

Coal Market

Thermal coal balance

There are 47 mines producing coal in Ukraine, of which 42 produce G-grade coal, and the rest produce coking coal (grade K) or greasy (grade Zh), according to the 2018 coal production report of the Ministry of Energy and Coal Industry of Ukraine.

Since March 2017, Ukraine has completely stopped mining coal in the temporarily occupied territories of

the Donets'k and Luhans'k regions, where all the country's anthracite mines are located.

Overall, Ukraine has seventh largest volume of proven coal reserves in the world. Its estimated 34.4 bln tonnes of coal constitute 3% of the world's reserves. Most of the deposits are thermal coal, while coking coal accounts for about 30%. The main deposits are in the Donets'k, Dnipro and Lviv-Volyn coal basins, as well as in the Dnipro-Donets'k and Zakarpattya coal-bearing basins. Deposits are characterized by their great depth, (typically 500 to 1 000 meters) and thin reservoirs (typically 0.8–1.0 meters).

Coal mining in Ukraine, mln tonnes

■ Data: The Ministry of Energy and Coal Industry of Ukraine.

	2015	2016	2017	2018
Thermal coal				
State-owned enterprises	4.8	4.2	3.9	3.6
Private enterprises	26.6	28.3	24.2	23.9
Coking coal				
State-owned enterprises	2.0	1.6	0.9	0.6
Private enterprises	6.3	6.8	5.9	5.2
Total	39.7	40.9	34.9	33.3

Today, coal is used for a third of Ukraine's electricity production requirements. The energy strategy in the medium term retains coal as a significant contributor in the overall primary energy supply: 22% — by 2020, 16.1% — by 2025 and 14.3% — by 2030.

Thermal generation in 2018 reduced total coal consumption by 5.6% compared with 2017. The consumption of G-grade coal went up following re-engineering of power units from using anthracite to G-grade coal. By the end of the year, there was a reduction in anthracite generation of 11.5%, while G-grade coal increased by 11.2%.

As expected, this trend will continue in 2019 as Ukraine has plans to completely replace anthracite with domestically-produced G-grade coal. According to the data from the "Energy of Ukraine" directory, an increase in G-grade coal production by 5 mln tonnes would make it possible to completely exclude anthracite from the thermal generation matrix in 2018.

Coal consumption by TPPs and CHPPs, mln tonnes

■ Data: The Ministry of Energy and Coal Industry of Ukraine.

	2015	2016	2017	2018	2019 (forecast)
G-grade coal	19.2	18.5	18.7	20.8	20.1
Anthracite coal	9.4	12.8	6.1	5.4	3.5
Total	28.6	31.3	24.8	26.2	23.6

Ukraine has been importing coal for electricity production since the beginning of the Donbas military conflict. In 2018, 5.2 mln tonnes were imported: 0.3 mln tonnes from South Africa, 0.8 mln tonnes from the United States and 4.1 mln tonnes from the Russian Federation. In 2019, there are plans to reduce imports by 35.2%. According to the forecast by the Ministry of Energy and Coal Industry of Ukraine, there are plans to import 1.5 mln tonnes.

Industry regulation and pricing

The Ministry of Energy and Coal Industry of Ukraine is the main government body that sets policies for the coal mining industry.

Coal is sold both under direct contracts between mining companies and consumers, and through the state-owned enterprise Derzhvuglepostach, which was created by order of the Ministry of Energy and Coal Industry of Ukraine and acts as a finished commodity trader for state mines. The bulk of marketable coal products from state-owned mines are distributed at fixed estimated prices, and thus there is cross-subsidization of loss-making mines at the expense of profitable ones. However, this cross-subsidization does not fully cover financial needs, since a small number of mines operate at a break-even level.

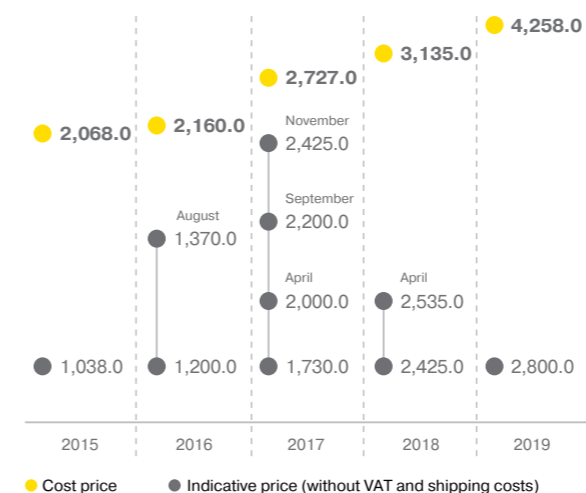
In 2018, the average cost of commercial coal products at state-owned mines was UAH 3,135 per ton. According to the Ministry, the cost of production for 4 mln tonnes of run-of-mine coal amounted to UAH 9.4 bln, while the output of commodity coal products was 3 mln tonnes amounting to UAH 6.0 bln.

The Ministry predicts that in 2019 the average cost of coal production will rise to UAH 4,258 per ton. The highest indicator is at SE "Myrnohradvuhillya" — UAH 9 730 per ton, the lowest — at SE "Pivdenodonbaska No. 1 Mine Office" — UAH 2 546 per ton. It is expected that the difference between the cost of coal production and revenues from its sale will reach UAH 6.7 bln.

State mines are annually allocated subventions from the budget, which are primarily directed to cover the difference between the cost of coal mining and the selling price, and then to reform the industry.

State mines, the cost of coal mining and indicative prices for commercial coal products for energy needs, UAH per ton

■ Data: The Antimonopoly Committee of Ukraine, The Ministry of Energy and Coal Industry of Ukraine.



The 2019 budget includes UAH 1.6 bln for the restructuring of the coal industry, UAH 660 mln for the liquidation of unprofitable coal enterprises and UAH 25 mln to support the construction of Novovolyns'ka mine No.10.

The methodology for calculating the indicative coal price is contained in the NEURC Resolution "On Approval of the Forecast wholesale electricity market price setting" No.289 dated March 3, 2016. The indicative price is taken into account when establishing the thermal generation tariff for electricity generation. At the same time, the wholesale market price is approved for a year with a breakdown by each quarter and may be revised throughout the year.

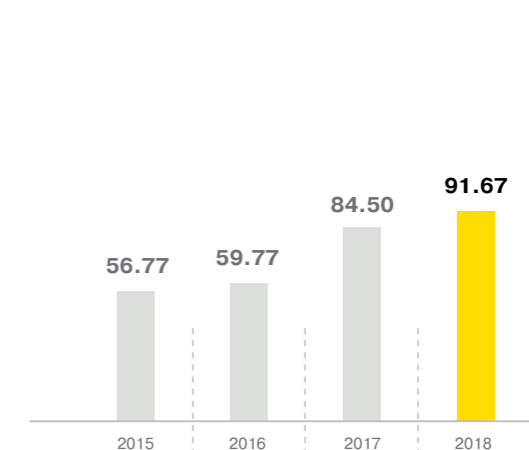
Private companies set price for free volume of their coal products based on the balance of supply and demand, taking into account general trends in the domestic and international market.

In 2018, world coal prices strengthened under the influence of stable demand from consumers in Asia and the Middle East, against the backdrop of a deficit in supply from South Africa and Australia. South Africa limited the amount of coal it exports due to a growth in demand from its domestic market, alongside difficulties with production. Disruptions of supplies from Australia were caused by logistics relating to repair work in ports and railway lines. The main suppliers of coal to the world market — Colombia, USA, South Africa, and Australia — focused their attention on Asian markets, which impacted opportunities in European markets.

World coal prices peaked in the third quarter of 2018, with Asian countries increasing their demand for electricity throughout the hot period. Prices sharply declined in November and December, as China restricted imports of coal through ports, leading to a surplus of supply in the global.

Price of thermal coal with calorific value of 6000 kcal/kg according to API2 on the CIF terms of Amsterdam, Rotterdam, Antwerp ports, USD per ton

■ Data: IHS Markit (McCloskey).



Key legislative events of 2018

The main document of the coal industry remains the government decree "On approval of the Concept for reform and development of the coal industry for the period by 2020" No. 733-p of May 24, 2017.

The document sets out aims to create systematic measures which increase output volumes, increase efficiency, and make the coal industry self-sufficient. At the same time, it outlines measures addressing environmental and social problems in the mining regions and highlights how to create favorable investment conditions for the privatization of mines.

As indicated in the document, coal mining may be shut down at most state-owned mines within one or two years. Over the past 20 years, 96% of state mines have been operating without reconstruction. The wear and tear among active industrial production assets has reached a significant scale: of the 17 thousand units of main stationary equipment, two-thirds have fully reached the limit of their standard service life and need urgent replacement. A significant number of unprofitable or unpromising mines continue to operate due to the slow restructuring of the industry.

As part of the implementation of this document, the government adopted a decree on the creation of a state enterprise "The National Coal Company" No. 1019-p of December 6, 2017. The National Coal Company will operate under the management of the Ministry of Energy and Coal Industry of Ukraine. The Ministry must take measures to reorganize state enterprises by joining the newly-established company, which is designed to optimize organizational structure and resource allocation.

The new company includes 19 enterprises: Pivdenodonbaska No.1 Mine Administration, M. S. Surhay Mine, Selydovvuhillya, Torets' kvuhillya, Myrnohradvuhillya, Pervomaiskvuhillya, Volynvuhillya, Lvivvuhillya, Pre-start Directorate of Mine No. 10 Novovolyns'ka, United Company "Ukrvuhlerestructurizatsiya", Novovolyns'k repairmechanical plant, Dongiprouglemash, Pivdendiproshakht, Dniprodiproshakht, State Research

and Design Institute of the Coal Industry "UkrNDIproekt", State Research Institute for the Organization and Mechanization of Mine Construction, Scientific and Technical Center "Vugleinnovatsiya", Directorate for the construction of facilities, Ukrshahtgidrozahyst.

In order to expedite reforms in the industry, the government adopted the Resolution "On Approving the Procedure for Using Funds Provided in the State Budget for the Liquidation of Coal and Peat Mining Enterprises" No. 93 of February 21, 2018.

The budget funds will be allocated to:

- preparation for the close-down of state-owned coal mining and peat-mining enterprises (reduction in the number of employees; payment of outstanding wages to employees and settlement of wage arrears; social benefits; payment of electricity; ensuring environmental protection and prevention of dangerous circumstances; development of a project for close-down and conducting state expertise);
- preparation for the close-down of separate subdivisions of state coal-mining and peat-mining enterprises (reduction of the number of employees; payment of outstanding wages to employees and repayment of wage arrears, social payments; development of a project for close-down and state expertise);
- for the close-down of coal-mining and peat-mining enterprises (close-down of certain enterprises; environmental protection; ensuring hydro-ecological safety of existing enterprises and adjacent territories; overcoming the negative socio-economic consequences of the close-down);
- maintenance of drainage complexes.

