



EURACOAL Market Report 2/2014

December 2014

WORLD COAL MARKET DEVELOPMENTS - WORLD COAL PRODUCTION AND SEABORNE TRADE

Developments in which a worldwide surplus in the supply of coal runs into demand which is not growing fast enough continued in 2014. Prices remained under pressure in 2014 as a result. From October 2013 to July 2014 alone, prices for steam coal fell from US\$89/tonne to US\$72/tonne, about 20%. The same is true of coking coal prices. Both coking coal and coke prices declined also in 2014 because of the general slump in demand accompanied by a simultaneous expansion in supply. While prices between US\$135 and US\$140/tonne were still being paid for coking coal at the end of 2013, this level had continuously decreased. This development continues to hold sway in 2014; as of the middle of 2014, spot prices for HCC quality had fallen to US\$116/tonne.

EURACOAL has therefore determined stagnation or only a slight rise in the demand for electric power as well as a tendency toward decline in iron and steel production in the Pacific region. In our estimation, this is why seaborne trade during the first four months of 2014 rose by no more than about 3 % in comparison with the comparable period of the previous year. Worldwide, however, production and demand for the first six months in 2014 will most likely remain at the same level as last year.

The situation is similar in Europe. Europe has a substantial surplus in coal supplies; renewable energies are reducing the full-load operating hours of hard coal-fired power plants in other countries as well as in Germany.

In Italy, power generation from wind farms rose rapidly from 9 TWh in 2010 to more than 14 TWh in 2013. Power generation from photovoltaics rose from 1.9 TWh in 2010 to more than 11 times this amount (22 TWh) in 2013. In Spain, water, wind and photovoltaics comprise 55 % of the total power generating capacity. The mild winter did not give any cause for increased demand for hard coal, either. However, the clean dark spread favouring coal-fired power generation was reduced because of declining gas prices and slightly rising CO₂ prices. We expect the tendency for consumption of hard coal in all of Europe in 2014 to be downward, which will mean a correspondingly lower level of imports, if the weather conditions favouring renewable energies continue.

EUROPEAN COAL MARKET

	2014 (1-6)	2013 (1-6)
	Mt	Mt
Domestic hard coal production	53.4	57
Hard coal imports	96.3	100.7
Lignite production	197.9	198.2
Total	347.6	355.9

HARD COAL

Producing country	2014 (1-6)	2013 (1-6)
	Mt	Mt
Bulgaria	1.1	1.0
Czech Republic	4.8	4.1
Germany	4.2	4.3
Poland	35.2	37.7
Romania	0.8	1.1
Spain	1.8	1.4
United Kingdom	5.5	7.4
Total	53.4	57

In **Germany**, the biggest current issue is the increasing feed-in of wind and other renewable power into the grid. Germany has 34 GW of installed wind capacity and 35 GW of installed photovoltaic capacity connected to the grid. In 2013, the maximum input of wind into the grid was 26 GW (76%) and the minimum input was 100 MW (0.3%). On average, 5 GW or more was supplied for only 3 400 hours, whilst for 5 300 hours (i.e. for over 200 days) less than 5 GW was supplied to the grid. Even if wind power capacity were to be doubled over the coming years, the low availability of wind would not change. In fact, wind power only works if there is a load-balancing system of conventional power plants in place, which in Germany is mainly based on coal and lignite. This gives a chance for coal and lignite for the future. Similar calculations can be done for solar energy. So the only solution to guarantee supply security is to maintain the two systems in parallel, supported by national and regional energy policies.

The German hard coal industry still operates three deep mines, with the next mine closure foreseen for 2016 when Auguste Victoria closes. In 2013, production totalled 7.7 Mt of saleable coal of which 6.4 Mt went to power plants and 0.9 Mt to the iron and steel industry. Production is planned to reach 7.4 Mt in 2014, but could be slightly higher. Sales in the first five months of 2014 were difficult as less hard coal was used and the BAFA price was extremely low. At the end of 2014, the German hard coal industry should employ around 10 000 people. The closure of Auguste Victoria could entail problems as many employees unexpectedly announced their wish to continue in employment after the mine closes which would not be in accord with the negotiated plan. Unlike the lignite sector, the hard coal mining sector does not face attack from green NGOs since deep mining will end in Germany.

In **Poland**, hard coal production for the first quarter of 2014 reached 17.9 Mt against 18.7 Mt for the same period in 2013. In 2013, 77.5 Mt of hard coal was sold (72.0 Mt in 2012) of which 66.9 Mt went to the home market. Stocks reduced from 8.4 Mt at the end of 2012 to 6.6 Mt at the end of 2013. At the same time, Poland imported 10.8 Mt of coal, making the country again a net importer. Imports came mainly from Russia, with some smaller quantities from the Czech Republic, Ukraine, Kazakhstan, Australia and the US.

The Polish coal industry is facing serious problems: due to low world market prices, indigenous coal struggles against stiff competition. Indigenous producers also face difficult mining conditions. Power utilities stopped buying coal and used their own stockpiles whilst negotiating lower prices for 2014. Kompania Węglowa is seeking to sell nearly 5 Mt of coal from its stockpiles to boost liquidity. It also raised cash by selling its Knurów-Szczygłowice mine to JSW SA for 1.49 billion zloty. Another 310 million zloty came from the state-owned power utility Tauron Polska Energia SA, which bought KW's stake in the joint mining venture Tauron Wydobycie.

In the **United Kingdom**, coal production decreased by around 4.5 Mt in 2013, after having been stable for 7-8 years at between 16.5 and 18 Mt, due to the closure of Daw Mill colliery, the liquidation of Scottish Coal and the closure of Maltby colliery.

For general energy policy, 2014 will be a critical year: the remaining 8 GW of coal-fired plants which opted out of the LCPD will close; Drax (4 GW) will continue to convert its six units to wood pellet biomass and Ratcliffe (owned by E.ON) has committed to invest in SCR to comply with the IED. None of the remaining coal plants are committing to any level of IED compliance and most have opted to be governed by the Transitional National Plan which has been rejected by the European Commission. The UK government's intent was to allow generators flexibility to allow all factors, including the new capacity mechanism, to be evaluated before investing.

The Chancellor of the Exchequer (i.e. finance minister) announced in 2011/12 that the UK would adopt a "gas strategy" to bridge to a low-carbon future. A further switch to gas would cut emissions and enable the UK to meet its "legally binding targets" in the 2008 Climate Change Act. However, the UK's North Sea gas reserves are declining, gas prices are much higher than anticipated and the cost of generating electricity from gas is 2x to 3x higher than that from coal. The government therefore believes that new, much needed supplies will come from shale gas exploitation.

Another concern for the coal industry is the Carbon Price Floor, a tax aimed at producing a carbon price of £70/tCO₂ (88 €/tCO₂) by 2030. The UK's capacity mechanism, contracts for difference for nuclear and their strike prices, and ratification of the emission performance standards in the Electricity Market Reform package have to be finalised and tested for compliance with competition and State-aid rules in Brussels. A general election in May 2015 may change the picture, with the opposition promising a freeze on energy prices until 2017.

CoalPro embarked on an intensive lobbying campaign to bring the cost of the Carbon Price Support tax to the attention of the public and MPs, commissioning a report from NERA Economic Consulting. As a result, the Chancellor of the Exchequer announced

in his March 2014 Budget that he was capping the value of the Carbon Price Support at £18.08/tCO₂ until 2020. The conclusions of the NERA report are quite dramatic: severe damage to the UK economy and growth with a loss of industrial competitiveness. The response of utilities was not unexpected: no coal-fired power plants will be built in the UK and, although gas plants can be built, gas is so expensive that no new gas plants will be built either; and nuclear plants are too capital intensive. Many energy-intensive users are campaigning for relief from the Carbon Price Support tax and also from renewables levies, preferring the EU ETS as a market-based mechanism with everybody on the same level playing field.

To conclude, no large-capacity power stations are currently under construction in the UK and coal producers cannot convince financiers that there is a long-term market for coal. The only possibility is investment in CCS. There is currently one active coal CCS project in the UK (White Rose) which has won NER300 funding of up to €300 million and the UK government remains willing to put £1 billion into CCS projects.

In **Spain**, hard coal production in 2013 was 7.8 Mt with a share of coal in power generation of 15% which is far below the target. The economic situation and political problems in Spain make coal mining very difficult. Subsidies for 2013 were still not paid and some mines had to temporarily stop extraction due to cash shortages. Subsidies for 2014 have similarly not been paid which makes the future of coal mining in Spain very uncertain.

In the **Czech Republic**, hard coal production in 2013 dropped by one quarter, but increased again in the first three months of 2014 by 26%.

Concerning the new energy strategy, a further delay is expected and CEZ has withdrawn from the permitting procedure to construct two new nuclear blocks at Temelín power plant since the future of nuclear energy is so uncertain.

In **Romania**, net coal consumption decreased in 2013 by a massive 27% compared with 2012. Of the integrated mines and coal-fired power plants, the Oltenia Energy Complex is the biggest. The government intends to put 15% of the company on the stock market by the end of 2014. The Oltenia Energy Complex plans to build a new 600 MW lignite-fired unit to replace an old 330 MW installation at Rovinari using Chinese funding and technology (Huadian). The electricity will be exported to Turkey.

New gas reserves were discovered beneath the Black Sea, but it is unlikely that these will have any impact on the energy mix until 2017/18. Coal will remain the main primary energy resource – mainly lignite, since many hard coal mines will close by 2018.

In **Ukraine**, 34.4 Mt of coal was mined during the first five months of 2014 (25.1 Mt steam coal and 9.3 Mt coking coal), 1.2% above 2013 production. Exports from Ukraine grew, especially to China and India, but domestic demand also grew after units 3 & 4 restarted at Uglegorska thermal power station following a major fire in 2013. The coal industry has to struggle with the military conflict and if military activities continue in the Eastern region, then coal extraction could stop. The announced restructuring and privatisation of the mining sector by the government has been put on hold.

In **Sweden**, energy policy was unchanged in 2013. A new nuclear power plant could be constructed, replacing old units. Nuclear and hydro have the biggest shares in electricity production, whilst wind had a share of 7% in 2013. RES subsidies are rather small. Sweden is currently a net electricity exporter and this situation will not change in future. There is one steam coal plant in Stockholm, but it is currently being replaced which will be the end of coal-fired electricity generation in Sweden. Vattenfall – who left the Swedish Coal institute – announced that the company would no longer build coal-fired power plants in Sweden. The Swedish steel industry imported 2.5 Mt of coking coal in 2013.

LIGNITE

Producing country	2014 (1-6)	2013 (1-6)
	Mt = t	Mt = t
Bulgaria	13.6	10.7
Czech Republic	19.0	20.0
Germany	88.9	90.9
Greece	26.1	26.1
Hungary	4.6	4.6
Poland	32.3	32.6
Romania	10.6	10.5
Slovak Republic	1.0	1.0
Slovenia	1.8	1.8
Total	197.9	198.2

In **Germany**, important developments in the lignite industry are taking place in the eastern part of the country, where Vattenfall negotiated new permits for the follow-on of its opencast activities at Nochten which will begin shortly, including the resettlement of some 1 700 citizens, and, in Brandenburg, resettlement near opencast mine Welzow will also start in 2014, despite protests by Greenpeace and others. NGOs present a real problem for the industry, even where local citizens are in favour of industrial development and the inevitable consequences such as resettlement.

In the **Czech Republic**, annual lignite output is expected to be maintained at a level of 40 Mt for the years to come. The biggest concern of the Czech coal and lignite industry is a new proposal from the Ministry of Finance to raise royalties and taxes on the coal industry by 10% which would cause enormous financial difficulties. A first calculation will be presented very soon.

In **Greece**, lignite is mainly used for power generation. Due to mild weather, electricity consumption fell slightly in 2013 to 50.7 GWh compared with the peak in 2008 of 56.9 GWh. The share of lignite in the interconnected electricity system is still considerable, but the government does not want to see this share increase, so no new lignite-fired power plants will be built in the near future. Instead, the government has licensed the construction of five new gas-fired power plants. However, high gas prices mean that

gas-fired electricity generation has fallen considerably, so the future of these new installations is uncertain.

Currently, the share of lignite in net electricity production is about 46.5%, gas 24.3% and hydro 12.8%. PV covers more and more of the peak midday load. Electricity prices are still fixed by the government and there is no free market. To summarise, one can observe that renewables (including hydro) have pushed down generation from both gas and lignite. Greek lignite is still competitive in SE Europe, although electricity production costs have increased because of "green" policies.

It has been difficult to increase retail electricity market tariffs due to the economic crisis, but consumers were asked to pay 21 €/MWh (instead of 9 €/MWh) to cover renewable subsidies, even though these were scaled back (-30% for PV). Unpaid electricity bills total still amounts to €1.5 billion, but the deficit is expected to plateau at the end of 2014.

In 2013, **Poland** produced 65.7 Mt of lignite, showing a stable increase over a number of years (from 61.6 Mt in 2007) and still having huge reserves in the central and western parts of the country. The Bełchatów mine increased extraction in 2013 and an adjacent new power unit is fully operational. Extraction at Turów mine fell, as one power unit had to be decommissioned for environmental and technical reasons. It is expected that lignite extraction from existing mines will decrease, as the Adamów and Konin but also Turów and Bełchatów mines exhaust in the years to come. PGE is examining new mine sites to maintain extraction levels. One possibility is the Gubin basin, but the local government is against mining activities due to unfounded environmental concerns. Another deposit, close to Bełchatów, has the full support of local authorities. Poland faces a similar situation as in Germany: if local people and government support the opening of new opencast mines, then lignite could have a bright future, if not then lignite mining will face a sad downturn as existing mines approach depletion. Nevertheless, the Polish government is aware of the need to maintain coal and lignite extraction in order to maintain security of energy supply. Moreover, Polish energy policy fully supports mining as a cornerstone that will allow coal and lignite to remain the main fuels in the energy mix.

Electricity production in 2013 increased by 1.4%, mainly generated from hard coal and lignite (+4%). Big increases were reported from wind power, although more than 80% of total electricity generation still comes from coal and lignite. The bright future predicted for shale gas looks to be, after serious investigations, less and less likely and more and more controversial.

In **Bulgaria**, the internal electric power market is built on the basis of bilateral contracts with a balancing market. At present there are two segments of the electric power market, operating in parallel at the same time – a market with prices regulated by the State Energy and Water Regulatory Commission, and a freely-negotiated-prices market. The share of the latter will gradually increase on a step-by-step basis until full liberalisation of the electric power market has been achieved.

Gross electric power generation in the country in the first half of 2014 amounted to 22,830 GWh, which is an increase of 10.8% in generation over the same period of the previous year. Commercial exports of electric power amounted to 5,822 GWh, or

25.5% of gross generation. Net internal electric power consumption in the country in the first half of 2014 amounted to 20,777 GWh, which is an increase of 10.0% on the same period of 2013.

In **Hungary**, coal remains an important fuel: lignite production in 2013 was 9.1 Mt and imports totalled 1.6 Mt. In Borsod County, coal was mined until 2002 when mining became uneconomic. Taking into account today's high energy prices and the threats to security of supply, indigenous coal extraction and use is again being discussed in Hungary. An important new project is currently being discussed in Borsod County.

In 2013, the Paks Nuclear Power Plant supplied 50.7% of the country's total output. Two new nuclear units are planned at Paks, using Russian technology and partly financed by Russian loans. For social reasons, the Hungarian government decided to regulate residential electricity prices, resulting in substantially lower prices over the last two years. The government's long-term energy policy objective, as stated in its National Energy Strategy, is to ensure secure supply and maximise the exploitation of domestic resources, including coal.

In **Slovenia**, the second power plant beside Šoštanj, Trbovlje power plant was shut down on 15 September 2014. At the moment, it looks as if it will be sold to the Russian Olag Burakov. The 600 MW block of power plant Šoštanj 6 performed its first synchronisation with the electricity grid on 24 September. Further tests will follow before fully including it into the national network next spring.

In **Slovakia**, it is expected that the Italian power company ENEL will sell its shares in national power plants to the Czech ČEZ Group. Further, the reconstruction of Block 1 and 2 at Nováky power plant, both with a capacity of 110 MW is expected. Blocks 3 and 4 shall be decommissioned in 2015. The biggest energy importer to Slovakia is Hungary.

World Market Price evolution (Coal, Coke, Freight, Crude Oil)
MCIS Steam Coal Marker Price (7000kcal/kg)

		Jan	Feb	March	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
cif-NW Europe													
Steam Coal	2013	102.38	100.67	105.11	93.14	97.58	90.07	85.26	89.37	88.98	96.66	99.94	97.07
(US\$ / tce)	2014	95.48	93.45	85.59	90.45	88.07	85.40	84.02	88.85	88.87	84.83		
Steam Coal	2013	77.05	75.36	81.08	71.50	75.17	68.29	65.18	67.14	66.66	70.89	74.07	70.83
(EUR / tce)	2014	70.16	68.41	61.92	65.49	64.13	62.83	62.06	66.73	68.88	66.94		

Source: VDKI, McCloskey: First quotation of the month, basis 6000 kcal/kg (converted to 7000 kcal/kg)

Freight Rates (USD /t)

R Bay/Rotterdam	2013	7.48	6.90	6.36	6.24	6.65	7.89	8.77	9.69	14.16	13.29	10.24	14.93
(Capesize)	2014	8.43	8.09	10.71	8.96	8.26	8.69	8.38	10.06	10.58	9.63		
Newcastle/Rotterdam	2013	14.24	14.60	13.49	12.86	14.48	16.49	17.67	18.70	24.45	23.88	19.79	25.77
(Capesize)	2014	15.64	15.01	19.69	16.62	16.18	16.38	15.86	17.60	18.23	17.44		
Bolivar/Rotterdam	2013	9.95	9.68	8.88	8.50	8.55	9.51	10.76	10.29	15.81	15.02	12.50	16.47
(Capesize)	2014	11.49	9.11	12.58	8.96	9.44	10.28	8.75	9.05	9.76	9.94		

Source: VDKI, Frachtcontor Junge & Co

Currency Rates

USD/EUR	2013	0.75	0.75	0.77	0.77	0.77	0.76	0.76	0.75	0.75	0.73	0.74	0.73
	2014	0.73	0.73	0.72	0.72	0.73	0.74	0.74					
USD/ZAR	2013	8.79	8.87	9.19	9.10	9.33	10.00	9.93	10.06	10.00	9.90	10.21	10.36
	2014	10.86	10.96	10.74	10.54	10.41	10.66	10.66					
AUD/USD	2013	1.05	1.03	1.03	1.04	1.00	0.94	0.92	0.90	0.93	0.95	0.93	0.90
	2014	0.89	0.90	0.91	0.93	0.93	0.94	0.94					

Crude Oil (USD/Barrel)

Crude Oil	2013	109.28	112.75	106.44	101.05	100.65	101.03	104.45	107.52	108.73	106.69	104.97	107.67
	2014	104.71	105.38	104.15	104.27	105.44	107.89	105.61					

Source: OPEC Basket Prices

WORLD SEABORNE COAL TRADE - STEAM COAL			
Exporting Countries	2014 (1-6) Mt	2013 (1-6) Mt	Diff. 2013/14 Mt
PACIFIC			
Australia	94	88	6
China	3	3	0
Indonesia	170	161	9
Vietnam	5	8	-3
SUB-TOTAL	272	260	12
ATLANTIC			
Colombia	34	36	-2
Russia	60	57	3
South Africa	35	34	1
Venezuela	1	1	0
USA	16	22	-6
Others	4	5	-1
SUB-TOTAL	150	155	-5
TOTAL	422	415	7

incl. Anthracite and PCI-Coal
 Source: VDKI, preliminary figures

WORLD SEABORNE COAL TRADE - COKING COAL			(inc. PCI-Coal)
Exporting Countries	2014 (1-6) Mt	2013 (1-6) Mt	Diff. 2013/14 Mt
Australia	90	80	10
Canada	15	16	- 1
China	0	1	- 1
Russia	11	6	5
USA	28	30	- 2
TOTAL	144	133	11

Source: VDKI provis. Figures

EU CRUDE STEEL PRODUCTION		
COUNTRY	2014 (1-6) Mt	2013 (1-6) Mt
Austria	4.0	4.0
Belgium	3.7	3.5
Bulgaria	0.3	0.3
Czech Republic	2.7	2.6
Finland	2.0	1.7
France	8.3	8.0
Germany	22.5	21.7
Greece	0.5	0.5
Hungary	0.5	0.4
Italy	13.1	12.7
Luxembourg	1.1	1.0
Netherlands	3.5	3.1
Poland	4.2	4.0
Slovakia	2.3	2.3
Slovenia	0.3	0.3
Spain	7.5	7.5
Sweden	2.4	2.3
United Kingdom	6.2	5.7
Others	2.4	2.7
EU-27	87.5	84.3
Source: IISI		

TABLE 5
EU Hard coal and lignite production and consumption

COUNTRY	EU Hard coal production		Consumption of indig. hard coal for power generation	
	1-6 2014 Mt	1-6 2013 Mt	1-6 2014 Mt	1-6 2013 Mt
Bulgaria *	1.1	1.0	0.9	1.0
Czech Republic	4.8	4.1	1.7	1.8
Germany	4.2	4.3	3.0	3.1
Poland	35.2	37.7	14.5	15.9
Romania	0.8	1.1	0.1	1.2
Spain	1.8	1.4	0.6	0.6
United Kingdom	5.5	7.4	5.0	6.7
EU-27	53.4	57	25.8	30.3
Ukraine				

* brown and black coal

** only hard coal producing countries

COUNTRY	Lignite production		Lignite consumption for power generation	
	1-6 2014 Mt	1-6 2013 Mt	1-6 2013 Mt	1-6 2014 Mt
Bulgaria	13.6	10.7	13.6	9.6
Czech Republic	19.0	20.0	18.3	18.9
Germany	88.9	90.9	79.4	81.8
Greece	26.1	26.1	26.3	25.3
Hungary	4.6	4.6	4.6	4.4
Poland	32.3	32.6	32.6	32.3
Romania	10.6	10.5	9.2	11.5
Slovakia	1.0	1.0	1.0	1.0
Slovenia	1.8	1.8	1.8	1.6
EU-27	197.9	198.2	186.8	186.4

TABLE 6

EU Hard coal imports

COUNTRY	EU Coking coal imports		EU Steam coal imports		EU Total coal imports	
	1-6 2014 Mt	1-6 2013 Mt	1-6 2014 Mt	1-6 2013 Mt	1-6 2014 Mt	1-6 2013 Mt
Austria					1.5	1.5
Belgium	1.1	1.1	0.4	0.6	1.5	1.7
Bulgaria	0	0	1.0	0.6	1.0	0.6
Czech Republic	0.7	0.6	0.6	0.4	1.3	1.0
Denmark	0.007	0.006	2.507	2.288	2.5	2.3
Finland	0.47	0.6	1.5	1.5	2.0	2.1
France	2.9	2.5	4.4	6.5	7.3	9.0
Germany	5.5	5.2	18.6	18.9	24.1	24.1
Greece	0.0364	0.3	0	0	0.0	0.3
Hungary	0.6	0.7	0	0	0.6	0.7
Ireland	0	0	0.149	0.46	0.1	0.5
Italy	1.7	2.6	8.0	9.5	9.7	12.1
Netherlands	1.8	1.7	4.3	4.5	6.1	6.2
Poland	1.4	1.1	3.7	3.5	5.1	4.6
Portugal	0.2	0	1.5	1.7	1.7	1.7
Romania	0.3	0.4	0.2	0.4	0.5	0.8
Slovakia	0.069	0.07	2.0	2.0	2.1	2.0
Slovenia	0	0	0.3	0.3	0.3	0.3
Spain	0.8	1.1	5.4	4.3	6.2	5.4
Sweden	0.7	0.8	0.6	0.4	1.3	1.2
United Kingdom	3.0	3.0	18.4	19.6	21.4	22.6
EU-27					96.3	100.7