EURACOAL
European Association for Coal and Lignite
AISBL

EURACOAL Market Report 2019 no.1

May 2019

WORLD COAL MARKET DEVELOPMENTS

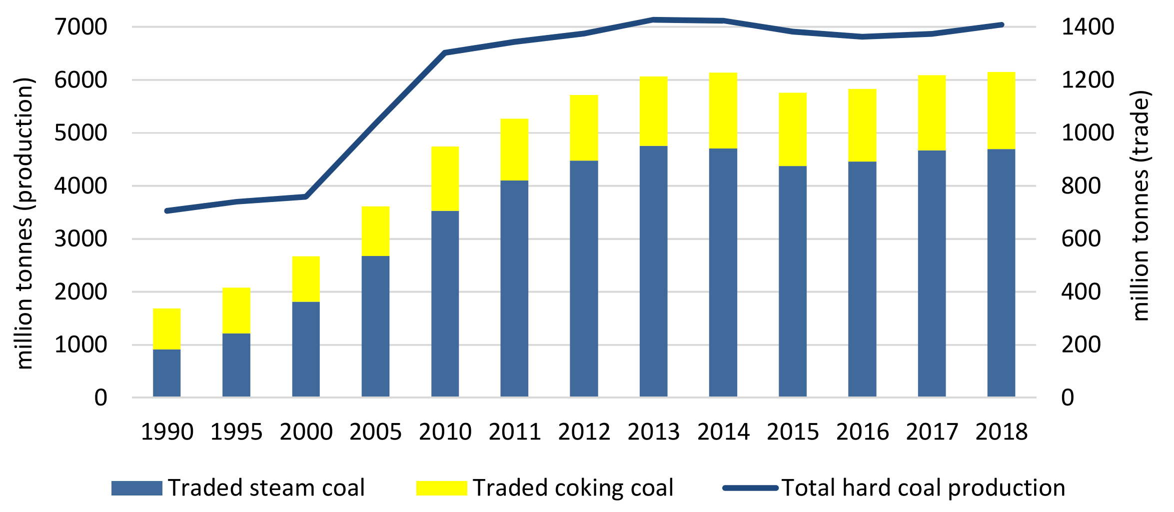
Global Coal Trade

Global coal production grew 2.5% to an estimated 7.04 Gt in 2018. India (720 Mt, +6%) overtook the USA (685 Mt, -3%) to become the second largest producer after China (3 546 Mt, +3%). China continues to close small, inefficient coal mines (100 Mtpa in 2018), but opened new mines with a capacity of 200 Mtpa which allowed production to increase in 2018. The production figure for Indonesia (458 Mt, +10%) excludes around one hundred million tonnes of lignite. There, President Widodo has sent mixed messages on future coal production, but may favour domestic use over exports.

Global seaborne coal trade grew 4.6% to 1.23 Gt, dominated by exports from Australia (386 Mt, +4%) and Indonesia (343 Mt, +8%) – see Tables 2 and 3.

Global crude steel output increased in 2018 by 4.6% according to the World Steel Association. Output fell in the EU by 0.6% to 167.6 Mt (Table 4).

Global seaborne hard coal trade and hard coal production



Sources: IEA; VDKI; IHS Markit

Coal Prices

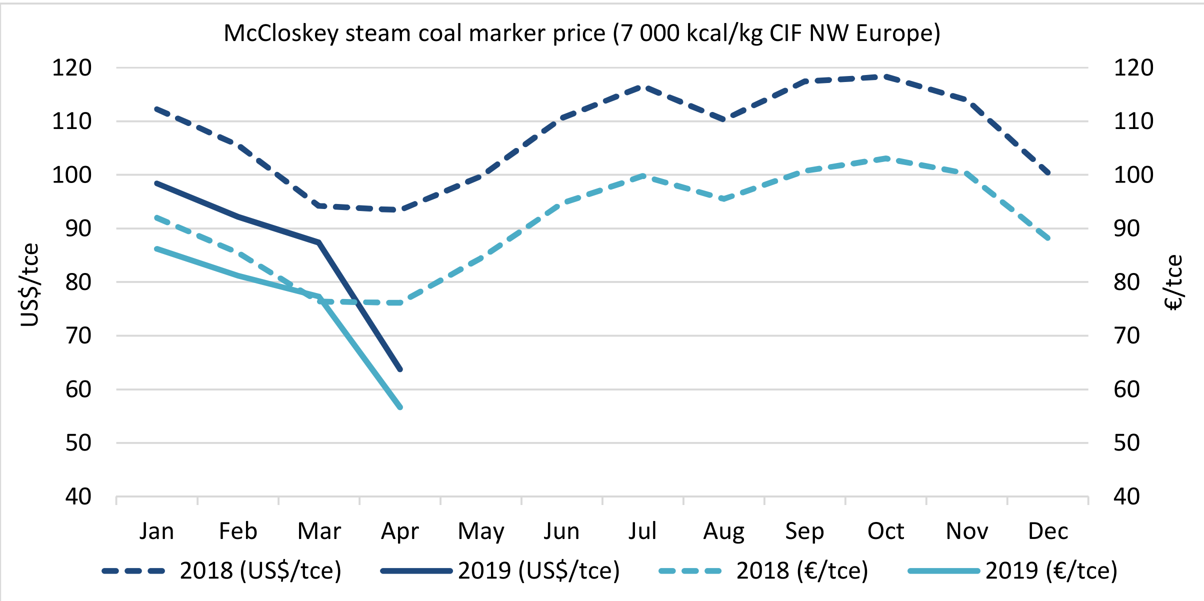
Steam coal prices slumped during the first quarter of 2019, with benchmark prices around the world falling to levels not seen since 2016 in some cases. For example, steam coal prices in Europe fell to around 55 US$/tonne in early April, having started the year at about 85 US$/tonne (Table 1). Prices in Asia recovered as the Chinese government reacted to maintain steam coal prices at Qinhuangdao port within a price band that protects Chinese coal producers. At the same time, China restricted imports, perhaps for strategic reasons, but also as a political signal to Australia following the exclusion of Huawei from the country's 5G network. Nevertheless, figures to March 2019 suggest coal imports are broadly consistent with plans announced in 2018 by the National Development and Reform Commission – China's state planning agency – to limit annual imports to around 280 Mt.

The downturn in coal prices started in Europe where falling industrial output in Germany, some unseasonably warm weather, higher renewables power generation and an oversupply of LNG hit natural gas prices and ultimately demand for coal. This led to a coal supply glut, forcing Colombian and Russian producers to sell more coal to Asia. These factors led to growing coal stocks in Europe, with 8 Mt on stock at ARA ports compared with a more normal 5 Mt.

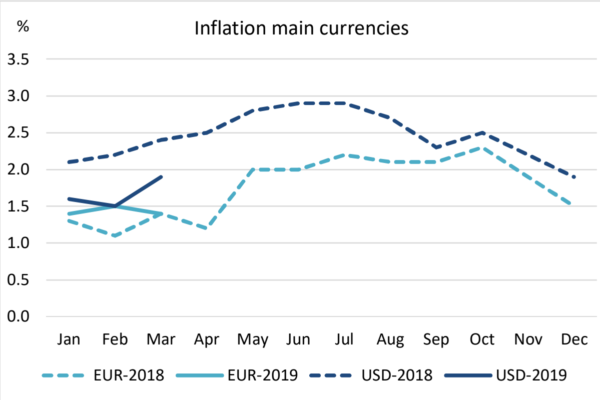
In contrast, metallurgical coal prices were relatively stable in 2018, starting the year at just over 250 US$/tonne, drifting down to 175 US$/tonne in August and recovering by year end to around 200 US$/tonne (FOB) for Australian prime hard coking coal.

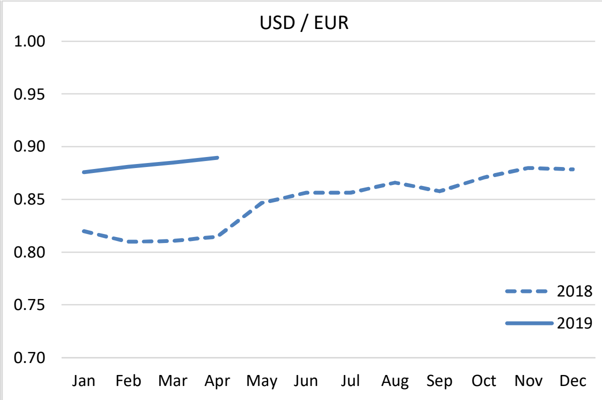
The OPEC Reference Basket (ORB) oil price went up from around 67 US$/bbl at the beginning of 2018 to reach around 79 US$/bbl in October before collapsing by year end to around 57 US$/bbl (Table 1).

On the gas market, LNG prices in Asia fell below European pipeline gas for the first time which has worrying competitiveness implications for coal. Of even more concern to the coal industry is that LNG prices on an energy basis have dropped below coal prices, following an apparent delinking of oil and gas prices in 2019.

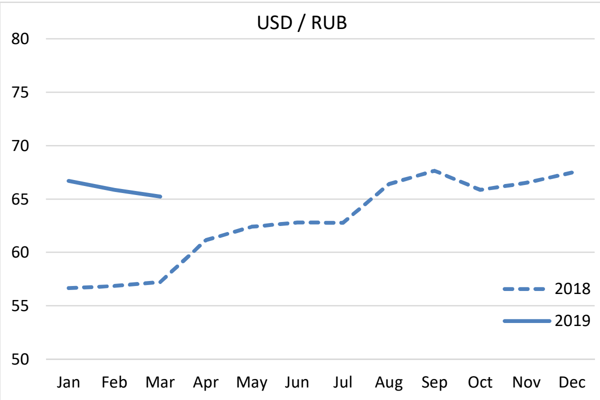


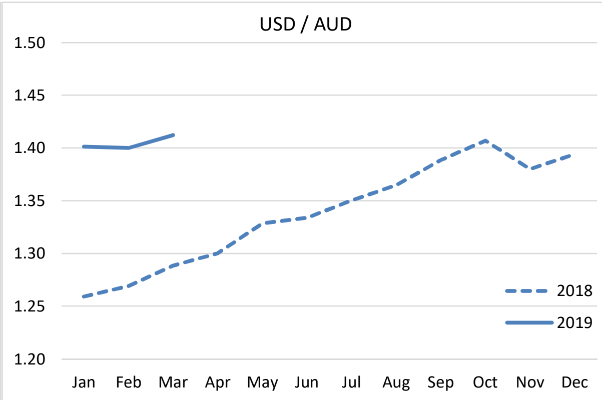
Source: IHS Markit (McCloskey first week quotation of the month, basis 6 000 kcal/kg converted to 7 000 kcal/kg)





Sources for inflation: ECB; US Bureau of Labor Statistics

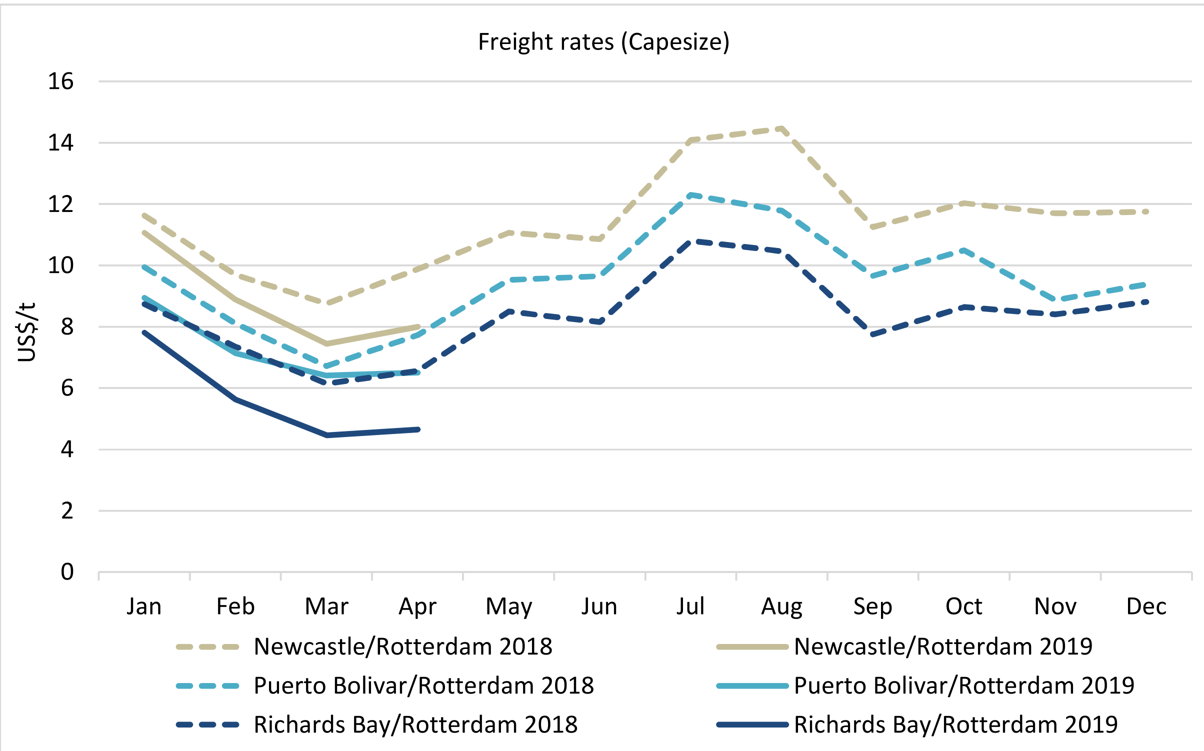




Sources for exchange rates: ECB, BoE and OECD

Freight Rates

Freight rates fell sharply in the first quarter of 2019, although rates from Murmansk port in Russia to northwest European ports firmed.



Source: Clarksons

EU COAL MARKET[1]

	2018 (1-12) Mt	2017 (1-12) Mt
Hard coal imports	165.9	171.8
Hard coal production	75.7	80.7
Lignite production	366.8	382.6

Coal production in the European Union fell in 2018: hard coal production was 75.7 Mt (-6.1% compared with 2017) and lignite production was 366.8 Mt (-4.1%). Coal imports were also lower at 165.9 Mt, 3.5% less than 2017. Steam coal demand suffered as less coal was used for power generation: estimated to be 9% lower in 2018 compared with 2017. Lignite-fired power generation fell by 3%. Overall EU electricity generation fell by an estimated 0.3%.

Carbon Prices

European carbon allowances prices tripled in 2018 and have continued rising in 2019 to reach 27 €/EUA in mid-April – the month when European power utilities and industrial companies must surrender allowances to cover their emissions over the previous calendar year. At these levels, the carbon cost of burning a tonne of lignite to generate electricity is similar to the cost of mining that same tonne of lignite. With such a dramatic and rapid rise in input costs, many power utilities in the EU are experiencing financial difficulties.

The recent reform of the EU Emissions Trading System Directive, concluded in early 2018, is the reason for higher carbon prices. The annual cap will now decrease at a steeper rate, meaning an absolute decrease of 48 million allowances every year from 2021. Note that the supply of allowances was around 1 500 million in 2016, with some analyses showing 1 700 million allowances still in the market from previous years. From 2019, the market stability reserve (MSR) will cut annual auction volumes by an estimated 400 million allowances during its first two years of operation. Then, in 2023, the cancellation of allowances from the MSR will permanently remove up to 2 400 million allowances.

Hard Coal

Country	2018 (1-12) Mt	2017 (1-12) Mt
Czech Republic	4.5	5.5
Germany	2.8	3.8
Poland	63.4	65.5
Spain	2.5	2.8
United Kingdom	2.6	3.0
Total	**75.7**	**80.6**

Czech Republic

Although GDP growth has slowed, the Czech economy still grew by almost 3% in 2018 and is expected to grow by over 2% in 2019. The unemployment rate is low at around 3%.

[1] All European coal production and trade data come from EURACOAL members or government sources.

Hard coal production declined to 4.5 Mt (-18%) in 2018 while hard coal imports in 2018 were 3.4 Mt (-8.0%), balanced by exports of 1.9 Mt (-18%). Coke production increased by 2% to 2.6 Mt. The staffing level reduced by 5% to 6 757 persons.

2018 was marred by a terrible accident at the ČSM North Mine on 20 December 2018 which cost the lives of thirteen miners.

It was announced that coal extraction from the OKD Lazy Mine will end by 31 October 2019 due to depletion. To recover coal from the Ostrava coal seams would require the existing shaft at Lazy mine to be deepened by almost 500 metres which is not considered economic.

Germany

Germany's energy consumption dropped in 2018 by 3.5% compared with 2017 to 442.3 Mtce. This was the lowest level since the early 1970s. As only energy production from renewable energy sources grew, a decline in energy-related CO_2 emissions of 4.8% is anticipated.

Germany's decreased energy consumption was primarily due to increased energy prices, mild weather and improvements in energy efficiency. Economic growth and population growth slowed, so became less relevant to energy consumption trends in 2018. Without the impact of milder weather, energy consumption would have fallen by only 2.4%.

Hard coal production in Germany definitively ended in December 2018. Production in 2018 was 2.8 Mt, a 28.0% fall in comparison with 2018. Hard coal consumption decreased by 11.2% in 2018. The use of hard coal for power generation and heat supply exhibited a particularly strong decline of over 16%. The increase in both power generation from renewables as well as increases in input costs, particularly CO_2 allowance prices, contributed to this large decline. The uncertainty of wind power output was an ongoing problem for scheduling coal at power plants, both in 2017 and 2018. The consumption of coke and coking coal in the German steel industry fell in 2018.

There was a significant fall in German imports of hard coal, coke and other coal products to 46.7 Mt in 2018 (-9.2%), including a 12% fall in steam coal imports. Russia dominated coal imports into Germany, with a 41% share in 2018 (55% of steam coal imports), at the expense of Colombia. US imports remained competitive, sometimes blended with other coals. Australia remained the largest exporter of coking coal to Germany with a 42% share in 2018.

Natural gas consumption also exhibited a downward trend in 2018, decreasing by 1.6%. After a cold start in the first quarter of the year, higher temperatures led to decreased consumption for space heating over the remainder of the year.

Compared with 2017, nuclear power generation exhibited a slight reduction of 0.4% in 2018, while renewable power generation grew by around 6%. Wind energy grew 5.6%; solar PV grew 16.5%, but low precipitation saw a drop of almost one-fifth in hydropower.

Poland

Hard coal production in Poland in 2018 was 63.4 Mt (-3.2%) – this being by far the largest of any EU member state, but less than 1% of global coal production.

Exports of high-quality Polish coal collapsed from 6.3 Mt in 2017 to 3.9 Mt in 2018 (-38%) as domestic demand took precedence. This has meant big changes at the 65-year old Węglokoks SA which is now focussed only on overland sales to the EU (CZ, AT, DE, SK) and other countries, as well as domestic sales of imported coal and coal from its own mine, the merged KWK Bobrek-Piekary Ruch Bobrek. Coal imports to Poland increased to 19.7 Mt (+46.8%) in 2018 – the highest ever – as buyers ensured supplies. Two thirds came from Russia (+4.8 Mt). Increasing demand from the power sector has seen imports surge to eventually meet demand at the end of 2018 and beginning of 2019.

A mild winter, more electricity from wind turbines and capped electricity prices all put pressure on coal-fired power plants and meant that coal stocks grew.

In October 2018, PGE GiEK concluded a contract amendment with the consortium of companies (Polimex-Mostostal, Rafako and GE Power) which is constructing two 900 MW units (Nos. 5 and 6) at the Opole power plant. The commissioning dates for these units were delayed to June and September 2019 respectively. Earlier, in July 2018, Energa Elektrownia Ostrołęka SA signed a contract with GE Power for the construction of a new 1 000 MW power unit at the Ostrołęka power plant, located about 100 km northeast of Warsaw. The construction of another new 910 MW unit (No. 3) is nearing completion at the Tauron Jaworzno coal power plant in Silesia.

Spain

Spanish coal production in 2018 was 2.5 Mt, a 12.1% decline on 2017, and imports stood at 15.7 Mt (-18.2%).

In June 2018, the government changed from the second conservative Rajoy government to the socialist Sánchez government. Within days of taking office, the new Minister for Ecological Transition presented the government's position on coal. In October, unions, coal companies and the government signed a new agreement worth €250 million for a coal transition, with good terms for coal miners and a solution for the remaining mining companies who would receive state aid for closure and restoration from 2019 to 2027. For those companies wishing to continue production, there would be flexibility on the return of previously paid state aid. A commission was put in place to oversee the execution of this agreement. By December, negotiations had broken down due to a change of criteria by the government on the return of state aid and also because thermal power plants refused to buy indigenous coal for 2019. Coal production at underground and open pit mines therefore ceased from 1 January 2019, other than from the small San Nicolás underground coal mine located in the Lleros de Abajo valley near Mieres in Asturias which produces up to 200 ktpa for heating plants and for the nearby 15 MWe La Pereda experimental power plant. Over 1 000 people are employed by HUNOSA at these operations. The lost Spanish indigenous coal production will have to be covered by more imports or replaced with gas.

United Kingdom

On 19 March 2019, West Cumbria Mining was granted planning permission for a new coking coal drift mine: Woodhouse colliery with a potential output of 3 Mtpa.

A massive growth in renewable energy, principally offshore wind, saw all other sources of electricity generation decline in 2018, especially coal which accounted for only 5.5% of electricity supply. Gas has become the main balancing fuel during winter peaks.

Coal production declined to 2.6 Mt (-14.0%) in 2018 and imports grew to 9.9 Mt (+17.1%) with Russia and the USA each accounting for around one third. UK coal stocks remain high relative to consumption.

A policy issue of concern to the UK coal industry is whether or not the UK government will ban the use of house coal, even though wood fires are more polluting on an energy basis. A statement is expected in the autumn.

Lignite

Country	2018 (1-12) Mt	2017 (1-12) Mt
Bulgaria	30.3	34.4
Czech Republic	39.2	39.3
Germany	166.3	171.3
Greece	36.5	37.7
Hungary	7.9	8.0
Poland	58.5	61.0
Romania	23.5	25.7
Slovakia	1.5	1.8
Slovenia	3.2	3.4
Total	**366.8**	**382.7**

Bulgaria

Lignite production in Bulgaria fell 12.0% in 2018 to 30.3 Mt. Mini Maritsa Iztok EAD, a subsidiary of the state-owned Bulgarian Energy Holdings EAD, is by far the country's largest coal producer. In 2019, the company's business plan foresees lignite production of 27.5 Mt, requiring the removal of 95 million cubic metres of overburden. The company's coal mines in south-eastern Bulgaria sell their output mainly to three thermal power plants located nearby: one owned by ContourGlobal, one by AES and one state-owned. These and other coal power plants generate around 45% of Bulgaria's electricity output.

Czech Republic

Brown coal production in the Czech Republic was stable in 2018 at 39.2 Mt, 0.3% lower than 2017. Brown coal companies contributed to total production as follows: Severočeské doly 20.9 Mt (-3%), Sokolovská uhelná 6.8 Mt (-1%), Vršanská uhelná 7.8 Mt (+3.5%) and Severní energetická 3.7 Mt (+14%). The number of employees in Czech brown coal mining decreased by 2% to 7 144 persons. Looking to the future, Sokolovská uhelná plans to recover 40 Mt of coal from its Jiří surface mine between 2020 and 2030.

Together, coal and brown coal power plants supplied 41.2 TWh or 47% of total Czech power generation in 2018. By 2035, the country's largest utility, ČEZ Group, expects to close more than half of its coal-fired units which currently total 4.64 GW. In 2020, the majority state-owned company plans to close coal units at Prunéřov 1, Mělník 2 and Mělník 3 (totalling 1 GW).

In 2018, Czech households had to come to terms with rising prices for electricity, heat, water and gas. Household electricity tariffs that had not been fixed in contracts rose by 8-10% in 2018, mainly due to rising coal prices and the dramatic surge in EUA prices. In response, the Czech government reduced the VAT rate for heating and cooling from 15% to 10% in December 2018.

The country's National Energy and Climate Plan, as submitted to the European Commission, includes the phasing out of coal combustion, a gradual closing down of coal-fired power stations and a transition to cleaner fuels for households. However, the plan does not set out any specific measures or deadlines for power station closures or end dates for coal use, or any carbon taxes or increases in royalties.

Following in Germany's footsteps, the Czech Environment Minister announced on 17 March 2019 that he would establish a commission to phase out fossil fuels for power generation, giving preference to nuclear and renewables. The outcome of this process will be used to update the current Czech energy policy at some future date.

In February 2019, the government postponed a discussion on amending the Mining Act. The act has a five-year moratorium on royalty increases (until 2021) and an obligation from 2035 to maintain financial provisions for mine reclamation. At the beginning of April, the Ministry of Industry and Trade and the Czech Mining Authority prepared a new amendment to revoke the moratorium, to allow royalties to be set annually, and bring forward the requirement on financial provisions to 2025. Negotiations continue.

Germany

Lignite production in Germany was 166.3 Mt in 2018 (-2.9%). Trends in the individual mining districts varied: in Central Germany (+2.2%) the extracted coal volume was higher due to the improved availability of power plants. In the Rhineland area (-5.4 %) and Lusatia (-0.8 %), however, production fell below the levels achieved 2017. Rhenish production will drop with the revised mining plan at Hambach mine to preserve an adjacent forest. Employment in the lignite industry fell by forty employees to 20 851. In total, more than 70 000 competitive jobs are secured by lignite mining and power generation in Germany.

Lignite consumption fell for the sixth year in a row in 2018. The decline in 2018 was 2.9% as lignite-fired power generation fell due to the transfer of power plant units into a strategic reserve for backup purposes – eight units since October 2016. The use of lignite for power generation will decrease by a total of 13% by 2020, when compared with 2015.

Electricity generation from coal and lignite thus fell – their combined share being 35.4% in 2018 and so still just above the share of renewables (35.0%). Wholesale electricity prices rose sharply in 2018, from around €35/MWh to €55/MWh (base load) on account of higher carbon prices which now make up half of the power price and put generation margins under pressure.

The recommendations of the Commission on Growth, Structural Change and Employment (*Kohlekommission*), published in January 2019, are for 15 GW of lignite and 15 GW of hard coal power generation capacity in 2023, dropping to 9 GW and 8 GW respectively in 2030 and zero in 2038. The lignite industry has mining plans to the mid-2040s. The debate will continue with the German federal and state governments on details such as whether hard coal power capacity should bid for contracts to close, as suggested by the *Kohlekommission*, and support measures for the lignite regions. The climate protection law, as foreseen by the end of 2019 in the coalition government agreement, is progressing, with a leaked draft suggesting sector targets, although the commission on transport has not reached conclusions and another on buildings is moribund.

Greece

Economic growth in Greece has been stable and positive for two years, albeit low, after some dire years following the economic crisis. Unemployment is falling, but still high at 18% at the end of 2018.

Lignite production by the Public Power Corporation (PPC) in 2018 was 34.6 Mt (-2%) and is expected to be 32.5 Mt in 2019. Independent producers add around 2 Mtpa to these figures.

In 2018, lignite-fired power generation fell by 9% to account for 29% of total power generation in Greece of 51.8 TWh (excluding the isolated islands). Lignite's share is expected to fall again to 26% in 2019, because of: environmental restrictions on old lignite units, low gas prices, a steady increase of RES production, low prices of imported electricity, increased lignite production costs, and increased prices of EU ETS emission allowances which cannot be easily passed through to consumers.

Employment at PPC lignite mines and power plants fell to 6 094 (-2.8%).

Today, PPC has fourteen lignite units in operation with an installed capacity of 4 337 MW. Six units with a total capacity of 1 812 MW are at risk of being decommissioned (four in May 2019), due to the exhaustion of their 17 500 hour limited life derogations under the IED. A new 660 MW lignite unit at Ptolemais is under construction with operation expected in 2021.

The divestment procedure for Meliti 1 and option for a new Meliti 2, as well as Megalopoli 3 and 4 and all related assets and resources is ongoing for a second time in order to create a more competitive electricity market. Six enterprises are participating in the new tender with completion of the sale scheduled for June 2019.

Hungary

Lignite production in Hungary declined to 7.9 Mt in 2018, 1.3% less than in 2017 and accounted for 14.4% of total domestic energy production (nuclear accounts for half). Mátrai Erőmű Zrt. is the only significant producer, supplying its own power plant. Coal imports declined by around 10% to 1.5 Mt, including both coking coal and steam coal. One third of electricity is imported.

The capacity utilisation of Mátra power plant fell to 68.8% in 2018, meeting 11% of electricity demand. High EU ETS allowance prices meant the plant could not run at baseload, but had to earn income during periods of peak demand which put additional stresses on the plant. The plant accounts for 50% of Hungary's industrial CO_2 emissions and 11% of national emissions.

After losing money in 2017, higher power prices and low output from wind turbines helped Mátrai Erőmű returned to pre-tax profitability in 2018 under a new ownership structure, including Opus Global, for its lignite mines and 966 MW power complex. In 2018, the company closed one of its mines and sold its 16 MW solar PV park at Visonta. It plans to sell another 40 MW of new solar PV capacity generation in 2019, having commissioned 20 MW of this in mid-February at Bükkábrány.

The Hungarian government's current plan foresees approximately 4 GW of nuclear power and 3-4 GW of solar PV, but recognises that production from the latter is not synchronised with demand and the overall reduction in system inertia will make frequency regulation more difficult.

Mátrai Erőmű forward purchased the EU ETS allowances it requires through to 2020, so has been somewhat insulated from the steep rise in carbon prices and has even been able to sell surplus allowances. However, its power station has been losing money during periods of volatile demand because of balancing penalties imposed by MAVIR, the Hungarian electricity system operator. This is because the ramp rate on its lignite units is limited to 2 MW/min, up and down.

Mátrai Erőmű wants to operate its three most modern lignite units, totalling over 600 MW, until 2029. Two smaller 100 MW units will close at the end of 2019 or in 2020 as they will not meet EU emission regulations. A 30 MW RDF/biomass boiler is planned for completion by the end of 2021 to meet the future demand for steam heating once the lignite units are closed. It will consume around 400 thousand tonnes of solid fuel each year. In addition, Mátrai Erőmű is planning a 500 MW gas-fired unit for balancing purposes.

By 2030, the Mátra power plant should be a 1 600 MW complex, comprising a 500 MW gas plant, 100 MW biomass, 30 MW RDF, 600 MW of storage capacity and 400 MW of solar PV built on the opencast ignite mine sites at Bükkábrány and Visonta. The exact form of energy storage capacity has not yet been decided, but already 40-50 MW of battery storage are planned followed later by more capacity, perhaps based on thermal storage and smaller pumped hydro projects of 30-50 MW. In this way, Mátrai Erőmű expects to maintain its current share of the Hungarian electricity market.

The new Hungarian *National Energy Strategy* is well aligned with EU climate and energy policy. It addresses a number of challenges, such as the integration of renewables, closure of coal plants over the next decade, high gas import dependency (>80%) and the security of gas supply routes.

The Hungarian parliament adopted the government's *Action Plan for the Resource Management and Utilisation of Energy Resources* (Decree 1345/2018) which is positive towards coal exploitation and clean coal technologies. As a result, the government plans to issue a small lignite concession in the area of Sajókápolna.

Poland

The gross domestic product of Poland increased in real terms by 5.1% in 2018 and electricity consumption grew by 1.7%. Nevertheless, lignite-fired electricity generation fell from 52.0 TWh in 2017 to 49.1 TWh in 2018 (-5.6%). Lignite production similarly fell from 61.1 Mt in 2017 to 58.5 Mt in 2018 (-4.3%).

In March 2018, PGE GiEK – a subsidiary of Polska Grupa Energetyczna (PGE) – received the administrative decision of the Regional Directorate of Environmental Protection (RDOŚ) in Łódź on environmental conditions for the propoed Złoczew lignite mine. In April 2018, this decision was challenged by Greenpeace Polska. In July and November, RDOŚ in Łódź twice postponed its opinion on the challenge. In October 2018, RDOŚ in Poznań once again postponed the deadline for reconsidering the application for an administrative decision on environmental conditions for the Ościsłowo lignite mine proposed by ZE PAK Konin, a private company.

At the PGE GiEK Turów power plant, a new 490 MW unit is under construction. The planned completion date of this investment is April 2020.

In November 2018, the Polish Ministry of Energy published its draft *Polish Energy Policy to 2040* for pubic consultation. The *National Plan for Energy and Climate for 2021-2030* submitted to the European Commission is in line with this draft energy policy. According to the draft, the government assumes that electricity from Poland's first nuclear power plant will be supplied by 2033. The final document will be submitted to the European Commission by the end of 2019.

In December 2018, the Polish President signed an amendment to the Excise Tax Act. This provides for a programme of measures to stabilise electricity prices in 2019. The Act applies to all 17.5 million Polish electricity consumers, including households and businesses.

Romania

Coal production in Romania declined in 2018 by 8.6% compared with 2017 to 23.5 Mt. Electricity production grew by over 2% to meet a similar growth in demand, but output from thermal power plants (coal and gas) fell by around 6%.

In September 2018, the Romanian Ministry of Energy finalised for approval its proposed *Energy Strategy 2018-2030*. Although this shows a reduction in the share of coal in the electricity generation mix to 20.6% in 2030, the annual coal output is the same in 2030 as in 2018. Based on this "keep-coal" strategy, a *National Energy and Climate Plan* had been submitted to the European Commission.

In December 2018, the Romanian government announced regulated price caps for domestic consumers of gas and electricity from May 2019 – a market which had been fully liberalised. A mixed solution is proposed for industrial consumers. An additional tax of 2% is to be levied on the revenues of all licenced power companies.

In the first nine months of 2018, Oltenia Energy Complex, the county's second largest utility company, covered 22% of the power market and about 40% of the required system services. Wholesale electricity prices rose in 2018 by >20% to reach €150/MWh, because dry weather reduced output from hydro power plants and the price of carbon allowances increased significantly. The increase in EU ETS allowance prices from €5/tCO_2 to €25/tCO_2 badly affected Oltenia's financial situation with an estimated loss of €200 million for 2018 as these costs could not be passed through.

Construction of Romgaz's €270 million 430 MW gas-fired CCGT power plant began in 2018 at Iernut, partly funded by EUA auction revenues. When completed in June 2020, the plant will alleviate a generation deficit in northern Romania.

Slovakia

GDP growth in Slovakia is forecast to be a very healthy 3.5% in 2019, but could be hit by Brexit if car exports to the UK are in some way restricted. Unemployment is low and falling. In 2018, total electricity production was an estimated 25.5 TWh with around 5% from lignite (1.1 TWh). Nuclear accounted for the largest share at 55% (14.0 TWh). Coal use will decrease in the coming years, because of state aid rules. Aid, including compensation for EUA costs, is granted in the general public interest to maintain electricity supply security, but will now only continue until 2023, rather than the previously agreed 2030. This may result in the premature close of the three remaining mines. Coal production in 2018 fell by 17.4% to 1.5 Mt. Čary lignite mine has 40 Mt of accessible reserves remaining and alternative uses, such as fertiliser, may offer an opportunity if energy use is curtailed.

The HBP company continues its now successful diversification activities with the large-scale production of fish (1 000 tpa), tomatoes (1 950 tpa or 20% of Slovak production) and cucumbers. Geothermal energy from abandoned mines and boreholes is used in the fish farm and greenhouses. Plans will see this business double in size.

Slovenia

The only operating lignite coal mine remaining in Slovenia is owned by Premogovnik Velenje d.o.o. – a subsidiary of the state-owned utility, Holding Slovenske elektrarne d.o.o. (HSE). In 2018, lignite production in Slovenia fell by 4.2% to 3.2 Mt. 2019 is Premogovnik Velenje's 144th year and has seen the production of its 250th million tonne of lignite coal from its underground mine at Velenje in the Šaleška dolina valley. The company continues to invest in research and development of the mining technologies that will be needed to maintain its productivity and competiveness. It plans to mine lignite, which is mainly used for electricity generation at an adjacent power plant, until 2054.

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TABLE 1

Evolution of world market prices for coal, freight and crude oil

McCloskey steam coal marker price (7 000 kcal/kg)

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
steam coal	**2018**	112.23	105.54	94.21	93.45	99.75	110.58	116.55	110.28	117.41	118.35	113.97	100.42
(US$/tce CIF NW Europe)	**2019**	98.40	92.17	87.38	63.71								
steam coal	**2018**	92.01	85.47	76.37	76.13	84.45	94.69	99.80	95.50	100.71	103.06	100.27	88.20
(€/tce CIF NW Europe)	**2019**	86.19	81.20	77.32	56.69								

Source: IHS Markit (McCloskey first week quotation of the month, basis 6 000 kcal/kg converted to 7 000 kcal/kg)

Freight rates (US$/t)

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Richards Bay/Rotterdam	**2018**	8.74	7.35	6.15	6.56	8.50	8.15	10.81	10.46	7.75	8.64	8.40	8.81
(Capesize)	**2019**	7.81	5.63	4.46	4.62								
Queensland/Rotterdam	**2018**	11.63	9.69	8.76	9.88	11.06	10.86	14.09	14.46	11.25	12.03	11.70	11.75
(Capesize)	**2019**	11.06	8.88	7.45	8.03								
Puerto Bolivar/Rotterdam	**2018**	9.94	8.10	6.72	7.73	9.53	9.65	12.30	11.78	9.66	10.49	8.87	9.38
(Capesize)	**2019**	8.94	7.13	6.41	6.73								

Source: Clarksons (monthly averages from weekly data)

Currency rates

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
USD / EUR	**2018**	0.82	0.81	0.81	0.81	0.85	0.86	0.86	0.87	0.86	0.87	0.88	0.88
	2019	0.88	0.88	0.88	0.89								
USD / RUB	**2018**	56.64	56.84	57.20	61.13	62.39	62.80	62.78	66.39	67.65	65.85	66.52	67.47
	2019	66.70	65.84	65.21	64.66								
USD / AUD	**2018**	1.26	1.27	1.29	1.30	1.33	1.33	1.35	1.36	1.39	1.41	1.38	1.39
	2019	1.40	1.40	1.41	1.41								

Sources: ECB Euro foreign exchange reference rates; Bank of England database; OECD.Stat Monthly Monetary and Financial Statistics (MEI) dataset

Crude oil (US$/barrel)

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
crude oil	**2018**	66.85	63.48	63.76	68.43	74.11	73.22	73.27	72.26	77.18	79.39	65.33	56.94
	2019	58.74	63.83	66.37	70.73								

Source: OPEC Reference Basket (ORB) price

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World seaborne coal trade

TABLE 2

Steam coal				
exporting country	**2018 (1-12)** **Mt**	**YoY change *c.f.* 2017** **Mt**	**%**	**2017 (1-12)** **Mt**
PACIFIC				
Australia	207.7	7.8	3.9%	199.9
Canada	0.3	-1.2	-78.8%	1.5
China	6.6	0.8	14.4%	5.8
Colombia	7.7	1.5	24.1%	6.2
Indonesia	338.5	20.5	6.5%	318.0
Russia	78.2	-0.4	-0.5%	78.6
South Africa	66.9	0.0	0.0%	66.9
USA (exc. Canada)	26.8	10.4	63.6%	16.4
sub-total	732.7	39.4	5.7%	693.3
ATLANTIC				
Canada	0.5	0.0	-7.1%	0.5
Colombia	72.3	-4.7	-6.1%	**77.0**
Indonesia	4.3	-1.2	-21.6%	5.5
Russia	94.2	7.1	8.1%	87.1
South Africa	14.1	-1.9	-11.8%	16.0
USA (exc. Canada)	21.4	1.0	5.0%	20.4
sub-total	206.8	0.4	0.2%	206.5
others				
total	**939.5**	**39.8**	**4.4%**	**899.8**

steam coal data includes anthracite

TABLE 3

Coking coal				
exporting country	**2018 (1-12)** **Mt**	**YoY change *c.f.* 2017** **Mt**	**%**	**2017 (1-12)** **Mt**
Australia	178.8	1.6	0.9%	**177.2**
Canada	30.2	1.8	6.2%	28.4
China	1.1	-1.2	-53.1%	2.3
Russia	26.4	3.6	15.8%	22.8
USA (exc. Canada)	51.6	5.2	11.1%	46.4
others	2.7	-0.1	-4.4%	2.8
total	**290.6**	**10.7**	**3.8%**	**279.9**

Source: IHS Markit McCloskey and own calculations

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TABLE 4

EU crude steel production

COUNTRY	2018 (1-12) Mt	YoY change *c.f.* 2017	2017 (1-12) Mt
Austria	6.9	-15.4%	8.1
Belgium	8.0	3.6%	7.7
Bulgaria	0.7	2.2%	0.7
Croatia	0.1	-	0.0
Czechia	4.9	8.5%	4.6
Finland	4.1	3.6%	4.0
France	15.4	-0.8%	15.5
Germany	42.4	-2.6%	43.6
Greece	1.5	6.3%	1.4
Hungary	2.0	4.7%	1.9
Italy	24.5	2.0%	24.0
Luxembourg	2.2	-0.5%	2.2
Netherlands	6.8	0.5%	6.8
Poland	10.2	-1.7%	10.3
Slovakia	5.2	4.4%	5.0
Slovenia	0.7	0.9%	0.6
Spain	14.3	-1.0%	14.5
Sweden	4.7	-1.3%	4.7
UK	7.3	-3.2%	7.5
others	5.8	3.6%	5.6
EU-28	**167.6**	**-0.6%**	**168.7**

Source: World Steel Association

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TABLE 5

Hard coal and lignite production and consumption

	Hard coal production			Hard coal consumption for power generation	
COUNTRY	**2018 (1-12) Mt**	**YoY change *c.f.* 2017**	**2017 (1-12) Mt**	**2018 (1-12) Mt**	**2017 (1-12) Mt**
Czechia	4.5	-18.0%	5.5	2.1	2.6
Germany	2.8	-28.0%	3.8	30.5	
Poland	63.4	-3.2%	65.5		
Spain	2.5	-12.1%	2.8		20.2
UK	2.6	-14.0%	3.0	6.7	8.6
EU-28	**75.7**	**-6.1%**	**80.6**		
Turkey	1.1	-6.8%	1.2	22.4	18.8
Ukraine	33.3	-4.6%	34.9	26.0	26.0

	Lignite production			Lignite consumption for power generation	
COUNTRY	**2018 (1-12) Mt**	**YoY change *c.f.* 2017**	**2017 (1-12) Mt**	**2018 (1-12) Mt**	**2017 (1-12) Mt**
Bulgaria	30.3	-12.0%	34.4		34.4
Czechia	39.2	-0.3%	39.3	31.4	30.9
Germany	166.3	-2.9%	171.3	148.2	153.2
Greece	36.5	-3.1%	37.7	36.4	38.0
Hungary	7.9	-1.3%	8.0	7.8	
Poland	58.5	-4.3%	61.1	57.8	60.4
Romania	23.5	-8.6%	25.7		22.6
Slovakia	1.5	-17.4%	1.8	1.5	1.8
Slovenia	3.2	-4.2%	3.4	3.2	3.4
EU-28	**366.8**	**-4.1%**	**382.7**		
Bosnia & Herzogovina	14.1	0.8%	14.0		
Serbia	37.0	-5.4%	39.1		37.7
Turkey	87.7	24.6%	70.4	71.6	61.2

Source: EURACOAL members

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TABLE 6

Hard coal imports

	Coking coal imports		Steam coal imports		Total hard coal imports		
COUNTRY	**2018 (1-12) Mt**	**2017 (1-12) Mt**	**2018 (1-12) Mt**	**2017 (1-12) Mt**	**2018 (1-12) Mt**	**YoY change *c.f.* 2017**	**2017 (1-12) Mt**
Austria	1.4	1.8	2.1	1.8	3.5	-0.9%	3.6
Belgium	1.7	1.6	2.4	1.9	4.1	14.2%	3.6
Bulgaria			0.8	0.9	0.8	-6.6%	0.9
Croatia			0.5	0.6	0.5	-16.8%	0.6
Czechia	2.0	2.0	1.4	1.7	3.4	-8.0%	**3.7**
Denmark			2.8	3.1	2.8	-10.3%	3.1
Finland	1.7	1.5	2.3	2.7	4.0	-5.4%	**4.2**
France	3.6	4.3	9.9	9.8	13.4	-4.6%	**14.1**
Germany	12.4	12.8	32.0	35.1	44.5	-7.2%	47.9
Greece			0.4	0.4	0.4	-5.5%	0.4
Hungary	1.4	1.3	0.2	0.4	1.5	-10.3%	**1.7**
Ireland			1.6	2.0	1.6	-21.9%	**2.0**
Italy	3.3	2.3	10.8	13.1	14.1	-8.1%	15.4
Netherlands	4.2	4.2	8.8	12.0	13.0	-19.9%	16.2
Poland	3.5	3.6	16.2	9.7	19.7	46.8%	13.4
Portugal			4.7	5.7	4.7	-17.3%	**5.7**
Romania			0.9	0.9	0.9	7.5%	0.9
Slovakia	2.6	2.7	1.6	1.1	4.2	10.4%	3.8
Slovenia			0.4	0.4	0.4	14.4%	0.4
Spain	1.6	1.8	14.2	17.4	15.7	-18.2%	19.2
Sweden	1.7	1.7	1.1	1.1	2.7	-0.6%	2.7
UK	2.4	2.7	7.5	5.8	9.9	17.1%	8.5
EU-28	**43.6**	**44.3**	**122.6**	**127.5**	**165.9**	**-3.5%**	**171.9**
Bosnia & Herzogovina					1.5	7.3%	**1.4**
Serbia			0.4	0.5	0.4	-11.9%	0.5
Turkey	5.8	5.3	31.3	33.0	37.1	-3.1%	**38.3**
Ukraine	15.6	12.4	5.7	7.4	21.4	8.1%	19.8

revised 2017 figures are shown in **bold**

Sources: EURACOAL members, IHS Markit McCloskey, VDKi, national government statistics, Eurostat, IEA