

**Asia Pacific Strategy Pty.Ltd.**  
**Coolum Beach Qld**  
**ACN # 008 632 273**

18 February 2008

Dear Professor Garnaut,

On behalf of Asia Pacific Strategy I wish to make the following public submission to the Garnaut Climate Change Review. The submission addresses economic and strategic opportunities for Australia to play a leading role in our region's shift to more carbon-efficient steel manufacture.

**Summary of Submission**

Australia is the major regional exporter of metallurgical coal and iron ore to steel manufacturers in the Asian region. Japan remains the largest purchaser of Australian coal exports and outcomes of the annual contract negotiations with Japanese steel mills (JSM) have a significant impact on the balance of trade and export earnings in the region and worldwide.

The submission contradicts much of the advice submitted by the Australian Coal Association (ACA) to the Taylor (1994) study that has guided resources export policy since that report. It argues that the Federal Government should adopt policies to encourage new industry strategies to off-set and correct as far as possible distortions in the Japanese metallurgical coal market that contribute to the continuing growth in carbon emissions, and presents policy options and suggestions for further research.

**Discussion**

The ACA has erred in accepting that Japan's metallurgical coal market behaves normally. Market segmentation rather than quality differences are the principal contributing factors influencing landed value difference (Attachment A). Artificial categories of "*weaker*," "*semi-hard*" and "*semi-soft*" were created in 1987 and these coals remain significantly under-valued for coke manufacture. As a result, about half of Australia's metallurgical coal exports to Japan is being dumped at discount prices, displacing lower ash premium quality/priced brands. These sales will become unsustainable as Japan's iron-makers shift to a more carbon-efficient economy with higher efficiency use of blast furnaces, as they must. Australian policy should seek to encourage Japan's steel industry to adopt more carbon-efficient practices by ending the current market distortions that contribute to a worsening of carbon emissions.

In 1996 the Federal Government phased out its oversight role of coal and iron ore export contracts based on flawed research arguing that the controls were ineffective and unnecessary (Attachment B). Government oversight was the only effective means to detect and discourage destructive competition amongst Australian coal exporters facing JSM coordinated purchasing strategies.

Also in 1996 the JSM introduced the '*fair treatment system*' to replace the former '*benchmarking approach*' in contract negotiations that requires individual settlements to be kept confidential, removing what little transparency that remained in the market.

In phasing out the Federal Government's role with respect to coal and iron ore export contracts, together with loss of market transparency implicit in the '*fair treatment system*', Australia has surrendered the instruments it needs to play a leading role in our region's shift to a more carbon-efficient steel industry.

**Policy Options and Further Research**

Policy changes needed to address the present situation are those that help level the playing field between highly competitive Australian sellers and unified JSM buyers that currently help fuel continuing growth in carbon emissions (Attachment C). Two possible options are:

- Prevent the reward of an early acceptance of price reductions with a sales volume increase, by restoring export contract approval authority.
- Re-establish the coking coal export levy on "*weaker*", "*semi-hard*" and "*semi-soft*" sales to Japan to discourage present dumping strategies used to gain sales volume.

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Finally, research questions that need addressing to strengthen policy formulation directed towards encouraging more carbon efficient practices are:

- Has “*fair treatment*” pricing adopted in 1996 by JSM buyers reduced the effect of price discrimination in metallurgical coal settlements?
- Does hedonic modelling of recent settlements for metallurgical coals suggest loss leader discount pricing of coal vis-à-vis iron ore?

**Conclusions**

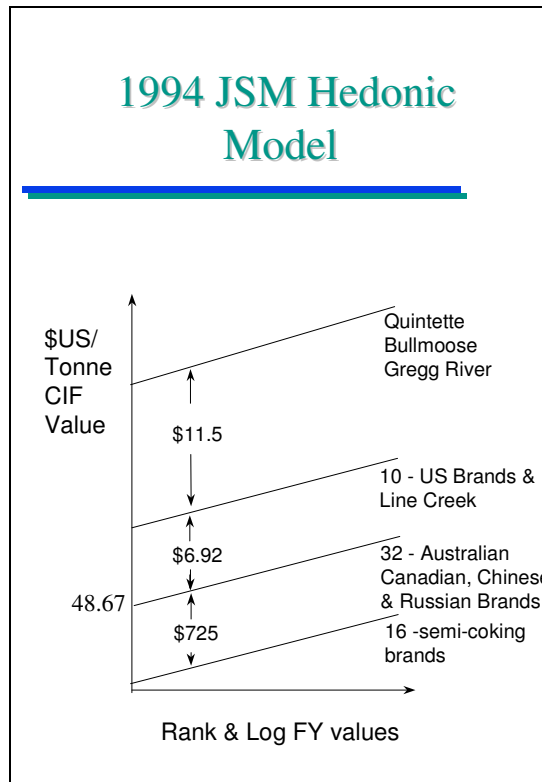
Production driven business strategies have resulted in the dumping of higher ash premium quality metallurgical coal resources to hold or gain market share in Japan. Such strategies encourage growth in carbon emissions by inefficient use of the excess blast furnace capacity that exists in Japan and will become ineffective in the future carbon-efficient regional economy as Japan’s iron-makers adopt more carbon-efficient practices.

Yours sincerely,

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Asia Pacific Strategy

\*Richard Koerner was employed as Vice President Planning and Control for Anaconda Australia Coal from 1982 to 1986, and was awarded a doctorate from the University of Queensland for research into the characteristics of Japan’s metallurgical coal markets in 1993. He has since published a number of articles on the subject.

Attachment 'A'



Source: Koerner (2001) pps. 187-191.

Quality specifications for “weaker brands” such as Moura ‘K’, ULV, HLV, and Curragh semi-coking were negotiated in 1987 with the benefit of *Sogo Shosha* insider knowledge of yield and short run marginal costs of higher ash production through the coal preparation plants of these mines being made available to JSM negotiators. Armed with this intelligence in the buyer’s market situation of 1987, the JSM coordinator was able to permanently establish the ‘weaker/semi-soft’ market segment that is priced well below fully burdened production costs. In return for price discounting, producers selling such coals were rewarded with increased sales volume and market share at the expense of other Australian exporters. Such insider knowledge was the principal contributing factor in the creation of the additional market segment present in the 1994 settlement due to sales of the 16 semi-coking brands.

Coking coals of this category can account for about half of Australia’s metallurgical coal exports to Japan, depending on supply/demand balance at the time of negotiations. Some 70% of this volume represent what are in effect prime quality coals, having higher ash contents, offered at discounted prices to displace lower ash premium quality/priced brands offered by other Australian exporters. However, Australia’s overall market share is not permitted to exceed a de-facto ceiling established from security of supply and market power policy considerations. Hedonic modeling studies of the JSM settlements for 1973, 1977, 1982 and 1992 report similar findings to those suggested for 1994 (see Koerner (1993), (1996) and (1998)).

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**Attachment 'B'**

The 1996 policy decision to abandon the Federal Government's oversight of coal export contracts relied on arguments presented in ABARE Research Report 93.8 by Bowen and Gooday (1993), and the hedonic modeling work of Porter and Gooday (1990) that is cited in the report (see pages 39-44).

Porter and Gooday pooled brand data for coking coals from Canada, US, South Africa, Australia and China for the years 1985, 1986, 1987 and 1988, to look into the effects of coal quality on settlement (fob) price in the Japanese market. Coal lump size and crucible swelling number (CSN) were included as two independent variables in the model's specification. Results suggest statistically significant regression coefficients for these two quality parameters.

There is no technical reason to suggest that coal lump size is a quality characteristic likely to influence the value of a particular brand to coke makers. In the case of the JSM, some thirty different brands are crushed and mixed together in blends charged to the coke battery at various integrated steel plants. A finding that contract price is positively related to lump size, and that lump size is a significant explanatory factor in determining price is just not credible from a practical point of view.

Problems exist with the use of CSN as an appropriate quality parameter for a coking coal brand's caking characteristic. This unrestrained button test is the crudest possible measure of a coal's caking property, whose only redeeming feature is that it is a widely quoted in the trade literature. A far better quality measure is log Gieseler plasticity, which is known to be the caking related quality parameter used in JSM evaluations.

The regression analysis also pools 13 semi-coking brands with the premium hard coking coal brands considered in the study, without confirming by structural testing that such pooling is warranted. Collectively, these modeling problems render the findings seriously flawed. A more detailed discussion of these problems can be found in the enclosed article Koerner (2001) pages 183 and 184.

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**Attachment ‘C’**

The unique role played by *Sogo Shosha* companies in the Australian coal trade with Japan is discussed in Koerner (1998). Insider knowledge afforded by equity interests in most of Australia’s large export mines (see Koerner (1998) pps. 171-173) creates knowledge asymmetry in the bargaining process to further strengthen the market power of JSM buyers in contract bargaining which already exists due to the differing business cultures.

An interview with Mr. C. Goodyear, former CEO of BHP/Billiton, was reported in the Australian newspaper of 23<sup>rd</sup> September 2004. In it he discusses differences in doing business with China compared with Japan. The importance of appreciating Japanese *keiretsu* relationships is acknowledged, and the marketing advantages to be enjoyed by linking BHP’s metallurgical coal and iron ore marketing activities when dealing with the JSM are described.

Given much higher equity interests in their Australian iron ore mines, following formation of the BHP Mitsubishi Alliance with 50% *Sogo Shosha* equity, there is now potential for conflicts of royalty income interest between Queensland and NSW, and Western Australia regarding pricing of metallurgical coal versus iron ore to JSM buyers. In order to gain higher prices for iron ore exports to China that would follow advantageous settlements with the JSM, commercial pressures exist for semi-coking coals to be used as loss leaders in the marketing of steel input resources to Japan by all multinational mining companies having both metallurgical coal and iron ore mine interests. Adoption of such strategies would further encourage inefficient use of excess blast furnace capacity in Japan. Rio Tinto, Anglo American and Xstrata also control both metallurgical coal export mines in Eastern Australia as well as iron ore mines elsewhere that supply Japanese iron-makers.

Restoration of the Government’s review authority would assure independent oversight of competing state and national interests and win back the instruments needed to play a leading role in our region’s shift to a more carbon-efficient economy.

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**References:**

Australian Coal Association (1994) '*Winning Coal*' a submission to the '*Study of the Queensland and NSW black coal industry*' conducted by Taylor, R. (ed.) for the Australian Coal Industry Council.

Bowen, B and Gooday, P. (1993) '*Coal - The Economics of coal export controls*' ABARE Research Report 93.8

Koerner, R (1993) '*The behaviour of Pacific metallurgical coal markets: The impact of Japan's acquisition strategy on market price*' Resources Policy 19 (1) pps.66-79.

Koerner, R (1996) '*Behaviour of Pacific energy markets: The case of the coking coal trade with Japan*' Pacific Economic Paper No.252 Australia-Japan Research Centre ANU Canberra.

Koerner, R. (1998) '*The influence of Sogo Shosha companies on contract bargaining in the pacific metallurgical coal trade.*' Resources Policy 24 (3) pps.167-177.

Koerner, R. (2001) '*Determination of Japanese buyer valuation of metallurgical coal characteristics by hedonic modeling*', Resources Policy 27 pps 179-197. (enclosed).

Porter, D. , and P. Gooday (1990) '*The Effects of Coal Quality on Japanese Coking Coal Contract Prices*' Proceedings of the Conference of Economists - University of NSW Sydney, (ABARE Project 5132.101).