COTTON AUSTRALIA
Advancing Australian Cotton

Energy White Paper Taskforce
Department of Industry
GPO Box 9839
Canberra ACT 2601

4 November 2014

Dear Energy White Paper Taskforce

Cotton Australia welcomes the opportunity to comment on the Commonwealth Government's Energy Green Paper. Cotton Australia is the key representative body for Australia's cotton growing industry. The cotton industry is an integral part of the Australian economy, worth over $2.5 billion in export earnings and employing 10,000 people.

As highlighted in our submission to the Issues Paper earlier this year, the cotton industry is particularly concerned about the impacts of:

- electricity prices, particularly network costs, on the profitability and financial sustainability of the industry, and the agricultural sector
- coal seam gas mining and energy resource development on agriculture.

The objective of the National Energy Law is to promote efficient investment in, and efficient operation and use of, electricity [gas] services for the long term interests of consumers of electricity with respect to – price, quality, safety, reliability, and security of supply of electricity [gas]; and the reliability, safety and security of the national electricity [gas] system.

It is not clear to us that the current framework or the policy options outlined in the Energy Green Paper will deliver long term interests of electricity consumers with respect to price. The Minister's foreword highlights that Australia's energy diversity 'provided Australian homes and business access to the energy required to build our industries and our communities.' But in the current environment, high electricity prices are forcing cotton growers (and irrigators more generally) to lock pumps, change production methods and sell water rights to pay their electricity bills.

The Energy White Paper must focus on ensuring that energy is used efficiently and productively to develop Australian industries, particularly agricultural

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industries and regional communities, and not simply viewed as an export commodity.

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 contact in our submission reflect consultations with these organisations. Should there be any divergence in views expressed by NFF, NSWIC, NIC or EUAA, then Cotton Australia's position is the one outlined in this paper.

Electricity prices: network costs, cost-reflective tariffs and support for irrigated agriculture

High electricity prices are impacting on the profitability and financial sustainability of the cotton industry. As highlighted in our previous submission to the Energy Issues Paper, the Australian cotton industry has made structural on-farm irrigation adjustments, which have seen significant improvements in water efficiency. However these new irrigation systems are also more energy intensive. Cotton growers have seen electricity price increases of up to 300% in five years, partly because of the new energy intensive equipment, but predominantly because of increases in network costs and associated demand charges.

Current network tariff structures do not suit irrigated agriculture, including cotton. Irrigation equipment draws high volumes of electricity for a short time, triggering demand charges that are far in excess of the cost to supply the electricity. In one example, a grower received a bill with a $2,000 demand charge for using less than 20kWh of electricity in a month.

The Energy Green Paper and the draft AEMC rules on network pricing indicate a move towards charging that will include critical peak, peak and demand charging. The Energy Green Paper states that 'prices sent by cost-reflective tariffs will give consumers greater choice and a better understanding of the charges they face.' However, the timing of cotton farm irrigation is driven by water license conditions, the need of the crop and weather patterns. There is little opportunity for growers to change their demand patterns to make better use of off peak charging, but even if they could most irrigators are on network tariffs that do not offer sufficient incentive to switch between peak and off-peak.

The impact on irrigators of moving to cost-reflective tariffs is acknowledged by the Commonwealth Government in the Energy Green Paper:

> *Some consumers are not in a position to change their electricity consumption patterns in response to price signals…agricultural businesses such as irrigators where the time of electricity use is not flexible. Both the pattern of daily use and overall use will affect the cost implications of cost-reflective tariffs on such consumers.*

Already, we have seen businesses replace water efficient irrigation systems and return to flood irrigation methods to minimise exposure to electricity network price rises. We are concerned that further price rises will force many irrigators to go off grid or leave the industry altogether. As most of the Australian cotton crop is irrigated, if 10% of the irrigated cotton industry elected to leave the industry this represents a fall in Australia export earning of up to $350 million per year. Importantly for networks, if irrigators switch off or leave the grid the networks risk a lower revenue base and higher number of stranded assets.

Networks should be required to provide tariffs that are tailored to suit the needs of irrigated agricultural industries.

Cotton Australia supports the NSW Irrigators Council's recommendation (in its submission to the Energy Green Paper) that network tariffs for food and fibre producers should adhere to the following design principles:

- There should be a positive correlation between the network tariff charges and the electricity usage pattern of irrigators.
- Tariffs should not discourage irrigators from participating in national and state water efficiency and land care programs
- Tariffs should not discourage irrigators from utilising technologies and infrastructure that contribute to the national goal of increased food and fibre production:
    - Tariffs must allow for an efficient use of electricity related equipment on farms.
    - The tariffs must allow for optimal water application that best assists plant growth.
- The tariffs must avoid the perverse pricing outcomes associated with demand/capacity charges, where irrigators are penalised for using network to irrigate based on the need of the crop, weather and license conditions, rather than when irrigation is not required.

Introduce a Regional Australia Food and Fibre Community Service Obligation

There is a clear imbalance in network charges between the regions and urban areas. The network charge for regional Queensland and NSW is around 30% more than the network charge for urban areas of those states. In NSW, Essential Energy maintains 1.4 million poles, 400 substations and 200,000 kilometers of power lines for 800,000 consumers. By way of comparison, Ausgrid maintains 500,000 power poles, 200 substations and 50,000 kilometers of power cable for 1.6 million consumers in the Sydney, Hunter and Central Coast area.

Cotton Australia also recommends that the Government consider introducing a Regional Australia Food and Fibre Community Service Obligation to address the inequitable costs of providing electricity to regional Australia, compared to urban and semi-urban Australia. A Regional Australia F&F CSO would have the multiple benefits of providing support for regional Australian communities, as well as preventing the crippling of food and fibre irrigators and the mitigating the 'death spiral' in regional areas. Ideally, the Regional Australia F&F CSO would be paid for by governments. Such an approach would shift what is currently an opaque subsidisation between regions and consumer classes to a transparent budget expense that could be reviewed annually by Parliament. Alternatively and less optimally, the Regional Australia F&F CSO could be transparently levied on electricity bills of non-regional Australian electricity consumers. Again, the total levy collected could be reviewed annually.

Cotton Australia recognises the Regional Australia F&F CSO if levied on other users is a cross-subsidy, however we are deeply concerned that electricity network price increases (of around 300% in the past five years) are diminishing profitability and jeopardizing the ongoing sustainability of irrigated food and fibre production in Australia (worth over $13.5 billion per year).

Furthermore, investment and production decisions have been made by cotton producers (and other food and fibre irrigators) based on existing, albeit, inefficient and inappropriate tariff structures. A significant change to the tariff structure and price of electricity without appropriate transition mechanisms (such as a Regional Australia F&F CSO) would undermine those business decisions.

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Electricity prices: reliability standards, network revenue setting and efficiency sharing

Representatives from irrigated agriculture should be appointed to the national advocacy body Energy Consumers Australia. The Energy Consumers Australia should be tasked with identifying consumer reliability needs by distribution feeders.

Reliability standards are set by the states and territories and it appears to be a disconnect between the level of reliability consumers are willing to pay for and the reliability standards imposed on networks. In the regions, particularly at the fringe of grid, adequate supply cannot be relied on. Most irrigators have a relatively inelastic demand for electricity, requiring reliable supply, and are located in regional areas. As a result many have invested in back up diesel generation capacity in the event that grid supply is disrupted.

Nevertheless, the standards set by NSW in 2005 are above the standards required by most consumers for reliable supply. The high standards triggered the overinvestment by the networks in that state and ultimately led to the higher network costs.

A balance is required to ensure that reliability standards are appropriate for the geographical area and we support the establishment of Energy Consumers Australia.

The AER must be appropriately resourced to ensure scrutiny of network revenue proposals, including developing consistent standards for investment and operating material provided by networks.

Over 60% of Australian cotton is grown within Essential's northern and southern distribution networks. As such, Essential's regulatory proposal directly impacts the profitability of a substantial proportion of Australia's cotton production.

In the current NSW revenue determination process, Essential Energy has provided the AER with over 22,000 pages of documentation. The other three networks have provided similar levels of documentation, in a variety of formats, providing information of varying quality. While regulatory proposals provide a useful summary of revenue requirements, detailed information on investment decisions, demand forecasts, the revenue base and the WACC are contained in attachments to the proposals.

The Better Regulation and Power of Choice processes focused on increasing consumer engagement and participation in the energy market. But the information that is provided by the networks on revenue proposals and tariff structures is largely impenetrable. The AER must develop a standard set of requirements and templates for information provided to it (that are easy to use and easy to understand), particularly in relation to investment decisions, operating expenditure and the calculation of the WACC.

Further, we question whether the resourcing of the AER, particularly in light of current Commonwealth funding cuts, is sufficient to adequately consider and analyse this level of information. We would further question whether the resourcing is sufficient to make determinations that are fair and balance the investment and expenditure needs of the networks, with the community's need for reliable, secure and affordable electricity supply.

Review the effectiveness Efficiency Benefit Sharing Scheme and Demand Management Incentive Schemes and ensure any changes are incorporated into the current network revenue determinations

Cotton Australia considers that the Australian Energy Regulator's Efficiency Benefits Sharing and the Demand Management Incentive schemes should be reviewed and updated to ensure that the benefits of consumers participating in demand management are shared and are not eroded by the networks revenue recovery process. Essential Energy's revenue proposal for the 2014–2019 regulatory period seeks to return only $77 million via the Efficiency Benefits Sharing Scheme, compared to its overall revenue requirement of $6.8 billion.

We understand the AER will be making changes to the Demand Management Incentive Scheme rules and principles as they are developed later in 2014.
We consider the onus should be placed on networks to demonstrate why demand management investments *should* be made, rather than placing that onus on demonstrating why demand management investments *should not* be made.

But importantly, we are concerned these changes will not occur in time to be incorporated into the current NSW network determination process, particularly as a draft decision is due at the end of November 2014.

Energy Productivity: innovation and efficiency of electricity use

Introduce an agricultural energy efficiency program

Recognising that while there is limited scope for adjusting energy use patterns and the resultant variable load profiles of most irrigators, Cotton Australia, in collaboration with NSW Irrigators' Council and the NSW Office of the Environment and Heritage has embarked on a program of on-farm energy audits.

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The purpose of the audits is to identify opportunities to improve electricity productivity in irrigation. As part of the program, the energy audits will also include the services of agronomists and irrigation designers to ensure that yields and water efficiency are not compromised to deliver energy saving.

Initial estimates suggest savings of over $1 million per year are achievable from the 11 pilot participants alone. Extrapolated to the wider cotton industry suggests annual savings of up to $100 million, or 4% of the value of the industry[1].

The Energy Saver program is highly effective and Cotton Australia recommends that the Commonwealth Government provide support for a wider ranging irrigation audit program, including funding or accelerated depreciation for any capital upgrades to on-farm equipment that will result in energy efficiency savings.

However without an appropriate efficiency sharing mechanism, consumers may not realise any significant benefit from decreasing or modifying the pattern of energy consumption as networks will continue to recover the same revenue over the regulatory period (see Recommendation 5).

Emissions Reduction Programs
Cotton Australia notes that various emissions abatement programs have increased the cost of electricity for consumers. In recent analysis with NSWIC, we found that Green Scheme costs represented 15-20% of an irrigator's electricity bill. However, we also note that the rationalisation of emissions abatement programs at all levels of government has long been the subject of COAG discussion.

Cotton Australia supports climate action and we encourage our growers to take action to improve nitrogen productivity, energy efficiency and native vegetation management. However in its current form, there are significant administrative barriers to grower participation in the Emissions Reduction Fund:

- *ERF Auction Design:* The minimum bid that will be accepted into the auction is 2000 tonnes of CO_2. A project of this size would require the participation of at least 10 cotton farms and the services of an aggregator.
- *Risk:* In the event of an adverse weather event, the grower may need to change production practices from those agreed in the project and as a

[1] Cotton Australia acknowledges the professionalism and dedication of the Office of the Environment and Heritage in developing and delivering the Energy Saver program for Cotton Australia and NSWIC irrigators.

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result increase emissions over the baseline. This potentially exposes the grower (or aggregator) to financial risk.

- *Cost:* The cost of participating in a project funded through the Emissions Reduction Fund, including the necessary record keeping and auditing will in most cases outweigh any financial benefits.
- *Additionality:* Growers who have already made changes to farming practices (such as improving nitrogen productivity) cannot participate.

Instead, Cotton Australia recommends the Government consider:

- an agricultural energy efficiency program including audits and funding for upgrades to farm equipment (see Recommendation 6)
- support for research, development and extension funding to deliver practical support to farmers to improve productivity and sustainability, while reducing emissions.

The impact of energy resource development on the agricultural sector: approvals, building and sustaining gas supply

The need to develop energy sources should not undermine Australia's agricultural sector.

The mining and coal seam gas industries are rapidly expanding and 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 gas and mining operations on water balance and quality of both ground and surface water.

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 and mining projects under the federal Environment Protection and Biodiversity Conservation Act 1999 water trigger.

Confidence in the regulation of operating mining and gas projects amongst farmers is very low. A key finding of the NSW Chief Scientist and Engineer's report was that the Departmental compliance and enforcement of conditions is severely lacking.

As a result, the approvals process must maintain water assessment at Commonwealth level and the 'water trigger' under the EPBC Act continues to operate without any amendment.

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 broader environment and the cumulative impacts on the rural communities in which they operate. We recommend a federal repository of environmental monitoring data for mining and gas projects be established in line with the NSW Chief Scientist and Engineer's Final Report on Coal Seam Gas released in September.

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.

Farmers should have the right to decide about coal seam gas and mining development on their farms

In March 2014, Cotton Australia with NSWIC and NSW Farmers' Federation signed an agreement with Santos and AGL that recognises the rights of farmers to say "yes" or "no" to drilling operations on their land. We would like to see this agreement extended to all mining and CSG companies.

Cotton Australia looks forward to the release of the Energy White Paper and hopes that the Government can deliver policy settings to ensure that Australia's energy is used efficiently and productively to continue to develop Australian agriculture and Australia's regional communities, and not simply viewed as an export commodity. Please do not hesitate to contact Michael Murray to discuss this submission in more detail.

Yours faithfully

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