

Inquiry: Carbon TaxDate/Time: 1-9-11 12:27 pmWitness Name: Nick BarlowOrganisation: Anglo American

Mr Chairman

Anglo American welcomes this opportunity to outline our concerns in regard to the current design of the Carbon Pricing Mechanism. Appearing as a witness today compliments our extensive engagement on this issue with the Prime Minister, key Ministers and members of parliament and State Premiers.

### **About Anglo American**

By way of introduction, I am Nick Barlow, Head of Resource Development and Operational Excellence. I have worked in the mining industry for over 26 years. During this time I have had extensive local and overseas management experience including senior operational, technical and management roles in coal, gold and copper in Australia, USA, Indonesia and Papua New Guinea.

Anglo American is one of the world's largest mining houses with a range of businesses covering platinum, diamonds, coal, base and ferrous metals and industrial minerals and has operations and developments in Africa, Europe, South and North America and Australia.

Anglo American's metallurgical coal business is one of Australia's leading metallurgical coal producers with extensive coal mining interests in Queensland's Bowen Basin and New South Wales' Hunter Valley. We have six operating mines (five in the Bowen Basin – Callide, Capcoal, Dawson, Foxleigh and Moranbah North - and one in the Hunter Valley - Drayton). We produce around 40 million tonnes (Mt) of coal (both thermal and coking coal) annually. 75% of our production is for the export market. We also have four greenfield projects - two underground export metallurgical coal projects (Grosvenor and Moranbah South) in the Bowen Basin and two opencut export thermal coal projects in the Hunter Valley (Drayton South and Dartbrook).

We currently employ around 5,000 permanent employees and contractors. Successful approval of our four greenfield projects will see a further 3,200 people recruited.

## **Introduction**

As you will have seen from our submission, Anglo American is a company with a demonstrated commitment to emissions reduction.

Over the past 5 years we have spent more than \$120 million to reduce our carbon footprint by a total of 8 million tonnes of CO<sub>2</sub> equivalent. We also contribute almost \$10 million annually to the COAL21 Fund and Australian Coal Association Research Program.

It is in this context, we understand and support the Federal Government's commitment to combat climate change and reduce carbon emissions.

We also support the view that an emissions trading scheme – carefully designed, and aligned with global developments – can be a cost effective and efficient means of reducing Australia's carbon footprint.

However we do not support the Federal Government's proposed Carbon Pricing Mechanism in its current form.

The proposed Carbon Pricing Mechanism will severely impact Anglo American.

The value of our four planned new mines would be significantly reduced putting at risk \$4 billion of investment, more than 3,200

jobs and \$5.7 billion in ongoing royalty payments to State Governments.

This is not because we are unwilling to respond to permit price signals by reducing emissions.

It is because the absence of readily available mitigation technologies means that, for a period of up to 10 years, we will be unable to substantially reduce our emissions beyond current levels.

The Carbon Pricing Mechanism does not provide for a reasonable transitional implementation such as phased auctioning of permits. This is compounded by the deliberate exclusion of the coal industry from the Jobs and Competitiveness Program available to other emissions-intensive trade-exposed sectors of the economy.

In addition, the proposed Carbon Pricing Mechanism covers fugitive emissions from coal mining despite the fact that no other major coal producing country or export competitor imposes a direct climate policy constraint on fugitive coal mining emissions.

Let me explain Anglo American's predicament in more detail.

## **Anglo American's Carbon Footprint**

In 2009-10 Anglo American's emissions were 4.65 MtCO<sub>2</sub>e as reported under NGERs. With more difficult mining conditions this emissions level is projected to rise.

75% of our emissions are fugitive emissions including methane vented, methane flared, low concentration methane released during underground mining operations (otherwise known as ventilation air methane or VAM), and fugitive emissions from opencut operations. The remaining 25% of emissions are largely electricity and fuel consumption (primarily diesel fuel at our opencut operations).

Our challenge is how to abate these emissions. In simple terms, we cannot capture 53 per cent of our emissions due to a lack of technology to mitigate fugitive emissions. There are currently no commercial scale technologies available to mitigate VAM from underground mining or opencut fugitive emissions.

While high concentration or rich methane from our underground mines is a particular problem for us, because the high quality metallurgical and thermal coal we export is found in gassy seams,

over the past five years we have invested around \$120 million in existing technology to capture high concentration methane and diverting this to two coal seam methane power stations at Capcoal and Moranbah in Central Queensland and the Townsville Gas Pipeline. The emission reductions realised by these projects is equivalent to taking more than half a million cars off our roads each and every year.

However, VAM makes up 31% of our footprint and technology to abate VAM is in its infancy. While Regenerative Thermal Oxidiser (RTO) technology such as Vocsidizers – designed to reduce low concentration methane emissions – is on trial in the Illawarra, before widespread deployment of RTO technologies treating full ventilation air flow can be contemplated, a range of issues relating to safety, process stability, process control, and operability will have to be successfully addressed.

First and foremost, these RTO technologies rely on operating temperature of approximately 1,000 degrees Celsius, which is well above the auto-ignition temperature of an explosive mixture of methane in air of approximately 500 degrees Celsius. There is the potential for the gas to auto-ignite and explode in an RTO apparatus and for such an explosion to pass through the ductwork

back into the mine. Clearly, the potential consequence of such an event on those working in the mine would be disastrous and the likelihood of such an occurrence must be reduced to microscopic levels.

As a second order issue, impurities such as dust in the ventilation air can cause the system to become inoperable. The Australian coal industry is assessing these two issues but, realistically, it will be 10 years or more before a solution to the problem of VAM can be put in place.

More than 15% of our emissions are fugitive emissions that arise during open cut mining. It is not technically feasible for most of the coal industry, including Anglo American, to capture these emissions. Possible solutions are only in the research stage. It could be as much as 15 to 20 years before there is any viable means to mitigate these emissions.

Finally, our electricity and fuel use is around 25% of our footprint. By introducing more energy efficient technologies and processes we have reduced our energy consumption (actual energy intensity per product tonne) by around 4% over the past year. We will

continue to look for ways to further reduce our energy consumption but these are likely to be small reductions.

### **Carbon Pricing Mechanism Impacts on Anglo American**

While some of these issues are common to the entire coal industry, the particularly gassy nature of several of our operations means that Anglo American will be disproportionately negatively impacted by the Carbon Pricing Mechanism in its current form.

Under the Government's Carbon Pricing Mechanism Anglo American's current operations and planned investments will face cost increases of more than \$1.4 billion by 2020.

Our three gassiest mines face cost increases of \$200 to \$350 million or \$2.60 to \$4.50 per tonne of saleable coal over this period. This is after expected assistance from the Coal Sector Jobs Package is received.

If the Carbon Pricing Mechanism is introduced in its current form Anglo American will be faced with some very unpalatable decisions. To remain internationally competitive we will need to reduce internal costs, and, potentially, shed jobs. If we do not, we



will lose market share and the viability of our operations will be placed at risk.

In terms of our projects, the value of four planned new mines would be reduced by 24 - 32 per cent under the proposed Carbon Pricing Mechanism. These new mines must pay 100% of their carbon liability from day one as the Coal Sector Jobs Package does not include transitional assistance for projects. This value drop pushes our Australian projects down the list of Anglo American investment priorities and they would be at risk of not progressing. Grosvenor is the first of these planned Australian projects to be presented for Anglo American Board approval in December. Based on the reduced return and risk it may not go ahead.

Australia may lose Anglo American's investment of \$4 billion, more than 3,200 jobs and \$5.7 billion in ongoing royalty payments to State Governments with no impact on global emissions as projects will proceed in other countries.

### **Our Preferred Solution**

The Government can achieve substantial emissions reduction without the severe economic impacts that Anglo American faces.

Our concerns could be addressed with a single, simple change. It involves phasing in the auctioning of permits for trade-exposed industries, as proposed by the Minerals Council of Australia (MCA). This would allow Australia to make the transition to a low-carbon economy in the long term without destroying jobs in the short term.

Australia's scheme does not have to raise significant amounts of revenue in order to reduce emissions. Phased in auctioning will not impact on the environmental rigour of the scheme however it will influence the economic impact. For example, the EU ETS has had a carbon price since 2005 while auctioning only 2 to 3% of permits. In comparison Australia's scheme will raise more tax in its first 7 months than the EU's ETS generated in its first 6 and a half years (\$A4.96 billion).

However, even within the confines of the existing Carbon Pricing Mechanism proposal, one modification would transform the outlook for Anglo American.

This is to replace the Coal Sector Jobs Package with an emissions price cap of \$1 per tonne of saleable coal so that mines

pay up to this level but no more for a period of at least 10 years. We would also support the inclusion of a review after five years from the start of the scheme to determine if it is still appropriate.

A cap of \$1 for the period to 2020 would have a reduced impact on our growth projects and at these levels the projects would be likely to proceed. It would also allow funds to be freed up for investment in abatement technology.

## **Summary**

In summary, the Government's proposed Carbon Pricing Mechanism has the potential to put the future of Australia's coal industry at risk. From Anglo American alone, Australia may lose \$4 billion worth of investments and forgo more than 3,200 jobs. It simply does not make sense to implement the proposed Carbon Pricing Mechanism and forfeit the benefits of the coal industry for little or no environmental gain. This is especially the case when a better way in the form of phased-in auctioning of permits could be implemented at a much lower cost and ensure both the future of the coal industry and the intended environmental outcome.

Thank you.