Senate Rural and Regional Affairs and Transport Committee

Submission to Inquiry into Climate Change and the Australian Agricultural Sector

Australian Energy Company Limited

The Secretary
Senate Standing Committee on Rural and Regional Affairs and Transport
Parliament House
Canberra ACT 2600

Dear Secretary,

Please find following a brief submission to the Senate Standing Committee on Rural and Regional Affairs and Transport with respect to the Inquiry into Climate Change and the Agricultural Sector.

For further information or follow up on this submission, please contact:

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Yours Sincerely,

Allan Blood
Chairman
Australian Energy Company Limited

Terms of Reference

On 19 September 2007, the Senate referred the following matter to the Standing Committee on Rural and Regional Affairs and Transport for inquiry and report by 30 June 2008.

On 14 February 2008, the Committee resolved to recommend to the Senate that the Inquiry be re-adopted with terms of reference unchanged and with a reporting date of 4 September 2008.

i. the scientific evidence available on the likely future climate of Australia's key agricultural production zones, and its implications for current farm enterprises and possible future industries;
ii. the need for a national strategy to assist Australian agricultural industries to adapt to climate change; and
iii. the adequacy of existing drought assistance and exceptional circumstances programs to cope with long-term climatic changes.

Introduction

This submission by the Australian Energy Company (AEC) to this inquiry focuses on the potential impact of climate change and an associated increasing demand for fertiliser due to a potential reduction in arable land.

Global warming will further exacerbate the trend to higher fertiliser costs for Australian farmers and restricting supply. Population increase, reduced arable land and unpredictable weather all result in the need for a greater yield per hectare and hence greater demand for fertiliser.

Supply of fertiliser in an Australian context is risky and exposed to imports due to currently no significant domestic manufacturing source. The international fertiliser market is also impacted heavily by the competing demands and rising costs of a significant feedstock, namely natural gas.

As such, there is a strong need for a national strategy to assist the agricultural sector to adapt to climate change and that strategy needs to address the fundamental matter of security of fertiliser supply for Australian farmers.

Background

AEC does not present itself as an expert on climate change matters but provides this submission as background to the broader impacts on demand and supply issues in the agricultural space, with particular reference to the demand for fertiliser, security of supply and how the impact of climate change potentially places greater burdens on existing agricultural land.

AEC will also be providing a submission to the Senate Select Committee on Agricultural and Related Industries with respect to the inquiry into:

- The pricing and supply arrangements in the Australian and global chemical and fertiliser markets, the implications for Australian farmers of world chemical and fertiliser supply and pricing arrangements, monopolistic and cartel behaviour and related matters.

About the Australian Energy Company and the Latrobe Valley Urea Project

AEC is currently in the development phase of a $2 billion Urea fertiliser plant in the Latrobe Valley of Victoria, which will use the latest carbon capture and storage technology to produce 1.2 million tonnes of urea fertiliser per annum.

This facility will use Victoria's significant lignite/brown coal reserves as feedstock as opposed to natural gas, which is the primary feedstock for other Urea plants around the world.

This facility, when fully operational by 2012, will replace approximately $300 million of current urea imports and generate approximately $150 million of exports per annum.

Response to Inquiry Terms of Reference

i) The scientific evidence available on the likely future climate of Australia's key agricultural production zones, and its implications for current farm enterprises and possible future industries

AEC does not offer an opinion on current scientific evidence available on the likely future impact on Australia's key agricultural production zones.

However, in the context of this submission as articulated above, namely on the issue of demand for fertiliser, AEC submits that:

1. Current trends in global population growth and dietary changes both domestic and international will continue to place increasing demand on Australia's current agricultural production zones.

2. The *potential* for climate change to either reduce the total area of arable land in Australia due to reduced rainfall, extreme weather events or fundamental seasonal variations or to reduce the yield per hectare of total arable land will place increasing demand on those areas.

3. The combination of increasing demand with reducing arable land or yields forces the need for increasing the output of those areas through plant nutritional supplements i.e. fertiliser.

4. The climatic impacts may not be uniformly global but it is indicated that the net global arable land for crop production may reduce by as much as 30% in the next 50 years (assuming a halt to land clearing and other measures resulting in an increase to carbon emissions).

5. The international demand for fertiliser will increase (through both current trends and the potential for climate change impacts) and with Australia currently exposed to imports for our fertiliser needs, there is both an increasing cost and security of supply issue that Australia must address.

ii) The need for a national strategy to assist Australian agricultural industries to adapt to climate change

AEC submits that a key element to a national strategy for adapting to climate change is security of fertiliser supply to ensure long term productivity from our soil resource.

Australia currently imports up to 1.4 million tonnes of urea per annum. This urea supply is exposed to a number of risks, namely:

1. Urea imports are predominantly sourced from Middle East natural gas feedstock which carries the inherent risk of:

    - Climate change risk is leading to a realignment of the demand for energy resources. Natural gas is becoming increasingly expensive in the global arena.
    - There is increasingly strong global demand for gas; the European price is in the range of US$6 to US$8 GigaJoule (GJ) as is the United States and China.
    - The Middle East and Russia are accelerating their global ownership percentile of available gas.
    - Australia has large reserves of natural gas but they are similarly being used and being exported with the same global competitive issues being present.
    - Clean coal technology (technically and commercially proved), can assist Australia in this need as it is now beginning to in other parts of the world

2. The cost of fertiliser has doubled in the last 12 months, mainly due to tightening supply on the international market. The Australian agricultural and hence fertiliser market is small on the international scale and can suffer from 'out of mind' issues due to small volumes, hence higher prices and reduced supply as a function of scale.

3. Potential exposure and cost issues flowing through the agricultural sector as a result of a 'carbon cost' of the fertiliser due to imports bearing an imposed 'carbon cost'.

    With emissions trading and other matters evolving internationally, there is the potential for significant exposure to carbon costs associated with imported fertiliser, hence higher costs for agricultural producers and hence higher costs for domestic consumers and reduced export competitiveness.

    With a domestic fertiliser supply from a plant such as the AEC Latrobe Valley Project which will be carbon neutral due to carbon geo-sequestration, innovative high efficiency energy recovery and other measures, this 'carbon cost' in whatever form it takes on both an Australian or international level (Emissions Trading, carbon tax etc) will not be a cost burden of this domestic fertiliser supply or to farmers and the end consumer.

Hence, AEC submits that there is a need for a comprehensive national strategy in the face of climate change and this strategy needs to be inclusive of fertiliser supply, in terms of managing costs of such fertiliser and perhaps, more critically, security of such supply for the domestic agricultural sector.

iii) The adequacy of existing drought assistance and exceptional circumstances programs to cope with long-term climatic changes.

AEC does not provide comment on the above issue.

Conclusion

The Australian Energy Company has provided this submission in the interests of highlighting the downstream risks associated with climate change with respect to fertiliser supply. AEC does not claim to provide this submission as an expert in climate change or other areas but does so for the purposes of informing the broader debate and how the *potential* for climate change impacts alone requires action in the agricultural space and the need for a secure fertiliser supply.

For further information on the Latrobe Valley Project please contact:

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