment of the Government to remove the carbon tax, and note the Australian Energy Regulator's electricity distribution reset in NSW and Queensland should help lower energy bills for consumers. We are also heartened to see the Prime Minister's support for the rights of farmer's to say no to coal seam gas developments on their land. Nevertheless, we would ask the Government to consider our seven recommendations as it develops the next stage of Energy White Paper.

Cotton Australia looks forward to the release of the Green Paper in May 2014. We also welcome the opportunity to discuss this submission. Please do not hesitate to contact Leah Ross to discuss our thoughts in more detail.

Yours faithfully

Leah Ross  
Policy officer

**COTTON AUSTRALIA LIMITED – A.B.N 24 054 122 879**  
**HEAD OFFICE:** SUITE 4.01, 247 COWARD ST, MASCOT NSW 2020 P (02) 9669 5222 F (02) 9669 5511  
**TOOWOOMBA OFFICE:** 115 CAMPBELL ST, TOOWOOMBA QLD 4350  
**NARRABRI OFFICE:** LEVEL 2, 2 LLOYD ST, NARRABRI NSW 2390

[www.cottonaustralia.com.au](http://www.cottonaustralia.com.au)