



2013 Minerals Yearbook

SLOVENIA

THE MINERAL INDUSTRY OF SLOVENIA

By Sean Xun

Slovenia's major mineral resources include energy minerals such as coal, natural gas, oil, and uranium; metallic minerals such as antimony, bauxite, copper, iron, lead, mercury, and zinc; and industrial minerals such as bentonite, calcite, ceramic clay, chert, lime, natural stone, and quartz sand. In 2013, energy (except uranium) and industrial minerals were exploited and explored while no base-metal or precious-metal mining was conducted in the country. The metallurgy sector produced aluminum metal, crude steel, secondary refined lead, and semimanufactured products (Geological Survey of Slovenia, 2012, p. 4–5).

Minerals in the National Economy

In 2013, Slovenia's gross domestic product (GDP) was \$53 billion¹ compared with \$50 billion in 2012. The manufacturing and construction sectors accounted for 22.7% and 3.8% of total GDP, respectively. Mineral-related activities played a minor role in domestic production. In 2013, gross value added by activities in the mining and quarrying sector amounted to \$191 million or 0.36% of the GDP (compared with \$200 million or 0.40% in 2012); manufacture of ferrous and nonferrous metals, \$412 million or 0.78%; and manufacture of nonmetallic mineral products, \$378 million or 0.71% (Statistical Office of the Republic of Slovenia, 2014c).

The value of sold production (the sale of products and services) by manufacture of ferrous and nonferrous metals was \$2.57 billion, of which \$558 million was in the domestic market and the balance in foreign markets; manufacture of nonmetallic mineral products, \$847 million, of which \$295 million was in the domestic market; and mining and quarrying, \$87.5 million, of which \$69.3 million was in the domestic market. These three sectors (manufacture of basic metals, manufacture of nonmetallic mineral products, and mining and quarrying) accounted for 9.53%, 3.14%, and 0.32% of the total value of sold industrial products and services, respectively. The number of employees in these three sectors were manufacture of basic metals, 7,588; manufacture of nonmetallic minerals, 7,414; and mining and quarrying, 2,702; total employment accounted for 1.92% of industrial employment (Statistical Office of the Republic of Slovenia, 2014d–e).

Production

In 2013, natural gas production increased by 88% from that of 2012 to about 3.0 million cubic meters; salt production, by 86% to 2,698 metric tons (t); dimension stone production, by 26% to 70,506 t; sand and gravel production, by 26% to 2.143 million metric tons (Mt); cement production, by 20% to 1.14 Mt; and chert production, by 16% to 11,530 t. Subbituminous coal

production decreased by 84% to 51,000 t; secondary, refined lead production, by 14% to 12,000 t; and crushed dolomite and limestone, by 6% to 7.07 Mt. In 2013, production in the metallurgical sector, mainly aluminum and steel, decreased slightly from 2012. The decrease in subbituminous coal production was owing to the decommissioning of the Trbovlje-Hrastnik underground coal mine operated by Rudnik-Trbovlje-Hrastnik d.o.o. (RTH) in the first quarter of 2013 (table 1; European Association for Coal and Lignite, 2014).

Structure of the Mineral Industry

The major mineral industry facilities that were operating in Slovenia in 2013 and their respective locations and capacities are listed in table 2.

Mineral Trade

In 2013, the value of Slovenia's total trade was \$63.2 billion, of which imported goods accounted for \$31.3 billion and exported goods \$31.9 billion, compared with \$29.4 billion and \$29.5 billion in 2012. The leading imported mineral commodities in 2012 included petroleum and petroleum products, valued at \$3.82 billion; iron and steel, \$1.31 billion; nonferrous metals, \$1.03 billion; metallic ores and metal scrap, \$750 million; nonmetallic mineral manufactures, \$419 million; coal, coke, and briquets, \$98 million; and crude fertilizers and crude minerals, \$96 million. Slovenia's major exported mineral-related commodities included iron and steel, valued at \$1.09 billion; petroleum and petroleum products, \$1.03 billion; nonferrous metals, \$876 million; nonmetallic mineral manufactures, \$484 million; and metallic ores and metal scrap, \$458 million. The total energy consumption was 208 petajoules, and the dependence on energy imports was 50.9% in 2012 (the latest year for which data were available) (Statistical Office of the Republic of Slovenia, 2013a, p. 345; 2013b, p. 402–404; 2014c).

Commodity Review

Metals

Aluminum.—Talum d.d., through its subsidiary Talum Aluminij d.o.o., produced about 83,000 t of primary aluminum in 2013 compared with about 83,300 t in 2012. Production reached full capacity in both years. Talum d.d. also produced billets, foundry alloys, slug and discs, and castings and strip. The total tonnage of aluminum products produced in 2013 amounted to 128,830 t. On October 2, 2013, the company announced that its subsidiary Talum Izparilniki d.o.o. entered into a long-term cooperative arrangement with Sophia Antipolis Energie Developpement (SAED) of France to build and sell solar thermal plants. Aluminum solar absorbers developed by Talum would be key elements for thermal receivers in the

¹Where necessary, values have been converted from euro area euros (EUR) to U.S. dollars (US\$) at an average rate of EUR0.68= US\$1.00 for 2013 and EUR0.72= US\$1.00 for 2012.

plants. The companies expected to build 22 solar thermal plants by 2015 and 90 plants by 2020 (Talum d.d., 2013a, p. 1; 2013b).

In 2013, Talum d.d. was obliged to enter into a contract for higher electricity prices for aluminum production that it was unable to pay. As a resolution, the Assets Management Agency of the Republic of Slovenia approved the provision of a resolving guarantee to Talum d.d. for the supply of electricity by the state-owned electricity transmission system operator Elektro Slovenija d.o.o. from 2013 to 2015. On August 30, 2013, Elektro Slovenija d.o.o. reported on the conversion of long-term loans (in terms of receivables of the guarantee) into share capital in Talum d.d. As of December 31, 2013, Elektro Slovenija d.o.o. held 83.44% interest in Talum d.d. compared with 80% at the end of 2012 (Elektro Slovenija d.o.o. 2014, p. 14, 15, 29).

Iron and Steel.—Slovenska Industrija Jekla d.d. (SIJ) [Slovenian Steel Group], which was owned by Dilon d.o.o. (72% interest), the Government (25% interest), and others (3%), produced cast steel and finished products at two principal enterprises, Acroni Jesenice d.o.o. and Metal Ravne d.o.o. Production of cast steel was 468,761 t (compared with 494,123 t in 2012), of which 359,324 t was from Acroni Jesenice d.o.o. and 109,437 t from Metal Ravne d.o.o. In 2013, production of semimanufactured products was 370,954 t compared with 406,895 t in 2012. The domestic market accounted for 13.7% of sales. The leading recipients of the exports were Italy (25% of total sales) and Germany (22.2%). On May 28, 2013, Acroni Jesenice d.o.o. started production at its new plate mill where it can roll thin and special steel products up to 2.5 meters in width. The total investment in the project was \$42 million. On July 30, 2013, Metal Ravne d.o.o. signed a contract with SMS INNSE of Italy and SMS Mevac of Germany for \$18 million to complete installation of a new ladle furnace and vacuum station at its steel mill. As of December 31, 2013, SIJ had 3,162 employees compared with 3,141 at the end of 2012 (Slovenska Industrija Jekla d.d., 2013; 2014, p. 3, 4, 7, 20, 25, 26).

Industrial Minerals

Cement.—Salonit Anhovo d.o.o. was the leading cement producer in Slovenia. The company produced standard cement types and special cements that are suitable for use in the oil and gas industry. The company's production capacity was 4,000 metric tons per day, or 1.1 million metric tons per year (Mt/yr). Lafarge Cement Ltd., which was a part of the Lafarge Group of France, had 0.6 Mt/yr of capacity at its Trbovlje plant and had a market share of about 38% in Slovenia in 2013. Both companies had recently invested heavily in modernization projects to comply with European and national legislation on energy efficiency and environment standards (Lafarge Cement d.d., 2014; Lafarge S.A., 2014, p. 33; Salonit Anhovo d.d., 2014; Wietersdorfer Gruppe, 2014).

Mineral Fuels and Related Materials

Coal.—As of 2012, resources of subbituminous coal in Slovenia were estimated to be 1,170 Mt and reserves were estimated to be about 140 Mt. In 2013, Slovenia produced about 3.8 Mt of lignite and 51,000 t of subbituminous coal.

The imports of lignite and subbituminous coal were 143,000 t and 389,000 t, respectively. More than one-third of electricity in Slovenia was generated by coal-fired thermal powerplants. Extraction of subbituminous coal at RTH's Trbovlje-Hrastnik Mine was stopped in the first quarter of 2013. The gradual decommissioning was planned and announced by the Government (the sole owner of the mine) on June 7, 2000. Lignite coal was mined from the deposit located at Velenje, which has lignite layers more than 170 meters thick, and was one of the leading coal mines in Europe. The mine was operated by Premogovnik Velenje d.d., in which state-owned Holding Slovenske Elektrarne d.o.o. (HSE) held 77.73% of capital interest (as of yearend 2013). The output of the Velenje Mine in 2013 was estimated to be 3.83 Mt compared with 3.97 Mt in 2012. A major part of the output was used by the HSE-owned Termoelektrarna Sostanj coal-fired powerplant for electricity generation (97.2% of the coal) and thermal energy (2.8% of the coal) (European Association for Coal and Lignite, 2014; Premogovnik Velenje d.d., 2013, p. 23, 29, 30; Statistical Office of the Republic of Slovenia, 2013a, p. 345; 2014a).

Natural Gas.—In 2013, natural gas accounted for 11% of final energy consumption in Slovenia. Domestic production was about 3.0 million cubic meters compared with about 1.6 million cubic meters in 2012. Imports were 847 million cubic meters in 2013 and 870 million cubic meters in 2012. On October 31, 2013, Ascent Resources plc of the United Kingdom signed a series of key agreements with its Slovenian partners (Petrol d.d. and Nafta Lendava d.o.o.), which resolved some longstanding problems, and it planned to bring the Petisovci project into production in 2014. The project covers a 98-square-kilometer area in northeastern Slovenia. The company had reported an independently verified estimate of 13 billion cubic meters of gas and expected potential production sufficient to supply Slovenia's natural gas needs for 10 years. Ascent holds a 75% economic interest and is required to fund 100% of the development costs of the project; the remaining 25% economic interest is held by Geoenergo, which is owned in equal parts by Petrol d.d. and Nafta Lendava d.o.o. (Ascent Resources plc, 2013, 2014; Statistical Office of the Republic of Slovenia, 2014a, b).

Outlook

Production of minerals and mineral products in Slovenia will likely continue to be modest. As a result, Slovenia is expected to remain dependent on mineral imports to satisfy its domestic requirements. The production of semimanufactured steel is expected to increase in the short run owing to the capacity additions at SIJ. Natural gas production may increase if the Petisovci project can start production in 2014 as planned. Coal production is likely to continue to play a significant role in meeting the country's energy requirements.

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TABLE 1
SLOVENIA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2009	2010	2011	2012	2013
METALS					
Aluminum:					
Primary	35,148	40,177	75,300 ^r	83,300 ^r	83,000
Secondary ^e	9,810 ^r	16,800 ^r	18,900 ^r	18,300 ^r	18,000
Iron and steel, metal:					
Crude steel from electric arc furnaces	430,000	606,000	648,000	632,000	618,000
Semimanufactures	462,700	656,943	706,133	700,826 ^r	677,095
Lead, refined, secondary	14,000	14,000	15,000 ^r	14,000 ^r	12,000
INDUSTRIAL MINERALS					
Cement	1,082	799	620	953 ^r	1,139
Clays:					
Bentonite	109 ^r	135	168	98	143
Ceramic clay, crude	9,478	12,279	10,103	12,000 ^e	12,000 ^e
Salt, all sources	2,924	590	4,291	1,454 ^r	2,698
Sand and gravel, excluding silica sands	3,001 ^r	2,443 ^r	1,900 ^r	1,707 ^r	2,143
Silica sands (quartz and quartzite)	326,636	253,866	230,908	219,481 ^r	224,387
Stone, excluding quartzite, crude:					
Aggregate	16,611	14,495	11,527	9,265 ^r	9,211
Chert	16,695	16,114	18,907	9,960 ^r	11,530
Crushed, dolomite and limestone	13,609	12,073	9,627	7,557	7,068
Dimension	55,000 ^{r,e}	55,000 ^{r,e}	55,000 ^{r,e}	55,906 ^r	70,506
MINERAL FUELS AND RELATED MATERIALS					
Coal:					
Subbituminous	511	419	453	311 ^r	51
Lignite	3,918	4,011	4,066	3,967	3,826
Total	4,429	4,430	4,519	4,278 ^r	3,877
Natural gas	2,575	6,675	2,489	1,593 ^r	2,998
Petroleum, crude	994	1,561	1,762	2,093	2,235

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

¹Table includes data available through November 14, 2014.

²In addition to the commodities listed, kaolin and lime also were produced, but available information is inadequate to make reliable estimates of output.

TABLE 2
SLOVENIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2013

(Thousand metric tons)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Aluminum, primary	Talum Aluminij d.o.o. (Elektro Slovenija d.o.o., 83.44%)	Smelter at Kidricevo	83
Cement	Salonit Anhovo d.o.o. (Wietersdorfer Gruppe, 100%)	Plant at Anhovo	1,100 ^e
Do.	Lafarge Cement d.d. (Lafarge S.A., 56%, and European Bank for Reconstruction and Development, 44%)	Plant at Trbovlje	600
Coal:			
Subbituminous	Rudnik-Trbovlje-Hrastnik d.o.o. (RTH) (Government, 100%)	Trbovlje-Hrastnik Mine near Trbovlje	500 ^{e,1}
Lignite	Premogovnik Velenje, d.d. (Holding Slovenske Elektrarne d.o.o., 77.73%)	Mine at Velenje	4,000
Lead, metal, secondary	MPI-Reciklaza Metalurgija, plastika in inženiring d.o.o.	Refinery at Zerjav	35
Natural stone (granite and marble)	Mineral Ltd.	Plant at Podpec	NA
Salt	SOLINE Pridelava soli d.o.o. (Mobitel d.d.)	Salt pans at Secovlje and Strunjan	2
Steel, crude	Acroni Jesenice d.o.o. [Slovenska Industrija Jekla d.d. (SIJ) (Dilon, d.o.o., 72%, and Government, 25%)]	Plant at Jesenice	800
Do.	Metal Ravne d.o.o. [Slovenska Industrija Jekla d.d. (SIJ) (Dilon, d.o.o., 72%, and Government, 25%)]	Plant at Ravne na Koroskem	90
Do.	Štore Steel d.o.o. (Unior d.d., 29.25%)	Plant at Štore	185 ^e

^eEstimated. Do., Ditto. NA Not available.

¹Stopped production in the first quarter of 2013.