

NORWAY

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Energy and CO₂ emissions remain hot topics in Norway. Electricity consumption in the country is increasing all the time, and consumption is approaching the capacity of power generation and distribution in peak hours. The increase has mainly taken place for domestic use and no decision about what to do has yet been taken. Plans for gas-fired electricity plants do exist but, because a former government was toppled on the issue, no government is expected to have the resolve to place the issue before the Norwegian Parliament in the near future. The political problem is mainly with the Kyoto agreement, with which Norway has problems complying. The metallurgical industry may have to take the burden.

The proposal for a new mining and mineral act was still under political digestion in 2000. The law will replace, and simplify, a number of outdated laws for different minerals. One problem is the rights of the reindeer owners which, in the extreme case, may give the country's 8,600 Lapps a fair amount of jurisdiction over prospecting land covering 40% of Norway. Another political stumbling block is that the first finder's right is extended to nonmetallic minerals, which have so far followed the surface rights. The social democrat government may have less consideration for the landowners if it survives the autumn elections.

Exploration

Crew Development is drilling for zinc in the historic copper mining area of Røros. The major mineral of those deposits is assumed to be sphalerite, which was only mined during the final years of the operations. Large occurrences of low-grade magnesite, talc and soapstone are available near the Swedish border northeast of Trondheim. The area was originally investigated to establish where the boundaries should be placed of a new

national park. Meanwhile, Du Pont has given up further work on the rutile in eclogite deposits of the Sogn and Fjordane area. One reason for the withdrawal is said to be expected environmental concerns in an area popular among tourists. A rutile operation would create large amounts of tailings in a mountainous region. However, active promotion of mining in the nearby anorthosite region is taking place.

Iron Ore and Base Metals

Only one of the numerous sulphide mines in the country is still operating. Nikkel og Olivin in Ballangen is owned by Outokumpu, but the deposit will continue to be mined for only a very limited period.

Rana Gruber achieved full production from its new underground mine during the year. The mine has a capacity of 400,000 t of iron ore concentrate per year. Part of the concentrate is upgraded into pigments and chemical raw materials.

Industrial Minerals

Over the past few years, the Norwegian Geological Survey, NGU, has improved the availability of production statistics for the whole mining sector (providing the basis of the material for this article). Norway's industrial mineral production and beneficiation has increased every year, and the export value is approaching NK3,000 million, which now exceeds the value of sand, gravel and aggregates. Mine production of limestone alone amounted to 6.1 Mt in 2000, and dolomite production was an additional 950 000 t. Aggregate, sand gravel and clay production was 53.4 Mt.

The government sold 49% of its 100% interest in A/S Olivin the major Norwegian producer (and at times the only state company making a profit) to North Cape

Minerals, which is mainly owned by Indusmin of Canada. North Cape Minerals also owns the only Norwegian olivine producer (at Bryggja).

Dimension Stone

A figure for the production of dimension stone and slate is now given. A total of 330,000 t was produced last year at a value of NK908 million, which was similar to 1999.

Rieber Co., which is mainly active in food processing, sold its Roads division to concentrate on food. The buyer, NCC, a construction firm, got most of the Norwegian slate producers as an extra benefit.

Metallurgy

Large expansions are planned in the aluminium industry. For example, Hydro Aluminium has been given the go-ahead for an expansion of the plant at Sunndalsøra to 321,000 t/y, from the existing 153,000 t,

making it the largest aluminium smelter in Europe. Elkem Mosjøen has published plans to expand from about 150,000 t/y to 240,000 t/y over the next two and a half years.

Mercury has remained in the news as a pollutant from the ferrosmelting industry. First, the rates of mercury discharge (in gas) from ferromanganese production were published during 2000. These problems are caused by small amounts of mercury in some of the African manganese ores. The total amount of mercury discharge from the metallurgical sector is still uncertain but may have been more than 500 kg annually. Øye Smelteverk in the Tinfos group has been the first to develop equipment to remove mercury from the smelter gas relatively inexpensively. However, the company received a fine for exceeding its disposal permit. The steel plant of Fundia in Mo i Rana has now excluded electronic scrap from its feed to control the problem.

Mineral and Smelter Production (t)			
	1998	1999	2000
<i>Metal mines</i>			
Copper conc. 25% Cu	11,400	0	0
Zinc conc. 54% Zn	1,800	0	0
Nickel conc. 12% Ni	28,000	25,000	17,000
Iron ore conc. total	621,000	534,000	470,000
<i>Industrial minerals</i>			
Ilmenite-Titania A/S	589,535	580,000	n.a.
Processed quartz and silicates	410,000	460,000	460,000
Olivine	3,750,000	3,200,000	3,600,000
Graphite	8,300	7,580	9,000
Cement	1,815,000	1,658,000	1,620,000
Ground calcite	1,710,000	1,840,000	2,030,000
<i>Metallurgical production</i>			
Si metal	132,000	153,000	n.a.
SiO ₂ dust	n.a.	86,000	n.a.
FeSi	357,000	354,000	n.a.
Al primary	916,000	952,000	n.a.
<i>Energy</i>			
Coal (Store Norske)	328,000	404,000	630,000
Oil	150,300,000	150,000,000	158,625,000
Natural gas (1 million m ³)	44,200	48,200	53,018
Electricity (GWh)	117,000	123,000	142,984

n.a = figures not available

Almost one-quarter of the electricity produced in Norway is used for 'power intensive industry', mainly metallurgical plants. The discussion about power for this industry has started all over again, as it becomes evident that the use of electric power in Norway in the near future will exceed supply, and windmills appear to be the only politically possible source of new power.

Energy

Oil production has reached a constant level, and investments have been cut back somewhat. However, enhanced recovery techniques as well as development of new fields further north has kept the production above the more pessimistic forecasts. Meanwhile, gas fields are being developed more actively, with increased output as a result. Production is moving further north, and the ratio of gas to oil is rising as a result.

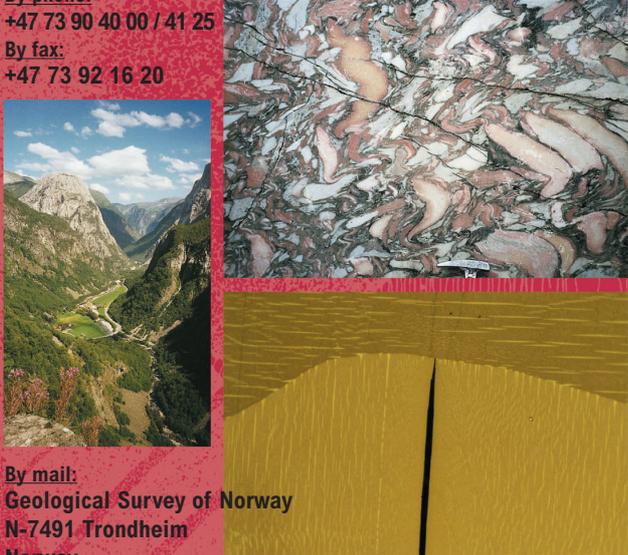
There has been a move towards privatisation of Statoil, the state oil company. The Norwegian Labour party has voted for privatisation, and there is now a majority in the State Assembly for the move. Statoil does not own all of the government's interests in the oil business but it does operate a major part of the state holdings on the government's behalf. About 15% of those holdings may be left to Statoil as part of the deal and 5% will be sold to other oil companies to simplify the ownership structure of the individual oil fields. The rest will be retained by the state.

The coal company Store Norske, which operates at Spitsbergen, plans to produce 1.2 Mt/y in the Sentralfeltet area from the operations at Longyearbyen and Svea using

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large-scale equipment on a high seam giving low costs. Planned production this year exceeds 900,000 t. The No.7 mine at Longyearbyen continues at a production rate of 50,000 t/y. The CO₂ emission debate in Norway remains heated, and increased production of coal for export is not well received in all political circles. As a result, it is unlikely that the finance and production permits will be brought before Parliament before the autumn session. The issue is at the centre of the debate over the value of Norwegian sovereignty rights, at a time when the Russian activity on the islands has decreased.