



2015 Minerals Yearbook

LITHUANIA [ADVANCE RELEASE]

THE MINERAL INDUSTRY OF LITHUANIA

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Lithuania is one of the three Baltic States located in northern Europe; the others are Estonia and Latvia. In 2015, the real gross domestic product (GDP) of Lithuania increased by 1.6% compared with an increase of 3.0% in 2014; the nominal GDP was \$41.2 billion. Lithuania was not a significant producer of any mineral commodities. The country produced primarily industrial minerals, including cement, clay, dolomite, granite, limestone, nitrogen (in ammonia), sand and gravel, and sulfur. Mineral fuels produced included peat, refined petroleum products, and small amounts of crude petroleum. The country was dependent on imports for metals and most of its crude petroleum. Mining and quarrying production decreased by 14% compared with that of the previous year. The number of people employed in the country's mining sector was 2,723 in 2015 compared with 2,708 in 2014. The manufacturing sector employed 202,800 people in 2015, and the construction sector employed 105,000 people. Lithuania joined the euro area on January 1, 2015, and the national currency, the litas, was replaced by the euro (AB Orlen Lietuva, 2015, p. 91; Statistics Lithuania, 2016a, d, e).

Production

In 2015, production of agricultural peat in Lithuania increased by 15% compared with that of 2014. The production of gravel, pebbles, shingle, and flint increased by 14%; that of crushed dolomite and refined petroleum products, by 12% each; clay, by 11%; and sulfur, by 10%. In 2015, production of crushed granite decreased by 55% compared with that of 2014; production of fuel peat decreased by 26%; and crude petroleum, by 9%. Data on mineral production are in table 1 (table 1; Statistics Lithuania, 2016f).

Structure of the Mineral Industry

Most of the state's assets have been privatized. The majority of Government-owned assets privatized since 1990 were purchased by foreign investors and include companies in the energy sector (U.S. Department of State, 2015, p. 4). Table 2 is a list of the major mineral industry facilities in Lithuania.

Mineral Trade

In 2015, Lithuania's total exports were valued at \$26 billion,¹ which was about 62% of the country's GDP. Mineral fuels, industrial minerals, and reexported base metals accounted for 23% of exports. The majority of exports went to European Union (EU) countries (61%) and Commonwealth of Independent States (CIS) countries (24%). The major destinations for exports were Russia (which received 13.7%

of Lithuania's exports), Latvia (9.9%), Poland (9.7%), Germany (7.8%), Estonia (5.3%), Belarus (4.6%), and the United Kingdom (4.5%). Exported mineral products were valued at \$4.2 billion, or 16.5% of total exports, and included bituminous substances; earths and stone; lime and cement; mineral fuels; mineral oils and their distillation products; mineral waxes; ores, slag, and ash; plastering materials; salt; and sulfur. Reexported base metals were valued at \$1.2 billion or 4.9% of exports, and included aluminum, copper, iron and steel, lead, nickel, tin, zinc, other base metals and cermet, as well as articles thereof. Chemical fertilizers were valued at \$1 billion, or 4.0% of total exports (Statistics Lithuania, 2016b, c).

In 2015, Lithuania's exports to the United States totaled \$1.06 billion compared with \$1.09 billion in 2014. Exported mineral commodities included petroleum products valued at \$598.3 million; fuel oil valued at \$61.3 million; advanced iron and steel products, \$2.4 million; finished metal shapes, \$2.0 million; coal and related fuels, \$1.3 million; iron and steel products, \$307,000; stone, sand, and cement, \$140,000; aluminum and bauxite, \$125,000; and other nonferrous metals, \$31,000 (U.S. Census Bureau, 2015b).

Total imports to Lithuania were valued at \$28 billion in 2015. Imports of metals, industrial minerals, and mineral fuels accounted for 29% of all imports. Imports were chiefly from EU countries (67.7%) and CIS countries (21.9%). Lithuania's main import partners in 2015 were Russia (which supplied 16.3% of Lithuania's imports), Germany (11.5%), Poland (10.3%), Latvia (8.3%), the Netherlands (5.1%), and Italy (4.5%). Imported mineral products were valued at \$6.0 billion, or 21.4% of total imports. Imports of base metals and articles thereof were valued at \$1.7 billion or 5.8% of imports. Chemical fertilizers were valued at \$394 million, or 1.4% of total imports (Statistics Lithuania, 2016b, c).

Lithuania's imports from the United States were valued at \$528 million in 2015 compared with \$681 million in 2014. Imported mineral-related commodities and materials included drilling and oilfield equipment valued at \$3.3 million; finished metal shapes, \$1.9 million; petroleum products, \$592,000; iron and steel products, \$453,000; nonferrous metals, \$447,000; specialized mining equipment, \$397,000; nonmetallic minerals, \$135,000; iron and steel mill products, \$122,000; coal and fuels, \$85,000; and aluminum and alumina, \$63,000 (U.S. Census Bureau, 2015a).

Commodity Review

Industrial Minerals

Cement.—AB Akmenes Cementas was the sole cement manufacturer in Lithuania. The company's plant was located in Naujoji Akmenė in northwestern Lithuania, and it had a production capacity of 1.9 million metric tons per year (Mt/yr). In 2015, the company produced 0.98 million metric tons (Mt)

¹Where necessary, values have been converted from euro area euros (EUR) to U.S. dollars (US\$) at an annual average exchange rate of EUR0.9012=US\$1.00 for 2015.

of cement, which was an increase of 8.5% compared with production of about 0.9 Mt in 2014. Almost one-half of the company's revenue came from exports to the Russian exclave of Kaliningrad, Poland, and Scandinavia; the rest was from domestic markets. The company stated that cement consumption in Lithuania decreased by 5% in 2014 and again by 7% in 2015 owing to increased regional competition (table 1; AB Akmenes Cementas, 2015a, c; Global Cement, 2016).

In October 2013, Akmenes Cementas completed construction of a new 4,500-metric-ton-per-day dry-process clinker production line. The company's wet cement production process was then modified to the dry production process, and the new line started operations in August 2014. Because of the increased energy efficiency of the dry-process line, fuel consumption per unit of production was significantly reduced, which also decreased carbon dioxide emissions from the cement manufacturing process. Akmenes Cementas sold cement dust, which was used in the production of asphalt concrete, ceramic bricks, silicate bricks, and mineral wool and its products as well as a compound fertilizer containing potassium and for the liming of acid soil. The company also maintained an independent testing laboratory accredited by the Lithuanian National Accreditation Bureau, which provided chemical, mechanical and, physical testing services (AB Akmenes Cementas, 2015a–c).

Nitrogen (Ammonia).—AB Achema was a leading producer of nitrogen fertilizers and chemical products in Lithuania. In 2015, the company produced about 0.88 Mt of nitrogen content in ammonia, which was an increase of 7.4% from the 0.82 Mt produced in 2014. About 18% of the company's products were marketed in Lithuania; the remainder was exported primarily to European and Scandinavian countries and the United States. The company had several long-term investment projects underway to upgrade the plant infrastructure. In September 2015, the company started operations at a new air-separation unit that produced materials for technical and medical purposes, including carbon dioxide, liquid argon, nitrogen, oxygen, and synthetic air. The company invested \$17 million² in the project, which was partially funded by the five main European Structural and Investment Funds that were managed by the European Commission and EU countries. In November, the company started a new nitric acid plant to replace two older units. The company invested \$26 million in the plant, which was expected to increase the annual production capacity of nitric acid by 240,000 metric tons (t) and reduce energy costs. A modernization program to reduce the natural gas consumption of the company's ammonia plants 1 and 2 was in progress in 2015; the program at ammonia plant No. 2 was scheduled to be completed in 2016. The company employed an average of 1,441 people in 2015 (AB Achema, 2015; 2016a–d).

Mineral Fuels

Petroleum.—AB Orlen Lietuva, which was a wholly owned subsidiary of Polski Koncern Naftowy Orlen S.A. of Poland,

operated the Mazeikiiai refinery in northwestern Lithuania, which was the only petroleum refinery in the Baltic States. In 2015, the company's production of refined petroleum products increased by 12% to 8,364,270 t from 7,463,450 t in 2014. The design capacity of the refinery was 15 Mt/yr of crude petroleum, but the refinery was operating at about 8 Mt/yr owing to poor market conditions and operation inefficiencies. The refinery processed crude petroleum imported mainly from Russia, as well as small amounts of domestically produced crude. The refinery received most of its crude petroleum by way of the Butinge marine oil terminal, which was owned and operated by AB Orlen Lietuva. The company also owned and operated a network of about 500 kilometers of crude and refined petroleum pipelines in Lithuania. The company produced bitumen, diesel fuels, fuel oil, unleaded gasolines, jet fuel, and liquefied petroleum gas. The company provided gasoline and diesel fuel to all of the Baltic States and also exported its products to Western Europe, Ukraine, the United States, and other countries (table 1; AB Orlen Lietuva, 2016a, d–f).

AB Orlen Lietuva employed a strategy that enabled the refinery to maximize production during favorable economic conditions and to minimize production when market conditions were not favorable. In 2015, the company reported that the capacity utilization rate reached 86% in the second quarter of the year. The company also reported that, in the first half of 2015, it had delivered 22% more in sales (by volume) to Latvia and 38% more to Estonia compared with the same period in 2014. In 2014, the company had employed an average of 1,735 people (AB Orlen Lietuva, 2015, p. 89; 2016b, c).

Outlook

Economic growth in Lithuania is projected to increase in the near- to medium-term owing to the anticipated recovery and growth in export markets and increased domestic demand. Weak Russian demand for Lithuania's exports, the value of which decreased by 40% in 2015 compared with that of 2014, is expected to be offset by increasing trade within the euro area, which Lithuania joined at the beginning of 2015, as well as with Middle Eastern and Asian markets. Lithuania imports about three-quarters of its total primary energy supply, making the country vulnerable to fluctuations in supply and price. Cement producer AB Akmenes Cementas and ammonia producer AB Achema have undertaken modernization programs to increase their energy efficiency and reduce fuel consumption, which will likely increase their productivity and reduce costs (Organisation for Economic Co-operation and Development, 2016, p. 2, 9, 10, 20).

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²Where necessary, values have been converted from Lithuanian litai (LTL) to U.S. dollars (US\$) at an annual average exchange rate of LTL 2.59128=US\$1.00 for 2014.

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TABLE 1
LITHUANIA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity	2011	2012	2013	2014	2015
INDUSTRIAL MINERALS					
Ammonia, nitrogen content	869,500	918,406	693,195	815,394	875,929
Cement thousand metric tons	996 ^r	1,015 ^r	1,070 ^r	903 ^r	980
Clay	282,400	300,075	318,733	294,386	326,276
Dolomite, crushed	3,312,300	2,284,900	2,687,400	2,633,800	2,958,912
Granite, crushed	374,100	295,800	457,500	487,400	217,454
Limestone	1,179,000	1,354,004	1,465,455	1,368,423	1,458,264
Sand and gravel:					
Construction sand	3,405,000	2,893,087	4,211,405	4,083,783	4,231,742
Gravel, pebbles, shingle, and flint	2,372,000	2,188,079	2,719,511	3,080,300	3,519,600
Silica sand, industrial	53,400	53,909	57,007	53,924	52,410
Sulfur	76,700	73,040	81,449	76,595	84,001
MINERAL FUELS AND RELATED MATERIALS					
Peat:					
Agricultural use	384,700	325,902	432,602	417,476 ^r	479,245
Fuel use	15,000 ^e	60,254	84,060	100,802 ^r	74,435
Petroleum:					
Crude ² 42-gallon barrels	828,053	738,952	625,838	587,867	534,636
Refinery products	8,796,600	8,458,568	8,961,551	7,463,450 ^r	8,364,270

^eEstimated; estimated data are rounded to no more than three significant digits. ^rRevised.

¹Table includes data available through April 25, 2016.

²Data were converted to barrels from metric tons and were reported as follows: 2011—113,900; 2012—101,644; 2013—86,054; 2014—80,862; 2015—73,540.

TABLE 2
LITHUANIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2015

(Thousand metric tons)

Commodity	Major operating companies and major equity owners	Location of main facility	Annual capacity
Cement	AB Akmenes Cementas (CEMEX S.A.B. de C.V., 37.8%)	Plant in Naujoji Akmene	1,900
Nitrogen fertilizers	AB Achema	Jonava	2,700
Petroleum, refined	AB Orlen Lietuva (PKN Orlen S.A. Group)	Plant in Mazaikiai	15,000