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**Second Strategic Energy Review**

**AN EU ENERGY SECURITY AND SOLIDARITY ACTION PLAN**

***The Market for Solid Fuels in the EU in 2004-2006 and Trends in 2007***

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## **FOREWORD**

Article 7 paragraph (c) of the Council Regulation (EC) No 405/2003 of 27 February 2003 concerning Community monitoring of imports of hard coal originating in third countries, requires the Commission to publish regularly a report on the market for solid fuels in the Community together with a market outlook.

This report highlights the most relevant developments on the international and European coal markets during the years 2004, 2005 and 2006 and gives, as appropriate, trends and estimates for 2007.

Following the enlargement of the EU on 1<sup>st</sup> January 2007, data has been included for the two new Member States for the preceding two years (2005 and 2006). Figures in this report refer to EU-25 for 2004 and to EU-27 for 2005 and 2006 unless otherwise stated.

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This report has been produced using data provided by the Member States and observations from market participants up to August 2007. Where data has not been available, clearly indicated estimations have been made by the Commission services. Note that the data may differ from that of Eurostat.

Graphs and tables used in this report have been produced by the Commission services on the basis of data provided by the Member States unless a different source is identified under individual graph or table.

## 1. INTRODUCTION

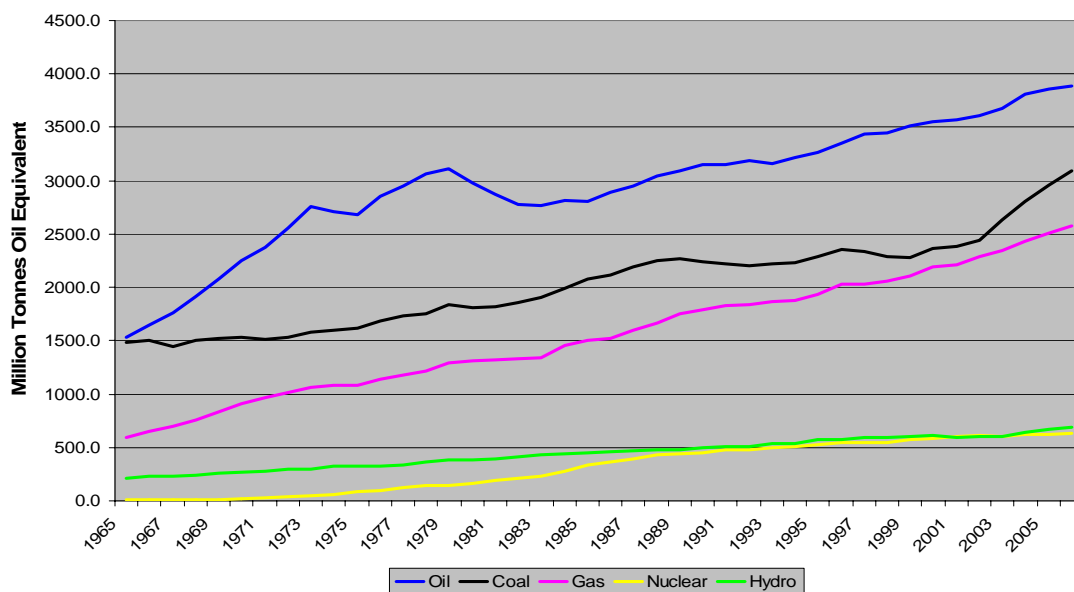
### 1.1. World Supply and Demand

From 2004 to 2006 total world coal production increased by 16% to 5,370 million tonnes (Mt). While European coal producers slightly decreased their coal production in 2004, the “B.R.I.C.” countries (Brazil, Russia, India and China) were the main factors in the increase in worldwide production. In 2006 production increased by 8.8%, following an increase of 6.5% in 2005 and 9% in 2004. This remains well above the 10-year average growth trend of 3.0%.

Updated analysis of proven coal reserves indicates that, at current world production levels, there is close to 150 years of coal available.

The following graph illustrates the long term growth in coal demand compared to other energy sources. It can be seen that coal is the fastest growing energy source in the world since 2002. Indeed, coal is fuelling the rapid development of countries such as China and coal consumption also increased in the United States.

**Figure 1 - World Energy Consumption**



*Source: BP Statistical Review 2007*

2004 will be remembered as the year when traditional purchasing patterns on the coal and coke markets were really turned upside down. For the sake of securing short and medium term supplies, excessive quantities of coal and coke were ordered, giving rise to price increases, the saturation of production, freight rate inflation, impressive waiting times at the ports and the risk of brown outs at generating plants or production disruption at coke manufacturing plants.

In 2005, when the overall situation calmed down, an overstocking situation clearly appeared both for steam and coking coal; de-stocking and the postponement of deliveries became the

major concern for coal consuming industries. This de-stocking policy applied not only to metallurgical coke, but also to coking coal, iron ore and steel products.

In 2006, total coal demand increased by 7.8%, or 322 million tonnes coal equivalent<sup>1</sup> (Mtce), following a three year period where annual increases averaged 6.8%.

Global trade in hard coal also experienced significant growth over the period 2004 to 2006, although coking coal trade fell back slightly in 2006, causing overall growth to be lower than previous years.

## **1.2. World Prices**

As a result of the unexpected and profound changes in the international coal market which occurred in 2003, the prices of both steam and coking oil climbed to unprecedented levels in 2004 (from 35 to 80 \$/tonne for steam coal deliveries to North West Europe).

World prices decreased in 2005 (till close to 50 \$/tonne for steam coal).

However, world prices recovered in 2006 and went on climbing to new highs reaching 130 \$/tonne for steam coal by end 2007 and going even higher in the first semester of 2008.

## **1.3. European Overview**

Europe is the third largest region worldwide in terms of coal consumption, after China and the USA. Around two thirds of consumption is derived from indigenous production, with 164 million tonnes of hard coal and 454 million tonnes of lignite produced in 2006.<sup>2</sup>

Today coal covers around one sixth of the primary energy demand in the EU-27. About one third of power generation in the EU-27 is based on coal.

The importance of coal is increasingly recognised in terms of security of energy supplies, and as an important part of a balanced European energy mix in the coming decades provided that the issue of carbon emissions can be addressed by further technology developments in line with the climate change priorities.

## **2. COAL - GENERAL CONSIDERATIONS**

### **2.1. Reserves**

Europe possesses substantial reserves of coal and lignite There are a number of different ways of assessing these deposits, but whichever way the assessment is carried out, the figures are substantial. The German Federal Institute for Geosciences and Natural Resources (BGR) gives reserves<sup>3</sup> of 19 Bt and resources<sup>4</sup> of 479 Bt hard coal and reserves of 75 Bt and

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1 IEA definition of 1 million tonne coal equivalent equals 0.7 tonnes oil equivalent, or 7 million kilocalories

2 Except otherwise provided, the data used in this report are data transmitted by Member States under Council regulation (EC)405/2003

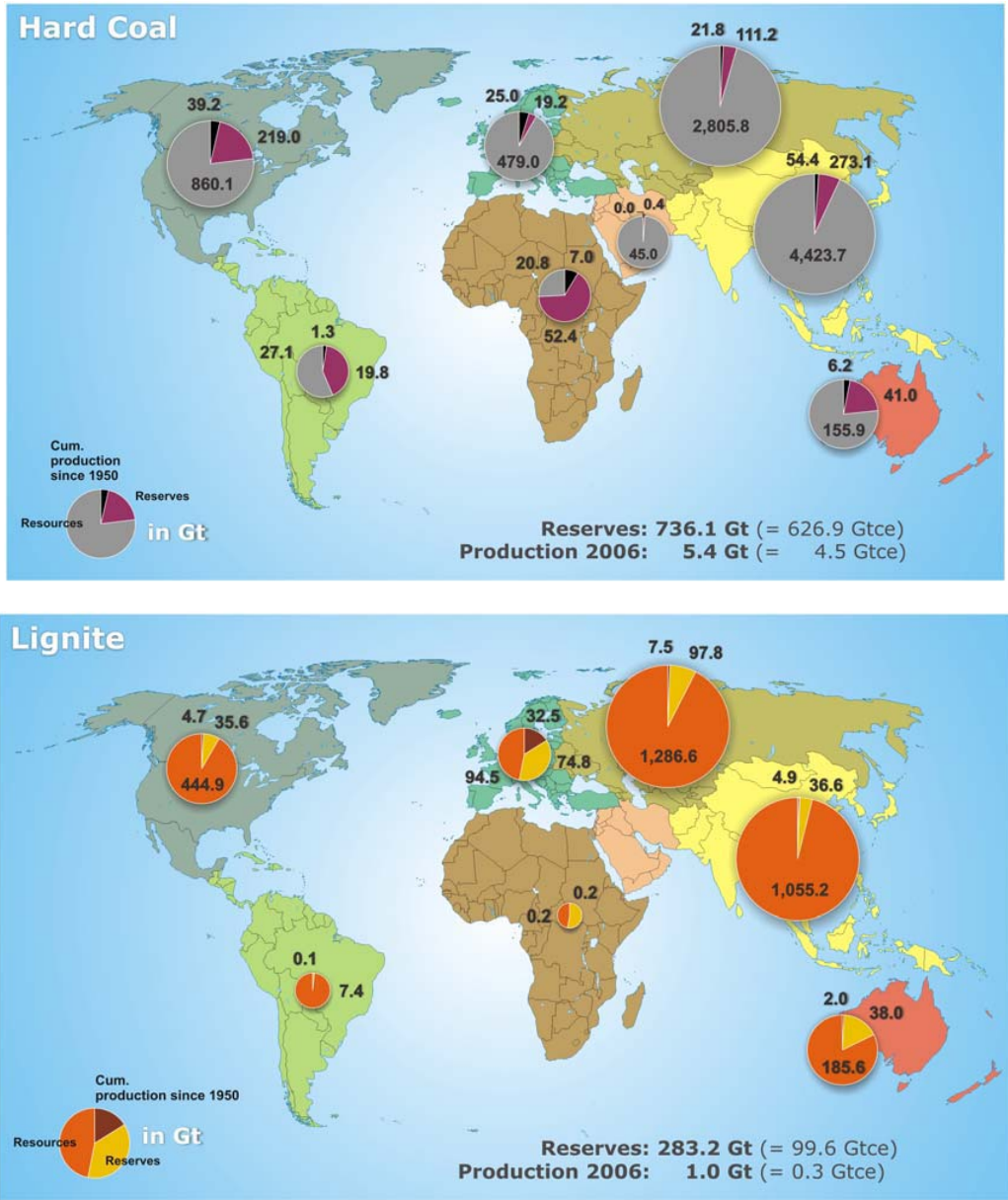
3 According to BGR (Federal Agency for Geoscience and mineral resources) reserves are defined as the quantity that can be recovered economically from a mineral deposit at current prices with current technology

4 According to BGR resources are defined as demonstrated quantities that cannot be recovered at current prices with current technology but might be recoverable in the future, as well as quantities that are geologically possible but have not been demonstrated.



resources of 95 Bt of brown coal and lignite in Europe. The following maps illustrate the world distribution of reserves of hard coal and lignite including brown coal.

**Figure 2 - World Reserves of Coal**



Source: BGR Reserves, Resources and Availability of Energy Resources, 2007

The World Energy Council published its triennial survey of energy resources in September 2007. The following table gives their assessment of significant reserves in European states at the end of 2005<sup>5</sup>. This includes some significant re-assessments in Europe, with parts of reserves/resources being reduced or removed based on updated perceptions of what is economically recoverable.

5 As reported by sources such as WEC and BGR the coal proved reserves for EU are diversely estimated due to different resources and coal classification.

**Table 1-European Coal Reserves (Mt)**

	<b>Hard Coal Reserves</b>	<b>Hard Coal Resources</b>	<b>Lignite Reserves*</b>	<b>Lignite Resources*</b>
<b>Albania</b>			794	
<b>Austria</b>		1		333
<b>Bulgaria</b>		428	1928	3988
<b>Croatia</b>		4		41
<b>Czech Republic</b>	1673	5880	2828	2928
<b>Germany</b>	152	319	6556	7136
<b>Greece</b>			3900	
<b>Hungary</b>	199	1597	2933	9006
<b>Italy</b>			10	10
<b>Poland</b>	6012	15291	1490	1878
<b>Portugal</b>			33	
<b>Romania</b>	12	22	410	3886
<b>Serbia</b>		27	13879	21149
<b>Slovakia</b>		2	260	519
<b>Slovenia</b>			232	644
<b>Spain</b>	200	812	330	584
<b>United Kingdom</b>	155			
<b>EU Total</b>	<b>8403</b>	<b>24352</b>	<b>20910</b>	<b>30953</b>
<b>Europe Total</b>	<b>8403</b>	<b>24383</b>	<b>35583</b>	<b>52102</b>

\*including sub-bituminous coal; resources not including “estimated additional”

*Source: WEC Survey of Energy Resources 2007*

The largest hard coal reserve is in Poland, with significant reserves also in the Czech Republic, and lesser reserves in Spain, Hungary, the United Kingdom and Germany. In the case of lignite, reserves are present in a swathe from Germany through Central Europe and the Balkans, to Greece. Within the EU, Germany has the largest deposit, with major reserves also in Poland, the Czech Republic, Hungary, and Greece, as well as Bulgaria and Romania.

## **2.2. Demand Drivers**

Coal demand in Europe is dominated by the power sector, accounting for 69% of overall consumption in the case of hard coal and 94% for lignite.

Demand is driven by a complex set of factors and constraints. The starting point is demand for electricity, which is mainly impacted by the energy intensity of the economy, the level of industrial activity, the changing behaviour of consumers, and the weather. The prime determinant as to how demand for electricity can be met is the available capacity of different forms of generation and their costs. Demand varies significantly across hours, days and seasons, which means that some generation capacity will be more used than other.

Whilst lignite-fired generation is as a general rule running whenever available ('baseload'), hard coal-fired generation is often, especially in some parts of the EU, used rather for 'mid-merit' operation ( i.e. not running all the time but a large number of hours compared to peak operation which corresponds to a limited number of hours ). Hard coal can be competing with modern gas-fired generation for mid-merit operation.

The market choice between generation from coal or gas depends on the relationship between the coal price and the gas price, together with the impact on each of the CO<sub>2</sub> emission price.

Another potentially important driver could be the development of CCS technologies. In case this promising technology becomes commercially viable in a fully functioning carbon market, coal based power generation could assume an even larger share in the power generation mix.

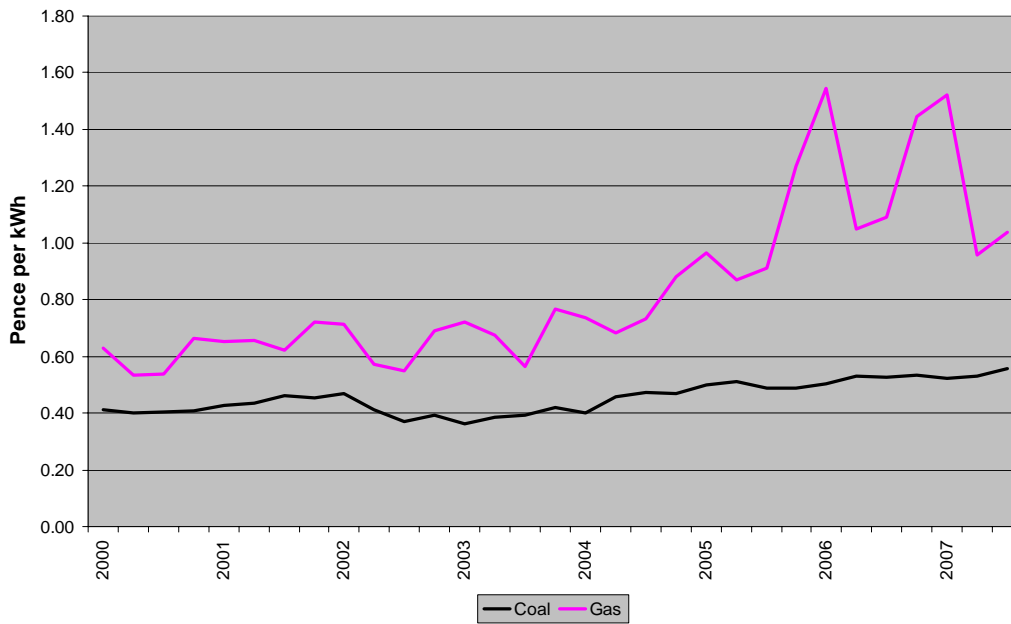
The following paragraphs deal with some of these demand drivers in more detail.

## **2.3. Coal and Gas Prices**

The dramatic increases in gas prices in recent years have made coal-fired generation significantly more attractive where there is a choice of capacity, for example in the UK. This led to high coal demand in the period 2004 to 2006, but as gas prices have reduced during 2007, coal demand has fallen back.

Coal and gas prices to major power producers in the UK are illustrated by the following chart.

**Figure 3-Coal and Gas Prices to UK Power Producers**



*Source: DBERR (UK) –Government Website*

## **2.4. Emissions Trading**

The EU Emissions trading scheme came into effect from 2005. Initially, certificate prices increased rapidly, largely as a consequence of high demand from the UK where free allocations to power stations were well below what was required for business-as-usual operation. Once all Member States were fully integrated into the trading mechanisms, however, and following the release of the first year's supply/demand data for allowances, the price fell sharply from the 2<sup>nd</sup> quarter of 2006, and has been close to zero up to the end of the first phase (till December 2007).

The new phase of the EUETS from 2008 will significantly change the market fundamentals, and carbon prices are likely to become a major driver of generation levels once more, in cases where there is a choice between coal and gas (or other lower carbon generation).

EU ETS prices recovered in January 2008 and since then have remained fairly stable in the range of 22-25 €/tonne of CO<sub>2</sub>.

## **2.5. Exchange rates**

Currency movements against the Euro affected coal demand and production around the world.

In the period 2004-2006, the US dollar, the main currency in the international coal market, remained relatively stable in comparison with the Euro. Nor were there any major changes in value in comparison with the Australian dollar and the South African rand.

This followed two years in which the rand strengthened significantly against the US dollar and the dollar weakened slightly against the Euro, contributing to the increase in coal prices.

During 2006/7, both the US dollar and the rand have weakened significantly against the Euro.

## 2.6. New Pricing Methodologies for Steam Coal

Over the last few years the trading of coal has undergone a major transition in terms of commodity pricing mechanisms, attitudes to counterparty risk, and the nature of the participants in the market.

Coal used to be considered to be unlike other commodities: the physical characteristics were such that it was not possible to devise standardised contracts; quality differences between different sources of supply and differing quality requirements in the market meant that coal was not thought to be fungible like oil or gas.

However, with the growth in international coal trading, new ownership structures for power plants, and the emergence of powerful cross-commodity traders, the traditional ways of doing business have been increasingly challenged.

We have seen the emergence and rapid growth of trading in coal swaps – ‘paper trading’ – such as API 2 (the North West Europe index and API 4 (the South African index). GlobalCOAL’s internet trading platform was launched based on a standardised coal contract, and the first coal futures contract was launched by EEX<sup>6</sup> in May 2006.

The liquidity of the market in coal derivatives has been helped by the increased number of participants. Banks and finance houses began to trade coal swaps in addition to the major buyers, sellers and traders.

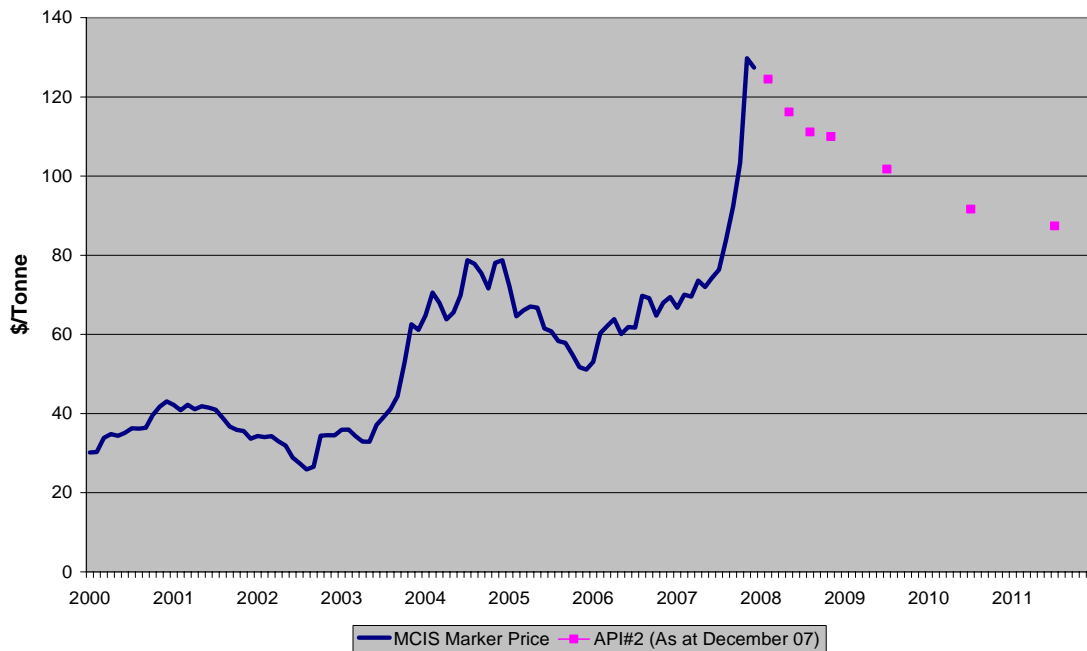
The most important development has been the coal swap, enabling the physical and financial risks of buying coal to be de-coupled. The first API swap was traded in 1998. By 2006, brokers estimate that 1,300 million tonnes were traded on API 2 and API 4, around seven times the volume of the physical imported coal market in the Atlantic – up from 650 million tonnes in 2005.

The following chart, reflecting the situation as of end 2007, shows the forward values of coal swaps for North West Europe, compared to historic prices.

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6 EEX – European Energy Exchange

**Figure 4-Historic Spot and Forward Swap Prices**



*Source:* McCloskey Coal Information Services (MCIS)/Argus

## 2.7. Infrastructure

Both supply and demand dynamics, and associated pricing impacts in the international coal market, have been affected by infrastructure bottlenecks. Often the same ports and vessels are involved in the trade of other bulk commodities thus exacerbating the problem. Expansion projects at different stages of the supply chain are under way in many of the countries active in the trade, with the intention of allowing for continued growth.

Australia is planning 60 Mt per annum more capacity in the short term (around 2010) and a further 130 Mt per annum in the medium term; Richards Bay (South Africa) is expanding its capacity by more than 20 Mtpa to 92 Mtpa by 2010. Further developments are also planned in South America (Colombia and Venezuela). Russia should have additional capacity of 20Mtpa by 2010. China is also planning more capacity, but the situation here is complicated by the volume of coastal shipping, illustrated below.

**Figure 5 - Chinese Coal Flow**



*Source:* Barlow Jonker

In summary, supply constraints are expected to ease over the medium term as new infrastructure comes on line. Nevertheless, the expansion of the infrastructure still lags behind the requirements of the market, and it will presumably be several years until it has achieved adequate dimensions. This is reflected in freight rates, covered in section 5.

## **2.8. Market Concentration**

Over the period 2004-2006 the tendency toward market concentration continued in all of the producing countries. The Chinese, for example, are striving to create large hard coal companies with over 100 million tonnes output for the long term. A handful of companies are also handling the lion's share of production and export in Indonesia.

However, the improvement in world market prices is also luring new companies into the coal export business, thereby expanding the pool of suppliers. In the case of coking coal – above all, hard coking coal – Australia has created a strongly dominant position with almost 66% market share, which in turn is in the hands of just a few producers. However, another player – CVRD – has stepped onto the coking coal scene. CVRD is developing into another market participant through projects in Mozambique and Venezuela as well as the entry into Australian coal mining.

The competition in the area of steam coal continues to be broader, and in recent years Russia and Indonesia have strengthened their positions on markets alongside the traditional suppliers Australia, South Africa and Colombia. As a consequence of high oil and gas prices, known deposits in many countries are being reassessed and the possibility of mining the reserves is being examined (e.g., in Eastern Canada, Chile, Zimbabwe). This could lead to some increase in supplies in the long term.

## **2.9. Steel Industry Developments**

Steel demand is driven by population, economic growth and development. Half of the world's population lives in high growth, developing countries. Costs of iron and steelmaking vary widely by region, with important implications for the location of new capacity.

Crude steel production around the world rose by 88 million tonnes from 1.129 billion tonnes to 1.217 billion tonnes in 2006 (+7.8%), illustrated by the table below. China alone had a share of 60% of the growth in this sector. Pig iron production which determines the consumption of coking coal, PCI coal and coke, increased by 78 Mt from 790 Mt to 868 Mt. The share of crude steel production based on pig iron melted in the blast furnace process continued to rise because the growth in crude steel production, above all in China, was largely based on this process, due to the lack of adequate supplies of scrap.

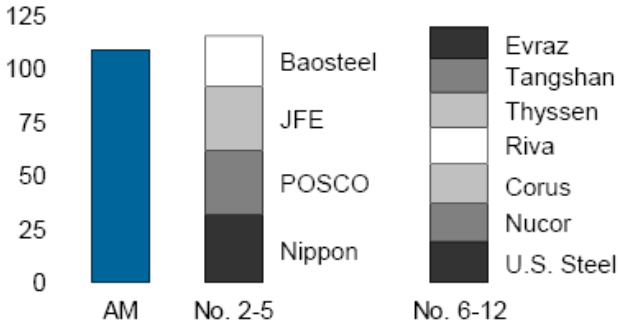
**Figure 6–Growth in World Crude Steel Production**

	2004		2005		2006		2007 (Est.)	
	Mt	%	Mt	%	Mt	%	Mt	%
China	280	+26%	356	+24	425	+19	490	+15
Rest of World	785	+5%	773	-1	792	+3	806	+2
Total	1,065	+10%	1,129	+6	1,217	+8	1,296	+6

Source: Verein der Kohlenimporteure, Jahresbericht 2006/2007

The most noteworthy recent development in the steel industry over recent years was the creation of Arcelor Mittal Steel. The €27bn merger was finally agreed on June 25<sup>th</sup> 2006 after a takeover battle lasting several months during which an attempt was made to pursue a merger with Severstal, Russia’s largest steelmaker. Mittal finally took control of Arcelor in August 2006. This created the world’s largest steel conglomerate by a significant margin. The following chart shows how Arcelor Mittal (AM) produced almost as much steel as the four next-largest companies combined during 2005.

**Figure 7 - Crude Steel Production 2005 (Mt)**



Source: Arcelor Mital

Consolidation in the sector continued with Tata Steel’s £6.2bn acquisition of Corus Group on 2<sup>nd</sup> April 2007, creating the world’s fifth largest steel producer.

Steel demand seems set for substantial growth over the next decade. Continuing pressure to improve productivity of blast furnaces is likely to lead to larger quantities of high quality hard coking coal in blends as well as increasing rates of pulverised coal injection.



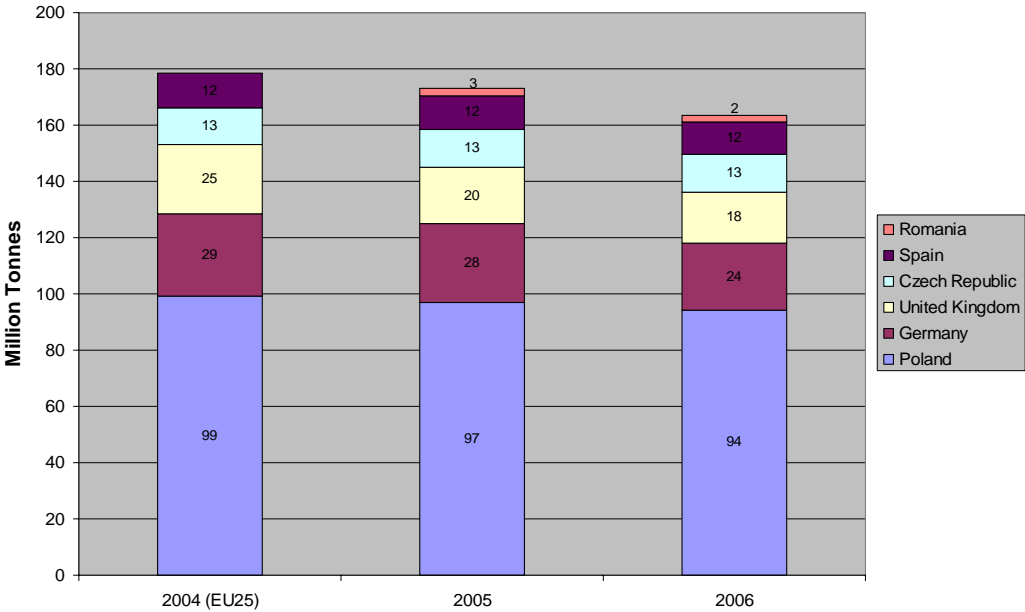
With major steel demand in developing countries, and the economics of blast furnace operation favouring production close to where raw materials are situated, further rationalisation of European steel production and associated coke making could be envisaged.

**3. HARD COAL – PRODUCTION AND CONSUMPTION IN THE EU**

**3.1. Hard Coal Production**

Indigenous production has continued its decline over the period 2004/06, and is forecast to decline further in 2007. The following chart shows trends for the major producing countries:

**Figure 8 - EU Hard Coal Production Trends**



Hard coal production reduced by 4.7% in 2005 (EU-25) and by 5.4% in 2006 (EU-27). Detailed figures are given in the Annexes and are summarised in tables 7 and 8 at the end of this report.

The largest reduction in production from 2004 to 2005, in both absolute and percentage terms, was in the UK following the closure of the Selby mining complex. Production continues to decline with further mine closures and a lack of planning consents for surface mining. In 2006 both Germany and Poland showed significant reductions mainly as a result of mine closures in Germany and some poor outputs in Poland.

### 3.2. Hard Coal Consumption

Trends in total consumption of hard coal are illustrated by the following chart.

**Figure 9 – EU Consumption Trends for Hard Coal (Mt)**



Consumption continues to be dominated by the power sector at 69% followed by coke production at 18%. Power station consumption for EU-25 was down by 3.1% in 2005 compared to 2004, whilst use for coke production was down by 1.6%.

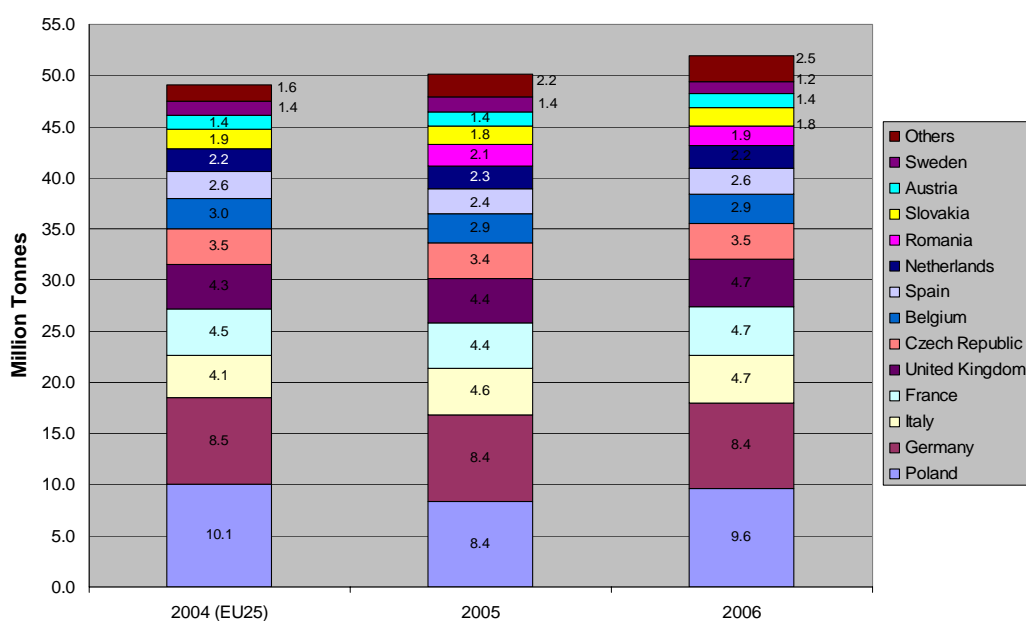
In 2006, EU-27 power station consumption increased by 3.5% with increases in the UK, Denmark, Finland and Poland partly offset by reductions in Spain and France. Use for coke production was up by 4.3% with the major increases in Poland, Italy, Hungary, UK and Sweden.

## 4. COKE – PRODUCTION AND CONSUMPTION IN THE EU

### 4.1. Coke Production

Production trends for coke are illustrated by the following chart:

**Figure 10 – EU Coke Production Trends**



Coke production reduced by 4% from 2004 to 2005 (EU-25) where there was a reduction of 1.7 Mt of Polish production. In 2006 EU-27 coke production increased by 4% with Polish production recovering by 1.2 Mt and a number of smaller increases elsewhere. At 5 Mt, coke imports supply around 9% of the market.

## 5. HARD COAL AND COKE - INTERNATIONAL MARKET

### 5.1. Major Hard Coal Producers

World hard coal production showed a record growth in the period 2004-2006, driven by growth in production from non-OECD countries, with an 8.8% growth in 2006, following three years of annual growth averaging 12%. Production increased in China, Russia, India, Indonesia, Kazakhstan and Colombia, but declined marginally in South Africa.

The following table shows figures for the largest producers:

**Table 2 – Major World Hard Coal Producers (Mt)**

	2003	2004	2005	2006
<b>PR of China</b>	1670.2	1956.0	2158.9	2481.5
<b>United States</b>	893.9	943.3	962.4	989.5
<b>India</b>	358.4	382.0	403.0	427.1
<b>Australia</b>	274.9	285.9	304.9	309.4
<b>South Africa</b>	238.8	242.8	245.0	244.4
<b>Russia</b>	177.4	189.8	202.9	233.2
<b>Indonesia</b>	115.3	132.4	152.2	169.0
<b>Poland</b>	102.9	101.2	97.9	95.2
<b>Kazakhstan</b>	84.9	83.1	82.8	91.5
<b>Colombia</b>	50.5	54.2	59.1	63.7
<b>Ukraine</b>	63.8	59.1	60.0	61.4
<b>Others</b>	256.8	204.0	204.9	203.9
<b>Total</b>	<b>4287.8</b>	<b>4633.8</b>	<b>4934.0</b>	<b>5369.8</b>

Source: IEA Coal Information 2007

China accounts for around 46% of world coal production. Output grew by 14.9% in 2006, following 10.4% growth in 2005 and 17.1% in 2004. China's production has more than doubled since 2000 which allows the country to meet fast growing demand for coal-fired generation and steel making. However, as a major coal exporter, China gradually moved from the second largest coal exporter in 2001 to fifth in 2006.

Coal production in North America has shown slow growth for three consecutive years, increasing by 2.8% in 2006 after 2.0% growth in 2005 and 5.5% in 2004.

India showed growth in output of 6.0% in 2006, similar to the 5.5% growth in 2005, and slightly less than the 6.6% in 2004, but is increasingly dependent on imports because of its more rapidly growing power requirements.

Australia remains the largest hard coal exporter and increased production slightly by 1.5% after 6.6% growth in 2005 and 4% growth in 2004.

South Africa accounts for 98% of Africa's hard coal production and is the world's fourth largest coal exporter. Production fell back slightly by 0.2% compared to 0.9% growth in 2005 and 1.7% growth in 2004.

Russia expanded its output by 14.9% in 2006, a steep increase from the 6.9% growth in both 2005 and 2004, and further increased its importance as a supplier to Europe, particularly the UK. From 2005 it has overtaken South Africa as the world's third largest coal exporter.

Indonesia is the seventh largest producer but second largest exporter in the world. Coal production was up 11.0% in 2006 after stronger growth of 15.0% in both 2005 and 2004.

Colombian production increased by 7.8% in 2006 following an increase of 9.0% in 2005 and 7.3% in 2004. Colombia should continue to expand but Venezuela's potential for expansion will be limited unless the efficiency of port and rail connections is improved. Exports from South America are expected to be increasingly directed towards the USA as indigenous production fails to keep pace with demand.

## **5.2. Hard Coal Trade**

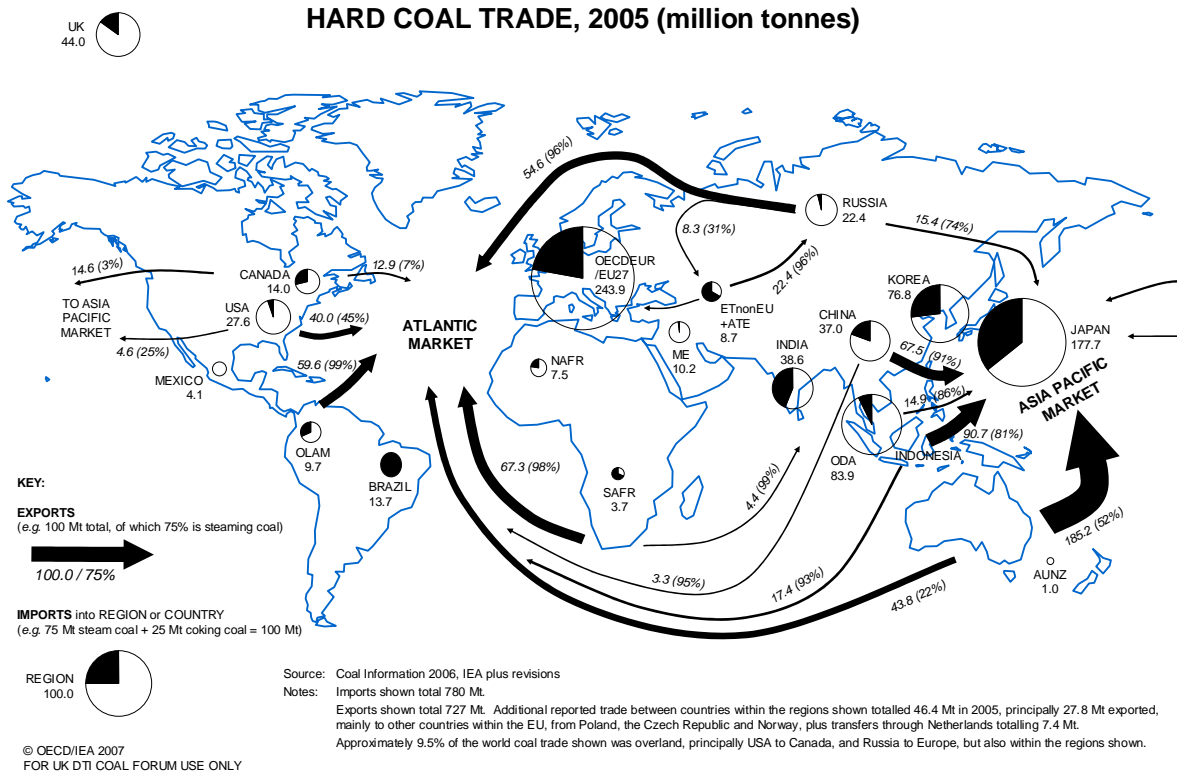
A high proportion of world coal production is consumed within the country of origin – around 85%, and this is especially true of the two largest producers, China and the USA. Relatively small proportional changes in supply and demand in these countries can have a major impact on international market dynamics.

The major steam coal exporting nations are Australia, Indonesia, Russia, South Africa, Colombia and China, whereas for coking coal the major exporters are Australia, the United States and Canada.

Major world coal trade flows are illustrated by the following diagram:

**Figure 11 – Hard Coal Seaborne Trade 2005**

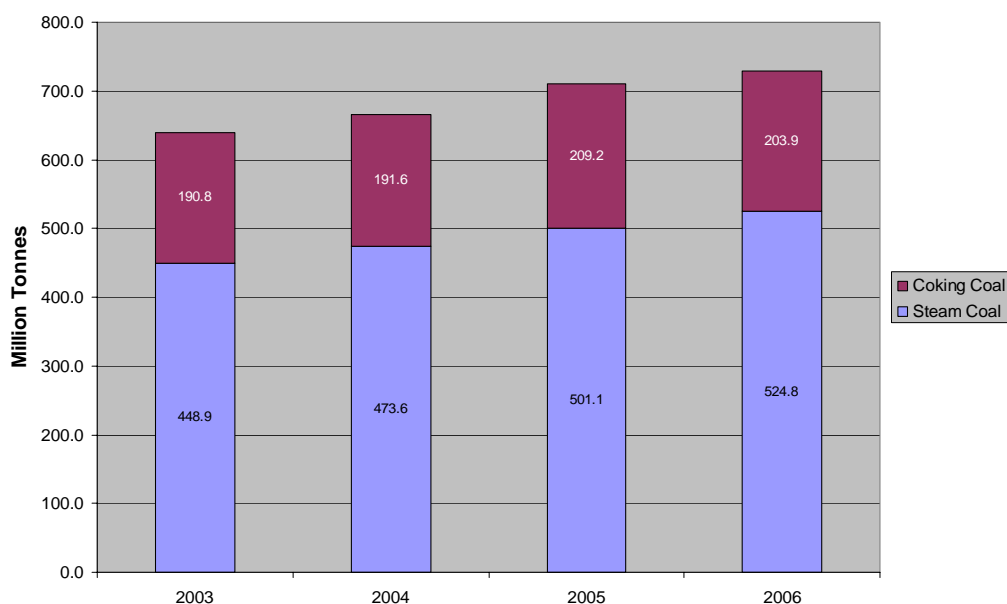
3 May 07



Source: IEA/UK Coal Forum , Governmental Website

Trends in seaborne hard coal trade are illustrated by the following chart:

**Figure 12 - World Seaborne Hard Coal Trade**



Source: Coal Information 2006/2007

### 5.3. Steam Coal Trade

Total world steam coal exports rose by 27.6 Mt or 4.9% in 2006 to reach 592.6 Mt. This follows a 31.3 Mt or 5.9% increase in 2005, up from 533.7 in 2004.

Exports from Indonesia, Russia, South Africa, Colombia, Poland and the United States rose in 2004/05 whereas China, Kazakhstan, Canada and Australia saw declining exports.

In 2006, exports were up from Australia, Indonesia, Russia and Colombia Kazakhstan, Vietnam and the USA and down from South Africa, China and Poland.

In 2005, Australia was the largest steam coal exporter with 19.4% of world exports. Indonesia, South Africa and Russia followed with shares of 16.3%, 13.1% and 12.1% respectively. In 2006, Australia retained its leading position at 18.7% of world exports. Russia, however, overtook South Africa for third place. The shares for Indonesia, Russia, and South Africa were 17.5%, 13.8% and 11.4% respectively.

2007 is predicted to show further growth of around 5% in steam coal trade.<sup>7</sup> China became a net coal importer at the beginning of the year and South Africa is showing some stagnation, but Colombia and Russia are expected to increase their exports. Indonesia will probably also increase its share of the Atlantic market. USA exports are also showing signs of increasing as a result of the high prices.

<sup>7</sup> Source: Verein der Kohlenimporteure, Jahresbericht 2006/2007

#### **5.4. Coking Coal Trade**

World trade in coking coal has decreased by 2.6% to 221.8 Mt in 2006.<sup>8</sup> This followed growth of 8.6% in 2005 and 4.4% in 2004; Australia remained, by far, the largest exporter at 120.5 Mt, but with exports down by 4.4 Mt compared to the previous year.

Further growth in crude steel production is expected once again for 2007. As in previous years, China is the driving force, but production is also rising in India, South America and Eastern Europe. As coking coal stock surpluses were reduced in 2006, the demand for all qualities is expected to rise again.

#### **5.5. Coke Trade**

The OECD<sup>9</sup> countries' imports of coke decreased by 2.7% in 2006.<sup>10</sup> The USA, Germany, France, Japan and Austria were the five major OECD coke importers in 2006, accounting for 63.5% of coke imports. Coke trade statistics for non-OECD countries are only available up to 2005, showing that China and Russia were the main exporters while India and Brazil were the main importers. On its own, China accounted for 45.3% of world coke exports.

The demand for coke on the world market fell substantially in 2005 - after a 16.9% increase in 2004 - partly as a result of consumers entering 2005 with excess inventories. There is currently an overcapacity in coke production, especially in China.

#### **5.6. Imports to the EU**

In 2005, imports of hard coal to the EU-25 in 2005 of 192 Mt reduced by 1.0% compared with the previous year and represented 53% of total hard coal supply. The major hard coal exporting countries to the EU-25 were South Africa, Russia, Australia, Colombia, Indonesia the USA and Canada.

In 2006, imports of hard coal to the EU-27 were 210 Mt, an increase of 6.1%, representing 56% of total hard coal supply.

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8 IEA includes coal used in coking blends and for pulverised coal injection in coking coal statistics which are not strictly coking coals

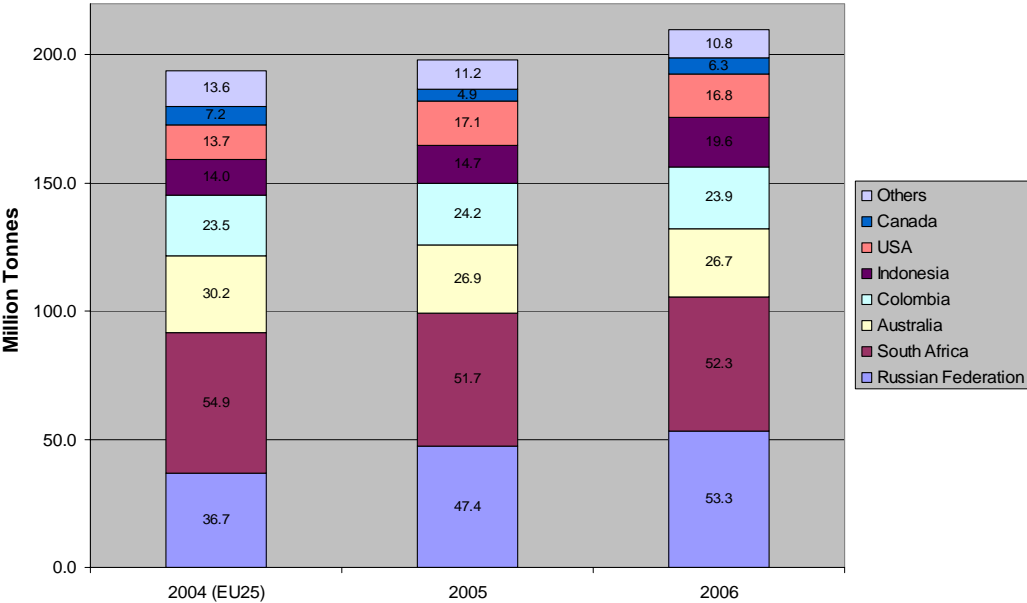
9 Organisation of Economic Cooperation and Development

10 Source—IEA Coal Information 2007



The breakdown of these hard coal imports is illustrated by the following chart.

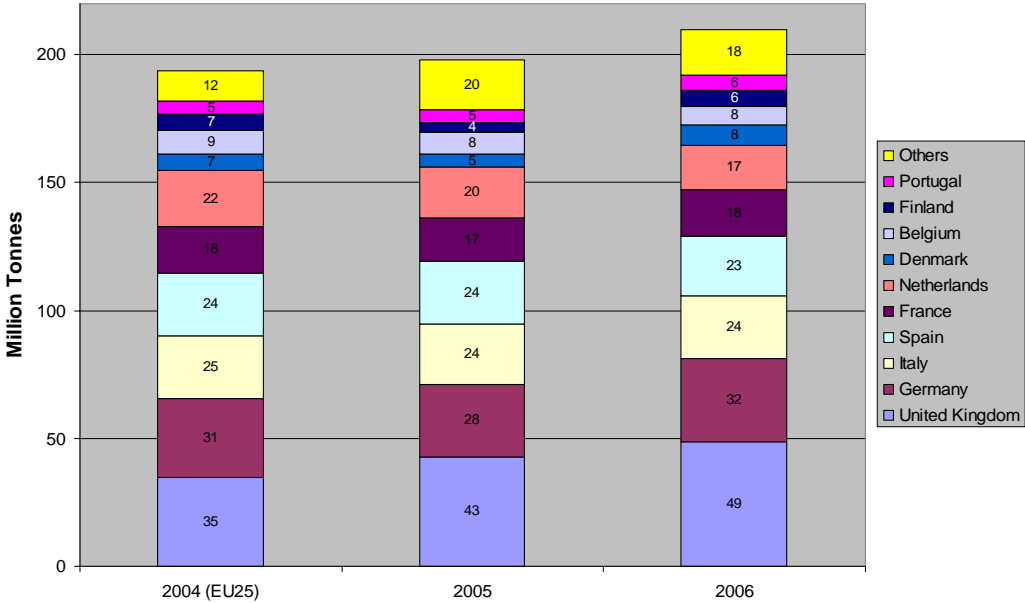
**Figure 13 – EU Hard Coal Import Breakdown**



The most significant change in hard coal import sourcing from 2004 to 2005 and again from 2005 to 2006 is the major growth in imports from Russia, offset to some degree in 2005 by a reduction in South African supply. This growth of imports from Russia has been driven mainly by the UK, where lower sulphur supplies from Russia are needed at power station plants not fitted with flue gas desulphurisation. Additional benefits accrue from flexible shipment options, including smaller vessels more suited to a number of UK ports. In 2006 Russia became the largest hard coal supplier to the EU.

Major European importing countries are illustrated by the following chart:

**Figure 14 – EU Hard Coal Import Volumes by Member State (Mt)**



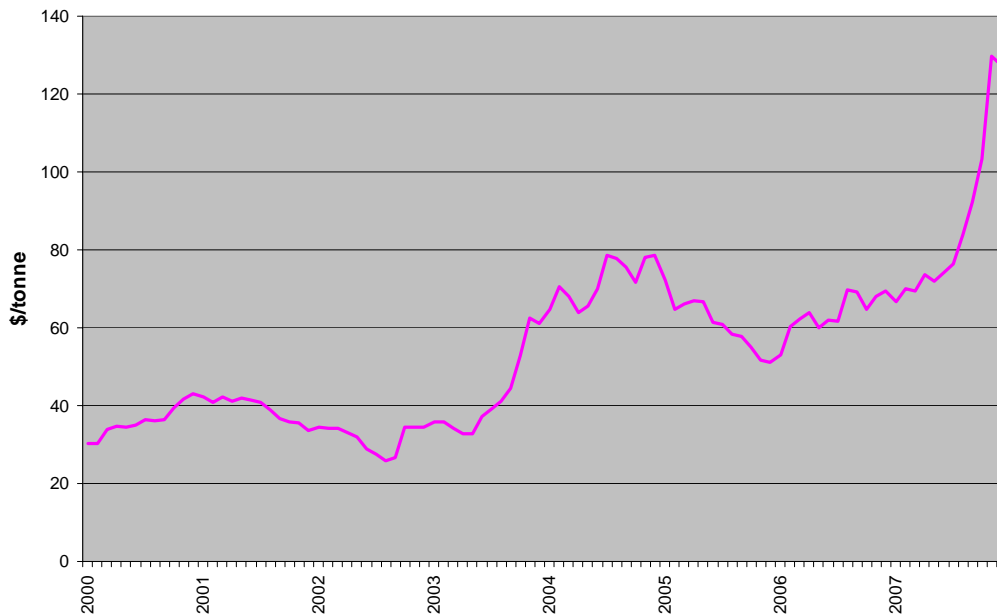
The most striking trend in hard coal imports is in the UK, where imports have grown by 23.6 from 2004 to 2005 and by a further 14.1% in 2006. This is the result of increased demand from power stations coupled with reduced indigenous production.

## 5.7. Steam Coal Prices

### SPOT PRICES

The following graph illustrates the development of spot steam coal prices delivered to North West Europe:

**Figure 15 – North West Europe Steam Coal Prices**



*Source: McCloskey Coal Information Services (MCIS)*

It can be seen that after the major growth in 2003 and 2004, prices fell back somewhat in 2005 before recovering in 2006. This has been followed by a dramatic increase in prices in late 2007 to around \$130/tonne, driven both by high freight rates (see below) and also free-on-board (fob) prices.

Strong demand from India has coincided with a series of supply disruptions on the rail line supplying Richards Bay (South Africa). Pacific markets have also tightened driven by continued strong demand from all major buyers at a time of worsening infrastructure constraints at the Newcastle terminal, and a growing awareness that additional shipments of Indonesian coal will be insufficient to meet the needs of Asian buyers.

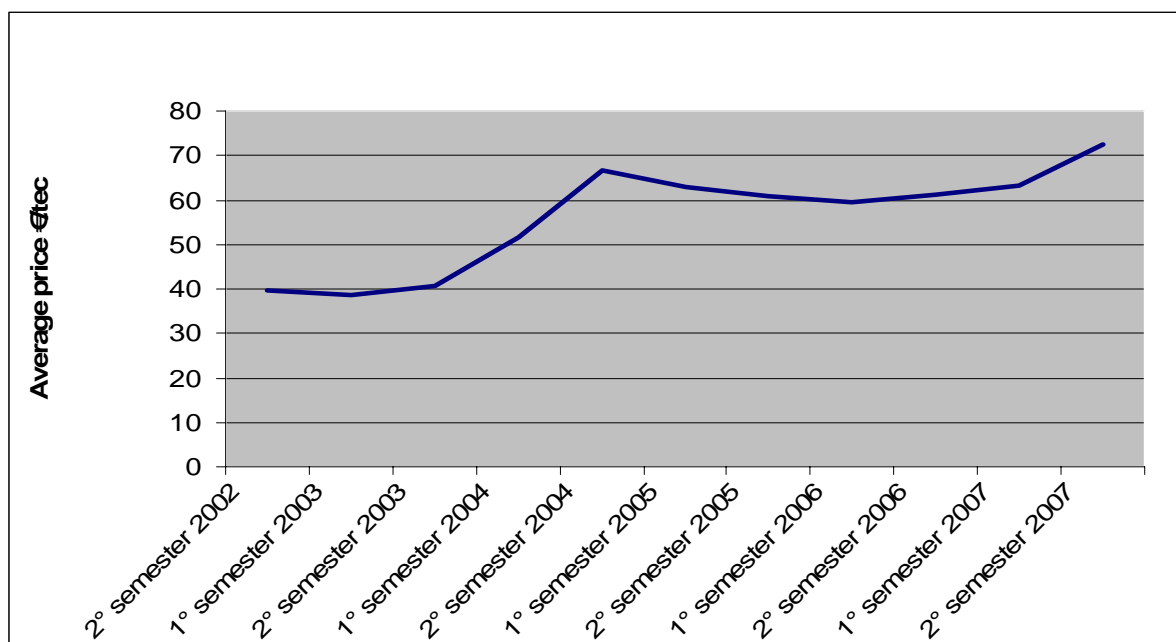
These high spot prices have continued to grow in the first semester 2008, pulled by strong demand in the Pacific Basin and by capacity limitations (notably a production slow-down in South Africa due to insufficient electricity supply to the mines and insufficient port capacity in Australia). Consequently, it is not foreseen that the prices falling back towards \$ 80/ tonne over the next year. However, loading capacity is foreseen to increase in Australian ports in 2009.

## AVERAGE EU IMPORT PRICES

Since 2003, based on declarations by the undertakings importing coal and on data aggregated by the Member States, the European Commission publishes every semester the average price of steam coal imported from third countries.

The average EU prices of imported steam coal are shown on the following graph and table.

**Figure 16 – Price of Steam Coal Imported From 3rd Countries**



2° semester 2002	€39,8
1° semester 2003	€38,8
2° semester 2003	€40,8
1° semester 2004	€51,5
2° semester 2004	€66,7
1° semester 2005	€62,9
2° semester 2005	€60,9
1° semester 2006	€59,6
2° semester 2006	€61,3
1° semester 2007	€63,1
2° semester 2007	€72,5

For the 2nd semester of 2007, the average price of imported steam coal was €72.5 per tcc (equivalent to \$ 102 per tec).

## 5.8. Coking Coal Prices

### SPOT PRICES

Coking coal prices rose significantly from April 2005. Fob prices for hard coking coal rose from \$55-60/tonne to around \$125. Prices for semi-soft coking coal and PCI<sup>11</sup> coal also increased.

**Table 3 - Price Trends in Coking Coal (US \$/Tonne FOB Australia)**

Contract Prices*	2004/5	2005/6	2006/7	2007/8
<b>Hard Coking Coal</b>	58	125	116	98
<b>Semi-soft Coking Coal</b>	43	85	58	64
<b>PCI</b>	48	100	65	68

\*April to March basis

*Source:* Goldman Sachs Commodities

In 2006/7 and 2007/8 the prices have eased back somewhat, but still remain high by historic standards because coke strength is so important in modern blast furnaces and the steel requirements of rapidly growing economies – such as China and India – remain intense.

### AVERAGE EU IMPORT PRICES

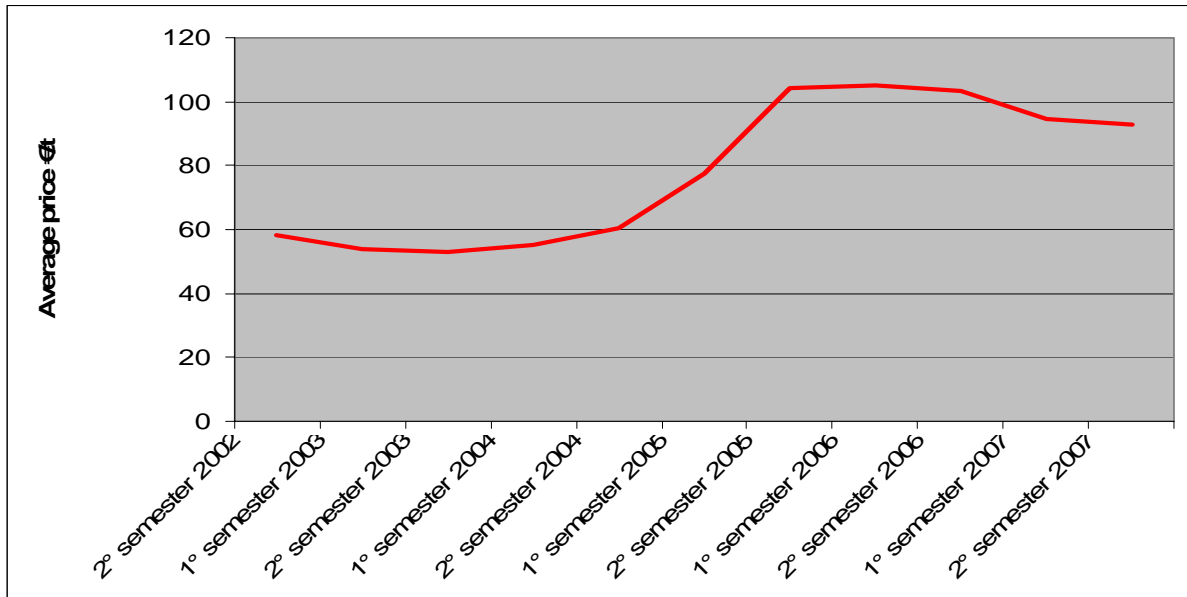
Since 2003, based on declarations by the undertakings importing coal and on data aggregated by the Member States, the European Commission publishes every semester the average price of coking coal imported from third countries.

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11 Coal for pulverised injection

The average EU prices of imported coking coal are shown on the following graph and table.

**Figure 20 – Price of Coking Coal Imported From 3rd Countries**



2° semester 2002	€58,3
1° semester 2003	€54,0
2° semester 2003	€53,0
1° semester 2004	€55,4
2° semester 2004	€60,3
1° semester 2005	€77,4
2° semester 2005	€104,2
1° semester 2006	€105,3
2° semester 2006	€103,3
1° semester 2007	€94,6
2° semester 2007	€93,0

For the 2nd semester of 2007, the average price of imported coking coal was €93.0 per tonne (equivalent to \$ 128 per tonne).

## 5.9. Coke Prices

Developments in coke prices (fob 12-12.5% ash), are illustrated by the following chart.

**Figure 21 - Spot Chinese Coke Prices**



*Source:* Euracoal Market report

The world market coke prices fell back significantly during 2005, compared to the unprecedented levels in 2004, in view of lower demand and over capacities in China.

However, prices have increased again in 2007 and towards the end of the year prices have approached \$400/tonne fob, the highest level since May 2004. This is largely the result of chronic shortages of Chinese export permits. Rising demand had, by the end of October, led to the near exhaustion of all the licenses issued by the Chinese authorities.

## 5.10. Freight Considerations

Delivered prices to Europe comprise both free on board (fob) prices from the country of loading and sea freight rates.

The major increase in prices in 2003 was initially driven by high freight rates as well as higher underlying coal prices. These high freight rates resulted mainly from China's surge in demand for raw materials, and also the associated congestion at various bottlenecks such as Australian loading ports, blocking in these ports a significant vessel capacity that would be available to the market otherwise.

These logistics bottlenecks reduced in 2005, and the bulk carrier fleet continued its rapid expansion, leading to a fall in freight rates.

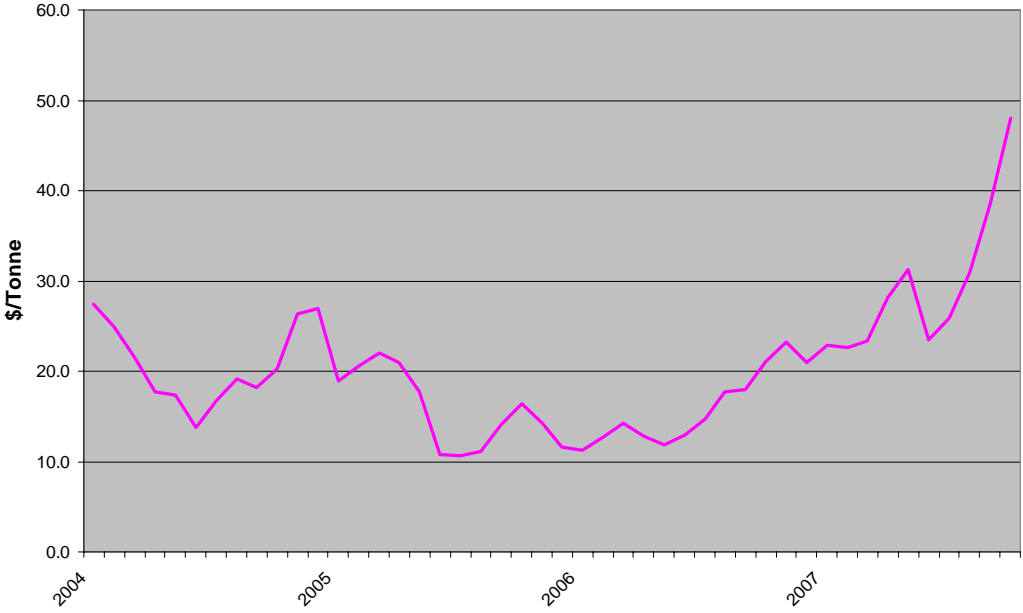
Rates, however, started to increase once more during 2006 and towards the end of 2007 rose to unprecedented new levels. The continued boom in demand for dry bulk commodities is

outpacing the expansion of the fleet. Structural shifts in sea transport are leading to longer sea routes.

The following chart shows the development of rates from the beginning of 2004 to the end of 2007.

**Figure 22 - Spot Sea Freight Rates**

Richards Bay (South Africa) to Rotterdam



Source: Euracoal Market Report

**6. LIGNITE AND PEAT – PRODUCTION AND CONSUMPTION IN THE EU**

**6.1. World Context**

The world supply of lignite/brown coal went up by 0.9% in 2006 and reached 913.8 Mt, following an increase of 1.3% in 2005 and 1.5% in 2004. Increases in Turkey, Russia and Romania more than offset the decreases in Germany, Greece, Poland and Serbia-Montenegro.



The following table shows figures for the largest producers:

**Table 4 – Major World Lignite Producers (Mt)**

	2004	2005	2006
<b>Germany</b>	181.9	177.9	176.3
<b>United States</b>	75.8	76.2	76.4
<b>Russia</b>	69.2	73.7	75.8
<b>Australia</b>	68.6	70.7	71.2
<b>Greece</b>	70.0	69.4	65.7
<b>Turkey</b>	44.4	56.2	61.6
<b>Poland</b>	61.2	61.6	60.8
<b>Czech Republic</b>	48.5	48.8	49.1
<b>Serbia-Montenegro</b>	41.1	40.4	38.9
<b>Canada</b>	36.7	36.8	36.6
<b>Romania</b>	31.8	31.1	35.0
<b>India</b>	30.3	30.1	29.8
<b>Bulgaria</b>	26.5	24.7	25.5
<b>Others*</b>	108.3	108.4	111.1
<b>Total</b>	<b>894.3</b>	<b>906.0</b>	<b>913.8</b>

\*IEA figures also include oil shale production in Estonia

*Source: IEA Coal Information 2007*

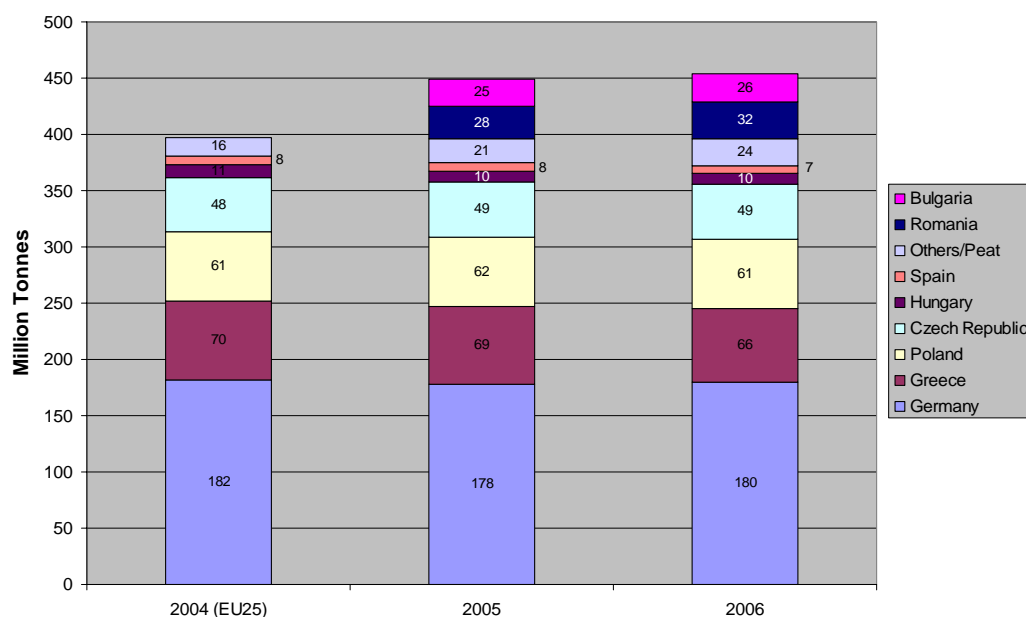
Unlike the situation for hard coal, many European nations feature amongst the top producing countries. Europe is responsible for around 50% of world lignite production. In Europe, lignite represents an energy resource of key importance.

## 6.2. Lignite Production

In the EU, the production of lignite has been fairly stable from 2004 into 2005, and the figures for 2006 were broadly similar, although inclusion of production from Romania and Bulgaria lifted the EU total for 2006 from 396 Mt to 454 Mt. Production trends are illustrated by the following chart<sup>12</sup>:

12 For the purposes of the EU statistics in this report and the attached tables, lignite, brown coal and peat are grouped together and included in a single EU total. (Production of oil shale is not included in the solid fuel totals but figures are reported in section 6.)

**Figure 23 – EU Lignite Production Trends**



### 6.3. Lignite Prices

Prices of lignite are not quoted as it is not a generally traded commodity. In many cases lignite production is vertically integrated with power generation, and mines are treated as cost centres.

### 6.4. Lignite Consumption

In EU-25, consumption of lignite in 2005 was 397 Mt, a decrease of 1.7% compared to 2004. Over 90% of lignite is used in power stations with the remainder being largely used for domestic heating, mainly in the form of briquettes.

For EU-27, consumption in 2006 was 452 Mt, an increase of 0.5%.

There is little trade in lignite because of its low heat value and resulting high unit transportation costs. Trade between Member States was around 2 Mt and net trade with third countries was around 1 Mt.

## **6.5. Peat Production**

Production and consumption of peat is included within the overall lignite figures.

In 2005, 14.3 Mt of peat was produced, increasing to 16.7 Mt in 2006. Production comes mainly from Finland, Ireland, Sweden, Estonia and Lithuania.

## **6.6. Oil Shale**

Oil shale statistics are not included in any of the tables or figures in this report and its annexes.

In 2005 14.590 Mt of oil shale was produced in Estonia.

Total availability was 15.761 Mt including recoveries of 1.008 Mt and imports of 0.163 Mt from the Russian Federation.

Oil shale was used entirely in the power generation sector in Estonia where consumption was 14.803 Mt. (2006 data is unavailable.)

## **7. STATE AID TO THE INDIGENOUS HARD COAL INDUSTRY IN THE EU**

### **7.1. Framework for Coal State Aid**

Due to unfavourable geological conditions, a part of EU indigenous hard coal production is not competitive with imported coal. After the expiry of the ECSC Treaty on 23 July 2002, the Council adopted a Regulation on State aid to the coal industry<sup>13</sup> to provide a framework within which State aid to the coal industry could be considered from 24 July 2002 until 31 December 2010.

This framework is based on a minimal production of coal, which will help to maintain a proportion of indigenous primary energy sources, in order to strengthen the EU energy security of supply. State aid to the coal industry will also support the restructuring of this sector, taking into account the social and regional repercussions resulting from the reduction in activity.

Different kinds of coal state aid may be considered compatible with the common market (see the following table). Member states must notify the state aid that they wish to grant to the coal industry for consideration and eventual approval by the European Commission.

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<sup>13</sup> Council Regulation N° 1407/2002 of 23 July 2002, OJ L 205 of 02.08.2002, p.1

**Table 5 - Types of Coal State Aid and Conditions**

Aid	Conditions
Aid for initial investment (Article 5.2)	<ul style="list-style-type: none"> <li>- be part of a plan for accessing coal reserves;</li> <li>- operating plan to ensure economic viability;</li> <li>- not more than 30% of the total initial investment costs.</li> </ul>
<p>Current production aid (Article 4 and Article 5.3):</p> <p><i>Article 4 = current production aid targeted at mines covered by restructuring and closure plans. Such aid could be granted only till end-2007.</i></p> <p><i>Article 5.3 = current production aid targeted at mines covered by plans for accessing coal reserves</i></p>	<ul style="list-style-type: none"> <li>- be part of a plan for accessing coal reserves (Article 5.3)/ be part of a closure plan (Article 4);</li> <li>- aid granted to production units which afford the best economic prospects (Article 5.3);</li> <li>- aid may not exceed difference between production costs and revenue;</li> <li>- aid may not cause lower prices than those for coal from third countries;</li> <li>- aid may not cause distortion of competition in user-sectors.</li> </ul>
Aid to cover exceptional costs (Article 7) :	- only social and environmental costs arising from rationalisation and restructuring.

As a general condition, the overall amount of current production aid and initial investment aid to the coal sector has to follow a downward trend so as to result in a significant reduction.

## **7.2. Amounts of Coal State Aid Granted/Authorised**

The table below provides an overview of aid actually granted by the biggest coal granters in EU-27 or authorised by the Commission to the coal industry for the years 2003 to 2007.

Current production aid continued to decrease in line with the agreements on the reduction of volumes of aid to the coal industry. Nevertheless, as at end-2007, it still accounted for more than 55% of aid going to the coal mining sector.

There are 4 Member States with which currently grant production aid<sup>14</sup> for their hard coal industry: Germany, Spain, Romania and Hungary. In Slovenia, the relevant payments to the coal mining industry of Slovenia take the form of a compensation for a public service obligation.<sup>15</sup>

<sup>14</sup> The recent relevant State aid decisions by the Commission are as follows: N726/2006 (Germany), NN81/2006 Spain, N239/2007 (Romania), N92/2005 (Hungary).

<sup>15</sup> In the case of Slovenia, the indirect operating aid is provided which takes the form of a compensation for a public service obligation imposed upon the power plant using the locally produced coal: see Commission decision in case C7/2005 – Slovenian electricity tariffs.

As to exceptional costs related to rationalisation and restructuring<sup>16</sup>, most of coal-producing Member States, have taken over, to a certain extent, financing of such costs both for closed mines and for mines which are still in operation<sup>17</sup>. The exceptions are *Czech Republic, Hungary and Bulgaria* where the mining undertakings still in operation do not benefit from these payments

Finally, small amounts of aid are being targeted at promoting initial investment in coal mining sector. There are 3 Member States which got the Commission's authorisation to grant investment aid: the United Kingdom, Poland and Slovakia<sup>18</sup>. These are Member States where remaining coal mining industry is largely competitive and where operating subsidies are not needed. *Poland* had not provided so far investment aid but reserved this possibility.

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16 E.g. costs of environmental clean-up following (partial) closure of mining activities, costs related to early retirement schemes.

17 These have been approved in Commission decisions N 571/2004, N84/2007 and N575/2007 (Poland), N 27 and 53/2005, N 419/2005, N 168/2005, NN 9/2006 and N 387/2006 (Slovakia), N 421/2003 and N 321/2004 (France), N 746 and N 474/2002, N 493/2003, N 320/2004, N 497/2004, N 552/2005, N726/2006 (Germany), N 20/2003 (United Kingdom) C 14/2004, N 352/2006 (Spain).

18 See e.g. Commission decisions N814/2002 (UK), N324/2005 (Slovakia), N571/2004 (Poland).

**Table 6 - State Aid 2003-2007 - amounts actually granted by Member States (only for the main coal aid granters in the EU-27) or authorised by the Commission for the relevant year**

(Millions €)

Country	2003	2004	2005	2006	2007
Germany	2639				
- current production aid		2483	2114	1472	1357
- aid for related to exceptional costs	780	556	602	882	994
Spain	569				
- current production aid		340	502	467	450
- aid related to exceptional costs	550	573	582	345	363
Poland					
- current production aid			369		
- aid related to exceptional costs	903	913		60	87
Romania					
- current production aid	n/a	n/a	n/a	n/a	112 <sup>19</sup>
- aid related to exceptional costs					
Hungary					
- current production aid	n/a	44	39	38	36
- aid related to exceptional costs	n/a	48	6	4	4

## 8. CONCLUSIONS

### Coal in the World

From 2004 to 2006 total world coal production increased by 16% to 5,370 million tonnes (Mt).

Updated analysis of proven coal reserves indicates that, at current world production levels, there is close to 150 years of coal available.

<sup>19</sup>

In line with the accession conditions, for MS which joined EU on 1.01.2007, the overall amount of aid to the coal industry shall not exceed for any subsequent year the amount of aid authorised by the Commission for 2007.

A high proportion of world coal production is consumed within the country of origin – around 85%, and this is especially true of the two largest producers, China and the USA. Relatively small proportional changes in supply and demand in these countries can have a major impact on international market dynamics.

From 2004 to 2006 world hard coal exports increased by 12 % to 815 Mt. For steam coal, the major exporting nations are Australia, Indonesia, Russia, South Africa, Colombia and China. For coking coal the major exporters are Australia, the United States and Canada.

World steam coal exports rose by 11 % in from 2004 to 2006 to reach 593 Mt. Australia has retained its leading position in world exports with Indonesia second. In 2006, however, Russia overtook South Africa for third place. In 2007, world steam coal trade showed a further growth of around 4%. China became a net coal importer at the beginning of 2007 and South Africa showed some stagnation, but other producers increased their exports.

World trade in coking coal decreased by 2.6% to 222 Mt in 2006. This followed growth of 8.6% in 2005 and 4.4% in 2004. Australia remained, by far, the largest exporter at 121 Mt. Further growth in crude steel production is expected for 2007 and demand for all coking coal qualities is expected to rise again.

### **Coal in Europe**

Europe is the third largest region worldwide in terms of coal consumption, after China and the USA. Around two thirds of EU coal consumption is derived from indigenous production, with 164 million tonnes of hard coal and 454 million tonnes of lignite produced in 2006.

Europe possesses substantial reserves of coal and lignite. World Energy Council figures show EU reserves of hard coal at 8.4 billion tonnes and lignite at 20.9 billion tonnes. Additionally, resource figures are assessed at 24.4 billion tonnes and 31.0 billion tonnes respectively by IEA. The largest hard coal reserve is in Poland, with significant reserves also in the Czech Republic, and lesser reserves in Spain, Hungary, the United Kingdom and Germany. In the case of lignite, reserves are present in a swathe from Germany through Central Europe and the Balkans, to Greece.

Production of hard coal has continued its decline in the EU. Production reduced by 4.7% in 2005 (EU-25) and by 5.4% in 2006 (EU-27) and is expected to continue to decline in 2007.

Hard coal consumption in the EU continues to be dominated by the power sector at 69% followed by coke production at 18%.

In 2005, imports of hard coal to the EU-25 reached 192 Mt and represented 53% of total supply. The major exporting countries to the EU-25 were South Africa, Russia, Australia, Colombia, Indonesia the USA and Canada. In 2006, imports of hard coal to the EU-27 were 210 Mt, representing 56% of total supply. The most significant change in import sourcing from 2004 to 2006 is the major growth in imports from Russia.

## **Coal prices**

Steam coal prices strongly fluctuated in the period 2003-2007. They strongly increased in 2003/04 and again in the second half of 2007. Spot steam coal prices reached the level of \$130 per metric tonne in December 2007 and their increasing trend continued in the first semester of 2008.

Average import prices for steam coal in the EU rose less, from € 39 per tce in the first semester 2003 till €73 per tce in the second semester 2007. It is expected that this average price will further increase in the 1<sup>st</sup> semester of 2008.

Coking coal prices also remain high by historic standards. Chinese coke prices have increased dramatically in 2007 and towards the end of the year have approached \$400/tonne fob, the highest level since May 2004.

## **Coal State Aid**

Due to unfavourable geological conditions, a part of EU indigenous hard coal production is not competitive with imported coal. After the expiry of the ECSC Treaty on 23 July 2002, the Council adopted a Regulation on State aid to the coal industry to provide a framework within which different kinds of state aid to the coal industry could be considered compatible with the EC Treaty from 24 July 2002 onwards.

Over the period 2003/07 current production aid continued to decline.

## **Lignite**

The world supply of lignite/brown coal went up by 0.9 % in 2006 and reached 913.8 Mt, following an increase of 1.3 % in 2005. Unlike the situation for hard coal, many European nations feature amongst the top producing countries. Europe is responsible for around 50% of world production, where it represents an energy resource of key importance. EU production of lignite has been fairly stable in the period from 2004 to 2006. With the inclusion of production from Romania and Bulgaria, the EU total lignite production was 454 Mt in 2006. Over 90% of lignite is used in power stations with the remainder being largely used for domestic heating, mainly in the form of briquettes.

The increase in the import prices of hard coal is strengthening the competitive position of coal production especially in the lignite sector. This results in a more stable contribution to the security of energy supply.



**ANNEXES**  
**Supplies and Deliveries in the EU of Hard Coal, Coke and Lignite in 2004/06**

**Table 1**  
**Supplies and Deliveries of Hard Coal in 2004 (Part 1)**

(in thousands of metric tonnes)

Member State	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia	Finland	France	Germany	Greece	Hungary	Ireland	Italy
<b>1. Production (t=t)</b>					13.303				160	29.151				200
of which :														
<b>A - Underground</b>					13.303				160	29.151				200
<b>B - Opencast</b>														
<b>2. Recoveries</b>		181					26		712					552
<b>3. Receipts from other EU Countries (EU-25)</b>	4.278	784			1.504	1.093		1.679	1.334	8.566		655	348	126
<b>4. Total imports from Third Countries</b>	102	9.171		43	64	6.501	44	6.607	18.127	30.970	814	681	2.538	24.541
of which :														
<b>A - USA</b>		1.659				188		430	2.211			3		2.329
<b>B - Canada</b>		404						239	365	2.847				910
<b>C - Australia</b>	8	2.623				442		336	6.015	3.996		88	1.151	3.077
<b>D - South Africa</b>	4	3.094				1.845			3.945	9.304			172	5.902
<b>E - Russian Federation</b>	86	1.263		43	54	1.960	44	5.493	764	5.831	546	552	3	1.895
<b>F - China</b>		36				275			274		136		4	483
<b>G - Colombia</b>		64				1.462			2.852	3.718			1.170	2.923
<b>H - Indonesia</b>									610		63			5.867
<b>I - Venezuela</b>		3							450					788
<b>J - Others</b>	4	25			10	329		109	641	5.274	69	38	38	367
<b>5. Total Availabilities (1+2+3+4)</b>	4.380	10.136		43	14.871	7.594	70	8.286	20.333	68.687	814	1.336	2.886	25.419
<b>6. Gross Inland Consumption*</b>	4.450	8.205		60	9.521	7.442	58	7.993	19.584	69.273	776	1.299	2.812	25.208
<b>A - Power Stations (public &amp; mine)</b>	2.227	3.348			3.635	7.059		6.427	8.676	51.890	772	208	2.234	18.033
<b>B - Coking Plants (coal input)</b>	1.860	3.647			4.641			1.275	5.868	10.288		827		5.124
<b>C - Iron and Steel Industry**</b>		643			644				2.534	2.642				1.350
<b>D - Other Industries</b>	296			60	496	224	12	285	1.927	3.472		120	228	664
of which <b>Power Stations</b>								164	457	3.429			5	156
<b>E - Domestic Heating</b>	46	204			105	159	33	6	539	769	4	129	269	37
<b>F - Miscellaneous (Total (i)+(ii)+(iii))</b>	22	363					13		40	212		15	81	
<b>(i) Issue to Workers</b>										107				
<b>(ii) Patent Fuel Plants</b>		7							39	101		14	43	
<b>(iii) Others</b>		356			216		13		1	4		1	38	
<b>7. Deliveries to Other EU Countries (EU-25)</b>	23	1.305			5.567	63			94	106		6	5	
<b>8. Exports to Third Countries</b>		9			9	93				3	22			55
<b>9. Total Deliveries (6+7+8)</b>	4.473	9.519		60	15.097	7.598	58	7.993	19.678	69.382	798	1.305	2.817	25.263

\* Including transformation for coke

\*\* PCI Coal

**Table 1**  
**Supplies and Deliveries of Hard Coal in 2004 (Part 2)**

(in thousands of metric tonnes)

Latvia (Estimate)	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal (Estimate)	Romania	Slovakia (Estimate)	Slovenia	Spain	Sweden	United Kingdom	Total EU-25
					99.270					12.342		24.535	178.960
					99.270					7.569		12.542	162.195
										4.772		11.993	16.765
					713							561	2.745
		67		381	512	165		3.118		347	701	1.673	27.331
93	264	62		21.925	1.792	5.180		2.065	523	24.474	2.485	34.624	193.690
				1.815		460		60		2.007	428	2.061	13.651
				1.500						230		715	7.210
				1.400		130				3.263	1.472	6.175	30.176
		60		8.316		1.935				10.194		10.144	54.916
93	254			1.124	1.536			1.468		3.286	458	9.932	36.685
				107	1					143		258	1.717
		2		4.515	31	2.075				972		3.670	23.454
				1.784		160			523	3.521		1.458	13.986
				943						16	127		2.327
	10			421	224	420		537		842		211	9.569
93	264	129		22.306	102.287	5.345		5.183	523	37.163	3.186	61.393	402.727
93	259	129		13.505	83.368	5.345		5.150	503	37.099	3.414	60.652	366.198
				8.876	43.173	5.330		1.600	473	30.611	602	48.968	244.142
				3.148	9.887			2.440		3.900	1.790	6.382	61.076
		40		1.468	2.511			390		715	549		13.486
	128	89		13	8.975	13		690	30	1.493	473	3.540	23.228
					4.477					262		1.514	10.464
93	50				8.969					320		1.359	13.091
	81				9.853	2		30		60		403	11.175
					1.025								1.132
												327	531
	81				8.827			30				76	9.643
				8.805	18.695				20	54	7	19	34.769
				227	1.202					10	1	601	2.232
93	259	129		22.537	103.265	5.345		5.150	523	37.163	3.422	61.272	403.199

### Supplies and Deliveries of Hard Coal in 2005 (Part 1)

(in thousands of metric tonnes)

Member State	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia	Finland	France	Germany	Greece	Hungary	Ireland	Italy
<b>1. Production (t=t)</b>			26		13.243					28.018				200
of which :														
<b>A - Underground</b>			26		13.214					28.018				200
<b>B - Opencast</b>					29									
<b>2. Recoveries</b>		109			346		2		617					
<b>3. Receipts from other EU Countries (EU-25)</b>	3.716	681			1.184	890		599	2.804	8.833		730	295	466
<b>4. Total imports from Third Countries</b>	478	8.120	2.269	63	35	5.141	54	4.124	17.046	28.272	646	717	2.628	23.685
of which :														
<b>A - USA</b>	468	1.714	356			66		382	1.928	2.924		52		2.635
<b>B - Canada</b>		269	267					519	491					1.143
<b>C - Australia</b>		2.950	267			129		487	5.309	4.171		115	299	2.791
<b>D - South Africa</b>	10	2.081				1.852			4.225	8.305	132		627	4.600
<b>E - Russian Federation</b>		944	569	63	32	1.531	54	2.736	905	7.546	380	550	3	1.096
<b>F - China</b>		58							15					4
<b>G - Colombia</b>		5				1.254			2.516	3.069			1.014	2.997
<b>H - Indonesia</b>									245		63		602	6.800
<b>I - Venezuela</b>		3							542					550
<b>J - Others</b>		96	810		3	309			871	2.257	71		79	1.073
<b>5. Total Availabilities (1+2+3+4)</b>	4.194	8.910	2.295	63	14.808	6.031	56	4.723	20.468	65.123	646	1.447	2.923	24.351
<b>6. Gross Inland Consumption*</b>	4.225	7.380	2.295	52	9.307	6.288	56	4.476	21.441	65.168	563	1.341	2.852	23.713
<b>A - Power Stations (public &amp; mine)</b>	1.949	3.045	1.238		3.510	5.938		2.900	9.951	48.489		214	2.277	16.184
<b>B - Coking Plants (coal input)</b>	2.010	3.374	1.057		4.342			1.276	5.847	10.177		808		5.281
<b>C - Iron and Steel Industry**</b>		522			750				2.936	2.770				1.814
<b>D - Other Industries</b>	227	244		52	565	235	13	294	2.193	2.801	560	192	211	430
of which <b>Power Stations</b>					330				166	362				5
<b>E - Domestic Heating</b>	38	188			140	115	29	6	480	737	3	108	283	4
<b>F - Miscellaneous (Total (i)+(ii)+(iii))</b>	0	7					14		34	194		19	81	
(i) Issue to Workers										101				
(ii) Patent Fuel Plants		7							34	90		10	43	
(iii) Others					190		14			3		9	38	
<b>7. Deliveries to Other EU Countries (EU-25)</b>	3	1.222			5.254	1			295	114		1	11	60
<b>8. Exports to Third Countries</b>		8				95				3	13			
<b>9. Total Deliveries (6+7+8)</b>	4.228	8.610	2.295	52	14.561	6.384	56	4.476	21.736	65.285	576	1.342	2.863	23.773

\* Including transformation for coke

\*\* PCI Coal

### Supplies and Deliveries of Hard Coal in 2005 (Part 2)

(in thousands of metric tonnes)

Latvia (Estimate)	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal (Estimate)	Romania	Slovakia	Slovenia	Spain	Sweden	United Kingdom	Total EU-25	Total EU-27	Member State
					97.109		2.706			11.895		20.008	170.473	173.205	1. Production (t=t) of which : A - Underground B - Opencast
					97.109		2.706			7.219		9.563	155.323	158.055	
										4.676		10.445	15.150	15.150	
					794							616	2.484	2.484	2. Recoveries
1		62		244	606	451		2.467		313	442	974	25.758	25.758	3. Receipts from other EU Countries (EU-25)
115	294	49		19.993	2.762	4.821	3.681	2.580	406	24.443	2.761	42.810	192.042	197.992	4. Total imports from Third Countries
															of which :
					1.643		378			1.500	492	1.538	15.720	17.054	A - USA
					902					285		1.072	4.681	4.948	B - Canada
					1.517					3.115	1.370	4.368	26.621	26.888	C - Australia
		49			6.084					8.736		12.970	51.657	51.657	D - South Africa
115	290				1.592	2.380		1.824	2.327	4.234	847	17.356	44.980	47.373	E - Russian Federation
						5				226		153	462	462	F - China
					5.703	69	2.314			1.938		3.314	24.192	24.192	G - Colombia
					992		144		406	3.783		1.691	14.726	14.726	H - Indonesia
					713					146	53	348	2.355	2.355	I - Venezuela
	4				847	307		879	254	480			6.651	8.340	J - Others
116	294	111		20.237	101.271	5.272	6.387	5.048	406	36.651	3.203	64.408	390.760	399.442	5. Total Availabilities (1+2+3+4)
120	285	111		12.963	79.132	5.272	6.387	5.048	386	36.602	3.070	62.223	352.074	360.756	6. Gross Inland Consumption*
10				8.267	42.394	5.256	3.294	2.853	366	31.138	930	50.568	236.239	240.771	A - Power Stations (public & mine)
				3.157	9.349		3.062	2.095		3.571	1.847	6.603	59.737	63.856	B - Coking Plants (coal input)
		34		1.526	1.879				20	728	20		12.999	12.999	C - Iron and Steel Industry**
34	137	77		13	7.937	16				599	459	3.593	20.883	20.883	D - Other Industries
					4.885					599		1.640	10.728	10.728	of which Power Stations
36	55				7.537		31	100		330		1.106	11.295	11.326	E - Domestic Heating
40	92				10.035					236	-186	353	10.920	10.920	F - Miscellaneous (Total (i)+(ii)+(iii))
					981					60			1.142	1.142	(i) Issue to Workers
												266	450	450	(ii) Patent Fuel Plants
40	92				9.054					176	-186	87	9.517	9.517	(iii) Others
					7.056	17.968			20	4	1	438	32.448	32.448	7. Deliveries to Other EU Countries (EU-25)
					210	1.557				45	2	111	2.044	2.044	8. Exports to Third Countries
120	285	111		20.229	98.657	5.272	6.387	5.048	406	36.651	3.073	62.772	386.566	395.248	9. Total Deliveries (6+7+8)

\* Including transformation for coke

\*\* PCI Coal

**Table 3**  
**Supplies and Deliveries of Hard Coal in 2006 (Part 1)**

(in thousands of metric tonnes)

Member State	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia (Estimate)	Finland	France	Germany	Greece (Estimate)	Hungary	Ireland	Italy
<b>1. Production (t=t)</b>			19		13.385					23.762				200
of which :														
<b>A - Underground</b>			19		13.374					23.762				200
<b>B - Opencast</b>					11									
<b>2. Recoveries</b>		29			360		2		452					
<b>3. Receipts from other EU Countries (EU-25)</b>	3.707	493			1.909	725		540	2.160	8.882		888	104	345
<b>4. Total imports from Third Countries</b>	254	7.565	2.221	63	54	7.832	54	6.143	18.230	32.444	498	871	2.263	24.289
of which :														
<b>A - USA</b>	254	1.835	561			274		791	2.010	2.059		105		2.672
<b>B - Canada</b>		352	88					434	474	1.666				1.071
<b>C - Australia</b>		2.137	157			190		249	5.727	4.748		31		3.097
<b>D - South Africa</b>		2.261				3.062		379	4.236	8.570	22		192	4.779
<b>E - Russian Federation</b>		786	814	63	50	2.009	54	3.622	1.124	8.259	243	435		834
<b>F - China</b>		27							17					
<b>G - Colombia</b>		4				1.537		323	2.234	4.174	71		1.090	2.034
<b>H - Indonesia</b>						631		274	584				779	8.734
<b>I - Venezuela</b>		144							460					335
<b>J - Others</b>		19	601		4	129		70	1.365	2.968	161	300	202	733
<b>5. Total Availabilities (1+2+3+4)</b>	3.961	8.087	2.240	63	15.708	8.557	56	6.683	20.843	65.088	498	1.759	2.367	24.834
<b>6. Gross Inland Consumption*</b>	3.873	6.844	2.240	54	9.306	9.432	56	7.810	19.970	65.658	498	1.842	3.077	24.549
<b>A - Power Stations (public &amp; mine)</b>	1.804	2.539	1.260		3.538	9.045		6.270	8.266	48.914		227	2.526	16.596
<b>B - Coking Plants (coal input)</b>	1.768	3.364	980		4.326			1.240	5.847	10.175		1.301		6.092
<b>C - Iron and Steel Industry**</b>	258	514			754				3.193	2.977				1.708
<b>D - Other Industries</b>		239		54	568	244	13	294	2.161	2.738	498	157	205	143
of which <b>Power Stations</b>					328			166	354	2.679			10	
<b>E - Domestic Heating</b>	42	183			120	143	29	6	480	659		137	265	1
<b>F - Miscellaneous (Total (i)+(ii)+(iii))</b>		5					14		23	195		20	81	9
(i) Issue to Workers										99				
(ii) Patent Fuel Plants		5							23	94		20	43	
(iii) Others							14			2			38	9
<b>7. Deliveries to Other EU Countries (EU-25)</b>		1.072			6.045	31			140	118		3	3	
<b>8. Exports to Third Countries</b>		15			303	79				2		1		
<b>9. Total Deliveries (6+7+8)</b>	3.873	7.931	2.240	54	15.654	9.542	56	7.810	20.110	65.778	498	1.846	3.080	24.549

\* Including transformation for coke

\*\* PCI Coal

**Table 3**  
**Supplies and Deliveries of Hard Coal in 2006 (Part 2)**

(in thousands of metric tonnes)

Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal (Estimate)	Romania	Slovakia	Slovenia	Spain	Sweden	United Kingdom	Total EU-25	Total EU-27	Member State
					94.404		2.355			11.566		18.079	161.396	163.770	1. Production (t=)
															of which :
					94.404		2.355			7.183		9.444	148.367	150.741	A - Underground
										4.383		8.635	13.029	13.029	B - Opencast
					816							449	2.108	2.108	2. Recoveries
		101		372	1.498			2.795		340	575	1.596	27.030	27.030	3. Receipts from other EU Countries (EU-25)
74	326	52		17.413	3.720	5.782	3.396	1.439		23.371	2.477	48.860	204.074	209.691	4. Total imports from Third Countries
															of which :
					1.035		202	1.079		1.423	357	2.108	15.125	16.765	A - USA
					707					234		1.274	6.212	6.300	B - Canada
					1.512			73		3.550	1.357	3.909	26.507	26.737	C - Australia
		52			5.234		2.310	166		8.213	1	12.858	52.169	52.335	D - South Africa
74	315				1.261	3.345	22	1.362	1.356	3.610	762	22.897	51.121	53.297	E - Russian Federation
					215	10				294		52	615	615	F - China
					4.392	80	2.610			1.535		3.798	23.882	23.882	G - Colombia
					2.176		473			4.022		1.895	19.568	19.568	H - Indonesia
					596					154			1.689	1.689	I - Venezuela
	11				285	285	165	716	83	335		67	7.182	8.499	J - Others
74	326	153		17.785	100.439	5.782	5.751	4.233		35.277	3.052	68.984	394.609	402.609	5. Total Availabilities (1+2+3+4)
81	324	153		12.623	86.980	5.782	5.743	4.233		35.061	3.239	67.387	368.832	376.815	6. Gross Inland Consumption*
4				8.229	44.597	5.782	2.996	1.910		29.734	1.057	55.805	246.843	251.099	A - Power Stations (public & mine)
				3.048	10.604		2.727	2.223		3.622	2.217	7.049	62.876	66.583	B - Coking Plants (coal input)
		49		1.326	2.136					511	21		13.447	13.447	C - Iron and Steel Industry**
26	152	104		20	7.714					784	472	3.685	20.271	20.271	D - Other Industries
					4.161							1.518	9.216	9.216	of which Power Stations
24	62				7.992		20	100		350		547	11.140	11.160	E - Domestic Heating
27	110				13.937					60	-528	301	14.254	14.254	F - Miscellaneous (Total (i)+(ii)+(iii))
					936					60			1.095	1.095	(i) Issue to Workers
												276	461	461	(ii) Patent Fuel Plants
27	110				13.001						-528	25	12.698	12.698	(iii) Others
					16.158		3			198	1	409	24.178	24.181	7. Deliveries to Other EU Countries (EU-25)
					725		5			12	1	34	1.172	1.177	8. Exports to Third Countries
81	324	153		12.623	103.863	5.782	5.751	4.233		35.271	3.241	67.830	394.182	402.173	9. Total Deliveries (6+7+8)

\* Including transformation for coke

\*\* PCI Coal

**Table 4**  
**Supplies and Deliveries of Coke in 2004 (Part 1)**

(in thousands of metric tonnes)

Member State	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia	Finland	France	Germany	Greece	Hungary	Ireland	Italy
1. Production (t=t)	1.400	2.965			3.548			904	4.542	8.479		664		4.062
2. Recoveries														-84
3. Receipts from other EU Countries (EU-25)	869	114			730	18		407	486	2.467	4	94		
4. Total imports from Third Countries	5	191		135	26	17		104	794	1.944		95		1.087
of which :														
A - USA		51							25					149
B - Canada														
C - Australia														43
D - South Africa		28												
E - Russian Federation		17			5	2			45	60		15		6
F - China		93				15		104	564					661
G - Colombia										165				
H - Indonesia														
I - Venezuela														
J - Others	5	2		135	21				160	1.719		80		228
5. Total Availabilities (1+2+3+4)	2.274	3.270		135	4.304	35		1.415	5.822	12.890	4	853		5.065
6. Gross Inland Consumption	2.582	3.401		135	3.282	32		1.412	5.226	13.088	4	783		4.819
A - Power Stations (public & mine)														
B - Coking Plants (coal input)					104							5		
C - Iron and Steel Industry	2.412	3.324			1.937			1.372	4.503	12.194		740		4.501
D - Other Industries	78	68		135	1.105	31		40	624	809	4	30		280
of which Power Stations														
E - Domestic Heating	91	9			1				21	80		2		38
F - Miscellaneous (Total (i)+(ii)+(iii))					135	1			78	5		6		
(i) Issue to Workers										5				
(ii) Patent Fuel Plants														
(iii) Others					135	1			78			6		
7. Deliveries to Other EU Countries (EU-25)	17	82			923	1			850			68		194
8. Exports to Third Countries					35			2				12		52
9. Total Deliveries (6+7+8)	2.599	3.483		135	4.240	33		1.414	6.076	13.088	4	863		5.065

**Table 4**  
**Supplies and Deliveries of Coke in 2004 (Part 2)**

(in thousands of metric tonnes)

Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal (Estimate)	Romania	Slovakia (Estimate)	Slovenia	Spain	Sweden	United Kingdom	Total EU-25	Member State
				2.216	10.077			1.882		2.614	1.372	4.336	49.061	1. Production (=t)
													-84	2. Recoveries
				110		13		296	7	18	159	193	5.985	3. Receipts from other EU Countries (EU-25)
	15			224	24					152	341	852	6.006	4. Total imports from Third Countries
										34			259	of which :
												18	18	A - USA
											8	25	76	B - Canada
													28	C - Australia
	3			68						58	15	294	588	D - South Africa
	5			143	4					30	318	431	2.368	E - Russian Federation
				5								53	223	F - China
														G - Colombia
														H - Indonesia
	8			8	20					30		31	2.447	I - Venezuela
	15			2.550	10.101	13		2.178	7	2.784	1.872	5.381	60.968	J - Others
	14			2.161	5.293	13		2.100	7	1.799	1.778	5.147	53.076	5. Total Availabilities (1+2+3+4)
													109	6. Gross Inland Consumption
				1.953	3.843			2.100	7	1.375	1.715	4.171	46.147	A - Power Stations (public & mine)
	12			197	712	13				424	63	925	5.550	B - Coking Plants (coal input)
					738							51	1.031	C - Iron and Steel Industry
	2			11									238	D - Other Industries
													5	of which Power Stations
	2			11									233	E - Domestic Heating
				327	4.600			78		712	35	80	7.967	F - Miscellaneous (Total (i)+(ii)+(iii))
				19	185					273		62	640	(i) Issue to Workers
														(ii) Patent Fuel Plants
														(iii) Others
														7. Deliveries to Other EU Countries (EU-25)
	14			2.507	10.078	13		2.178	7	2.784	1.813	5.289	61.683	8. Exports to Third Countries
														9. Total Deliveries (6+7+8)



**Table 5**  
**Supplies and Deliveries of Coke in 2005 (Part 1)**

(in thousands of metric tonnes)

Member State	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia	Finland	France	Germany	Greece	Hungary	Ireland	Italy
1. Production (t=t)	1.388	2.856	690		3.412		37	894	4.445	8.397		614		4.574
2. Recoveries														
3. Receipts from other EU Countries (EU-25)	1.136	61	10		508				957	2.101	4	134		
4. Total imports from Third Countries	5	91	105	143	2	36		503	568	1.692		71		848
of which :														
A - USA		24												82
B - Canada														
C - Australia														29
D - South Africa														
E - Russian Federation						4			22	6				
F - China		67				32		503	458			44		442
G - Colombia										23				
H - Indonesia														
I - Venezuela														
J - Others	5		105	143	2				88	1.663		27		295
5. Total Availabilities (1+2+3+4)	2.529	3.008	805	143	3.922	36	37	1.397	5.970	12.190	4	819		5.422
6. Gross Inland Consumption	2.555	3.013	805	143	3.030	33		1.415	4.923	12.284	4	751		5.258
A - Power Stations (public & mine)														
B - Coking Plants (coal input)					100							4		
C - Iron and Steel Industry	2.471	2.928	805		1.850			1.376	4.270	11.619		719		5.023
D - Other Industries	35	77		143	1.080	33		39	607	602	4	25		224
of which Power Stations														
E - Domestic Heating	49	8							14	60		2		11
F - Miscellaneous (Total (i)+(ii)+(iii))									32	3		1		
(i) Issue to Workers										3				
(ii) Patent Fuel Plants														
(iii) Others									32			1		
7. Deliveries to Other EU Countries (EU-25)		20			896				643			48		181
8. Exports to Third Countries					17		37	2				5		49
9. Total Deliveries (6+7+8)	2.555	3.033	805	143	3.943	33	37	1.417	5.566	12.284	4	804		5.488

**Table 5**  
**Supplies and Deliveries of Coke in 2005 (Part 2)**

(in thousands of metric tonnes)

Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal (Estimate)	Romania*	Slovakia	Slovenia	Spain	Sweden	United Kingdom	Total EU-25	Total EU-27	Member State
				2.250	8.404		2.100	1.846		2.437	1.402	4.364	47.320	50.110	1. Production (t=t)
															2. Recoveries
				46		6	549	193	7	21	140	203	5.517	6.076	3. Receipts from other EU Countries (EU-25)
8	15			295	27		127	66		115	253	718	5.456	5.688	4. Total imports from Third Countries
															of which :
										29			135	135	A - USA
										10			10	10	B - Canada
				24									53	53	C - Australia
												3	3	3	D - South Africa
7	1			49				44		25		125	283	283	E - Russian Federation
	11			155	1						140	368	2.221	2.221	F - China
				44						16	3		86	86	G - Colombia
				23									23	23	H - Indonesia
1	3				26		127	23		35	110	222	2.643	2.875	I - Venezuela
8	15			2.591	8.431	6	2.776	2.106	7	2.573	1.795	5.285	58.294	61.875	J - Others
7	18			2.095	3.809	6	2.741	2.028	7	1.963	1.692	5.015	50.049	53.595	5. Total Availabilities (1+2+3+4)
															6. Gross Inland Consumption
													104	104	A - Power Stations (public & mine)
															B - Coking Plants (coal input)
7				1.891	2.665	6	2.741	2.028	7	1.451	1.478	4.067	43.856	47.402	C - Iron and Steel Industry
	18			192	691					512	134	913	5.329	5.329	D - Other Industries
					453						65	35	697	697	of which Power Stations
				12							15		63	63	E - Domestic Heating
													3	3	F - Miscellaneous (Total (i)+(ii)+(iii))
															(i) Issue to Workers
											15		60	60	(ii) Patent Fuel Plants
				12											(iii) Others
				350	3.214			76		428	26	55	5.937	5.937	7. Deliveries to Other EU Countries (EU-25)
				5	970		35	1		182	9	64	1.341	1.376	8. Exports to Third Countries
7	18			2.450	7.993	6	2.776	2.106	7	2.573	1.727	5.134	57.328	60.909	9. Total Deliveries (6+7+8)

**Table 6**  
**Supplies and Deliveries of Coke in 2006 (Part 1)**

(in thousands of metric tonnes)

Member State	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia (Estimate)	Finland	France	Germany	Greece	Hungary	Ireland	Italy
1. Production (t=t)	1.398	2.894	669		3.463		37	870	4.689	8.372		921		4.689
2. Recoveries														
3. Receipts from other EU Countries (EU-25)	1.261	29	16		768	3			944	1.903		48		
4. Total imports from Third Countries		38	156	153		35		520	517	1.701				716
of which :														
A - USA		14								70				267
B - Canada										63				
C - Australia										95				
D - South Africa														
E - Russian Federation									24	56				
F - China		24				35		520	491					313
G - Colombia									1	30				
H - Indonesia														
I - Venezuela														
J - Others			156	153					2	1.387				136
5. Total Availabilities (1+2+3+4)	2.659	2.961	841	153	4.231	38	37	1.390	6.150	11.976		969		5.405
6. Gross Inland Consumption	2.845	3.012	841	153	3.423	34		1.400	5.139	12.067		728		5.148
A - Power Stations (public & mine)														
B - Coking Plants (coal input)					128							3		
C - Iron and Steel Industry	2.793	2.912	841		3.041			1.360	4.439	11.416		696		4.959
D - Other Industries		90		153	214	34		40	627	591		25		182
of which Power Stations														
E - Domestic Heating	52	10			40				4	58		2		5
F - Miscellaneous (Total (i)+(ii)+(iii))									69	2		1		2
(i) Issue to Workers										2				
(ii) Patent Fuel Plants														
(iii) Others									69			1		2
7. Deliveries to Other EU Countries (EU-25)		179			924				668			83		189
8. Exports to Third Countries					47		37		33			128		31
9. Total Deliveries (6+7+8)	2.845	3.191	841	153	4.394	34	37	1.400	5.840	12.067		939		5.368

**Table 6**  
**Supplies and Deliveries of Coke in 2006 (Part 2)**

(in thousands of metric tonnes)

Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal	Romania*	Slovakia	Slovenia	Spain	Sweden	United Kingdom	Total EU-25	Total EU-27	Member State
				2.162	9.613		1.900	1.840		2.555	1.188	4.682	49.373	51.942	1. Production (t=t)
															2. Recoveries
				145			483	434		54	124	245	5.958	6.457	3. Receipts from other EU Countries (EU-25)
4	24			49	20		60	35	8	101	93	748	4.762	4.978	4. Total imports from Third Countries
										30			381	381	of which :
													63	63	A - USA
													95	95	B - Canada
															C - Australia
															D - South Africa
4	6			28				5		53		310	486	486	E - Russian Federation
	18						1			1	4	416	1.822	1.823	F - China
										12	44		87	87	G - Colombia
															H - Indonesia
															I - Venezuela
				21	20		59	30	8	5	45	23	1.830	2.045	J - Others
4	24			2.356	9.634		2.443	2.309	8	2.710	1.405	5.675	60.094	63.378	5. Total Availabilities (1+2+3+4)
3	24			1.879	4.058		2.425	2.302	8	1.660	1.433	5.303	50.619	53.885	6. Gross Inland Consumption
													131	131	A - Power Stations (public & mine)
3				1.709	3.045		2.425	2.302	8	1.393	1.344	5.201	46.621	49.887	B - Coking Plants (coal input)
	24			170	521					267	67	70	3.075	3.075	C - Iron and Steel Industry
															D - Other Industries
					493							32	696	696	of which Power Stations
												22	96	96	E - Domestic Heating
													2	2	F - Miscellaneous (Total (i)+(ii)+(iii))
															(i) Issue to Workers
															(ii) Patent Fuel Plants
											22		94	94	(iii) Others
					4.087			7		871	26	130	7.164	7.164	7. Deliveries to Other EU Countries (EU-25)
					1.911		17			179		38	2.404	2.421	8. Exports to Third Countries
3	24			1.879	10.055		2.442	2.309	8	2.710	1.459	5.471	60.186	63.469	9. Total Deliveries (6+7+8)

**Table 7**  
**Supplies and Deliveries of Brown Coal and Lignite in 2004 (Part 1)**  
(in thousands of metric tonnes)

Member State	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia (peat)	Finland (peat)	France	Germany	Greece	Hungary	Ireland (peat)	Italy
<b>1. Production (t=t)</b>	235				48.497		279	3.200		181.926	70.041	11.242	4.656	
of which :														
<b>A - Underground</b>					914							2.107		
<b>B - Opencast</b>	235				47.583		279	3.200		181.926	70.041	9.135	4.656	
<b>2. Recoveries</b>							134							
<b>3. Receipts from other EU Countries (EU-25)</b>	82	190			1				40			294	41	9
<b>4. Total imports from Third Countries</b>										17		91		
of which :														
<b>A - USA</b>														
<b>B - Canada</b>														
<b>C - Australia</b>														
<b>D - South Africa</b>														
<b>E - Russian Federation</b>												91		
<b>F - China</b>														
<b>G - Colombia</b>														
<b>H - Indonesia</b>														
<b>I - Venezuela</b>														
<b>J - Others</b>										17				
<b>5. Total Availabilities (1+2+3+4)</b>	317	190			48.498		413	3.200	40	181.943	70.041	11.627	4.697	9
<b>6. Gross Inland Consumption</b>	1.188	189			47.417		299	8.724	40	181.933	70.855	12.173	3.059	9
<b>A - Power Stations (public &amp; mine)</b>	1.007				35.666		17	7.299		169.126	70.233	11.788	1.555	
<b>B - Coking Plants (coal input)</b>														
<b>C - Iron and Steel Industry</b>														
<b>D - Other Industries</b>	117	189			8.866		281	1.318	40	602	196	29	36	
of which <b>Power Stations</b>					3.649			1.318					36	
<b>E - Domestic Heating</b>	64				559		1	107				323	847	9
<b>F - Miscellaneous (Total (i)+(ii)+(iii))</b>					2.326					12.205	426	33	621	
<b>(i) Issue to Workers</b>														
<b>(ii) Patent Fuel Plants</b>										12.205	422	15	618	
<b>(iii) Others</b>					2.326						4	18	3	
<b>7. Deliveries to Other EU Countries (EU-25)</b>	4				1.024		106	29		1		1	30	
<b>8. Exports to Third Countries</b>					48							65		
<b>9. Total Deliveries (6+7+8)</b>	1.193	189			48.489		405	8.753	40	181.934	70.855	12.239	3.089	9

**Table 7**  
**Supplies and Deliveries of Brown Coal and Lignite in 2004 (Part 2)**

(in thousands of metric tonnes)

Latvia	Lithuania (mainly peat)	Luxembourg	Malta	Netherlands	Poland	Portugal	Romania	Slovakia (Estimate)	Slovenia	Spain	Sweden	United Kingdom	Total EU-25	Member State
	50				61.196			2.950	4.809	8.162			397.243	1. Production (t=t)
								2.950	4.809				10.780	of which :
	50				61.196					8.162			386.463	A - Underground
					3								137	B - Opencast
		8		46				870					1.581	2. Recoveries
	9												117	3. Receipts from other EU Countries (EU-25)
														4. Total imports from Third Countries
														of which :
														A - USA
														B - Canada
														C - Australia
														D - South Africa
	1												92	E - Russian Federation
														F - China
														G - Colombia
														H - Indonesia
														I - Venezuela
	8												25	J - Others
	59	8		46	61.198			3.820	4.809	8.162			399.077	5. Total Availabilities (1+2+3+4)
	48	8		44	61.172			3.590	4.809	8.162			403.719	6. Gross Inland Consumption
	47				60.279			2.780	4.809	8.162			372.768	A - Power Stations (public & mine)
														B - Coking Plants (coal input)
														C - Iron and Steel Industry
		6		23				210					11.913	D - Other Industries
													5.003	of which Power Stations
	1	2			893			600					3.405	E - Domestic Heating
	1			21									15.633	F - Miscellaneous (Total (i)+(ii)+(iii))
														(i) Issue to Workers
													13.260	(ii) Patent Fuel Plants
	1			21									2.373	(iii) Others
					27								1.222	7. Deliveries to Other EU Countries (EU-25)
	5												118	8. Exports to Third Countries
	53	8		44	61.198			3.590	4.809	8.162			405.059	9. Total Deliveries (6+7+8)

**Table 8**  
**Supplies and Deliveries of Brown Coal and Lignite in 2005 (Part 1)**

(in thousands of metric tonnes)

Member State	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia (peat)	Finland (peat)	France	Germany	Greece	Hungary	Ireland (peat)	Italy
<b>1. Production (t=t)</b>			24.598		48.772		378	8.574		177.907	69.398	9.571	4.226	
of which :														
A - Underground			945		936							1.249		
B - Opencast			23.653		47.836		378	8.574		177.907	69.398	8.322	4.226	
<b>2. Recoveries</b>							-80							
<b>3. Receipts from other EU Countries (EU-25)</b>	108	206			1			22	34			389	41	8
<b>4. Total imports from Third Countries</b>								4	2	9		316		
of which :														
A - USA														
B - Canada														
C - Australia														
D - South Africa														
E - Russian Federation												316		
F - China														
G - Colombia														
H - Indonesia														
I - Venezuela														
J - Others								4	2	9				
<b>5. Total Availabilities (1+2+3+4)</b>	108	206	24.598		48.773		298	8.600	36	177.916	69.398	10.276	4.267	8
<b>6. Gross Inland Consumption</b>	1.287	206	24.598		47.617		252	6.560	36	177.861	70.096	10.247	4.230	8
A - Power Stations (public & mine)	1.112		23.585		39.094		61	6.560		164.884	69.429	9.813	2.709	
B - Coking Plants (coal input)														
C - Iron and Steel Industry														
D - Other Industries	123	206			4.500		191		36	715	224	3	36	
of which Power Stations					3.500								36	
E - Domestic Heating	53		216		2.000						32	358	871	8
F - Miscellaneous (Total (i)+(ii)+(iii))			797		2.023					12.262	411	73	614	
(i) Issue to Workers														
(ii) Patent Fuel Plants			797		536					12.262	411	17	610	
(iii) Others					1.487							56	4	
<b>7. Deliveries to Other EU Countries (EU-25)</b>	3				1.303		46	124		1		2	30	
<b>8. Exports to Third Countries</b>					5			16				372		
<b>9. Total Deliveries (6+7+8)</b>	1.290	206	24.598		48.925		298	6.700	36	177.862	70.096	10.621	4.260	8

**Table 8**  
**Supplies and Deliveries of Brown Coal and Lignite in 2005 (Part 2)**

(in thousands of metric tonnes)

Latvia (peat)	Lithuania (mainly peat)	Luxembourg	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden (peat)	United Kingdom	Total EU-25	Total EU-27	Member State
12	70				61.590		28.432	2.511	4.540	7.587	1.012		396.149	449.179	1. Production (t=t)
							2.427	2.511	4.540				9.236	12.608	of which :
12	70				61.590		26.005			7.587	1.012		386.912	436.570	A - Underground
					3								-78	-78	B - Opencast
		8		51			368	646					1.514	1.882	2. Recoveries
	26								406			8	771	771	3. Receipts from other EU Countries (EU-25)
															4. Total imports from Third Countries
															of which :
											8		8	8	A - USA
															B - Canada
															C - Australia
	3												319	319	D - South Africa
															E - Russian Federation
															F - China
															G - Colombia
															H - Indonesia
	23								406				444	444	I - Venezuela
															J - Others
12	96	8		51	61.593		28.800	3.158	4.946	7.587	1.020		398.357	451.755	5. Total Availabilities (1+2+3+4)
8	53	8		51	61.573		28.800	3.158	4.971	7.587	1.017		396.826	450.224	6. Gross Inland Consumption
8	50				61.173		28.710	2.858	4.971	7.587	731		371.039	423.334	A - Power Stations (public & mine)
															B - Coking Plants (coal input)
															C - Iron and Steel Industry
		7		29							28		6.098	6.098	D - Other Industries
													3.536	3.536	of which Power Stations
	1	1			400		90	300			258		4.283	4.589	E - Domestic Heating
	2			22									15.407	16.204	F - Miscellaneous (Total (i)+(ii)+(iii))
													13.836	14.633	(i) Issue to Workers
													1.570	1.570	(ii) Patent Fuel Plants
	2			22									1.570	1.570	(iii) Others
4					20				20				1.553	1.553	7. Deliveries to Other EU Countries (EU-25)
	0											3	396	396	8. Exports to Third Countries
12	53	8		51	61.593		28.800	3.158	4.991	7.587	1.020		398.775	452.173	9. Total Deliveries (6+7+8)



**Table 9**  
**Supplies and Deliveries of Brown Coal and Lignite in 2006 (Part 1)**

(in thousands of metric tonnes)

Member State	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia (Estimate)	Finland (peat)	France	Germany	Greece (Estimate)	Hungary	Ireland (peat)	Italy
<b>1. Production (t=t)</b>	8		25.631		49.059		378	11.689		179.950	65.650	9.952	3.972	
of which :														
A - Underground			1.662		914							1.351		
B - Opencast	8		23.969		48.145		378	11.689		179.950	65.650	8.601	3.972	
<b>2. Recoveries</b>							-80							
<b>3. Receipts from other EU Countries (EU-25)</b>	120	289			24			7	37			344	13	9
<b>4. Total imports from Third Countries</b>								4		8		333		
of which :														
A - USA														
B - Canada														
C - Australia														
D - South Africa														
E - Russian Federation												333		
F - China														
G - Colombia														
H - Indonesia														
I - Venezuela														
J - Others								4		8				
<b>5. Total Availabilities (1+2+3+4)</b>	128	289	25.631		49.083		298	11.700	37	179.958	65.650	10.629	3.985	9
<b>6. Gross Inland Consumption</b>	781	290	25.631		47.609		252	8.689	37	179.950	65.650	10.176	3.748	9
A - Power Stations (public & mine)	662		24.628		39.170		61	8.689		166.400	65.050	9.731	2.347	
B - Coking Plants (coal input)														
C - Iron and Steel Industry														
D - Other Industries	60	290			4.340		191		37	750	200	37	36	
of which Power Stations					3.140								36	
E - Domestic Heating	59		238		1.900							391	725	2
F - Miscellaneous (Total (i)+(ii)+(iii))			765		2.199					12.800	400	17	640	7
(i) Issue to Workers														
(ii) Patent Fuel Plants			765		580					12.800	400	1	637	
(iii) Others					1.619							16	3	7
<b>7. Deliveries to Other EU Countries (EU-25)</b>					1.296		46	98		1		1	5	
<b>8. Exports to Third Countries</b>					4			13				490		
<b>9. Total Deliveries (6+7+8)</b>	781	290	25.631		48.909		298	8.800	37	179.951	65.650	10.667	3.753	9

**Table 9**  
**Supplies and Deliveries of Brown Coal and Lignite in 2006 (Part 2)**

(in thousands of metric tonnes)

Latvia (peat)	Lithuania (mainly peat)	Luxembourg	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden (peat)	United Kingdom	Total EU-25	Total EU-27	Member State
14	66				60.762		32.458	2.207	4.522	6.872	979		396.080	454.169	1. Production (t=t)
							2.064	2.207	4.522				8.994	12.720	of which :
14	66				60.762		30.394			6.872	979		387.086	441.449	A - Underground
													-80	-80	B - Opencast
		7		34			496	731					1.615	2.111	2. Recoveries
	28						125	5	549				936	1.061	3. Receipts from other EU Countries (EU-25)
															4. Total imports from Third Countries
															of which :
															A - USA
															B - Canada
											9		9	9	C - Australia
															D - South Africa
	3						119	4					340	459	E - Russian Federation
															F - China
															G - Colombia
															H - Indonesia
															I - Venezuela
	25						6	1	549				587	593	J - Others
14	94	7		34	60.762		33.079	2.943	5.071	6.872	988		398.551	457.261	5. Total Availabilities (1+2+3+4)
4	58	7		34	60.762		33.079	2.943	5.087	6.872	890		393.848	452.558	6. Gross Inland Consumption
4	55				60.065		32.986	2.643	5.087	6.872	651		367.487	425.101	A - Power Stations (public & mine)
															B - Coking Plants (coal input)
															C - Iron and Steel Industry
		6		9							32		5.988	5.988	D - Other Industries
													3.176	3.176	of which Power Stations
	1	1			697		93	300			207		4.283	4.614	E - Domestic Heating
	2			25									16.090	16.855	F - Miscellaneous (Total (i)+(ii)+(iii))
													14.418	15.183	(i) Issue to Workers
													1.672	1.672	(ii) Patent Fuel Plants
															(iii) Others
									34				1.481	1.481	7. Deliveries to Other EU Countries (EU-25)
	38												551	551	8. Exports to Third Countries
4	96	7		34	60.762		33.079	2.943	5.121	6.872	896		395.880	454.590	9. Total Deliveries (6+7+8)