



## EURACOAL Market Report 1/2015

April 2015

### WORLD COAL MARKET DEVELOPMENTS - WORLD COAL PRODUCTION AND SEABORNE TRADE

#### **Important decisions**

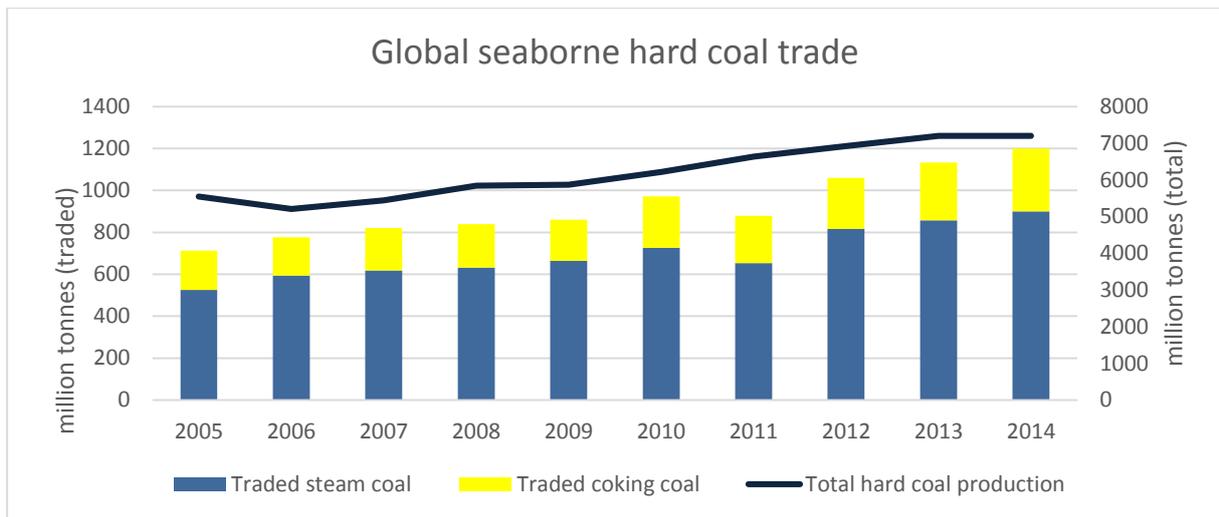
Global coal production in 2014 was little changed at 7.2 billion tonnes, steam coal slightly decreasing from 6300 Mt to 6200 Mt and coking coal increasing by 100 Mt to 1000 Mt.

For the first time since 1988, China produced less coal (3.87 billion tonnes; -2.5%); however Chinese lignite production increased. China intends to reduce output by 125 Mt and imports by 50 Mt, significant figures when compared with Europe's total annual production of just over 100 Mt. Production in India is estimated at 585 Mt, slightly more than in 2013 (+3%); but, it should be noted that estimates for India are difficult because Indian yearly statistics are not based on a Jan-Dec year. Australia increased hard coal production to 431 Mt (+5%). The United States increased production as well to 904 Mt (+1%), but the Obama administration's proposal, the Clean Power Plan, to reduce CO<sub>2</sub> emissions by 30% by 2030 will likely affect coal generation long term.

Meanwhile, China introduced additional quality requirements (e.g. ash and sulphur content) to reduce pollution in big cities and an import duty on metallurgical (coking) coal that Australia circumvented with a new free trade agreement with China, signed in November 2014.

#### **Global coal trade**

Global seaborne hard coal trade is estimated at 1 200 Mt in 2014, of which 900 Mt were steam coal and 300 Mt were coking coal. Australia increased hard coal exports by 8.1% to 387 Mt (out of which 201 Mt steam coal and 186 Mt coking coal) and strengthened its leading position on the coking coal market. Indonesia decreased exports to 408 Mt (-4%); while India imported 157 Mt of steam coal (+12%). China imported an estimated 229 Mt (-9%) of steam coal. The United States exported 88 Mt, of which 39.2 Mt went to Europe. Total exports were below 100 million US short tonnes of coal for the first time since 2010. Colombia closed the important Drummond port for three months at the beginning of the year, taking out around 6.5 Mt from the seaborne market. In total, Colombia exported around 75 Mt steam coal.



Source: EURACOAL Market Reports; VDKi; IEA

The picture among the top five largest steam coal importing EU member-states was varied: imports to the United Kingdom declined to 32 Mt (-17%) and imports to France fell to 9 Mt (-30%), while Italy was able to hold its imports, 16 Mt, at the level of the previous year. In contrast, Spain (13 Mt) and Germany (42 Mt) imported 18% and 6% more steam coal, respectively, than in the year before.

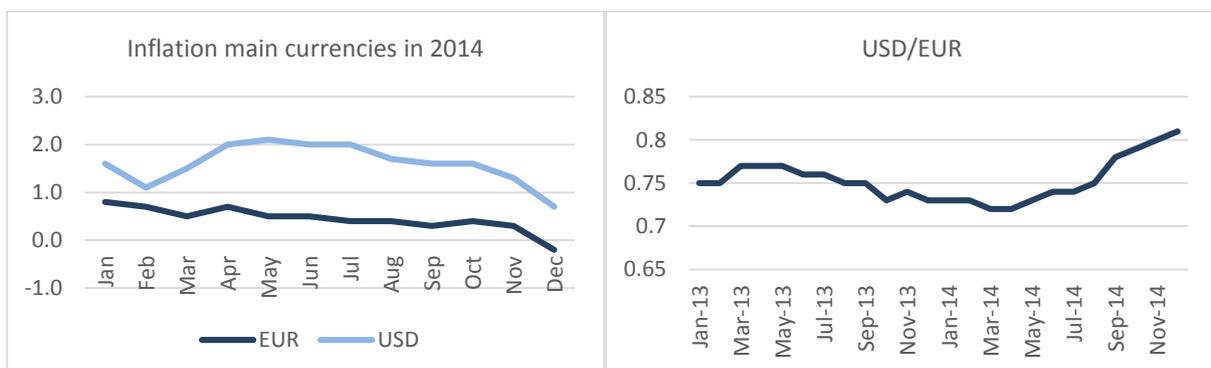
### Coal prices and trends

Steam coal prices are declining and this trend is likely to continue. The main reason for the decrease of coal prices is an over capacity due to lower demand, a consequence of slowing GDP growth rates in Asia, especially in China, but also due to the weak global economic situation.

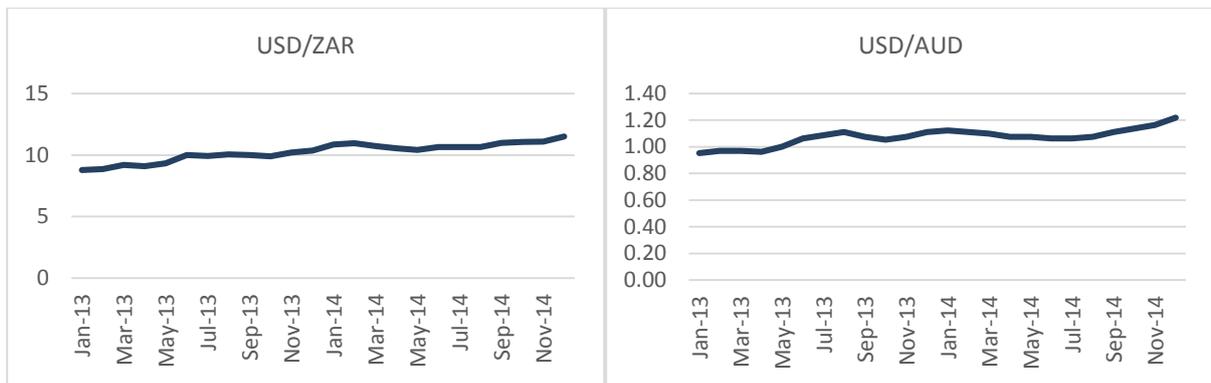
Another cause for the price decline was exchange rates; mining companies in Russia, Colombia, Australia and South Africa had a currency advantage which enabled them to mitigate the lower revenues due to lower coal prices. Their main costs for coal production have to be paid in local currency while they receive appreciating US dollars for their coal. However, this development is expected to be short lived, perhaps only 1 or 1.5 years. The USD has strengthen significantly against the EUR as well in the last 13 months (+21.8%) and also against the Russian rouble, RUB, creating further price advantages for Russian coal exporters to Europe.

A third reason for the decline of coal prices is that by the end of last year, freight rates decreased by up to 50%, down to 5-7 US Dollars on the benchmark Richards Bay-Rotterdam route, adding to lower coal prices at ports such as ARA.

Concerning *coking coal*, demand was lower in Europe but also in China because of the declining construction market.

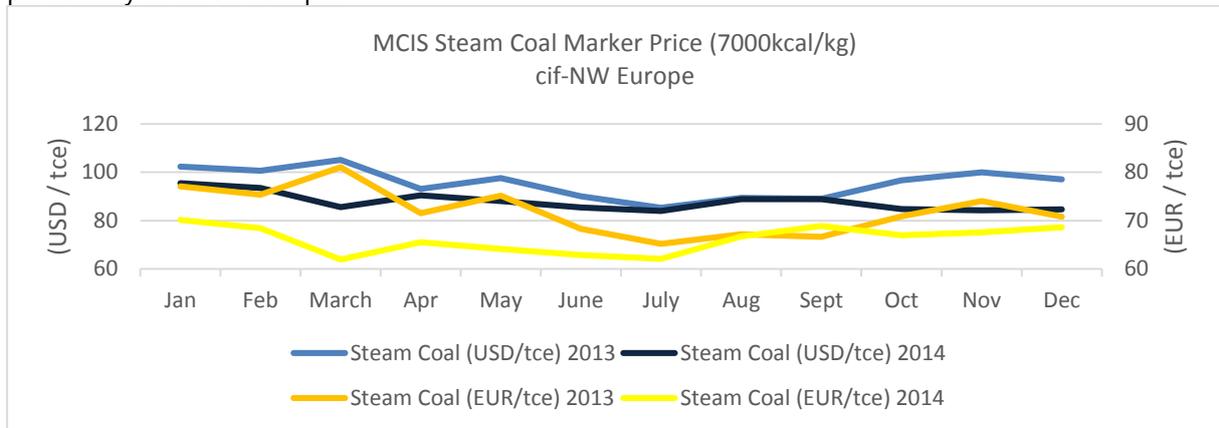


Source: ECB; US Bureau of Labour Statistics; Trading Economics

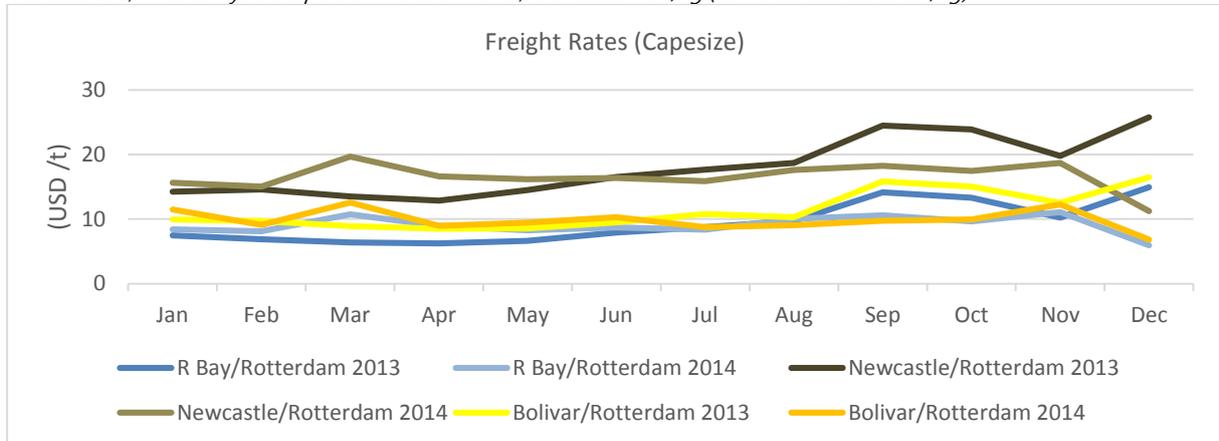


Source for currencies: ECB; OECD

European carbon permit prices over the period 2014-2018 are expected to slightly increase, but not to dangerous levels. Coal demand projections show stability in OECD countries for the next years, particularly in OECD Europe.



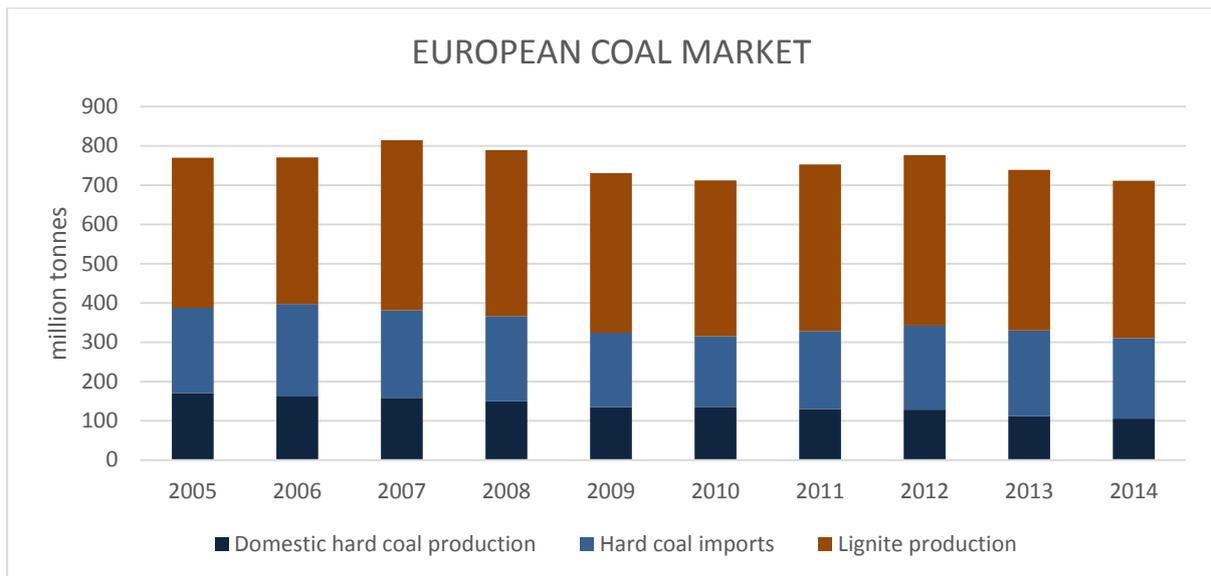
Source: VDKI, McCloskey: First quotation of the month, basis 6000 kcal/kg (converted to 7000 kcal/kg)



Source: VDKI, Frachtcontor Junge & Co

## EUROPEAN COAL MARKET

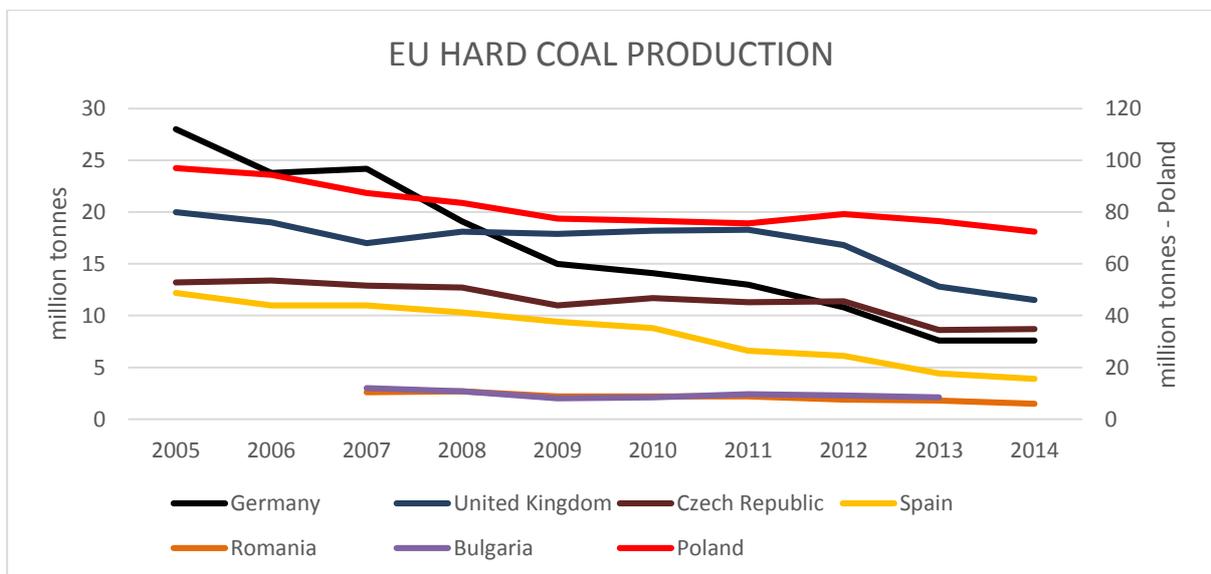
	2014	2013
	Mt	Mt
Domestic hard coal production	105.7	111.7
Hard coal imports	204.6	217.8
Lignite production	400.7	409.2
<b>Total</b>	<b>711.0</b>	<b>738.7</b>



## HARD COAL

Producing country	2014	2013
	Mt	Mt
Bulgaria*	0	0
Czech Republic	8.7	8.6
Germany	7.6	7.6
Poland	72.5	76.5
Romania	1.5	1.8
Spain	3.9	4.4
United Kingdom	11.5	12.8
<b>Total</b>	<b>105.7</b>	<b>111.7</b>

\*classification of Bulgarian hard coal production changed, now classified as lignite



## Czech Republic

Hard coal production in the Czech Republic amounted to 8.7 Mt in 2014, a very small increase from 2013. The development of hard coal production since 1987 shows a gradual decline, except for the last two years when output stabilised. Approximately 4 Mt of hard coal were exported (-14%) and approximately 2.9 Mt were imported (+34%). Coke production slightly increased to 2.5 million tonnes.

The staffing level for hard coal production had been reduced by 706 persons to 11,099 employees compared with end-2013.

On *energy policy*, the government held a debate in December 2014 to update the energy policy until 2040, but it was blocked due to an unclear position on brown coal mining limits in Northern Bohemia. Subsequently, four options for the future of the mining limits have been proposed. They range from the maintaining of the mining limits to a partial lifting to a complete lifting. In order to decide, economic and social studies for all four options will be prepared by June 2015. The government will restart the debate probably in July.

Royalty payments for mining activities were the subject of intense discussions in 2014. The current bill contains a new differentiation between the face working area for which mining activities have been permitted, and the area for which mining activities have not yet been permitted. The proposal for royalties for minerals recovered is, on average, to double the royalties. A discussion on the allocation of the royalties between municipalities and the national budget is expected.

On *major economic policy trends*, a survey of macroeconomic forecasts, conducted by the Ministry of Finance in November 2014, indicates that Czech GDP is expected to suffer a slight slowdown in growth to 2.3%. The rate of inflation will remain low, despite the expected weakening of the Czech currency. The situation on the labour market is expected to improve gradually, while the rate of unemployment will continue to slowly decrease.

The hard coal company *OKD a.s.* (OKD) is taking further steps in its comprehensive restructuring launched in mid-2013, aiming to raise the company's business to a more efficient and sustainable level in this currently extremely challenging situation on the hard coal market. As of 1 January 2015, the Darkov and Karviná operations in the Karviná area have been merged, which is expected to bring a number of synergies. The main objective is to improve efficiency at a time when hard coal companies throughout the world are struggling to survive.

## **Germany**

In Germany, in 2016, only two mines will remain in operation, in line with the plan to close all hard coal mining by 2018. In 2014, coal production slightly increased to 7.64 Mt from 7.55 Mt in 2013 as a new 4 m thick seam was exploited. The domestic sales decreased by 3.4% to around 8 Mt, most to power plants (+2.2% to 6.503 Mt), steel industry (-42% to 0.522 Mt), other industry (-2.8% to 0.876 Mt) and other (-11.2% to 0.079 Mt).

*Employment* in the hard coal mining sector decreased by 16.8%, from 14,549 to 12,104. The number is a fraction of the 130 000 workers in the industry at the beginning of the 1990s.

*Import prices* for steam coal, coking coal and coke are on a downward trend and remained relatively low, this also taking into account the increase in ETS CO<sub>2</sub> prices. Nevertheless, the coal consumption decreased significantly in Germany in 2014 by approx. 8%. The main reason was the production of electricity from renewable energy sources, which showed a nearly continuous high availability due to the unusually mild weather this year. The EEG surcharge on electricity price to finance renewable electricity in 2014 was further increased to 6.24 cents / kWh and has now been in 2015 slightly lowered for the first time to 6.17 cents / kWh. Imports of hard coal increased to historical level, to 53.6 Mt.

*Energy consumption* in Germany was in 2014, according to initial calculations at around 13,100 petajoules (PJ) or 446.5 million tonnes of coal equivalent (tce million). This was 4.8% less than 2013 and confirms the autumn forecast of the Energy Balances Working Group (Arbeitsgemeinschaft Energiebilanzen - AGEB) that the primary energy consumption in 2014 was at its lowest level since German reunification. The strongest influence on the significant fall in energy consumption was the mild weather. According to AGEB calculations, the energy consumption decline would have happened

regardless of weather conditions, being about 1% lower on a weather-corrected basis. Since the decrease in consumption affected all fossil fuels, renewables slightly increased. However, AGEBA anticipates a decline of energy-related CO<sub>2</sub> emissions of just over 5%. About half of this is attributable to the production of electricity. Adjusted for the impact of the mild weather, the expected CO<sub>2</sub> emissions have decreased by around 1%.

The consumption of coal fell by 7.9% to 1 647 PJ or 56.2 million tce. This is also due to the increased use of renewable energy sources, around 65% of the total domestic consumption of coal is currently used to generate electricity. While the use in power stations for electricity and heat production decreased by 11.7% to 36.9 Mtce, the reported use of coal in the steel industry slightly increased by just over 1% to 17.8 million tonnes, as a result of higher production of pig iron.

The *overall economic development* in Germany was characterised by stagnation in the second half of 2014. After a relatively strong growth in the first quarter of the year, a significant downturn followed in the second quarter. In the third quarter there was a minimal growth of 0.1%, while the fourth quarter showed a slight upward trend. The main causes of the economic downturn were the impact of the ongoing crisis in the euro area and the conflict in Ukraine.

The *private consumption* was stable and inflation was very low. Nevertheless, the German labour market has again improved slightly and the number of employed persons has further increased. Significant economic and social policy decisions during the last months included an advantageous retirement package and the introduction of a minimum wage starting from 2015. In addition, for the first time in over 45 years, a federal budget without new borrowing ("black zero") in 2015 has been adopted. However, intensive discussions are continuing on the low levels of public and private investment in Germany.

The Federal Ministry of Economics and Technology has presented in August 2014 a "10-point energy agenda" in which the main energy policy proposals for the German Renewable Energy Sources Act (EEG) have been introduced. The German position for the European Energy and Climate Framework 2030; the preparation for the next national EEG ("EEG 3.0") which states that further promotion of renewable energy will be done through tendering procedures by the end of 2016; and the initiative to reorganize the German electricity market, focusing on the future of secure capacity are included in the paper.

The federal government published for public consultation at the end of October 2014 a "Green Paper" in which the main options are described (optimisation of the so-called energy-only market or introducing an additional capacity market). In any case, the federal government wants to set up at least temporarily, a capacity reserve. Upon completion of this consultation in spring 2015, a "White Paper" will be drawn with the first concrete recommendations for action. In December 2014, the federal government issued its progress report for monitoring the energy transition with some additional strategic conclusions for the future German energy policy. At the same time, it adopted the National Action Plan for Energy Efficiency and Climate Protection Action Programme 2020. Within the framework of the climate programme, a scheme to save an additional 22 million tonnes of CO<sub>2</sub> emissions from conventional power plants has been made to close the gap in the achievement of the national CO<sub>2</sub> reduction target of 40% by 2020. There were already previous plans to close approx. 10 GW of coal plants and this extra burden has led to clashes with the energy industry.

The *corporate landscape* of the German energy sector was marked by profound changes in the second half of 2014, as a result of national energy policy and global environment challenges. The two largest German utilities, RWE and E.ON, have reviewed fundamentally their corporate strategies and they plan changes in all areas. While RWE intends to continue working along the entire value chain of the energy market, E.ON has decided to split the group and its activities. E.ON SE will work only on the energy transition activities: renewable energy, advanced networks and innovative customer services. In a separated listed company, the "traditional" energy-related businesses are to be bundled, namely:

conventional electricity production on natural gas, coal and nuclear (including the expiring or already decommissioned nuclear power plants), fuel trading, exploration and production of oil and gas.

The Swedish state-owned Vattenfall Europe will divest from their operations in German lignite mining, due to climate policy concerns. EnBW, owned by the state of Baden-Württemberg, intended to shut down the older, unprofitable conventional power plants, while converting the group's activities towards more renewables. However, the Federal Network Agency did not grant them permission, because of the dangers to power system stability in Southern Germany. The four Transmission System Operators (Tennet, Amprion, 50 Hertz, Transnet BW) did not progress as planned with the expansion of national power grids. Some of the new planned major routes stir considerable social and political resistance. The latest monitoring report of the Federal Network Agency revealed that by autumn 2014 only about a quarter of the 2015 target lines have been completed.

RAG AG, meanwhile, continue to focus its business developments on the period after 2019. These include the creation of drainage concepts for the Ruhr and the Saar region, as well as a number of new projects for the use of mining areas and infrastructure for renewable energy. The technical feasibility for an underground pump storage power plant has been proven, but there is still no economically viable business model; however, the forthcoming reorganisation of the German electricity market might bring new hopes. RAG Mining Solutions, with its international equipment and consulting services, finds itself in difficulties due to the plunge of the global coal market.

## **Poland**

Hard coal production in Poland slightly decreased from 76.5 Mt in 2013 to 72.5 Mt in 2014. Sales decreased as well, from 77.5 Mt 2013 to 70.3 Mt of hard coal in 2014 (from 22.7 billion PLN to almost 19.4 billion PLN). The number of workers was reduced from approximately 108 800 in 2013 to 103 000 in 2014, although the number of apprentices is still healthy.

Almost all mining is concentrated in one district, Silesia, which has the advantage of flexibility: miners can easily move from one mine to another. The Bogdanka mine in another district near Lublin is a totally different case, being profitable.

On *political developments*, after demonstrations, the government signed an agreement with the mining trade unions on coal sector restructuring. However, the mining law is still under debate. For now, there are programmes for each mine, taking into account resources and social expectations, and based on ARA benchmarks. The "restructuring" of mines includes "closures" and the burden of this responsibility will be in a specialised company. Now there are 25 mines and three large companies in Poland, but after restructuring the number will be reduced. A solution might be integration of mines with power plants. The solution gets more complex taking into account the agreement mentioned earlier between the government and the mining trade unions. Low coal prices are a factor as well, an important question being at what level deep mining is cost effective. Lower coal prices could lead to the closure of deep mining in Europe altogether.

## **Spain**

Coal production in Spain in 2014 is estimated at 3.9 Mt. The first fuel in the mix is nuclear energy with 22%, followed by wind energy with 20%. Natural gas generated 8.5% of electricity, the lowest figure in the last five years, while coal's share actually increased to 16%.

On *energy policy developments*, the "Coal Plan for the years 2013 to 2018" was agreed in 2014. One of the agreements is a commitment by the government to find a mechanism to facilitate indigenous coal consumption, because the Royal Decree 134/2010, which was approved by the European Commission (N178/2010), ended on 31 December. Therefore, the government is currently looking for the right new mechanism for coal. The Royal Decree was validated, despite very strong resistance in the courts. The last statement, with significant impact for European coal producers is the decision at the European Court

of Justice on 3 December 2014 (Castelnou vs. Commission). Carbuni3n (the Association of Spanish Domestic Coal Producers) participated as a co-defendant. Castelnou is an EDF Group company and operates two CCGTs on the Spanish Mediterranean. It argued that its CCGTs were not running because of the Royal Decree's support for coal. This argument was annulled by all the evidence presented, both by the Commission and the Government of Spain.

In summary, the European Court has held that the Decree is fair because the public interest is more important than that of a private company. The arguments used and the decision taken in this case set an important precedent for future decisions of the European Court of Justice and other coal producing countries should take note.

Regarding a new mechanism for domestic coal consumption starting in 2015, the government might consider capacity payments.

### **United Kingdom**

The United Kingdom has continued slowly to recover from the recession, but there are concerns that, although the number of people working has increased, the expected income tax revenues are below what was expected as many of the new jobs are at the lower end of the pay scale. Manufacturing figures have also been lower and the cost of energy is still an issue where industrial users are concerned. Both leading political parties are indicating that if they are successful on May 7th at the General Election they will continue to reduce public spending, although each will focus on different areas.

On *UK Energy Policy*, the Energy Act received Royal Assent and passed into UK law in December 2013. It transposes into law the Electricity Market Reform bill which has four principal elements: an emissions performance standard (EPS), capacity mechanism, feed-in tariffs with contracts for differences and a carbon price support tax. The carbon price support tax is the biggest single issue affecting the coal market and energy intensive industries in the UK.

The EPS is currently applied to new-build plants to prevent any new high-carbon generation being constructed. It is set at a level which prevents new coal plants, but allows new gas plants with a guaranteed EPS until 2045. Coalpro and others campaigned against a proposal, from the Labour opposition, to apply a reducing EPS to existing plants in November 2013 and were successful in ensuring that this was not prescribed in the Energy Act. There is however an ongoing campaign to introduce this on coal plants that invest to comply with the IED.

On capacity mechanisms, the UK has identified a potential shortage of supply in winter 2018/19 and has held a reverse auction to provide guaranteed capacity. The government hoped that this auction would stimulate investment in new gas to replace the coal, oil and gas capacity which has closed or will close, as a result of the LCPD or the IED. No unplanned new build was bid and the result is that coal plants will have an extended role to provide capacity. The economic impact of capacity mechanisms might be 4% on consumer bills. Some coal power plants scheduled for closure had extended their licences due to the capacity market, but not enough to see investment in coal mines.

On CCS, it appears that it could be competitive with offshore wind and not far different from the nuclear support price. On feed-in tariffs using contracts for differences (CFD), the Department of Energy and Climate Change has so far only focussed on CFDs for renewables and Hinckley Point C nuclear power station. The coal industry continues to press for CFDs for CCS.

*Company news* in the energy sector is mixed. Eggborough coal-fired power station, which had announced its potential closure in 2015 if government did not grant it a contract to convert to biomass, has been purchased by EPH from the Czech Republic. Most of the "Big Six" UK power generation companies are still keeping their options open and not committing to major new build investment, until UK policy becomes clearer and until the investigation into the pricing in the marketplace requested by

government is concluded. It appears that the first new nuclear power station at Hinkley Point C will be built and operated by EDF with some Chinese technology and financing. UK Coal and Hatfield colliery have both been given short-term commercial loans by the UK government to provide cash flow during a closure plan. By the end of 2016, there will be no major underground coal production in England. There are parties showing interest in some underground coking coal reserves in the UK. UK Coal Surface Mines Ltd went into liquidation in November 2014 and a new company has been created to restore the existing sites, but it will not develop any new mines.

*Coal prices* are still low and UK producers are struggling to compete, notably the underground mines and surface mines with higher stripping ratio. The market combined with government energy policies, which offer no real certainty for coal demand in future years, mean that investments in steam coal production in the UK are viewed as high risk and there is no appetite to invest currently. There is still hope that CCS projects in the UK will develop from engineering design to operational status at the end of 2015. The CCS gas project at Peterhead in Scotland and the White Rose coal project in Yorkshire are in front-end engineering design. At the end of 2015, they should be in a position to present an economic case to the government who will decide then whether the one billion GBP available will actually be spent on developing these projects. Industry says other projects could be developed under CFDs without capital support from government.

*Coal demand* fell during 2014 due to unplanned outages, lower gas prices and the increasing carbon tax and was around 40 Mt for power generation, 23% less than in 2013. Domestic coal production fell to less than 12 Mt and further reductions will follow in 2015 when two of the three remaining large deep mines are expected to close. Falling coal prices make some surface mines marginal and even loss-making. Investment in UK steam coal mining is minimal. The only sites which might be developed whether deep or surface are those which are proven to contain higher value coals, such as anthracite or coking.

## **Ukraine**

The most important development is that there was nearly no coal moving from the anthracite coal mines in the non-governmental controlled area to the power plants in the governmental controlled area. The mines in the western part of the country are suffering as well.

The mines in the Donbass area are in good state underground, but the surface infrastructure is affected and it needs significant governmental investment to make it work again. The coal supply for power plants is an important problem – as reported by EURACOAL in November 2014 following an International Coal Dialogue meeting in Brussels.

In December 2014, the Ukrainian government introduced measures to limit electricity consumption and, from January 2015, electricity imports from Russia started with higher tariffs. Supplies of anthracite booked by DTEK from Russia in November 2014 and delivered by rail arrived by the end of January, but in very small quantities (11000 tonnes). For future deliveries of coal from Russia, the situation is unclear. DTEK, Ukraine's main producer, has signed contracts for coal from South Africa at renegotiated prices to reflect the lower coal quality.

On *regulation*, the situation is still unclear: the government declared that they want to reform the sector, but it is not clear how. The danger for all private producers is possible revision of privatization and/or concession agreements.

## **Italy**

The share of coal in the fuel mix for power generation in Italy slightly reduced in 2014, from 15% to 14%, being replaced by renewables. However, the increase in renewables mainly hit CCGT, an evolution that is now a trend.

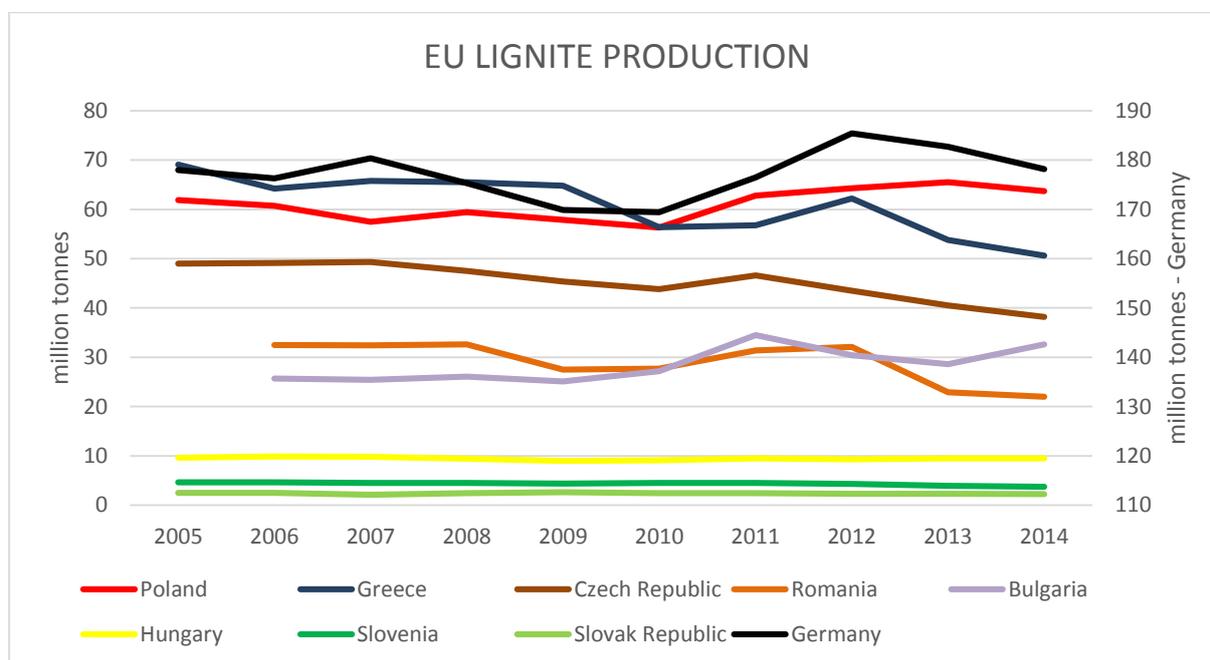
On major energy decisions, renewables have enjoyed sustained growth in recent years, but the subsidy programme (Conto Energia) has come to an end.

On *generation capacity*, coal has 9,700 MW of installed capacity, but some will be closed in the coming years. The following units opted out of LCPD: Monfalcone 336MW (A2A); Marghera 140MW (ENEL); Genova 295MW (ENEL); Bastardo 150MW (ENEL); Brindisi N. 640MW (Edipower; not in service since 2012). However, most of the capacity is expected to be preserved: Fusina 975MW (ENEL); Brindisi 2640MW (ENEL); Torrevaldaliga N. 1,980MW (ENEL); La Spezia 600MW (ENEL); Vado Ligure 660MW (Tirreno P.; not in service due to environmental issues). Fiume Santo 640MW (EPH; recently bought from ENEL) and Sulcis 580MW (ENEL) on Sardinia are expected to continue as well.

## LIGNITE

Producing country	2014 Mt	2013 Mt
Bulgaria*	32.6	28.6
Czech Republic	38.2	40.4
Germany	178.2	183.0
Greece	50.6	52.5
Hungary	9.5	9.5
Poland	63.7	65.7
Romania	22.0	22.9
Slovak Republic	2.2	2.2
Slovenia	3.7	4.4
<b>Total</b>	<b>400.7</b>	<b>409.2</b>

\*classification of Bulgarian hard coal production changed, now classified as lignite



## Bulgaria

In November, a new Energy Minister was named by the government, Temenuzhka Petkova. The Minister has launched a review of the energy sector, aimed at stabilising the sector, which continues to accumulate debt. There were changes of top-level executives in Bulgaria: Dian Chervenkov and Nikolay Dikov joined the Board of Directors of Mini Maritsa Iztok EAD, while Andon Andonov retained his position there, and was elected to be the Executive Director of Mini Maritsa Iztok EAD.

## Czech Republic

Brown coal production in the Czech Republic amounted to 38.2 Mt in 2014, 2.2 Mt less than in 2013. The development of brown coal over recent years shows a slow decline of 2-3 million tonnes per year since 2011. There are five brown coal mining companies in the country: Severočeské doly (56%), Vršanská uhelná (17%), Sokolovská uhelná (17%), Severní energetická (9%) and the Centrum deep mine, part of Sev-en, a.s. (1%). The number of employees in the Czech brown coal industry decreased by 331 persons to 8,280 persons compared with December 2013.

On *brown coal companies*, *Severočeské doly a.s.* (SD) is a member of the ČEZ Group. In 2015, ČEZ will complete its programme for the renovation of its brown coal fired power stations in northern Bohemia. In terms of extent, it is one of the largest capital projects in the Czech energy sector; since 2007 its costs have totalled CZK 100 billion. In 2015, a new 660 MW brown coal unit of the Ledvice power station will be commissioned and three completely retrofitted 200 MW units of the Pruněřov II power station will start to operate. In 2014, the 880 MW gas-fired combined cycle unit at Počeradý was completed; its net efficiency is 57.4%. This flexible capacity will be available for dispatch control in the electricity grid, featuring the option of start-up within one day from the request.

The *Severní energetická Group (Sev-en)*. The 800 MW Chvaletice power station, which Sev-en has bought from ČEZ, will start preparations for modernisation in 2015. The work will be started no later than 2016 and by 2020, all four 200 MW units will be gradually modernised. The power station's life will be extended to 2030. Coal extraction will end around 2020 at the ČSA site, which holds the highest-quality brown coal deposit and the largest coal reserves (750 Mt) in the Czech Republic, if the legislation remains the same as in the present. The decision on the future of the mining limits, which is to be adopted this year, will therefore be crucial for the ČSA surface mine.

*Vršanská uhelná a.s.*, member of the Czech Coal Group (VUAS), will see ČEZ producing electricity from the company's own coal for the first time in 2015, and VUAS will sell this electricity. This opportunity was granted to the company by last year's contract between the two companies, for the provision of 200 MW tolling capacity. The companies executed the contract for 2015 with an option to extend it until 2020. In 2015, VUAS is expected to increase its production by 0.5 Mt to about 7 Mt.

*Sokolovská uhelná a.s.* (SU) is one of the largest independent power producers in the Czech Republic. It generates approximately 3,500 GWh of electricity per year, the larger part of it in its gas-fired combined cycle plant in Vřesová (power ramping at 7-10 MW per minute, from warm start-up to full output in 12 minutes). As regards coal mining, the company continues its long-term, controlled decrease in extraction, targeting 5.5 Mt per year.

## Germany

Lignite production in 2014 was 178.2 Mt, 2.6% below the previous year. Coal mining was higher in Central Germany (+7%) and slightly lower in Rhineland (-5%) and in Lausitz (-3%). After a multi-month shutdown of the power plant in Helmstedter area, 1.8 Mt (+52%) were delivered last year.

The climatic difference between short winter last year and cool weather in 2013 caused a sharp decrease in energy consumption in Germany in 2014. According to calculations by the AG Energiebilanzen, consumption in 2014 decreased by 4.7% to a total of 13,077 petajoules (PJ) or 446 million tonnes of coal equivalent (Mtce). The economic development (GDP +1.6 %), on the contrary, had a dampening impact on consumption.

Oil consumption decreased by about 1%, due to lower sales of heating oil, owing to weather. Natural gas consumption decreased by 13%. Again, the warm weather resulted in a lower use of natural gas to generate heat, even in combined heat and power (CHP). Utilization of coal-fired power plants decreased by 12% due to a lot of electricity production from wind and PV, which led to a decrease by 8% of hard

coal consumption. However, the delivery of hard coal to the steel and iron industry increased by almost 1.1%, as a consequence of economic development. Due to the revision of several plants, the lignite-fired electricity production decreased by 3% and, subsequently, the consumption of lignite decreased by 3.6%. The contribution of nuclear energy to the energy balance 2014 decreased by 0.1%. The use of renewable energy rose by 0.5%, with hydro (excluding pumped storage) decreasing by 11%, while wind increased by 8% and photovoltaics by 6%.

Coal and lignite have about 43% of the market, with renewables having 26%. Nuclear still has 16% of the market that will be gradually phased-out by 2022. The share of gas is also gradually declining.

The utilisation of lignite is directed 90% towards electricity production, while 10% goes to briquette production and industrial products. The manufacture of lignite products in 2014 was globally 3.8 percent lower than last year.

The number of workers at the end of 2014 was 21,406, 676 lower than at the end of 2013. This includes approx. 1,400 trainees and approx. 5,500 workers in the public power plants of the lignite enterprises. In total in Germany, more than 85,000 competitive jobs are secured by lignite mining and power generation.

Looking to the future, Germany may no longer have the possibility to present itself as a frontrunner of emission reductions. There will be a discussion in 2015 to see which sectors will have to reduce emissions in Germany. So far, the target is to reduce emissions from 377 MtCO<sub>2</sub> to 306 MtCO<sub>2</sub>. However, a decision of the German government from December 2014 further decreased this target to 284 MtCO<sub>2</sub> in 2020. Renewables are favoured by the planned grid expansion. For lignite, consumption is planned to remain the same.

## **Greece**

In Greece the production of lignite declined over the last two years. This was not due to any market reduction, but to limited lignite reserves. The number of workers is in slight decline, due to the economic measures, which affected production. Electricity production had a steep reduction in 2014, which hit gas particularly hard, less so lignite. The electricity decline was due to new regulations that changed the Greek market model. The decline in gas was replaced in the market not by other fuels, but by electricity imports from Bulgaria: imports of electricity are normally about 4%, in 2014 they skyrocketed to 16%.

Lignite is the main fuel in Greece, with more than half of the electricity market, at 54%. In 2014, there was a problem with renewables, with PV production less than expected (it was cloudy), particularly in the last quarter. Energy consumption remained largely the same as in recent years, with a minor decline due to weather conditions (mild winter).

PPC, the main electricity producer in Greece, has a sales debt of over €2 billion, mainly overdue debt from households and small businesses (€1.4 billion) and government (€0.2 billion). 600,000 household consumers use special tariffs for low income families, up to a certain level of consumption. The turnover of the company is about €6 billion.

The market model changes in 2014 saw new gas-fired power plants lose protection that had been in place for the last five years. This led to a steep decline of gas-fired power plant output and an increase in imports of electricity, mainly from Bulgaria and some from Italy. Renewables subsidy accounts are again in the red: €230 million and growing. The deficit was supposed to be solved two years ago, but it seems that the economic remedies did not work. Renewable producers are paid now with a six months' delay.

In 2015, lignite mines will have problems with development because of environmental constraints, mainly archaeological and infrastructure relocation permits. Also, due to the economic therapy, new personnel

hiring is only 1/5 of retirements. That was a condition on Greek public companies, such as PPC, although it is listed on the Athens stock exchange.

The transition from Sector 6 to West Field pit produces leaner than anticipated lignite, which increases the lignite cost, expressed as €/GJ. Also, the present low oil and gas prices make lignite less competitive with modern CCGT plants.

## **Poland**

In 2014, Polish GDP growth was 3.3%, exports increased by 5.3% and imports increased by 5.6%, while industrial growth was 3.2%. Employment in the industry sector increased by 0.6%. Unemployment rate in Poland in December 2014 was 8%, which is 2% lower than the previous year. There was an improvement in the current account last year. In the mentioned period, the budget deficit amounted to PLN 25.4 billion, and was only 52.1% of the amount set in the budget for 2014.

Lignite reserves are evaluated at 22.5 billion tonnes, enough for 300 years of production at current rates. Reserves are widely distributed in Western Poland. Current concessions cover extraction for another 23 years, but more permits are necessary. Lignite production gradually increased and is now stable at 63.7 Mt, with Bełchatów mine as the biggest producer. The number of people employed has decreased steadily, to around 11 200 in 2014. Year-on-year, hard coal production decreased to 94.7% and lignite to 97.1%. In Q3 2014, coal plants supplied around 80% of the electricity market, a slightly decreased share. In terms of fuel consumption in the Polish electric power industry in Q3 2014, lignite slightly increased, while hard coal decreased.

*On new Polish legislation*, the President has signed a new law concerning shale gas. New rules are supposed to speed up the process of raw material extraction. The law states that companies which extract shale gas in Poland will pay special taxes beginning in 2020. Among the important amendments in the new law is the restoration of the support system for energy companies cogenerating electricity and heat, effective in March 2014. The President has also signed a law on coal quality standards. Admission of coal to the Polish market will be administrated by the Customs Service and the Trade Inspection, which will administer volume controls. There was an amendment to the Energy Law designed to ensure the application of the regulation of the European Parliament and the European Council from 25 October 2011, on the integrity and transparency of wholesale energy market (REMIT regulation). Provisions of the regulation are aimed to combat fraud in the wholesale market. The government has adopted a draft law on emissions trading that transfers to Polish law solutions for the whole European trading scheme for GHG emissions, together with the latest changes, e.g. commercial aviation. The main purpose of the regulation is to ensure that Polish installations covered by the EU ETS comply with the latest EU law.

*On company news*, in PGE GiEK SA Turów Power Plant Branch cornerstone was laid for the construction of installations to reduce emissions of sulphur oxides on blocks 4-6. Thanks to the new plant, production will meet the requirements of the EU Industrial Emissions Directive (IED) The use of wet desulphurisation technology for blocks 4-6 will reduce SO<sub>2</sub> emissions to a level below 200 mg/Nm<sup>3</sup>. An additional benefit of the technology will be to reduce dust emissions to the atmosphere. Transfer of all three FGD lines on blocks 4-6 is scheduled no later than 31 December 2015. PGE, Tauron, Enea and KGHM have signed an agreement for the purchase of shares in a new nuclear power plant. Its task will be to build the first Polish nuclear power plant with a capacity of about 3 GW. In PGE GiEK SA Gorzow Power Plant Branch, the construction of a CCGT power plant with a capacity of 138 MW was started; completion is scheduled for February 2016. The unit will be mainly supplied with local mine gas at prices significantly lower than network gas. In PGE GiEK SA Rzeszów Power Plant Branch a new cogeneration unit has been put into operation. The unit is generating electricity and heat based on internal combustion engines (reciprocating engines). Total electrical power of the block is approx. 29 MW – in turn, the heat output is approx. 27 MW. It will reduce the work of coal-fired boilers in winter and replace them completely in summer, which will reduce emissions of carbon dioxide and sulphur dioxide to the atmosphere.

Company PAK Górnictwo from the group ZE PAK has completed its study of the Oczkowice area, under an exploration concession for the Poniec-Krobia and Oczkowice areas. Resources may reach one billion tonnes. The brown coal deposit located near the Miejska Gorka and Krobia municipalities ranks among the richest in Poland. According to estimates, construction of the 10 Mt per year open pit mine will cost at least PLN 2.8 billion. PGE Gubin Sp. z o.o was combined with PGE GiEK SA to create a national leader in lignite mining and electricity production. Formally, since January 2015, the full potential of PGE GiEK SA, together with its financial and human resources, will be available to project "Gubin". PGE Gubin Sp. z o.o. has been established to prepare an investment in the new mining and energy complex and is now 100% owned by PGE GiEK SA.

PGE GiEK and the consortium of Mitsubishi Hitachi Power Systems Europe, Budimex, Tecnicas Reunidas Energia have signed a contract for the construction of a power unit with a net power of 450 MW at Turów Power Plant. This new unit at Turów is one project in the investment program of PGE Capital Group with a total value of approx. PLN 50 billion. During the period 2014-2020, PGE Group plans to spend approx. PLN 30 billion on for the construction of new and modernisation of existing generation assets.

### **Hungary**

The Hungarian GDP grew by approximately 3%, but the energy consumption remained stable at 950 PJ in 2014. The share of coal and lignite in primary energy consumption remained constant at around 15%. Compared to previous years, the electricity consumption has increased - currently around 40 TWh/year, of which 40% is covered by imports, the remaining 60% being ensured by domestic production. The share of lignite in the domestic electricity production is approximately 12-15%. Deep mines are no longer operating in Hungary, the last one being closed down at the end of 2014.

Domestic coal consumption is around 1.4 Mt/year, mostly used in coke ovens. Due to the growing demand of iron and steel production (increasing by 30% recently), coke oven coke consumption has increased by 10% compared to 2013. Lignite consumption did not change significantly in recent years.

The National Energy Strategy of Hungary has been revised by the government in recent times, according to which, electricity production will continue to rely on nuclear energy, coal and green energy (nuclear-carbon-green scenario).

### **Romania**

In Romania, the primary energy consumption from hard coal decreased from 0.934 in 2013 to 0.744 million tce in 2014, while lignite decreased from 5.810 to 5.529 million tce. However, the share of coal in net power supply increased from 51.7 TWh to 56.3 TWh.

Complexul Energetic Oltenia (Oltenia Energy Complex) is Romania's largest producer of coal based energy (99% of the national lignite production), with an installed capacity of 4,300 MW at Rovinari, Turceni, Isalnita, Craiova II and Braila power plants and twelve mining units in the Oltenia Coal Basin, with licenses for another 50 years. The company has 19,000 employees plus contractors. Currently, CE Oltenia is the only Romanian company that has facilities for slag and ash discharge in dense slurry and flue gas desulphurisation.

As a consequence of current legislation, market entry is highly disadvantaged for energy producers using conventional sources, as compared to those using renewable energy sources. At the moment, there are approximately 24,400 MW installed capacity in Romania, while consumption averages 7,000 MW and another 2,000 MW could be exported. Out of the 24,400 MW, more than 5,000 MW are renewable sources with priority access.

### **Slovakia**

Coal mining in Slovakia reached a maximum of 5.7 Mt and stabilised at around 2.3 Mt in 2012. In the coming years, production should be around 1.8-1.9 Mt. The overall economy of the country is doing

well, with a forecasted GDP of +3-5%, gradually declining by 0.8% per year. HBP (Hornonitrianske bane Prievidza, a.s.) is the biggest coal mining company in Slovakia, located in the middle of the country, with an annual production of about 2 Mt which represents 96-98% of the country's coal production – 2.2 Mt in 2014. There are three active collieries, the biggest being Nováky Colliery, with top-coal caving and slicing technique, or multiple slicing. Overall, the geological conditions are not very good for coal mining, longwalls having just 500 m and coal pillars 100 m. The company has to change the angle and height of longwalls to adapt to the geological conditions. This requires specialised machines, that HBP produces itself. In 2013, net profit was around €2.5 million, total revenues amounting to €141.5 million.

The share of thermal power electricity will decrease, while a new hydro-power dam will be built on Ipel River. However, other small waterpower stations are unlikely to be built due to environmental policy.

On *steam coal imports*, most came from the Donbass and Kuzbass regions, estimated in 2014 to be about 3.3-3.4 Mt. Over half of this coal was fired on hard coal power station Vojany 4, while the rest was used for home consumption and local heating. For 2015, the steam anthracite coal import from Ukraine and Russia is likely to decrease because of the war in the area, which makes the situation for power station Vojany difficult, because the coal cannot be replaced from Czech or Polish collieries.

The most significant development in recent years was the 11<sup>th</sup> mining field at Nováky. The overall investment of €37.25 million will allow the exploitation of 7.3 Mt of reserves. Coal extraction started in November 2009 and is estimated to continue until 2022. New projects include non-coal activities such as a greenhouse farm, the modernisation of Nováky power plant, a CHP plant and a biomass logistics centre). The modernisation of Nováky power plant is a major project developed with ENEL and based on construction of a new fluidised bed boiler at ENO A.

In 2015, HBP will close a colliery, but a new mining field is about to be brought into production and the capacity will remain the same as scheduled.

Slovakia is highly dependent on Russian oil and gas, so, in 2014, gas interconnectors were built with Hungary and the Czech Republic to diversify supplies. In the last four months, Russian gas deliveries were only 40% of agreed volumes. The decision taken ten years ago by the Slovakian government to use indigenous resources of energy is bearing fruit now, securing the energy supply of the country.

## **Slovenia**

2015 will be a challenging year for the Slovenian power plant Šoštanj and the coal mine Premogovnik Velenje, part of HSE group. HSE is known as one of two Slovenian energy pillars and includes power plants, coal mines and some hydro power plants (including the closed RTH mine and the TET power plant); overall, about half of the entire Slovenian electricity capacity. The major challenge will be debts and liquidity issues in the coming years. Financial plans are affected by low electricity prices. A capacity mechanism is discussed, but there is nothing concrete yet. Another problem is related to TEŠ Unit 6, a 600 MW investment done with ALSTOM. The technical operations were positive, full load operation was successful and normal production will start in mid-2015. However, there are legal and parliamentary investigations on the project financing.

On *major decisions*, the coal mine Rudnik Trbovlje Hrastnih (RTH), which was already in a closure procedure, was finally closed and stopped production in March 2014. 135 workers lost their jobs and the government is trying to help them, extending coal mine closures and increasing the budget for restructuring. There were strikes by miners at RTH mine and Premogovnik Velenje mine. The Trbovlje power station (TET) was also closed.

Electricity prices are a problem, because, although low for industry, they increased in recent years by 22% mostly due to taxes used to subsidise renewables.

**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
<b>cif-NW Europe</b>													
<b>Steam Coal</b>	<b>2013</b>	102.38	100.67	105.11	93.14	97.58	90.07	85.26	89.37	88.98	96.66	99.94	97.07
<b>(US\$ / tce)</b>	<b>2014</b>	95.48	93.45	85.59	90.45	88.07	85.40	84.02	88.85	88.87	84.83	84.27	84.62
<b>Steam Coal</b>	<b>2013</b>	77.05	75.36	81.08	71.50	75.17	68.29	65.18	67.14	66.66	70.89	74.07	70.83
<b>(EUR / tce)</b>	<b>2014</b>	70.16	68.41	61.92	65.49	64.13	62.83	62.06	66.73	68.88	66.94	67.57	68.63

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

**Freight Rates (USD /t)**

<b>R Bay/Rotterdam</b>	<b>2013</b>	7.48	6.90	6.36	6.24	6.65	7.89	8.77	9.69	14.16	13.29	10.24	14.93
<b>(Capesize)</b>	<b>2014</b>	8.43	8.09	10.71	8.96	8.26	8.69	8.38	10.06	10.58	9.63	11.10	5.93
<b>Newcastle/Rotterdam</b>	<b>2013</b>	14.24	14.60	13.49	12.86	14.48	16.49	17.67	18.70	24.45	23.88	19.79	25.77
<b>(Capesize)</b>	<b>2014</b>	15.64	15.01	19.69	16.62	16.18	16.38	15.86	17.60	18.23	17.44	18.68	11.22
<b>Bolivar/Rotterdam</b>	<b>2013</b>	9.95	9.68	8.88	8.50	8.55	9.51	10.76	10.29	15.81	15.02	12.50	16.47
<b>(Capesize)</b>	<b>2014</b>	11.49	9.11	12.58	8.96	9.44	10.28	8.75	9.05	9.76	9.94	12.24	6.85

Source: VDKI, Frachtcontor Junge & Co

**Currency Rates**

<b>USD/EUR</b>	<b>2013</b>	0.75	0.75	0.77	0.77	0.77	0.76	0.76	0.75	0.75	0.73	0.74	0.73
	<b>2014</b>	0.73	0.73	0.72	0.72	0.73	0.74	0.74	0.75	0.78	0.79	0.80	0.81
<b>USD/ZAR</b>	<b>2013</b>	8.79	8.87	9.19	9.10	9.33	10.00	9.93	10.06	10.00	9.90	10.21	10.36
	<b>2014</b>	10.86	10.96	10.74	10.54	10.41	10.66	10.66	10.66	10.98	11.07	11.1	11.5
<b>AUD/USD</b>	<b>2013</b>	1.05	1.03	1.03	1.04	1.00	0.94	0.92	0.90	0.93	0.95	0.93	0.90
	<b>2014</b>	0.89	0.90	0.91	0.93	0.93	0.94	0.94	0.93	0.90	0.88	0.86	0.82

Source: ECB; OECD

**Crude Oil (USD/Barrel)**

<b>Crude Oil</b>	<b>2013</b>	109.28	112.75	106.44	101.05	100.65	101.03	104.45	107.52	108.73	106.69	104.97	107.67
	<b>2014</b>	104.71	105.38	104.15	104.27	105.44	107.89	105.61	100.75	95.98	85.06	75.57	59.46

Source: OPEC Basket Prices

<b>WORLD SEABORNE COAL TRADE - STEAM COAL</b>			
<b>Exporting Countries</b>	<b>2014 (1-12) Mt</b>	<b>2013 (1-12) Mt</b>	<b>Diff. 2013/14 Mt</b>
<b>PACIFIC</b>			
Australia	198	184	14
China	5	6	-1
Indonesia	345	333	12
Vietnam	6	11	-5
<b>SUB-TOTAL</b>	<b>554</b>	<b>534</b>	<b>20</b>
<b>ATLANTIC</b>			
Colombia	74	73	1
Russia	136	114	22
South Africa	74	71	3
Venezuela	2	2	0
USA	27	42	-15
Others	6	9	-3
<b>SUB-TOTAL</b>	<b>319</b>	<b>311</b>	<b>8</b>
<b>TOTAL</b>	<b>873</b>	<b>845</b>	<b>28</b>
incl. Anthracite and PCI-Coal			
Source: VDKI, preliminary figures			

<b>WORLD SEABORNE COAL TRADE - COKING COAL</b>			<b>(inc. PCI-Coal)</b>
<b>Exporting Countries</b>	<b>2014 (1-12) Mt</b>	<b>2013 (1-12) Mt</b>	<b>Diff. 2013/14 Mt</b>
<b>Australia</b>	183	168	15
<b>Canada</b>	31	34	-3
<b>China</b>	1	1	0
<b>Russia</b>	17	13	4
<b>USA</b>	53	54	-1
<b>TOTAL</b>	<b>285</b>	<b>270</b>	<b>15</b>
Source: VDKI provis. Figures			

<b>EU CRUDE STEEL PRODUCTION</b>		
<b>COUNTRY</b>	<b>2014 (1-12) Mt</b>	<b>2013 (1-12) Mt</b>
Austria	7.9	7.9
Belgium	7.3	7.1
Bulgaria	0.6	0.5
Croatia	0.2	0.1
Czech Republic	5.4	5.2
Finland	3.8	3.5
France	16.1	15.7
Germany	42.9	42.7
Greece	1.0	1.0
Hungary	1.2	0.9
Italy	23.7	24.1
Luxembourg	2.2	2.1
Netherlands	7.0	6.7
Poland	8.6	8.0
Slovakia	4.7	4.5
Slovenia	0.6	0.6
Spain	14.2	14.2
Sweden	4.5	4.4
United Kingdom	12.1	11.9
Others	5.2	5.2
<b>EU-28 (rounded)</b>	<b>169.2</b>	<b>166.3</b>
Source: IISI		

**TABLE 5**

**EU Hard coal and lignite production and consumption**

COUNTRY	Hard coal production		Consumption of hard coal for power generation	
	1-12 2014 Mt	1-12 2013 Mt	1-12 2014 Mt	1-12 2013 Mt
Bulgaria**	0	0	2.0	1.7
Czech Republic	8.7	8.6	2.7	2.8
Germany	7.6	7.6	6.5	6.4
Poland	72.5	76.5	n.a.	40.1
Romania	1.5	1.8	n.a.	1.8
Spain	3.9	4.4	18.7	16.4
United Kingdom	11.5	12.8	38.4	50.0
<b>EU-28*</b>	<b>105.7</b>	<b>111.7</b>		<b>119.2</b>
Ukraine	65.0	83.7	31.6	

*\*large producers only*

*\*\*classification of Bulgarian hard coal production changed, now classified as lignite*

COUNTRY	Lignite production		Lignite consumption for power generation	
	1-12 2014 Mt	1-12 2013 Mt	1-12 2014 Mt	1-12 2013 Mt
Bulgaria**	32.6	28.6	31.2	25.5
Czech Republic	38.2	40.4	31.7	32.9
Germany	178.2	183.0	159.0	164.0
Greece	50.6	52.5	51.6	54.3
Hungary	9.5	9.5	9.0	9.4
Poland	63.7	65.7	63.0	64.9
Romania	22.0	22.9	22.0	21.9
Slovakia	2.2	2.2	2.2	2.2
Slovenia	3.7	4.4	3.7	4.2
<b>EU-28*</b>	<b>400.7</b>	<b>409.2</b>	<b>373.4</b>	<b>379.3</b>

*with italics are estimated figures*

*\*large producers only*

*\*\*classification of Bulgarian hard coal production changed, now classified as lignite*

**TABLE 6**

**EU Hard coal imports**

COUNTRY	Coking coal imports		Steam coal imports		Total hard coal imports	
	1-12 2014 Mt	1-12 2013 Mt	1-12 2014 Mt	1-12 2013 Mt	1-12 2014 Mt	1-12 2013 Mt
Austria	1.6		1.6		3.2	3.5
Belgium	2.2	2.3	2.2	2.9	4.4	5.2
Bulgaria	0.1	0.0	1.5	1.7	1.6	1.7
Croatia	0.0	0.0	1.0	1.2	1.0	1.2
Czech Republic	1.6	1.1	1.3	1.0	2.9	2.1
Denmark	n.a	n.a	n.a	n.a.	4.5	5.0
Finland	1.3	1.2	4.1	3.9	5.4	5.1
France	8.9	12.6	5.4	5.7	14.3	18.3
Germany	11.7	10.2	41.9	39.9	53.6	50.1
Greece	0.2	0.1	0.0	0.1	0.2	0.2
Hungary	1.3	1.3	0.0	0.0	1.3	1.3
Ireland	0.0	0.0	1.8	1.2	1.8	1.2
Italy	4.0	4.8	16.0	16.0	20.0	20.8
Netherlands	3.3	3.4	9.1	9.0	12.4	12.4
Poland	7.9	2.4	2.4	8.5	10.3	10.9
Portugal	0.0	0.0	4.4	4.2	4.4	4.2
Romania	n.a	n.a	n.a	n.a	0.7	0.9
Slovakia	3.4	3.8	3.3	3.3	6.7	7.1
Slovenia	0.0	0.0	0.4	0.5	0.4	0.5
Spain	1.7	2.5	13.0	11.0	14.7	13.5
Sweden	0.7	1.2	1.8	1.3	2.5	2.5
United Kingdom	6.3	6.2	32.0	43.2	38.3	49.4
Others						0.7
<b>EU-28</b>					<b>204.6</b>	<b>217.8</b>
Ukraine	1.6		14.7		16.3	

*with italics are estimated figures*

*Source: EURACOAL members, McCloskey, VDKi, national government statistics*