Supplementary Expert Report to the Land Court by Jon Stanford

1. Instructions

I have been instructed by Allens Arthur Robinson on behalf of Xstrata Coal Queensland Pty Ltd to formulate a report in response to the following questions:

1. Can you please provide us with any relevant response, from a policy and economic perspective and with references to your expert report dated 8 July 2011 where appropriate, on the experts reports to be relied upon by the Friends of the Earth – Brisbane Co-Op Ltd (FoE); and
2. Upon reflection to the *Clean Energy Future Plan* that was released by the Australian Government on 10 July 2011, can you please provide details of any amendments you require to your report dated 8 July 2011 and the reason for each amendment (if any).

In order to prepare this report, I was provided with the expert reports by Emeritus Professor Ian Lowe dated 3 August 2011, Dr Malte Meinshausen dated 3 August 2011, Mr Hans Hoegh-Guldberg dated 4 August 2011 and Professor Ove Hoegh-Guldberg dated 3 August 2011.

2. Opinion and Findings

2.1 General Response to Friends of Earth Expert Evidence

Much of the evidence contained in the expert reports provided in support of the objection by the Friends of the Earth – Brisbane Co-Op Ltd (FoE) discusses the occurrence of and effect of climate change. This evidence is largely based on scientific studies. I am not an expert in the field of climate science and have no cause to dispute either that climate change is real and is occurring, or that human actions are contributing significantly to climate change or that continuing climate change has the potential to cause significant economic damage in the future.

Where my views diverge from those of the expert witnesses on behalf of FoE, however, is in regard to the implications of these scientific findings for economic analysis of the problem and for public policy approaches.

In general, the expert witnesses on behalf of FoE suggest that there would be benefit in terms of slowing the rate of climate change if the Wandoan mine were either to be prohibited from going ahead or postponed until it became feasible to capture and store underground the greenhouse gas (GHG) emissions associated with the mine. As it is not yet feasible to capture and store these emissions, effectively this implies prohibition of the mine at least in the medium term and perhaps forever.

The expert witnesses on behalf of FoE do not generally accept the argument that to prohibit the Wandoan mine would have a negligible impact on climate change because they do not accept that the resulting supply shortfall would be filled by additional coal output from existing or new coal mines in some other location.

In my report dated 8 July 2011, I have stated a different view; that a policy approach to climate change based on banning investment projects such as the Wandoan mine constitutes neither an efficient nor effective strategy and that it would impose significant costs on the Australian community that would not be matched by any offsetting benefits. The expert reports on behalf of FoE do not cause me to change my view.

In my opinion, the approach proposed by FoE would be *inefficient* because it is not based on seeking to reduce GHG emissions by exploiting the cheapest sources of abatement. This can best be achieved by a market mechanism, such as a carbon tax or emissions trading scheme, and this is the essence of the Australian Government's policy approach (as I discuss in more detail in Section 2.5 below).[1] In addition, in my opinion the FoE approach would be *ineffective* because it would be likely to have a negligible impact on reducing the level of global GHG emissions, which is the relevant consideration in terms of climate change. This is because banning an individual mine, such as Wandoan, will not affect the global demand for coal and, since there is an abundance of reserves of coal in the world (as acknowledged by Professor Lowe at paragraph 33 of his report), any shortfall in supply, such as that resulting from the prohibition of Wandoan, will be made up by the production of additional coal from mines in some other location.

The approach proposed by the expert witnesses on behalf of FoE, therefore, would impose costs on the Queensland and Australian communities that could be substantial. The Australian Government has acknowledged that its policy will impose some costs on the community, which it is addressing by means of a compensation package.[2] My view is that the logic of supporting an alternative policy approach, which would not aim to reduce GHG emissions by targeting the lowest costs of abatement, would necessarily lead to higher costs to the community. To the extent that such an approach gives rise to carbon leakage, involving the effective transfer of investment dollars and jobs overseas, this cost to the community would be higher still.

Some of the costs to the community from carbon leakage, as a result of prohibiting coal mines such as Wandoan, will arise in terms of loss of government revenue from royalties, at the State level, and from corporate income tax and the Minerals Resource Rent Tax (MRRT) at the Commonwealth level. In Queensland, for example, revenue from coal royalties is projected to be $595 million higher in 2014-15 than in 2010-11. Compared with 2010-11, the cumulative projected increase in revenue from coal royalties over the four years to 2014-15 is over $2 billion.[3] While some of this additional royalty income may be derived from increased production in existing mines, if new coal mines were prohibited in Queensland over this period the impact on State government revenue could be significant. This implies either that other taxes would need to increase to make up the shortfall, or that there would need to be some reduction in government services compared to what otherwise would have occurred. While it is not clear what the impact may be at the Commonwealth level, a similar argument applies.

Some of these costs to the community may be acceptable if there were offsetting benefits in terms of reducing the rate of climate change. To the extent that such benefits may have been achieved more cheaply by more efficient measures, however, it would be wrong to say that *all* the costs may be acceptable. But I consider that the proposed approach of banning individual coal mines would have a negligible impact on reducing global GHG emissions. My conclusion is, therefore, that the approach proposed by the experts on behalf of FoE would give rise to substantial *net* costs to the Queensland community and to Australians more generally.

Finally, the attribution by the experts on behalf of FoE of Scope 3 emissions from using coal produced from the Wandoan project to Australia seems to me to be inappropriate. Conventionally,

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[1] See, for example, *Securing a Clean Energy Future: the Australian Government's Climate Change Plan,* Commonwealth of Australia, 10 March 2011, http://www.cleanenergyfuture.gov.au/wp-content/uploads/2011/07/Consolidated-Final.pdf, page viii.

[2] Ibid, Chapter 4.

[3] Queensland Government, *Budget Strategy and Outlook, 2011-12,* Appendix C, Table C1.

emissions from combusting fuels are the responsibility of the jurisdictions in which they occur and, as I suggest in Section 2.4 below, the Queensland Coordinator-General does not consider such emissions as a relevant issue when evaluating the environmental impacts of new coal mines. I know of no country, even those that are taking substantial action to address climate change, where governments are looking to prohibit or regulate the growth of industries whose products give rise to Scope 3 emissions in other jurisdictions. If the Wandoan project were to be prohibited on this basis, the logic of the approach applied internationally would imply that Germany and Japan, for example, might ban or restrict the export of motor vehicles because of the GHG emissions they produce in use in other countries. To my knowledge, such a policy approach is not being considered by any government.

2.2 Response to report by Emeritus Professor Lowe

As suggested above, some of the expert evidence on behalf of FoE challenges the contention that if the Wandoan mine does not go ahead a similar quantity of coal will be mined somewhere else in the world and there will be no significant impact on global emissions of GHGs.

Professor Ian Lowe does not challenge the substance of this contention in the sense that he agrees that "it is true that there is a large amount of coal in the world and that the coal could be supplied from another mine" (paragraph 33 of his report). In a related footnote he acknowledges that: "Globally, coal reserves are significantly larger than other fuels. At current prices and consumption rates, present reserves of coal will not be depleted until the year 2168" (footnote 33 of Professor Lowe's report). At the same time, Professor Lowe does not suggest that the banning of the Wandoan mine would have any impact on the global demand for coal.

Rather, Professor Lowe's argument for prohibiting the development of Wandoan until carbon capture and storage (CCS) technologies are available is different. His contention is that if the Wandoan coal resource is not developed, the GHGs that would be released as fugitive emissions if mining went ahead would instead remain trapped underground. In that narrow sense, of course, Professor Lowe is correct and, if the project does not proceed, fugitive emissions from the Wandoan resource will not eventuate and therefore will not contribute to the build up of carbon concentrations in the atmosphere. In a wider sense, however, as Professor Lowe acknowledges is at least possible (paragraph 33 of his evidence), a similar level of fugitive emissions may be produced at some other location in the world where additional coal is produced to make up for the shortfall in supply consequent on the prohibition of the Wandoan mine. Therefore, to the extent that Professor Lowe cannot demonstrate that the banning of the mine will have any impact on global emissions, as against those arising from Australian activities, I have difficulty understanding the significance of the point being made.

Professor Lowe also suggests that the problems caused by climate change "ultimately need to be addressed through action at the level of individual projects such as this proposed mine" (paragraph 33 of his evidence). This is a contentious statement that, to my knowledge, is not generally supported by economists or policy-makers. It is inconsistent with the global approach to addressing climate change that has been pursued since the Earth Summit in Rio de Janeiro in 1992. As I have stated, the most efficient and effective way to address climate change is to adopt a global market-based system that imposes a price on GHG emissions. In regard to coal mining, for example, this will ultimately reduce the demand for coal relative to what would have otherwise occurred. This will therefore reduce the production of coal and the emissions resulting from its mining, transport and use.

The approach proposed by Professor Lowe, on the other hand, would target new emissions-intensive projects, irrespective of whether there were cheaper and more efficient GHG abatement opportunities available. To my knowledge such an approach has not been adopted by policy

makers anywhere in the world. If such a policy were to be adopted unilaterally in Australia, it would be likely to result in carbon leakage, involving the export of investment and jobs to other countries and giving rise to a significant cost to the Australian community. Since the emissions that would have emanated from the prohibited projects will now occur overseas, it is not clear that global emissions would be reduced and, therefore, there would be any offsetting benefit to the Australian community in terms of a reduced rate of climate change.

Professor Lowe reprises his proposed policy approach in paragraph 39 of his report. After reviewing, in paragraph 38, the global approach agreed at Kyoto in 1998 and the move towards a "legally binding global agreement" registered at the recent Conferences of the Parties (COPS) to the United Nations Framework Convention on Climate Change (UNFCC), he then considers policy approaches in Australia. Having described the present government's announced policy to introduce a carbon tax as being very "difficult ... to implement" (paragraph 39), he then returns to the desirability of a project by project approach under which new projects would be required to be "carbon neutral". It is not clear whether this would complement the imposition of a carbon price through a market mechanism or provide a substitute for the government's approach.

At any rate, the proposal put forward by Professor Lowe is not one that is endorsed by governments. Indeed, it is inconsistent with the Commonwealth's approach and that of State governments in Australia. As suggested above, it would not be an efficient or effective approach to addressing climate change and could lead to significant net costs to the Australian community, even when the possible impact on slowing the rate of climate change (which, in my view, would be negligible) is included in the calculation.

2.3 Response to report by Hans Hoegh-Guldberg

In his report, Mr Hans Hoegh-Guldberg states that "it would be unlikely that a large share, if any, of Wandoan coal would be compensated by increased production from other coal mines, in the case that the Wandoan mine does not go into operation" (page 12). He states three reasons in support of his view, namely:

- A shortfall of supply
- Induced price increases of coal
- Price elasticity of demand.

These matters are considered below.

Shortfall of supply

Mr Hoegh-Guldberg is right in suggesting that there has been some pressure on coal supplies in recent years, resulting in increased prices and new investment in additional production. As I stated in my report (pages 20-21):

> "...Indeed, as discussed in Sections 4.10 and 4.11 above, global demand for coal has grown rapidly, with an increase in world production of 66 per cent since 2000. Even with this substantial increase in production, the rise in the price of thermal coal in this century suggests that demand for the commodity has yet to be matched by increased supplies. According to the US Department of Energy, the world price for traded coal increased from around US$30 per short ton in 2000 to about US$150 per short ton as of September 2008. Since then, the global

financial crisis saw a decline in the price of coal, but even so the current price is around US$80 per short ton, representing an increase of over 160 per cent in eleven years.[4]

"As may be seen in Exhibit 6, global demand for coal is projected by the International Energy Agency (IEA) to grow by 1.9 per cent a year to 2030, with all of the growth coming from non-OECD countries. "Much of this growth reflects increased demand for thermal coal for the purposes of generating electricity.

EXHIBIT 6: PROJECTED GLOBAL COAL DEMAND TO 2030

	unit	2007	2030
OECD	PJ	48 483	46 180
Share of total	%	36.4	22.6
Average annual growth	%	-	-0.2
Non-OECD	PJ	84 825	158 429
Share of total	%	63.6	77.4
Average annual growth	%	-	2.8
World	PJ	133 308	204 609
Share of total	%	100.0	100.0
Average annual growth	%	-	1.9

Source: International Energy Agency, presented in ABARE (2010), *op. cit.*, Chapter 5, page 140."

While I agree with Mr Hoegh-Guldberg that coal supplies are tight at present, I cannot understand why he then suggests that other investments in additional coal supply would not replace supplies from the Wandoan mine, were it not to go ahead. Instead, Mr Hoegh-Guldberg appears to suggest that energy companies would invest in additional supplies of natural gas.

To my mind, Mr Hoegh-Guldberg confuses a short term supply response, when clearly new mines cannot be developed overnight to meet higher than expected demand, with a medium- and longer-term response. The quotations that Mr Hans Hoegh-Guldberg relies upon as evidence for a supply shortfall refer to the years 2010 and 2011. It is precisely this shortfall, which arose from an unanticipated increase in demand for coal, that is inducing suppliers to invest in new mines such as Wandoan. This effect is being observed in a number of commodities, where high demand has yet to be matched by additional supplies and therefore commodity prices are at high levels, as reflected in Australia's high terms of trade. There is no suggestion, however, that this imbalance will be maintained at current levels into the longer term.[5]

In this context, the Wandoan mine is intended to be able to meet some of the growing global demand for coal in the medium- and longer-term. If the mine were not to proceed, it is not clear

[4] US Department of Energy, http://www.eia.gov/coal/news_markets/

[5] See the Reserve Bank of Australia website, such as http://www.rba.gov.au/speeches/2011/sp-gov-230211.html

why other coal producers around the world would not be able to meet this additional demand, either by increasing production from existing mines or by commissioning new ones. Indeed, there are a number of coal producing countries where the approvals processes for new mines are less onerous than in Australia, and so there seems no reason why alternative sources of supply to Wandoan could not emerge within the same timeframe. To my mind, Mr Hoegh-Guldberg provides no evidence in support of his contention that this would not be the case.

In addition, Mr Hoegh-Guldberg does not address the counter-factual. The coal from Wandoan will mainly be used for electricity generation and, indeed, the short-term constraints in the supply of coal globally result from unanticipated demand for thermal coal for power generation. If alternative supplies of coal cannot be made available in the same timeframe as Wandoan, why is it reasonable to believe that other cost-effective electricity generation technologies could be made available within the same timeframe? The two obvious alternatives for base load electricity generation are gas combined cycle and nuclear power, both of which are more expensive than coal. Mr Hoegh-Guldberg does not identify any evidence to suggest that additional supplies of gas could be made available in a shorter timeframe than is the case for coal, or that nuclear plants, which take a very long time to build, could readily step into the breach.

Induced increases in the price of coal

Mr Hoegh-Guldberg suggests that the Wandoan mine not proceeding would lead to a slight increase in the price of coal which would then give rise to reduced demand for the commodity. This then leads to his conclusion that alternative new production of coal would not be required to make up fully for the shortfall in supply.

My response to this is as follows:

- The present high price of coal reflects the existence of a supply/demand imbalance (Mr Hoegh-Guldberg acknowledges such an imbalance at paragraph 45 (a) of his report). In such a market, significant economic rents (super profits) are available to coal producers so that the substitution of coal from another source for Wandoan coal would be likely to have no impact at all on the world price of coal, even if the cost structure of the alternative new supplies was slightly higher than that of Wandoan.
- The future production of coal from Wandoan will constitute such a small share of global coal supplies that, even in a market where demand and supply are in equilibrium, not proceeding with the mine would be likely to have no or a negligible impact on the world price for thermal coal.
- The Wandoan project was conceived at a time when the exchange rate for the Australian dollar was lower than it is now. This suggests that while Wandoan may well have had a cost advantage over alternative sources of supply in other countries when the project was conceived, that may not be the case now. The logic of this is that, if Wandoan were not to go ahead, the alternative sources of supply may even reduce costs and coal prices rather than increase them.
- As can be seen from Exhibit 6 above (from my original report), the demand for coal is projected to grow even in an environment where the price has risen sharply. Even if there were a slight price increase as a consequence of prohibiting Wandoan, it is difficult to see why this would have a material impact on demand for thermal coal.

Price elasticity of demand

Mr Hoegh-Guldberg argues that as a result of the increased price, demand for coal will fall and demand for alternative fuels, such as natural gas and renewables, will increase. He then cites evidence, particularly relating to the UK, showing how natural gas has been substituted for thermal coal.

My response to this is as follows:

- As discussed above, I do not accept that the Wandoan mine not proceeding would lead to any discernible increase in the global price of thermal coal.
- In contrast to most other countries, the UK, which Mr Hoegh-Guldberg cites, has a policy of reducing GHG emissions by 50 per cent by the five years 2023-2027 and the shift to lower emissions fuel sources is driven by this policy and the associated carbon price.[6] The UK has been gradually shifting its power generation sector away from reliance on coal since the 1990s.
- As shown in Exhibit 6 above (from my original report), within an overall projection of strong growth in global demand for coal to 2030 and beyond, OECD countries are forecast to use less coal in the future. This is largely a consequence of measures to curb GHG emissions, as is evident in the case of the UK as discussed above.
- In my opinion, Mr Hoegh-Guldberg is mistaken in attempting to draw conclusions regarding the future overall global demand for coal by reference to OECD (and Annex 1) countries such as the UK. As shown in Exhibit 6 above, while demand for coal from OECD countries is projected to decline by nearly five per cent to 2030, over the same period global demand (including OECD countries) is projected to grow by over 50 per cent.

2.4 Response to report of Dr Malte Meinshausen

Question 9 in Dr Malte Meinshausen's expert report, asks "are the emissions from the production, transport and use of coal from the proposed mine significant with respect to global warming?" (page 16 of his expert report).

Dr Meinshausen answers this question in the affirmative. He states that the Scope 3 emissions from the use of the coal, estimated at 1.3 billion tonnes of CO_2 over thirty years, are significant. To support his conclusion, he compares, in a graph, the number of years annual CO_2 emissions of selected countries, including the UK, New Zealand and Australia, against the cumulative total of emissions from Wandoan over its thirty year life, including Scope 3 emissions from the burning of the coal.

In my view, this comparison is inappropriate and the graph misleading.

First, it is inappropriate to compare *cumulative* emissions over thirty years with *annual* emissions from selected countries, particularly jurisdictions in which the coal from Wandoan is unlikely to be combusted. If we are considering Scope 3 emissions from the combustion of Wandoan coal, a more appropriate comparison would relate average annual Scope 3 emissions of CO_2 from that source with annual global emissions of CO_2. This suggests that annual Wandoan Scope 3 emissions of CO_2 would account for less than 0.15 per cent of global emissions. Accordingly, even

[6] http://www.decc.gov.uk/en/content/cms/news/cb_oms/cb_oms.aspx

if the coal from the Wandoan mine were not replaced from another source, it is unlikely that there would be a perceptible difference to climate change outcomes were the mine not to proceed.

Secondly, I have stated both above and at length in my original report, however, that Scope 3 emissions from combusting Wandoan coal will occur overseas and that, were the development of the Wandoan mine to be prohibited, it would be wrong to assume that a similar level of Scope 3 emissions would not occur. Indeed, because the demand for and use of coal will not be affected by banning the Wandoan mine, a similar level of Scope 3 emissions would likely occur as a result of the combustion of coal mined in some other location.

In addition, as the Queensland Coordinator-General stated in his evaluation of the Wandoan project's environmental impact statement (EIS), "Scope 3 emissions are not routinely reported by companies and it is customary to exclude Scope 3 emissions from any comparison of offset considerations of a project".[7]

If we then exclude Scope 3 emissions and consider the significance of the project's likely Scope 1 and Scope 2 emissions, these are estimated at being between 11.64 and 17.75 million tonnes over the two year construction period and the 30 year operations phase.[8] This is equivalent to average annual Scope 1 and Scope 2 emissions of between 0.36 and 0.55 million tonnes, accounting for between around 0.065 and 0.099 per cent of Australia's annual greenhouse gas emissions. This would not seem to be material, particularly in terms of its impact on global emissions and climate change.

2.5 Upon reflection on the *Clean Energy Future Plan* that was released by the Australian Government on 10 July 2011, can you please provide details of any amendments you require to your report dated 8 July 2011 and the reason for each amendment (if any).

In my report dated 8 July 2011, I made several statements to the effect that neither the Australian nor the Queensland Government were following a policy approach towards climate change that involved the prohibition of individual coal mines such as Wandoan (see, for example, Section 4.2 of my original report). Rather, I suggested that the Australian Government was seeking to introduce a market-based carbon price into the economy with a view to reducing Australia's GHG emissions by five per cent from 2000 levels by 2020. At the same time, some major trade-exposed industries, such as the coal industry, would receive compensation from the government in order to maintain, as far as possible, their international competitiveness.

Two days after my report was lodged, on 10 July 2011, the Australian Government released its *Clean Energy Future* plan to reduce GHG emissions. The plan is consistent with the directions noted in my report and is designed to address climate change in an efficient and effective way. The policy is designed to be efficient because the market-based approach supports economic agents accessing least-cost abatement options. As the Government states in the Introduction to its plan:

> "A price on carbon pollution will create incentives to reduce pollution and to invest in clean energy. A carbon price will ensure that pollution is reduced at the lowest cost to the economy."[9]

[7] Wandoan Coal project: Coordinator-General's evaluation report on the environmental impact statement, page 122.

[8] *Ibid*, page124.

[9] *Securing a Clean Energy Future: the Australian Government's Climate Change Plan, op. cit.*, page viii.

In addition, the Government's plan is designed to be effective in the sense that it aims, as far as possible, to avoid carbon leakage, under which investment, jobs and emissions migrate to other locations overseas. In pursuit of this objective, the government has proposed a 'Jobs and Competitiveness Program', containing a significant financial support package for major trade-exposed industries. As the Government states:

> "Without appropriate assistance arrangements, applying constraints on carbon pollution in Australia before other countries could risk 'carbon leakage' — activities could be relocated from Australia to countries where those activities may not be subject to comparable carbon constraints. Carbon leakage is not in Australia's interests — either from an environmental or an economic point of view. The Jobs and Competitiveness Program is designed to reduce this risk."[10]

In addition to possible assistance under the Jobs and Competitiveness Program, the Government has proposed two specific measures to support the coal industry. The first of these, the Coal Sector Jobs Package, is designed to provide support for those particular coal mines that exhibit a high level of fugitive emissions during the mining process. The second measure, the Coal Mining Abatement Technology Support Package, is designed to provide assistance for the coal industry to introduce new carbon abatement technologies.[11]

In short, the approach proposed by FoE is inconsistent with the policy approach to climate change announced by the Australian Government on 10 July 2011. Instead of prohibiting the development of new coal mines such as Wandoan, as suggested by FoE, the Government proposes to reduce emissions using an efficient market-based measure coupled with an assistance package to support jobs in coal mining to support the future development of the coal industry, which is the country's most important export industry (see Exhibit 5 of my report). This is entirely consistent with the views put forward in my original report.

With the exception of consequential amendments noted in section 2.6 below, I do not believe that any amendments need to be made to my original report. Indeed, I believe that the release of the Australian Government's *Clean Energy Future* plan supports and strengthens my conclusions.

2.6 Consequential amendments to original report

Some of the references in my original report referred to government websites that are no longer available, presumably due to updates associated with the announcement of the *Clean Energy Future* plan. Updated references are as follows:

- Footnote 6: http://www.ret.gov.au/Department/archive/cei/ccsfp/Pages/default.aspx;
- Footnote 14: See, for example, *Securing a Clean Energy Future: the Australian Government's Climate Change Plan,* Commonwealth of Australia, 10 March 2011, http://www.cleanenergyfuture.gov.au/wp-content/uploads/2011/07/Consolidated-Final.pdf, page viii; and
- Footnote 36: *Securing a Clean Energy Future: the Australian Government's Climate Change Plan,* Commonwealth of Australia, 10 March 2011,

[10] *Ibid*, page 53.

[11] *Ibid*, pages 133-134.

http://www.cleanenergyfuture.gov.au/wp-content/uploads/2011/07/Consolidated-Final.pdf, page v.

Finally, in Section 4.2 of my original report, as part of my discussion on the Australian Government's emissions reduction policy framework, I stated (on page 6):

> "The Government has also established a longer term target of reducing the nation's emissions by 60 per cent by 2050".

This longer term target was updated in conjunction with the release of the Clean Energy Future Plan to reducing the nation's emissions by 80% by 2050. The footnoted reference remains valid.

3. Summary of Opinion and Findings

I do not dispute the scientific evidence cited by the expert witnesses put forward by FoE. I do, however, take issue with some of their evidence to the extent that it relates to economic and public policy issues. In particular, I dispute the contention that if the Wandoan mine were effectively prohibited from going ahead, the shortfall in coal supplies would not be made up from some other mines but that instead electricity generators would turn to gas or renewables. I do not believe the experts present any substantive evidence to suggest that, if the Wandoan mine did not go ahead, either the global demand for coal would fall or that additional supplies of coal would not come on stream.

In my view, the policy approach to climate change proposed by the experts on behalf of FoE, involving the prohibition of new mining projects such as Wandoan, would constitute neither an efficient nor an effective strategy. It would be inefficient because it would not involve exploiting the least cost abatement opportunities that are available. It would not be effective because it would not lead to any reduction in global emissions, while bringing about significant costs to the Queensland and Australian communities.

The experts on behalf of FoE also focus on the Scope 3 emissions likely to be produced by combusting coal from Wandoan as if they would be Australian emissions. In my view, this is inappropriate. On the basis that Wandoan coal is intended for export, these emissions will be the responsibility of the relevant jurisdictions overseas where the coal is combusted. This is not the policy responsibility of the Australian Government, any more than the emissions produced by Mercedes cars in export markets are the responsibility of the German government.

Finally, the climate change strategy proposed by the Australian Government in its *Clean Energy Future* plan is entirely consistent with the evidence I put forward in my original report of 8 July 2011. It proposes an approach that is more efficient than that of FoE in that it is directed towards exploiting the cheapest abatement opportunities available. It is also a more effective approach because it seeks to avoid carbon leakage by providing compensatory financial support to major trade-exposed industries such as coal. It seems clear that the Australian Government's policy is clearly not to obstruct the future growth of the Australian coal industry.

In short, the approach proposed by FoE is inconsistent with the Australian Government's policy.

4. Additional Information Required

I am satisfied that I have had access to all the information I need to reach a reliable conclusion.

5. Expert's Statement

I confirm the following:

(a) the factual matters stated in this report are, as far as I know, true;

(b) I have made all enquiries that I consider appropriate;

(c) the opinions stated in this report are genuinely held by me;

(d) the report contains reference to all matters I consider significant; and

(e) I understand my duty to the court and have complied with the duty.

Jonathan Geoffrey Stanford
Director
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16 August 2011