



2014 Minerals Yearbook

BELARUS

THE MINERAL INDUSTRY OF BELARUS

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Belarus's mineral production enterprises included a potash mining company, three steel plants, a nitrogen production enterprise, and two crude oil refineries. Belarus was the third-ranked country among the world's potash producers, following Canada and Russia (Jasinski, 2016). The country's only mineral production enterprise that played a major role in world markets was its potash mining firm OAO Belaruskali. Although Belarus does not have significant sources of fuel minerals, it had oil pipelines, gas pipelines, and two large petroleum refineries that positioned the country as an important player in the transportation of oil and natural gas to Europe from Russia (Safirova, 2012).

Minerals in the National Economy

In 2014, the country's real gross domestic product (GDP) increased by 1.6% compared with that of 2013, and the nominal GDP amounted to \$75.9 billion.¹ The industrial production of Belarus contributed 26.9% to the country's GDP, and the mineral sector accounted for 1.5% of industrial production. The total value of industrial production increased by 1.9% compared with that of 2013. In 2014, the value of mineral industry output increased by 41.7% compared with that of 2013; the combined value of metallurgical production and products made of metal decreased by 1.2%, and the value of nonmetal mineral products decreased by 3.6% (National Statistical Committee of the Republic of Belarus, 2015).

The total value of foreign direct investment (FDI) in Belarus's economy in 2014 was \$10.2 billion, which was an 8.2% decrease compared with FDI in 2013. The mineral sector received only 1.4% of total foreign investment. Russia provided 50.3% of the total FDI and was the main source of foreign investment in 2014 (National Statistical Committee of the Republic of Belarus, 2015).

In 2014, Belarus exported \$43.6 billion worth of goods and services, which was a 1.1% decrease compared with the total export revenue in 2013. Belarus also imported \$43.9 billion worth of goods and services, which was a 5.3% reduction compared with the value of imports in 2013. In 2014, Belarus exported 13.8 million metric tons (Mt) of refined petroleum products, 5.7 Mt of potash (in K₂O equivalent), and 1.9 Mt of ferrous metals. The major export partner of Belarus was Russia, which received 42.2% of all exports, by value, followed by Ukraine (11.2%), the United Kingdom (8.2%), the Netherlands (4.8%), Germany (4.5%), Lithuania (2.9%), Italy (2.8%), Kazakhstan (2.4%), Poland (2.3%), and Brazil (2.0%). The main import categories were (in order of decreasing value) mineral products (including petroleum and natural gas), equipment and machinery, chemicals, metals, and agricultural products and food. The major import partner

of Belarus by far was Russia, which supplied 54.6% of goods and services, by value. Other significant import partners were Germany (6.0%), China (5.8%), Ukraine (4.1%), Poland (3.8%), and Italy (2.9%) (National Statistical Committee of the Republic of Belarus, 2015).

Production

In 2014, potash production in Belarus increased by 49% to about 6.3 Mt in K₂O equivalent. Output of steel cord, which was used in tire production, increased by 12.4% to 80,700 metric tons (t), cement production increased by 11.1% to about 5.6 Mt, and nitrogen production increased by almost 10% to 1.0 Mt. Rolled and crude steel output increased by 9.4% to 2.3 Mt and by 8.4% to 2.6 Mt, respectively. The volume of refined petroleum production increased by about 5.5% to 22.3 Mt. At the same time, Belarus sharply reduced its peat production; the output decreased by 34% to 1,604 Mt. The output of steel pipes decreased by 17% to 201,300 t, and gypsum production decreased by 9.7% to 64,000 t. Other production data are in table 1.

Structure of the Mineral Industry

Most of the mineral industry enterprises were consolidated under the State Concern for Oil and Chemistry, known as Belneftekhim. Belneftekhim included Belaruskali, which was one of the leading potash producers in the world; OAO Grodno Azot, which specialized in the production of ammonia, nitrogenous fertilizers, and sulfuric acid; two oil refineries (OAO Naftan and OAO Mozyr NPZ), which together had a total annual throughput capacity of 22 Mt; and almost 50 other enterprises operating in the petrochemical industry. Belarus had adopted an industry privatization plan and created a list of enterprises that could be privatized. The list included only smaller production facilities, however, and excluded all enterprises of national significance in terms of contribution to Belarus's GDP (Romanchuk, 2011).

Commodity Review

Metals

Iron and Steel.—The OAO Byelorussian Steel Works (BMZ) was the predominant producer of iron and steel in Belarus. In 2014, BMZ produced 2.5 Mt of crude steel and about 2.1 Mt of rolled steel; 125,200 t of steel pipe, and 80,700 t of steel cord. Compared with 2013, production of crude steel, rolled steel, and steel cord increased in 2014, and steel pipe output decreased slightly. In July 2014, the company achieved a new monthly production record for crude steel; which became possible because of several modernization projects that were completed in 2013 (OAO Byelorussian Steel Works, 2015).

¹Where necessary, values have been converted from Belarusian rubles (BYR) to U.S. dollars (US\$) at an annual average exchange rate of BYR10,260.18=US\$1.00 for 2014.

By the end of 2013, BMZ completed two new investment projects at a total cost of \$23 million. Both projects were a part of the BMZ modernization program, the goals of which were to increase steel production at the plant to 3 million metric tons per year (Mt/yr) and to increase production efficiency. The first project was the modernization of one of the BMZ's electric arc furnaces, which increased the annual production capacity of the furnace to 1 Mt/yr and simultaneously reduced production costs by \$5.25 per ton of steel. The other two furnaces were renovated earlier. The second project was the installation of a new sleeve-type filtration system that would help reduce the amount of fuel needed to run the furnace, reduce the emissions of fine particles into the atmosphere, and increase the energy efficiency of the production process (Belta.by, 2014a).

In 2014, BMZ continued its modernization efforts. In February, it started operating a reconstructed steel casting machine and a new lime firing unit. The new steel casting machine cost 27 million euros (about \$34.4 million) and increased the speed of casting from 3.1 meters per minute to 4.3 meters per minute. The new lime unit cost 26 million euros (about \$33.2 million) and was essentially a lime production plant with a production capacity of 400 metric tons per day. By January 2015, BMZ was planning to complete modernization of its rolling mill and reconstruction of the jobbing and rolling unit. Overall, the entire modernization program, which began in 2011 and was expected to continue through 2015, included 10 large projects at a total cost of 520 million euros (about \$663.3 million) (Metalbulletin.ru, 2014; Minprom.ua, 2014).

Others producing steel in Belarus were the OJSC Rechitsa Metizny plant and the OAO Mogilev Metallurgical Works. Minsk Motor Works (MMZ), which was the only producer of diesel engines in Belarus, started construction of a new plant that would produce cast iron, primarily for internal company consumption. The total cost of the project was expected to be \$175 million, including \$47.6 million for the cost of construction. After completion of the first stage of the project in 2014, the capacity of the new plant was expected to be 8,000 metric tons per year (t/yr) of cast iron. The second production stage, which was expected to start in 2015, would result in another production line with the capacity to produce 18,000 t/yr of pig iron. When the third stage is complete in 2017, the plant's capacity would reach 50,000 t/yr of cast iron. When completed, the pig iron plant would satisfy MMZ's needs, and the company would be able to export some of its output (Interfax.by, 2012; Belta.by, 2014b, 2015).

Kasi metallurgical company of the Czech Republic was planning to build a new plant in Belarus in the city of Krichev. Kasi was planning to invest 120 million korunas (about \$5.78 million) in a joint project with the Krichev cement plant. The new plant would produce rebar, reinforced concrete panels for construction, and equipment for sewer systems. Company officials stated that the primary reason for expanding production into Belarus was the high green energy taxes in the Czech Republic, which were significantly reducing the profitability of the three existing plants. The new plant was expected to employ 60 workers. In 2014, Kasi was exporting its product to the countries of the European Union (EU), Russia, and Ukraine (Chekanova, 2014; Marsheva, 2014).

Industrial Minerals

Potash.—OAO Belaruskali was one of the world's leading producers of potash fertilizers, and, historically, potash was the leading export product from Belarus. The company was mining the Starobin potash deposit, which contains magnesium salt, rock salt, and sylvinite. In 2013, Belaruskali's production and sales were greatly reduced because of a dispute with its former sales partner, OAO Uralkali of Russia. In 2014, however, Belaruskali's production bounced back and reached about 6.3 Mt of potash (in K₂O equivalent) (OAO Belaruskali, 2015).

In August, Belaruskali began construction of a new potash mining complex in Belarus, Petrikovskiy GOK, at a new potash deposit located southeast of the Starobin deposit. The forecast resources of the deposit were estimated to be 2,200 Mt, and the depth of the mineralization was down to 1,200 meters (m). The planned development included construction of two mines with shaft diameters of 8 m and depths of 800 m. The sinking of the first 275 m of the shaft was expected to require a ground-freezing technology. An area would be reserved for the construction of a third mine if needed at a later stage. In addition to the mines, construction would include processing units and infrastructure, including highways, a railroad, electric lines, and a high-pressure gas pipeline. Belaruskali planned to finance construction of the Petrikovskiy GOK with its own funds. According to the project plans, the first stage of the Petrokovskiy GOK would be completed in December 2019 and would reach full capacity by December 2021 (OAO Belaruskali, 2014a, b).

In September 2013, in the midst of the dispute between Belarus and Russia that resulted in a potash crisis in Belarus that made it difficult for Belaruskali to export potash, the Government of Belarus temporarily eliminated export tariffs on potash through the end of 2013 in order to support Belaruskali. The Government maintained this tariff policy throughout 2014, and at yearend 2014, the Government established the potash export tariff in the amount of 45 euros (EUR) per metric ton (about \$57.40 per metric ton). Prior to 2014, the potash tariffs ranged from EUR75 and EUR85 per metric ton (between \$95.70 and \$108.40 per metric ton) (RIANovosti, 2015).

Mineral Fuels

Petroleum and Natural Gas.—Belarus had two petroleum refineries—OAO Mozyr NPZ and OAO Naftan—with the combined capacity to process about 22 Mt/yr of crude oil. In 2014, the two refineries processed 22.3 Mt of petroleum and produced 8.0 Mt of diesel fuel, 5.9 Mt of oil fuel, and 3.9 Mt of gasoline. In 2014, Belarus imported 22.4 Mt of petroleum from Russia and 104,700 t from Kazakhstan. During the next few years, the country planned to increase the combined capacity of its refineries to 24 Mt/yr and to increase the effectiveness of the refineries; that is, to increase the production of light petroleum products, such as gasoline, and to reduce output of oil fuel. As of 2014, the rate of refining effectiveness in Belarus's refineries was about 72%, whereas the Government's target was at least 90% (Naviny.by, 2015).

The decrease in global petroleum prices led to lower profit margins for Belarus's refineries and made modernization efforts to increase refining effectiveness more urgent. From 2010 through 2014, Mozyr NPZ implemented eight large investment projects, which included hydrodesulfurization of gasoline, hydrogen production, and hydropurification of diesel fuel, at a total cost of \$800 million. The key element of the modernization program was the construction of a production complex for hydrocracking of heavy oil fractions, which would cost \$1,476 million. Naftan also had a modernization program, with a total cost of about \$2 billion. Some of the projects, such as the unit for slow coking, were financed from the company's own funds. Others, such as the hydropurification projects, were being financed by Belarusbank. An expansion of the hydrocracking unit was being financed by a consortium of foreign banks. Most modernization projects were expected to be completed by 2017 (Manenok, 2014, 2015).

Outlook

Belarus is expected to continue to be a major supplier of potash to world markets, and it is trying to modernize its steel and petroleum refining industries to increase its competitive advantage and efficiency. In the previous years, the Government considered divesting some of its leading enterprises. Although Belarus did not sell any of its flagship state enterprises in 2014, it could still decide to sell some of them, such as Belaruskali, BMZ, Grodno Azot, and the Mozyr NPZ and Naftan refineries, in the future, depending on the country's financial situation. If some of these facilities are privatized, the direction of enterprise development may be affected. The future of Belarus' economy in general and the minerals sector in particular is likely to depend on political relations with Russia and on the country's ability to develop and maintain a reliable global business network (Manenok, 2012; 2013).

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TABLE 1
 BELARUS: PRODUCTION OF MINERAL COMMODITIES¹

(Thousand metric tons unless otherwise specified)

Commodity ²	2010	2011	2012	2013	2014
METALS					
Steel:					
Crude	2,672	2,779	2,869	2,395	2,597
Rolled	2,458	2,457	2,599	2,159	2,361
Pipe metric tons	183,700	224,500	245,700	242,500	201,300
Cord do.	92,900	94,100	87,900	71,800	80,700
INDUSTRIAL MINERALS					
Cement	4,531	4,604	4,906	5,057	5,618
Gypsum	68	66	69	71	64
Lime	804	794	747	748	769
Nitrogen, N content of ammonia metric tons	890,900	927,300	949,600	967,400	1,063,600
Potash, K ₂ O equivalent	5,223	5,306	4,840	4,243	6,306
Salt ³ metric tons	2,411,600	2,576,300	2,176,600	2,625,300	2,510,000 ^c
Sulfuric acid	891	900 ^c	777	710	700 ^c
MINERAL FUELS AND RELATED MATERIALS					
Natural gas million cubic meters	213	222	218	228	222
Peat:					
Horticultural use	241	422	267	164	115
Fuel use	2,352	2,704	2,679	2,269	1,489
Total	2,593	3,126	2,946	2,433	1,604
Petroleum:					
Crude:					
In gravimetric units	1,700	1,682	1,660	1,645	1,645
In volumetric units 42-gallon barrels	12,500	12,400	12,200	12,100	12,100
Refined:					
In gravimetric units	16,455	20,474	21,668	21,156	22,300
In volumetric units 42-gallon barrels	131,600	163,800	173,300	169,200	178,400

^cEstimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. do. Ditto.

¹Table includes data available through July 2, 2015.

²In addition to the commodities listed, dolomite and synthetic diamond may have been produced, but available information was inadequate to make reliable estimates of output.

³Includes byproduct salt from potash production.

TABLE 2
BELARUS: STRUCTURE OF THE MINERAL INDUSTRY IN 2014

(Metric tons)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity ^e
Cement	OAo Krasnoselskstroyaterialy	Hrodzyenskaya Voblasts'	2,700,000
Do.	OAo Krichevtsementnoshifer	Mahlyowskaya Voblasts'	1,800,000
Do.	OAo Belarusian Cement Plant (BCZ)	do.	2,900,000
Diamond	Gomel Production Association Kristall	Homyel'skaya Voblasts'	NA
Lime	OAo Belarusian Steel Works (BMZ) [Belarusian Metallurgical Co. Holding (Government of Belarus, 100%)]	Zhlobin, Homyel'skaya Voblasts'	150,000
Nitrogen	OAo Grodno Azot (Belneftekhim)	Hrodzyenskaya Voblasts'	1,100,000 ¹
Peat, fuel use	Production at 31 enterprises that produce mainly briquets	All regions of the country	5,000,000 ²
Petroleum:			
Crude	NGDU Rechitsaneft (Belneftekhim)	Rechitskoye, Ostashkovichskoye, Vishanskoye, Tishkovskoye, and Yuzhno-Ostashkovichskoye deposits, southeastern part of the country	2,000,000
Refined	OAo Mozyr NPZ (Government, 42.76%; Slavneft, 42.58%; MNPZ Plyus, 12.25%)	Homyel'skaya Voblasts'	10,000,000 ³
Do.	OAo Naftan (Novopolotsk NPZ)	Vitsyebkaya Voblasts'	12,000,000 ³
Potash, K ₂ O equivalent	OAo Belaruskali (Belneftekhim)	Starobin deposit, Minskaya Voblasts'	6,300,000
Steel:			
Crude	OAo Byelorussian Steel Works (BMZ) [Belarusian Metallurgical Co. Holding (Government of Belarus, 100%)]	Zhlobin, Homyel'skaya Voblasts'	2,700,000
Pipe	do.	do.	250,000
Rolled	do.	do.	2,300,000
Do.	OAo Mogilev Metallurgical Works (MMZ) {OAo Byelorussian Steel Works (BMZ) [Belarusian Metallurgical Co. Holding (Government of Belarus, 100%)]}	Mahlyowskaya Voblasts'	120,000
Do.	OJSC Rechitsa Metizny Plant (RMZ) [Belarusian Metallurgical Co. Holding (Government of Belarus, 100%)]	Homyel'skaya Voblasts'	NA

^eEstimated; estimated data are rounded to no more than three significant digits. Do., do. Ditto. NA Not available.

¹N content of ammonia.

²Total peat for fuel use.

³Crude throughput.