DPIE Submission to Industry Commission Inquiry Into the Australian Black Coal Industry

INTRODUCTION

The Industry Commission's inquiry into Australia's black coal industry is a timely opportunity for an objective evaluation of the performance and potential of the Australian black coal industry.

This submission is intended to offer a framework perspective on the opportunities and challenges which face the Australian black coal industry.

In brief, this submission considers the following issues as crucial for the Commission to consider through its inquiry:

- increasing competition in the international coal market from low cost suppliers;
- market access issues in existing and potential Australian coal markets;
- possible impacts of international climate change policies; and
- the need for labour reform in the Australian coal industry.

These factors are increasing competitive pressure on Australia's coal industry - for it to remain competitive in an open market with declining real coal prices, the industry must be prepared to address these issues.

OVERVIEW OF THE AUSTRALIAN BLACK COAL INDUSTRY

World Resources

Australia has substantial economically recoverable reserves of high quality metallurgical and thermal coals. New South Wales and Queensland account for 97% of reserves. The remaining 3%, although relatively small, is locally important to the economies of Western Australia, South Australia and Tasmania. About 40% of the resources are amenable to open-cut mining. In 1996, world black coal reserves were about 705 Gt - the six largest reserves were:

Producer	**Gt**	**%**
United States	209	29
Former USSR	141	20
China	96	13
India	68	10
South Africa	55	8
Australia	49	7

World Production and Export

Australia's black coal industry is vital to the national economy. However, before examining that importance, it is useful to consider Australia's place in relation to the larger global coal industry. In 1996, world saleable black coal production was 3705 Mt - the six largest producers were:

Producer	**Total Production**
China	1374 Mt

United States	878 Mt
Former USSR	307 Mt
India	271 Mt
South Africa	208 Mt
Australia	195 Mt

Despite the enormity of global coal production, a relatively small amount of black coal is exported - according to the International Energy Agency, most coal produced world-wide is consumed within 50km of the producing mine. In 1996, 479 Mt (or 13%) of black coal was exported around the world, much of it seaborne (440 Mt or 12%). The world's six largest coal exporters in 1996 were:

Exporter	**Total Exports**	**Thermal Exports**	**Metallurgical Exports**
Australia	140 Mt	63 Mt	77 Mt
United States	83 Mt	35 Mt	48 Mt
South Africa	59.5 Mt	54.3 Mt	5.2 Mt
Indonesia	36.4 Mt	33.5 Mt	2.9 Mt
Canada	34.4 Mt	5.7 Mt	28.7 Mt
China	29.5 Mt	23.9 Mt	5.6 Mt

The relative importance of Australia's export coal industry versus some other coal producers is clear - while Australia exports more than 70% of its coal production, South Africa exports around 25%, the United States exports less than 10%, China exports around 2% and India exports none. The welfare and future potential of the Australian black coal industry is therefore intrinsically linked to our performance as a coal exporter.

Key Australian Markets

In 1996, Australia exported 140 Mt of coal to over 30 countries, with buyers in Asia, Africa and the Middle East, Western Europe, South America and the Pacific. Australia's top ten buyers, by total tonnage and by coal type, were:

Top Ten Markets - Total	**Top Ten Markets - Thermal**	**Top Ten Markets - Metallurgical**
1. Japan - 65.4 Mt	1. Japan - 34.3 Mt	1. Japan - 31.1 Mt
2. South Korea - 20 Mt	2. South Korea - 10.7 Mt	2. India - 10.6 Mt
3. Taiwan - 11.3 Mt	3. Taiwan - 7.5 Mt	3. South Korea - 9.3 Mt
4. India - 11.2 Mt	4. China - 1.8 Mt	4. United Kingdom - 3.8 Mt
5. United Kingdom - 3.9 Mt	5. Hong Kong - 1.6 Mt	5. Taiwan - 3.8 Mt
6. Brazil - 3.2 Mt	6. Israel - 0.9 Mt	6. Brazil - 3.2 Mt
7. France - 2.8 Mt	7. Malaysia - 0.9 Mt	7. France - 2.6 Mt
8. Italy - 2.3 Mt	8. Chile - 0.8 Mt	8. Italy - 2.2 Mt
9. Belgium - 2.3 Mt	9. Denmark - 0.7 Mt	9. Belgium - 1.7 Mt
10. China - 2.1 Mt	10. Philippines - 0.7 Mt	10. Turkey - 1.4 Mt

Structure of the Australian Industry

In 1996, Australia's black coal exports were worth $A7.7 billion, with exports to more than 30 countries around the world. As at December 1996, there were 121 black coal mines in production, directly employing approximately 25,000 people, with more than 90% of those mines in New South Wales (70 mines) and Queensland (43 mines).

The Commonwealth Government encourages foreign investment in the industry, and there are significant levels of foreign ownership of Australia's export coal production - in 1997, ownership of production capacity was as follows:

- 51.8% - Australia
- 21.6% - Japan
- 11.8% - Europe
- 11% - US
- 2% - South Africa
- 1.8% - other Asia

On an equity accounted basis, the four largest coal companies in Australia are:

- BHP
- Rio Tinto
- Oakbridge
- Royal Dutch Shell Group

The ten largest producing mines in Australia in 1996, all of which were open cut mines, were owned as follows:

Mine	**Parent Company**	**Saleable Tonnage Produced - 1996**
Goonyella/Riverside	BHP	11.2 Mt
Blair Athol	Rio Tinto	9.1 Mt
Peak Downs	BHP	7.1 Mt
Ravensworth	Peabody Resources	5.9 Mt
Meandu	Rio Tinto	5.4 Mt
Saraji	BHP	5.2 Mt
Hunter Valley No. 1	Rio Tinto	5.1 Mt
Norwich Park	BHP	5 Mt
Curragh	ARCO	4.8 Mt
Newlands	MIM	4.6 Mt

The ten largest producing underground mines in 1996, all using longwalls, were owned as follows:

Mine	**Parent Company**	**Saleable Tonnage Produced - 1996**
Gordonstone	ARCO	3.7 Mt
Baal Bone	Oakbridge	2.7 Mt
South Bulga	Oakbridge	2.6 Mt
Ulan	Mitsubishi/Exxon	2.5 Mt
Elouera	BHP	2.2 Mt
Clarence	Oakbridge	2 Mt
Appin	BHP	2 Mt

Cordeux	BHP	1.7 Mt
Angus Place	Pacific Power	1.7 Mt
German Creek Central	Shell	1.7 Mt

The value of coal exports and the employment which the industry generates makes the Australian black coal industry strategically important to the national economy.

RECENT REFORMS

The Commission needs to conduct its inquiry in the context of the incremental process of reform which has been occurring in the industry over the last decade. Some key events in that reform process have been:

- September 1988 - the Coal Industry Tribunal made a ruling to change work arrangements to improve the utilisation of high-cost capital equipment - industrial disputation subsequently fell moderately;
- the Coal Mining Industry Interim Consent Award (Production and Engineering) of April 1990 replaced four previous awards;
- endorsement by the Coal Industry Tribunal of enterprise agreements in Queensland and New South Wales in June 1991;
- package of coal industry reform initiatives announced by the Commonwealth Government in December 1991 - reforms included:

    - overhaul of R&D arrangements
    - winding back of Joint Coal Board powers, including controls over production and export contracts
    - replacement of long service leave arrangements with an industry-managed and funded scheme.

- announcement by the Queensland Government of major rail reforms in 1993 - however, the full extent of the reforms are not due to be implemented until 2000;
- publication of *"An International Comparison of Performance Indicators for the Australian Coal Industry"* study, prepared by Australian Coal Industry Research Laboratories (ACIRL) for the New South Wales Coal Association and DPIE in 1994 - an earlier attempt at benchmarking;
- publication of the report *"Study of the Ausralian Black Coal Industry"* (the Taylor Report) in November 1994;
- abolition of Coal Industry Tribunal - previously, the coal industry had enjoyed its own forum for hearing industrial disputes, the Coal Industry Tribunal. In 1995, the Tribunal was disbanded, and industrial disputes within the coal industry moved into the jurisdiction of the Australian Industrial Relations Commission;
- the Commonwealth removed export controls on coal on 6 March 1997.

INTERNATIONAL COMPETITIVENESS

Overview

The Industry Commission needs to regard the improvement of the international competitiveness of Australia's coal industry as the overall priority for its inquiry. Australia is currently the world's largest coal exporter, and should remain so for the foreseeable future. However, this status cannot be taken for granted, and the Australian industry must work to remain competitive in the world market. The fundamental challenge for the Australian industry is to stay competitive with low cost suppliers elsewhere in the market.

The world coal market is becoming both more diverse and more challenging - diverse because of the rapidly expanding energy demands of developing nations, particularly in Asia, and challenging because more competitors are emerging to supply the thermal coal market. In the past, the Australian coal industry has enjoyed several natural advantages - abundant reserves of high quality coal; relatively easy access to coal deposits; proximity to major customers; moderate competition in thermal coal markets, and relatively little competition for high quality Australian hard metallurgical coal.

While the first three elements continue to underpin Australia's coal competitiveness, the emergence of suppliers such as Indonesia, Colombia and China are bringing new pressures to bear on the international coal market, especially for thermal coals where major market growth is forecast. Furthermore, work practices and infrastructure, which formerly the industry could afford, are becoming impediments to boosting Australian competitiveness.

To the extent of its production for export (70% of total production), the Australian coal industry can only exist if it can meet consumers needs for stable, reliable and competitive supply. In addition, production for the domestic market is facing new competitive pressures arising in key areas including the flow-through effects of electricity market reform and continuing pressure for internationally competitive steel production. Coal reserves are widely spread throughout the world and there are no significant technical barriers to entry of new players. Australia, or any other exporting nation, could only exert power in the market up to the point in time where consumers are able to arrange different sources of supply.

In this context, the Commission needs to examine the basic preconditions for growth within the industry - specifically, improved competitiveness through a combination of more productive work practices and improved infrastructure. Reform in these areas is vital if the Australian coal industry is to keep its costs down and maintain its place in the international coal trade against other low cost suppliers. In addition, Australia needs to maintain research and development work in coal production and utilisation to help maintain competitiveness.

Workplace Relations and Safety Arrangements

One critical area for reform in the Australian coal industry is workplace relations. The industry is characterised by outdated and inefficient work practices, which have been eliminated from other areas of the wider Australian minerals industry. The incremental rate of change in the industry since 1988 has achieved some modest improvements. However, the international coal market is rapidly becoming more competitive, and Australia cannot afford to continue such a slow pace of reform.

At its broadest level, the fundamental problem with current work practices is the lack of power on the part of management to shape work practices to the circumstances of the individual mine site. Linked to this has been a lack of commitment by the mining workforce to the mine itself - instead, and reflecting a history of labour / management conflict and a culture that the mine and the union are industry "constants" rather than the company, there has been a tendency to identify first with coal mining unions. There needs to be a change of culture in the industry, to one which recognises mutual benefits for companies and employees in reforming unproductive practices. The long term competitiveness of a given mine is the best way of ensuring job security. More specifically, there are a number of areas where potential reforms have been identified by the industry as priority issues:

- recruitment and promotion on merit - the "first on-last off" approach currently applied in the industry;

- lack of flexibility - severely limiting demarcation is argued to add unnecessarily to the cost of mine operations. The degree of specialisation fostered by current workplace arrangements is unsuited to the operations of mines;

- use of contractors - one of the major reforms which has enhanced productivity elsewhere in the mining industry has been the use of contractors for particular tasks. Machine maintenance, and even mineral extraction itself, has been contracted out to specialists in those areas - this approach would allow coal companies to maximise the efficiency of their operations by concentrating on the task of coal marketing;

- freedom of association - the *Workplace Relations Act 1996*, discussed below, ensures freedom of association for employees - that is, they have the choice of whether to join a union. The influence which coal mining unions have wielded in the past has been disproportionate, and many members of unions have been financially disadvantaged because they have been required to participate in lengthy strike actions. The Act eliminates discrimination against non-union members.

The Commonwealth Government has introduced the *Workplace Relations Act 1996* to facilitate and accelerate the progress of workplace reform. The Act provides a framework which allows greater workplace flexibility through individual workplace agreements, an end to compulsory unionism and tougher penalties against unlawful and unreasonable industrial action. This legislative environment ensures that the onus is on industry to drive productivity improvements and cost reductions. However, a thorough and robust benchmarking process by the Commission will provide the type of comparison it requires to be able to judge current work practices in the industry against world's best practice.

The performance of current safety arrangements within the industry has a strong bearing on industry's capacity to perform competitively but safely. There are two elements for consideration - the performance of Australia's current safety arrangements against the benchmark of world's best practice; and how the industry's safety performance can be improved, and therefore costs reduced. Safety regulation is a primary responsibility of the States. The extent to which difference currently exists with the industry and between the industry and its hard rock counterparts is often questioned.

The Commonwealth supports current initiatives to harmonise regulations and guidelines for occupational health and safety between jurisdictions. Also, a move to a more nationally consistent approach to mines inspection arrangements would be of a considerable benefit to the industry.

In addition, the Commission should consider current industry arrangements in regard to workers' compensation, long service leave funds and superannuation, and benchmark Australian practices in these respects against world's best practice.

Infrastructure

Improvements in work practices in the Australian coal industry on their own will not ensure competitiveness - the most efficient mine possible will be disadvantaged if the quality of its transport infrastructure, to the port and at the port, is poor. Both elements of the transport infrastructure need to be working efficiently for the full benefits of reform in the industry to be realised.

Rail

Most coal exported from Queensland and New South Wales is transported to port by rail networks owned by the State Governments. The cost effectiveness of those rail networks is therefore crucial to overall industry performance. The monopoly environment enjoyed by the State rail organisations has produced significant distortions in pricing. In the past, the profits from coal rail freights have been used to either cross subsidise other parts of rail systems or as a direct (and probably large) hidden supplement to State budgets.

The relatively low profitability of the Australian coal industry has been in part because of high rail freight charges. For many coal mines, rail freight is the largest cost after labour because coal is a high weight to value commodity.

The mechanisms for calculating rail freight rates need to be publicly transparent, fair and equitable. This has not been the case in the past. Transparency is an important factor in assisting companies to determine their cost structure and identify areas where their competitiveness can be improved. Transparency is also an aid to investors since it creates certainty and separates out the costs of supplying and operating the network. The lack of transparency in pricing reduces user confidence in the service provider and provides the opportunity for excessive charging. To overcome this problem, the price setting process should be independent of government.

Both the NSW and Queensland Governments are moving towards commercial pricing of their rail services. This is proving to be a long and difficult process and to date users still cannot get a detailed breakdown of the costs they pay for freight services. For example, although the Queensland Government is attempting to separately identify the royalty component in its rail freight rate, the pricing principles to be used by Queensland Rail (QR) do not clearly define the

concept of a reasonable rate of return. The Queensland Mining Council is particularly concerned that QR's interpretation of commercial freights may not coincide with its own interpretation and that price monitoring of QR coal freight rates to ensure its full accountability is to be carried out by the Queensland Government rather than an independent agency. This is not an ideal situation, particularly where no competition with rail services exists.

Ports

Overall, Australia's coal ports are well placed to meet estimated growth in the Australian coal industry. The Bureau of Industry Economics has found that bulk handling waterfront facilities are at or near world's best practice. A process of privatisation and restructuring of export loading operations have contributed to these levels of performance, with all Australian coal ports having been privatised or corporatised over the last decade. Current capacity is:

- NSW - 82 Mt capacity
  - Newcastle 66 Mtpa capacity
  - Port Kembla 16 Mtpa capacity

  Actual Exports 1996 - 64 Mt

- Qld - 105 Mt capacity
  - Abbot Point 12 Mtpa capacity
  - Brisbane 5 Mtpa capacity
  - Dalrymple Bay 28 Mtpa capacity
  - Gladstone 35 Mtpa capacity
  - Hay Point 25 Mtpa capacity

  Actual Exports 1996 - 76.5 Mt

Major expansions are planned in both states. In Queensland, potential capacity in line with current forecasts sees a capacity in 2010 of 148 Mtpa compared with projected exports in 2010 of 120 Mt, following major expansions of the Hay Point, Dalrymple Bay and RG Tanna terminals. In New South Wales, Port Kembla Coal Terminal currently has a proposal to increase capacity by from 16 Mtpa to 20 Mtpa, while Port Waratah Coal Services at Newcastle has recently lifted capacity to 66 Mtpa, with plans for an expansion which should take the Port of Newcastle's coal handling capacity to more than 100 Mtpa.

However, these statistics mask the major problems with the port of Newcastle. Despite its nameplate capacity of 66 million tonnes per annum, ship queues are common, with sometimes as many as 40 or more ships at anchor awaiting loading. Queuing is estimated to cost Hunter Valley coal companies $75 - 100 million per year in demurrage, with the cost per export tonne being about $1.50 in September 1997.

There are several factors contributing to problems at the port of Newcastle. In short, these are:

- <u>difficulties with coal receival facilities</u> - the port has never come close to its name-plate capacity, with inefficiencies in receival facility operation resulting in lack of co-ordination with rail deliveries;

- <u>rail scheduling</u> - compounding the inefficiency of the receival facilities, coal trains often arrive out of sequence, consequently disrupting the scheduled sequence for receiving and stacking the coal. A lack of efficiency in several loadpoints also results in delays. In addition, according to Port Waratah Coal Services only 60-70% of the trains programmed into a 24 hour schedule actually arrive;

- pressures from producers - producers have placed additional pressure on the port infrastructure by budgeting coal deliveries higher than the port can handle - to illustrate, proposed coal deliveries exceed the 66 Mtpa capacity of the port for nine of the 12 months of 1997/98. Many Hunter Valley coal producers are expanding projected annual saleable output without taking into account the limitations of the port infrastructure. This pressure further compounds the effects of receival and delivery inefficiencies.

The Commission needs to see this as a national problem, rather than a localised one. Difficulties at Newcastle can raise concerns amongst our major customers about that port in particular, and the reliability of Australian coal supply in general. The geography of the port may also raise concerns in buyers minds - particularly those for whom security and reliability of supply are issues.

Research & Development

Research and development is vital to maintaining Australia's competitive edge in the coal market, continuing to improve coal use technologies and efficiency and increasing the already high levels of environmental performance from world's best practice technology. This must apply at all levels of mining, transportation and utilisation. The increasing privatisation of mines in the United Kingdom, and the phasing out of the research associated with the former US Bureau of Mines, is likely to leave a vacuum on the mining technology side. Indeed, this could create future problems for the mining industry as much of our mining technology advances have stemmed from these sources.

Significant coal research is undertaken through a range of institutions with both industry support and government funding. These include the CSIRO Division of Coal and Energy Technology, the Australian Coal Association Research Program (ACARP), Cooperative Research Centres for black coal as well as brown coal, and the Australian Coal Industry Research Laboratories (ACIRL). These agencies often co-operate in specific research projects, as well as arranging joint technical workshops and conferences with Australian coal customers, particularly from Japan.

As a major world coal supplier, Australia cannot afford to confine itself to supplying the raw material only. Instead, Australia must be able to keep abreast of technological developments in coal use, and to be at the cutting edge of those developments wherever possible. While Australian coal is high quality, that factor alone will not ensure Australian competitiveness in what is increasingly becoming a buyer's market.

The Australian coal industry not only stands to gain in commercial terms through marketing coal as part of a technical package that meets buyer needs. There are also potentially significant efficiency and environmental gains to be made through raising the operating efficiency of the existing "stock" of power generation capacity in developing countries. This can be achieved through use of higher quality coals and application of best current practice technology. These gains will be direct flow-ons from the R&D effort.

One example of how R&D can assist Australian competitiveness is the establishment of an advanced coal gasification research facility, which the Commonwealth Government is supporting. The gasifier facility will test the performance of a wide range of Australian coals in Integrated Gasification Combined Cycle (IGCC) technology, in a research project running from mid 1998 to mid 2001. The Co-operative Research Centre for Black Coal Utilisation (CRC) will

manage the project, with the gasifier itself situated at the CSIRO laboratories in the Queensland Centre for Advanced Technologies at Pinjarra Hills, near Ipswich in Queensland. Funding for the project will be met through a combination of Commonwealth and Queensland Government funding, and industry funding. This type of collaborative effort will be important for Australia to keep driving coal R&D, and to remain competitive with other international suppliers.

The Commission should consider the importance of maintaining coal technology R&D in Australia's overall competitiveness.

MARKETS

Overview

Clearly, there are a number of areas in which Australia needs to improve its competitiveness if the coal industry is to retain its position. However, Australia's performance in coal production and export is one half of the equation - the other half is the state of the international coal market. In considering the future of the industry, the Commission needs to consider market influences which will also be fundamentally important to the Australian coal industry. There are several key areas for consideration:

Barriers to Trade

Despite Australia's success in exporting coal globally, there remain a wide range of tariff barriers in current and potential Australian coal markets. These are catalogued in detail in a table at Attachment A. Generally, these barriers fall into a range of broad categories:

- Uniform tariffs or taxes - these are import tariffs or value added taxes which countries apply, usually to a class of imports rather than just coal alone. Such tariff barriers need to be addressed a whole-of-trade way, recognising that coal may be one of many commodities for which Australia is seeking freer access - alternatively, a case for singling out coal as a "special case" commodity, deserving of tariff liberalisation, could be made to such countries;

- Preferential tariff arrangements - while uniform tariffs add costs, they are often not discriminatory because all coal exporters to the given market will be forced to factor tariffs into their prices. Preferential tariff arrangements can be far more damaging, in that they are usually linked to membership of trade blocs, or bilateral trade arrangements (for example, preferential tariffs applied by some ASEAN members to non-ASEAN suppliers; Mexico applies a 10% import tariff on all non-NAFTA coal exporters, advantaging Canada and the US; Chile has a bilateral Free Trade Agreement with Canada, which will ultimately give Canadian exporters an 11% tariff advantage over Australian exporters). The net result is that Australian coal exporters can be disadvantaged in, or even forced out of markets because a coal competitor has preferential access to a market;

- Subsidies for domestic local coal industries - a third type of tariff barrier can be the use of subsidies to protect inefficient domestic coal industries. This is particularly the case in Germany, but is also a feature in markets such as India.

There are also a range of non-tariff barriers in various markets. These tend to arise from a range of sources. Two broad categories of non-tariff barriers are:

- image of coal issues - coal use can be impeded or prevented because of some widely held and negative beliefs about coal. These image of coal issues can be categorised in three ways:

  - **global** - coal's chief image problem on a global scale is climate change. This issue recurs through all energy production fora, although as a general principle the staunchest holders of negative, climate change based views of coal are European.

  - **regional** - these are perceptions which are widely seen throughout a region or continent; this level also applies to international lending institutions and regionally based bureaucracies who consistently take negative approaches to coal use in energy policy. Some examples are:

    - ash disposal is a major issue across Asia;
    - Latin America - two issues - pan-Latin Americanism means indigenous sources are favored, and this tends to be more gas than coal; also, climate change a particular cause here, given Brazil the birthplace of the FCCC;
    - West Europe - a push within bodies such as EU towards gas-fired energy production as coal is seen as "dirty".

  - **local** - local issues arise from several sources - either a specific issue or event which generates negative perceptions, or a simple lack of knowledge in that country. Some examples are:

    - Thailand - there has been ongoing public concern following the Mae Moh incident, in which deaths occurred because of poor planning in the use of a lignite fired power station
    - Japan - there are concerns about NOx emissions, and concerns about transboundary SOx emissions from China
    - India - there have been some local nationalist tendencies which oppose imported coal.

- buying practices - it has been a feature of emerging coal markets that buyers prefer to purchase their coal requirements on the spot market, rather than utilising longer term contracts to meet their needs. While there are obvious advantages to buyers to enter into longer term contracts (security of supply, assurance of technical specifications, familiarity with the coal producer), Australian coal exporters also stand to benefit from the uptake of such buying practices. Coal producers can more easily meet the needs of buyers if they can strategically plan production and export months ahead. Use of the spot market by buyers instead can cause peaks and troughs in coal supply, with consequent impacts on prices, and can lead to Australian coal exporters missing sales which they may have made otherwise.

Together, these barriers present a considerable influence on how Australia's coal exports may develop. They also underscore the increasing importance of keeping productions costs low - low cost coal suppliers will be in the best position to exploit market growth because they will be able to accommodate many of these barriers in their pricing. The Commission should take into account the effects of these market distortions on Australia's export prospects.

Climate Change

IC has asked that submissions consider climate change issues only as they relate to the coal industry. The Commonwealth Government sees that there are a number of ways in which

greenhouse gas policies, domestically and internationally, could adversely affect Australia's coal industry:

- reduced coal usage internationally and domestically;
- reduced world prices for coal;
- advantage to some coal producing developing countries who do not take on emission reduction obligations, where domestic coal markets are enlarged due to migration of energy intensive industry away from countries such as Australia; and
- energy market distortions, favoring fossil fuel alternatives and discriminating against coal use.

ABARE has modeled the potential impacts of climate change policies on the Australian economy, including the coal industry. The modeling projects impacts on coal (under a 'business as usual' assumption) arising from OECD countries undertaking to reduce carbon dioxide emissions from fossil fuel combustion to 1990 levels by 2010, with a further reduction of 10% below 1990 levels by 2020, assuming no emissions trading. This indicates that Australia's coal output would decline significantly relative to business as usual (24%). The decline would be due mainly to a projected reduction in Australian coal exports to other Annex I countries, such as Japan, which reduce coal use with the adoption of emission abatement policies. Such a decline would result in approximately a $2 billion reduction in Australian coal exports per annum.

The value of lost exports would be exacerbated by a consequent decline in coal prices that would be created by supply / demand imbalance.. This combination of significantly reduced exports and diminished prices would damage the Australian coal industry, currently the nations largest exporter

Parties to the Framework Convention on Climate Change have identified the phenomenon of carbon leakage in their projections if emissions limitations are imposed - that is, while greenhouse gas emissions will decrease in Annex I countries due to increased production costs arising from emission mechanisms, non-Annex I countries will increase their emissions as energy intensive industries move to those countries. This "carbon leakage" arises because while, on average, Annex I producers of fossil fuel intensive products lose competitiveness, non-Annex I producers of these products experience gains in competitiveness. As about 80% of Australia's electricity production is based on black and brown coals, domestic markets for the industry would be reduced, exacerbating the adjustment arising from reduction of exports. Because of efficiency differences between power generation in Australia as compared to the recipients of migrating industry, it is likely the net world carbon dioxide emissions level would increase as a result of the move.

Additional to direct losses in manufacturing infrastructure already in place, the distortionary pricing policies required to discourage coal use would result in Australia missing out on investment already in the pipeline. A study undertaken by the Department of Foreign Affairs and Trade identified about $68 billion of investment is currently under consideration in the energy and energy intensive sectors in Australia. A relative increase in cost pressures in this sector could lead to possible reassessment of the viability of some of these projects. Also, under a target of stabilising emissions at 1990 levels by 2010, 'carbon leakage' could see around $12 billion of planned and existing investment in emission intensive industries forced offshore.

As many of the energy intensive industries based on low cost coal fired electricity export a high proportion of their production (aluminium is a key example), the trade impacts of uniform carbon dioxide targets would be likely to be greater for Australia than many other OECD countries.

Individually, these considerations are serious - taken together, they represent a critical threat to the future of the Australian coal industry.

Activities Implemented Jointly (AIJ)

Whilst there are clear challenges that would be created through implementation of climate change policies, the Commonwealth Government believes there is a significant opportunity for application of Australian technology and high quality energy coals in assisting development of best practice power generation from the existing capital stock of pulverised coal fired power stations throughout the developing world. Much of the existing coal based electricity industry in developing countries (including India and China) is operating at well under optimal efficiency levels. Involvement of the Australian coal and electricity production industries in an effective AIJ program could assist in achieving greenhouse gas emissions savings in the short and medium terms beyond any that could be associated with alternate energy sources such as renewables. In many cases such savings could be achieved through relatively simple transfer of technology, the optimisation of power station operations, or retrofitting power stations with more modern equipment.

Market diversification

On first appearances, Australia's international coal markets would seem to be quite diverse - in 1996, Australia exported 140 Mt of coal to over 30 countries, with buyers in Asia, Africa and the Middle East, Western Europe, South America and the Pacific.

In reality, Australia's coal sales are concentrated in a small number of Asian markets. In 1996, approximately 80% of Australian coal exports were to Asian buyers, with 77% of sales to only four markets (Japan, Republic of Korea, Taiwan and India). This patterns holds for both metallurgical and thermal coal sales, but is more marked in the thermal coal market:

- 1996 total coking coal exports 77 Mt - of this, 51 Mt (or 67%) was exported to our three largest customers - Japan, India and ROK;

- 1996 total thermal coal exports 63.5 Mt - of this, 52.5 Mt (or 83%) was exported to our three largest customers - Japan, ROK and Taiwan.

This concentration of sales is similar to Canadian coal sales, with Canada's top four markets comprising 80% of total exports in 1996, but contrasts with US coal exports, with the top four US markets comprising only 43% of total exports in 1996, and South African coal exports, with the top four South African markets comprising 33% in 1996.

Markets cannot be taken for granted, and the Australian coal industry needs to work if it is to maintain market share in Japan, Taiwan and South Korea. Indeed, future estimates of electricity consumption in Asia identify Taiwan and South Korea as centres of coal consumption growth - ABARE estimates that Taiwan's thermal coal imports will increase from 29.5 Mt in 1997 to 46 Mt in 2002, while South Korea's thermal coal imports are estimated to increase from 32 Mt to 41 Mt over the same period. Australia is in an excellent position to supply to these markets as they increase over the next decade.

Nevertheless, the current pattern of export concentration leaves Australia in a precarious position. By relying heavily on the fortunes of a small number of markets, Australia is especially vulnerable to changes in those coal markets. Taking into account the trade barriers (identified

earlier) that exist outside of Australia's major coal markets, the role of Government in facilitating market diversification needs to be considered. Greater diversification would spread the "risk" of volatile market influences, in the same way that the US and South African coal industries are positioned.

Market diversification also recognises the enormous potential of emerging markets, particularly amongst the developing Asian members of APEC. To illustrate, total electricity consumption is projected to more than double, from 1945 Terrawatt hours in 1992 to 4915 Terrawatt hours in 2010. Furthermore, coal will play an increasing role in electricity generation in the region - electricity from coal-fired sources represented 24% of electricity consumption amongst Asian APEC members in 1980; by 1992, this had risen to 40%, and is projected to rise to 54% in 2010. The coal trade in APEC economies could also be expected to increase through proposed trade liberalisation in the energy sector within APEC. APEC Economic Leaders have agreed to fast track trade liberalisation in 9 trade sectors, including the energy sector, with implementation to commence in 1999. Liberalisation will include components for the accelerated removal of tariffs on coal and gas items, reductions in tariffs on energy related products and equipment and work to address the removal of non-tariff barriers in the energy sector and liberalisation of trade in energy related services.

There will clearly be major opportunities for significant export increases. Supplying these markets will require more work than supplying to a mature market such as Japan, due to the need to establish an Australian presence. However, if Australia misses the opportunity to create a market share early in the development of these markets, we may be disadvantaged when those markets begin to boom.

In the context of market diversification, the Commission should consider the impact of Government as outlined later in this submission.

Pricing Arrangements

Coal prices have been gradually weakening over the last fifteen years:

- in JFY 1982, hard coking coal benchmark was US$64 a tonne, in JFY 97 it was US$54.50;

- in JFY 1982, thermal coal was US$42 a tonne, in JFY 97 it was US$37.65.

ABARE believes that this downward trend will continue, estimating that over the next five years, the price of thermal coal will fall by 7% and metallurgical coal prices by 12.7% in 1997 dollar terms.

There is no single reason for this weakening, although one major factor has been increasing competition in the coal market, from low cost suppliers such as Indonesia, Colombia, China and the former USSR which have helped to create supply surpluses and dampened prices. However, the breakdown of the benchmark and the rise of the spot market has been, and will continue to be, the prime influence on international coal prices. Japanese power utilities are moving to phase in increasing levels of coal purchased on the spot market into their buying strategies:

- about 4.4 Mt to 4.8 Mt of thermal coal is likely to be purchased by the Japanese utilities on the spot market in JFY 97, a substantial increase from about 3 Mt in JFY 96. Industry sources suggest that one major utility, Chugoku, has indicated a willingness to procure over 20% of its tonnage this way during JFY 97. Historically, Japanese power utilities have purchased

less than 10% of their coal on the spot market. Japanese steel companies such as Nippon Steel will purchase thermal coal at industrial market (spot) prices.

We understand this approach arises from increasing Japanese frustration at being locked into long term contracts on benchmark prices, while other coal consumers are purchasing significant tonnages on the spot market for significantly reduced prices. While Japanese buyers are unlikely to move away completely from annual price negotiations and the subsequent benchmark, given the security of supply this assures, it is clear that Japanese buyers will make greater use of spot sales.

Another consideration in the Japanese market is the emergence of low cost suppliers in Japanese buying strategies. In particular, China and the former USSR have had an increasing share of the Japanese market, and this is likely to continue:

- in 1985, Japan imported 3.6 Mt from China, 3.8 Mt from the former USSR and 44.2 Mt from Australia out of total coal imports of 93.4Mt;

- in 1996, Japan imported 11.3 Mt from China, 4.8 Mt from the former USSR and 64.2 Mt from Australia out of total imports of 126 Mt.

Much of this increase has been in thermal coal sales, although metallurgical sales from these suppliers have also been rising. The market share of these suppliers is set to increase further, and at a rapid pace, as the coal industries in China and the former USSR are modernised and become more efficient.

Given the primary importance of Japan to Australian coal exports (approximately 45% in 1996), the Australian industry must be prepared to adapt to such a shift in buying strategies, and recognise the continuing downward trend of coal prices.

Conclusion

The Commission should consider these market related factors, which could impede Australian coal export growth unless the black coal industry firmly establishes its position as the low cost supplier of high quality coal to the world.

IMPACT OF GOVERNMENT

Since its election in 1996, the Commonwealth Government has moved to reduce its intervention in the industry. On 6 March 1997, the Government removed export controls on a number of minerals, including coal. The existence of the controls was a remnant of the highly interventionist practice of the Commonwealth approving prices for coal exports. The ongoing requirement for coal exporters to obtain permission to export their product represented an unnecessary element of sovereign risk.

Removal of export controls has also removed a trigger for application of the Commonwealth's environment, national heritage and endangered species legislation. The Commonwealth will rely on State processes in these regards, consistent with the Intergovernmental Agreement on the Environment (IGAE). This arrangement avoids the unnecessary duplication of impact assessment which was previously occurring between the Commonwealth and State levels of government.

However, the Commonwealth Government believes that it does have a part to play in assisting the Australian coal industry open and develop markets. The Government, through the Department of Primary Industries and Energy, can perform a range of functions at a government-to-government level to facilitate Australian coal sales. These activities complement the direct production, marketing and export work of the coal producers themselves, and include the following functions:

- exposing key decision makers to Australian best practice, through Guest-of-Government and other high level visits, and Ministerial missions overseas;

- limited support for industry long term research initiatives through provision of seed funding for research considered to be in the national interest (eg Government share of funding for coal gasification research in association with Queensland Government and coal industry);

- demonstration in developing countries of the benefits of more efficient electricity generation from coal, the benefits of use of high quality imported coal in blends with lower grade domestic product, lower pollution and emission levels for given electricity production. (eg power station optimisation project in China);

- promotion of the coal aspects of technology transfer and Activities Implemented Jointly under the Framework Convention on Climate Change;

- development of a trade strategy that focuses on new market expansion, to encourage growth of a truly competitive international coal market rather than one dominated by traditional buyers in Japan, Korea and Taiwan;

- action at an institutional level in APEC forums to address the issues attendant upon investment and trade flows necessary to allow growth of coal based energy production. This involves improved relationships and development of international networks (eg APEC coal flow seminars – three to date with fourth seminar in November 1997);

- action on a bilateral basis against tariff and other trade distorting barriers against coal. The measures to be adopted can only be undertaken at intergovernmental level. (eg Philippines coal policy, coal transport in South China, coal ports studies in India).

CONCLUSION

The Commission's Inquiry is a landmark opportunity for an in-depth and objective evaluation of the state of the Australian coal industry, and its potential for growth in the future. Comparing the performance of the industry against benchmarks achieved around the world will provide a solid analytical base for further reforms.

As detailed in our submission, there are a number of preconditions which the industry needs to meet if it is to fully exploit its potential over the next decade. Most importantly, these are:

- above all, lower production and export costs to keep Australia competitive with other low cost suppliers in the market;
- reduce and eliminate market access barriers;
- consolidate existing markets and diversify into emerging ones;
- reform workplace relations in the industry; and
- ensure transport infrastructure is at, or near, world's best practice.

Algeria				. Import duties total approx 3% - free for EC members. . Value Added Tax varies from 0 - 150%.
Argentina			0%	. Member of the Mercosour agreement from 1/1/1995: - 2% tariffs apply to metallurgical coal imports from outside the region - 0% apply to coal & coke imports into Mercosour countries . 10% "Statistical Tax" on all imports . VAT of 18% applies to goods before customs clearance. . Stamp duty of 0.6%, supplementary tax of 0.5%.
Austria	0%	0%	0%	. 20% Value Added Tax applies.
Bangladesh			10%	. Value Added Tax of 15% applied to coal.
Belgium (EEC)			0%	. No import duties or other restrictions on the importation coal. - Value Added Tax of 12% applies to coal. - VAT for other energy imports is 21% since Jan'96.
Brazil	15%	15%	0%	. Member of the Mercosour agreement from 1/1/1995: - 2% tariffs apply to metallurgical coal imports from outside the region - 0% apply to coal & coke imports into Mercosour countries . Freight Tax (AFRMM) of 25% tax levied on all imports including coal - certain companies are exempt under the "drawback system" depending on the amount of export credit th are using for the transaction (ie. if goods are used in manufacture of exports). . Services and Merchandise Circulation Tax (ICMS) of 17 18 % may also apply.
Brunei		20%	0%	. For all coal.
Bulgaria		0% coking 25% non-coking	5%	. GATT access - 5% applied actual rate to all coal - 0% binding rate for coking coal - 25% binding rate for non-coking coal
Canada	0%	0%	0%	. Goods and Services Tax of 7% introduced in January 19 is applied to all goods. . Member of North American Free Trade Agreement (NAFTA) which provides for free/reduced tariff barriers (10%) between members.
Chile		35%	11%	. The import tariff applies to CIF value of all imports; this waived for Canadian thermal coal. . Possible concession for Colombian coal. . Merchant Shipping Tax is 3% of CIF value of imports. . Import Registration Tax is 3% of CIF value. . Coal may be exempt from Value Added Tax of 18 % - to be reduced to 16% in 1996.

China (PRC)			6% (18%??)	. GATT access 6% offer for all coal . 18% of CIF cost for both thermal and coking coal - some companies possibly receive exemption where they can prove that domestic coal is unsuitable. . Suggestions of introduction of income tax and VAT
Colombia				. Import tariffs 5% . Import surcharge is 14.5%. . Member of Latin American Integration Association (ALADI) which provides preferential tariffs for its 11 members.
Czech Federal Republic		0%		. Free
Denmark (EEC)			0%	. Value Added Tax of 25% applies for coal and electricity & to an excise tax, both refundable for commercial purchases. . A DKr 0.1/kWh (Dkr 1 = US$0.178 in '95) environment tax is levied on commercial electricity consumption sinc 1 Jan '93 and is 50% refundable to industry. . Carbon tax (DKr 100/t of carbon) introduced on househo & public consumptions in 1992 and DKr 50/t of carbon VAT registered enterprises. . The carbon tax is divided into three parts: - room heating DKr 600/t of carbon - heavy processes DKr 5/t in 1996, increased gradual to DKr 25/t in 2000 - light processes DKr 50/t in 1996, gradually increased to DKr 90/t in 2000. . New sulphur tax of DKr 10/kg from 1996, gradually phased in up to 2000 via a system of allowances - in '96 basic allowance amounts to 0.28% of sulphu in coal & 0.4% of the sulphur in fuel oil - fuels used for electricity generation are exempt fron the tax up to 2000.
Egypt			5%	. Applies to all imported coal. . Coke, semi-coke & lignite 20%
European Economic Community (EEC)	0%	0%	0%	. Common Customs Tariff (CCT) is free for all EEC members - CCT duties apply on non-EEC goods other than iten eligible for preference.
Fiji	7.5%	Unbound	0%	. Value Added Tax of 10% on imports.
Finland	0%	0%	0%	. Coal is subject to 22% VAT rate, refundable on sales for commercial purposes to VAT-registered enterprises. . Coal & peat are subject to the carbon/energy tax, peat at a lower rate
France (EEC)			0%	. A licence to import coal is no longer required. . VAT current rate is 20.6%, on coal supplied to househol . There is a tax on SO2 & NOx particulate emissions by industry.

Germany (EEC)			0%	. Coal is subject to VAT at 15%, refundable for commerci sales. . Imports/exports no controls as of January 1996 or duties . Electricity sales are subject to the general rate of VAT at 15%, refundable for commercial sales.
Ghana				. Import duty of 15% of CIF value applies to imports of ra materials. . Excise Tax may apply.
Greece (EEC)				. Import tariffs on bituminous coal are duty free. . Electricity is subject to VAT at the rate of 18%, refunded for commercial purchases.
Hong Kong	0%		0%	
Hungary	6.2%	4.5%	4.5%	. Import Tariff of between 0 - 15% applies - 100% drawback for imports used in the manufactur of exports. . Value Added Tax of 25% applies to most products. . Statistical Fee is 3%, Customs Clearance Fee is 2%.
India	Thermal 40% basic. (plus 45% auxiliary) Coking Coal 5% (zero basic + 5% auxiliary)	Unbound	Thermal 13% Coking coal 8% (3% tariff, 2% revenue duty, 3% additional customs duty)	. The following tariff reductions had been announced in th 1997-98 Indian Government's Budget: - coking coal (ash under 12%) - tariff reduced from 5 to 3%; - coking coal (ash over 12%) - tariff reduced from 20 to 10%; - non coking - tariff reduced from 20% to 10%. . Also 2% revenue duty applied. . Domestic coal freight rates also increased by 12% as fro 1 April 1997. . Effective from 16 September 1997 additional customs du of 3% (over & above the 2% revenue duty) to be applied all dutiable items. This additional 3% is a 'one time measure' applicable only up to 31 March 1999, after whi it will lapse automatically. . The railways increased the freight charge by 4% effectiv from 15 October 1997 over and above the 12% increase announced in the 1997-98 budget.
Indonesia	5%		5%	. Value Added Tax of 10% applied to imports.
Iran				. Import duties are set each March 20 - applies import restrictions in retaliation to countries who discriminate against Iranian exports.
Ireland (EEC)			0%	. Imports/exports - no controls and no import duties . Coal, peat & electricity are subject to VAT at the rate of 12.5%, refundable in the case of purchases for commercial purposes.
Israel			0%	. Value Added Tax of 2% applied to all imports. . Purchase Tax (TAMA) of 7.5% based on calculated valu of imports to be phased out by 1995. . US/Israel Free Trade Agreement provides for reduced tariff barriers for US goods. . EEC/Israel Trade Agreement provides for reduced tariffs for EEC goods.

Italy (EEC)			0%	. Imports/exports - no controls, except that sulphur conten must be not more than 1%. . Electricity is subject to VAT at a rate of 9%, refunded or commercial purchases. There are excise taxes and local and provincial taxes on electricity consumed in industry and by households.
Japan	0%	0%	0%	. Bound duty of 0% applies to coal containing not more th 8% ash. . Consumption Tax of 3% of duty paid value on each and subsequent transaction. . 3% tariff on coke. . Electricity is subject to the general consumption tax at 3' It is also subject to an electricity tax (5% of electricity ra and an electric power development tax (0.44 yen/kWh).
Kenya			25%	
Korea (ROK)	10%	1%	1%	. Temporary import duty is 1%. . Bituminous coal concession 10%
Luxembourg (EEC)				. Electricity is subject to the general VAT of 15%, refundable for commercial purchases.
Madagascar				. Import duties range from 10 - 80% ad valorem on CIF value. . Value Added Tax of 15% applied to all goods. . Excise Tax of 5 - 6% applies to coal. . Stamp Tax of about 0.5% applies. . Import Surcharge of 10% may not apply to coal.
Malaysia	5%	5%	5%	. ASEAN members are exempt from duty. . Duty on anthracite is 2% (ASEAN members exempt).
Mexico	50%	40%	10%	. Value Added Tax (VAT) of 10% applied to all goods. . Member of North American Free Trade Agreement (NAFTA) which provides for free/reduced tariff barriers (10%) between members. . Member of Latin American Integration Association (ALADI) which provides preferential tariffs for its 11 members.
Netherlands (EEC)			0%	. Value Added Tax of 17.5% applies to duty paid value of coal. . Environmental tax is increased every year - in 1995 rose to NLG 23.38/t (Dutch florin) - with rebates of about f 2.25/t to power stations applying flu-gas desulphurisation - in real terms the levy on coal is roughly double the levy on gas. . Electricity is subject to VAT at the rate of 17.5%.
New Caledonia			0%	. Value Added Tax same as France with EEC exemptions . Statistical Tax is 1%. . Sea Octroi Tax of 7% on CIF value may apply.
New Zealand			0%	. Goods and Services Tax of 12.5% on CIF value. . An Energy Resources levy applied at NZ$2.00/t, on open cast mined coal, & NZ$1.50/t on lignite. No levy on underground mined coal.

Nigeria				. Import duty on coal is in the range 10-20%. . Import Surcharges total 7%.
Norway	0%	0%	0%	. Electricity is subject to excise tax (NKr0.053) on most uses & also to VAT at the rate of 23%, refundable for industrial & commercial purchases. . Carbon tax on coal & coke introduced in July 1992 but coal use in industrial processes is exempted. The rate is set annually. . All electricity producers are also subject to a production tax.
Pakistan			20%	. Anthracite & other coal 20%. . Custom duty at the rate of 30%. . Sales tax at the rate of 15% of the duty paid value (i.e. tax on value of product plus 30% custom duty). . Iqra (tax for education) surcharge at the rate of 5% of th value. . Flood relief surcharge at the rate of 1% of the value.
Papua New Guinea			11%	. Applied rate of 11% on all grades. . Provincial Sales Taxes of between 2 - 7% may apply.
Philippines	20%		20% (3% by 2000)	. 10% Ad Valorem duty levied on imported coal. . ASEAN preferential tariff for bituminous coal is maintained at 13%. . Value Added Tax of 10% also applies. . Import duty and VAT are both assessed on the basis of deemed CIF prices ("Home Consumption Valuation") rather than declared values.
Poland	12%		12%	. Custom fees from 27/12/1994 (rep.CWI 24/1/95) - no import duties on hard coal imported from 59 undeveloped countries in Asia & Africa (excluding Sth Africa) - for coal imported from Czech Republic, Hungary & Slovakia duties ranging from 2.9% to 5.8% - for all coking coal imported from outside the EU 8.7% duty would apply - EU member states would be charged 7% for coking coal & 3.4% for steam coal. . *see also attachment from GATT Schedules (file 93/006012).*
Portugal (EEC)			0%	. Imports/exports - no controls & no import duties . Electricity is subject to VAT at a rate of 5%, which is refundable on commercial purchases.
Romania			0%	. VAT of 18% introduced 1/1/93 - replaces Turnover Tax of 3% on CIF value (includir duties) on all goods. . Coal not subject to Import Surcharge.

Russia	5%			. VAT of 20% introduced in April '97. . Coal imported from developing countries - official base rate is 2.5% . Coal from countries that do not have the most favoured nation treatment - official base rate is 10% . Tariff rate in ECUs/t effective from 1 January 1993 - coal bituminous coking 4 ECUs - other coal 1 ECU . Tariff rate for transactions (barter operations) - President's Decree No 629 of 14 June 1992 - coal bituminous coking 6.0 ECUs - other coals 1.5 ECUs
Singapore	0%	20%	0%	
Slovak Federal Republic				. Free
South Africa	0%	0%	0%	. No import duties. . Value Added Tax (VAT) of 14% came into effect from 7 April 1993.
Spain (EEC)			Thermal 14% (EEC 0.9%) Coking 14% * (EEC 1.4%)**	. There are no import duties, but an authorisation is needed to import non-EU coal. . Electricity is subject to VAT at a rate of 15%. . Duty on anthracite 14% (no duty for EEC members). * Minimum duty 10.40 Pasetas/kg gross. ** Minimum duty 1.0 Pasetas gross.
Sri Lanka		0%		. Customs duty 10%.
Sweden	0%	0%	0%	. Coal is subject to: - VAT at the rate of 25%, refundable for commercial sales. - Energy taxes (currently SKr 245/t). - CO_2 (currently SKr 895/toe) and sulphur taxes (SKr 30/kg sulphur in the fuel). . Industry pays 25% of the CO_2 tax rate and no general energy tax. Coal has the highest level of taxes per energ unit. . Electricity to the consumer is subject to VAT at a rate of 25% & to an energy tax of 9.5 ore/kWh, the rate varies according to geographic location.
Switzerland	*	**	*	* Base rate and actual rate for coal is US$0.10 per 100kg gross - waived for EEC and EFTA including Spain, and Portugal plus Turkey and developing countries. ** Bound rate for coal is US$0.08 per 100kg. . Coal is subject to an excise tax of SF 1/tonne & a levy to cover the cost of maintaining emergency reserves, currently SF 3/tonne. . Electricity is subject to VAT at the rate of 6.5%.

Taiwan			0%	. From 1 July 1995 imports tax of NT$170/t applied to coal imported at 0.8% sulphur (approx US$6.50/t) - the tax is adjusted on a pro rata basis depending on the sulphur content of the coal.
Thailand	25%	30%	1%	. Import tariff of 1% applied to coal imports (1% sulphur) . 7% value added tax also applies to imports.
Turkey			Thermal 3% of CIF Coking 2.8% of CIF "High Standard" Coking 0%	. Imports - no quantitative restrictions or duties. . Coal is subject to VAT at the general rate, currently 15% . Electricity is subject to VAT at the rate of 15% & municipality excise tax which is 1% for industrial and 5% for residential customers. . US$7 per ton "Lump Sum Tax" on coal not imported through "the municipalities" - "high standard" coking coal exempt. . *see also attachment from GATT Schedules on transportation infrustructure fee. (file 93/006012).*
United Kingdom EEC			0%	. Imports - no legal restrictions. The current contracts between the coal companies and the generating companies account for a substantial part of the available market. . Electricity purchased by all customers is subject to VAT of 8%, refundable for commercial sales.
United States	0%		0%	. Member of North American Free Trade Agreement (NAFTA) which provides for free/reduced tariff barriers (10%) between members.
Venezuela	5%	1%	1%	. Within the Andean Pact, coal is traded duty free.
Vietnam				. Rate is % of landed CIF price - anthraciate, bituminous 2% . Import Duties range from 3 - 100% with raw material duties in lower range.
Yugoslavia				. No information.