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Energy Information Administration

# COUNTRY ANALYSIS BRIEFS

# Norway

Last Updated: August 2005

### Background

Norway is a major non-OPEC source of oil. It is a major world supplier of oil and natural gas, especially to the European Union. Norway is an advanced, highly-developed economy that has greatly benefited from the exploitation of its hydrocarbon wealth. In 2004, the country had a gross domestic product (GDP)\*\* of \$250 billion, and a per-capita GDP, \$40,000, which is one of the highest in the world. The Norwegian economy grew by 2.9 percent in 2004, following lackluster growth of 0.9 percent in 2003. Norway's economy is highly dependent on its offshore oil and natural gas sector, which provides the government with its largest single source of revenue and the largest contribution to GDP. In recent years, high oil prices have made for government budget and current account surpluses, and rising disposable income.



Norway is a member of the European Economic Area (EEA), though its citizens have twice rejected referendums on joining the European Union (EU). Nevertheless, Norway has a strong relationship with the EU, with the country voluntarily adopting many EU directives.

Norway's dependence upon oil and gas revenues present long-term challenges for the country, especially since many industry analysts believe that North Sea oil and gas production has already reached or passed its peak. In particular, the country faces pension liabilities and other welfare obligations. In response to these challenges, the Norwegian government created the Petroleum Fund in 1990. A portion of annual oil and gas revenues flow into the Fund each year, which serves the dual purpose of buffering the short-term variations in oil revenues and providing a mechanism to transfer current wealth to future generations. The Fund, which holds a combination

of cash, bonds, and shares in both domestic and foreign companies, stood at some \$179 billion in June 2005.

### Oil

Norway is the thirdlargest net oil exporter in the world. According to Oil and Gas Journal (OGJ), Norway had 8.5 billion barrels of proven oil reserves as of January 2005, the largest in Western Europe. All of Norway's oil reserves are located offshore on the Norwegian Continental Shelf (NCS), which is divided into three sections: the North Sea, the Norwegian Sea and the Barents Sea. The bulk of Norway's oil production occurs in the North Sea, with smaller amounts in the Norwegian Sea. There is no current production and little exploration activity in the Barents Sea, due to high costs and environmental concerns. However, it is believed that the Barents Sea could contain sizable oil and gas reserves, and the Norwegian government has begun to grant licensing blocs in the area.

Norway's Oil Production and Consumption



### **Sector Organization**

The Norwegian government holds a dominant stake in the oil sector. Statoil, 71 percent-owned by the government, controls over 60 percent of Norway's oil and gas production. The Norwegian government also holds a 44 percent stake in Norsk Hydro, an aluminum and energy company. Along with shares in these production companies, the Norwegian government has direct ownership over some 40 percent of the country's oil production through the State Direct Financial Interest (SDFI). State-owned Petoro administers these ownership interests, while Statoil is responsible for managing actual production from SDFI assets. International oil majors do have a sizable presence in the NCS, but they must act in partnership with Statoil. The largest private oil producers in Norway are ConocoPhillips, ExxonMobil, and BP.

Due to the nature of oil exploration and production in the NCS, the region has traditionally been accessible only by international oil majors. Because of harsh weather and operating conditions, projects in the NCS require sizable initial investments. Further, the structure of Norway's petroleum taxes means that smaller, marginal fields often are not profitable. Finally, stringent environmental, safety, and labor regulations further increase operating costs. However, as is the case with the United Kingdom, many oil majors have begun to withdraw from the NCS in order to pursue projects in high-growth regions. Statoil and Norsk Hydro have begun to sell NCS interest in order to pursue projects in Latin America and Africa. BP has also started to pull back from the NCS, selling its interest in the Gyda field in 2003 to Talisman Energy and declining to bid in Norway's latest licensing round. Other new entrants include UK-based Paladin Resources, Revus Energy, and Petra. Some outside observers have noted that the entrance of smaller firms will benefit Norway's oil sector, as they are interested in developing mature fields and smaller undeveloped oil pools, in which larger companies are no longer interested.

### **Exploration and Production**

Norwegian oil production rose dramatically from 1980 until the mid-1990s, but has remained flat since then (see chart). During the first 6 months of 2005, Norway's oil production averaged 2.95

million bbl/d. As North Sea fields continue to mature, Norwegian oil production will likely remain steady or decline, though there is some hope that new developments in the Barents Sea will offset some of this decline.

The largest oil field in Norway is the Troll complex, operated by Norsk Hydro, which produced 306,000 bbl/d in 2004. Other important fields include Ecofisk (ConocoPhillips), Snorre (Statoil), Oseberg (Norsk Hydro), and Draugen (Shell). Statoil controls the largest total oil production, producing 1.43 million bbl/d in 2003 from 17 fields. The second-largest producing company in Norway is Norsk Hydro, producing 754,000 bbl/d in 2003. ConocoPhillips is the largest foreign oil producer (309,000 bbl/d) in the country, followed by ExxonMobil (125,000 bbl/d) and BP (121,000 bbl/d). There is a great emphasis on increasing production from existing projects, including the incorporation of smaller satellite fields. Statoil, for example, plans to bring the Svale and Staer fields online by the end of 2005, a project that will take advantage of existing infrastructure at the Norne field. The company is also developing satellite wells at the Asgard field.

Industry analysts consider the NCS a mature oil producing region. Most of the country's flagship oil fields have peaked, with production remaining flat or declining slightly. For example, the Oseberg complex produced 503,000 bbl/d in 1993, but only 229,000 bbl/d during the first five months of 2005 (see chart). Companies are still discovering oil in the NCS, but none of the recent finds have been significant. In 2003, the Norwegian Ministry of Petroleum and Energy (MPE) reported that oil companies made eleven new discoveries, potentially holding 189 to 566 million barrels of oil, far less than what the country produced for the year. There are about 60 oil and natural gas discoveries that are still undeveloped, representing about 4.4 billion barrels of liquids and 16 trillion cubic feet (Tcf) of natural gas. Drilling activity on the NCS in 2004 was the lowest it has been in a decade. At the time, many blamed the low drilling rate on a four-month rig strike; however, during the first half of 2005, the rate of exploratory drilling was similar to that of 2004.



In June 2004, the Norwegian government held its 18th licensing round, covering 46 blocs representing a mix of unexplored areas and territories amongst established reserves. In June 2005, the government launched its 19th licensing round. This round included 64 blocks, focusing on the Norwegian and Barents Seas. There is particular excitement surround the Barents Sea acreage, since there have been no licenses granted there since 1996.

#### International Cooperation

Because Norway shares the North Sea region with the United Kingdom, the two must coordinate efforts when dealing with reserves that straddle the division of each countries' respective zone. In April 2005, the two countries signed a bilateral treaty detailing the handling of such resources. The treaty was the first step toward a general framework for inter-boundary oil projects, as previous projects have been governed by separate treaties and negotiations. In the Barents Sea, Norway has worked with Russia to jointly develop the giant Shtokman gas field and jointly pursue other oil and gas projects in the area.

#### **Oil Exports**

Because Norway only consumed 244,000 bbl/d in 2004, the country is able to export the vast majority of its oil production. In 2003, Norway was the third-largest net oil exporter in the world, behind Saudi Arabia and Russia. The largest single recipient of Norway's exports is the United Kingdom, which imported 814,500 bbl/d from Norway, or 34 percent of Norway's total exports. Other significant destinations included the Netherlands, the United States, and Germany (see chart).

#### **Pipelines**

There is an extensive network of subsea oil pipelines linking offshore platforms with onshore terminals. The 765,000-bbl/d Oseberg Transport System (OTS) connects the Oseberg field with the Stura receiving terminal. Operated by Norsk Hydro, OTS also carries crude oil from fields in the vicinity of Oseberg, which connect to the OTS through auxiliary lines. Norsk Hydro also operates the 265,000-bbl/d Grane pipeline, linking its Grane field to Stura. Statoil operates the twin Troll I/II pipeline system; the 265,000-bbl/d Troll I connects the Troll B platform to the receiving terminal at Mongstad, while the 300,000-bbl/d Troll II connects the Troll C platform to Mongstad. There are numerous, smaller pipelines that connect North Sea fields to either the OTS or Troll I/II systems, with the remaining offshore production brought ashore via shuttle tanker.



#### International Oil Pipelines

ConocoPhillipps operates the 900,000-bbl/d Norpipe, which connects Norwegian oil fields in the Ekofisk system to the oil terminal and refinery at Teesside, England.

#### **Downstream Activities**

According to OGJ, Norway had 310,000 bbl/d of crude oil refining capacity in 2005. The country has two major refining facilities: the 110,000-bbl/d Slagen plant, operated by ExxonMobil, and the 200,000-bbl/d Mongstad, operated by Statoil. Norway produces more petroleum products than it consumes, with surpluses exported to Europe. In particular, Norway is an important supplier of gasoline and diesel fuel to the EU, as the production of these fuels at the Mongstad plant complies with stringent EU environmental rules. Statoil dominates the retail products market in Norway, and the company has also expanded aggressively into other European markets.

### Natural Gas

Norway is the second-largest supplier of natural gas to continental Europe According to OGJ, Norway had 73.6 trillion cubic feet (Tcf) of proven natural gas reserves as of January 2005. The North Sea holds the majority of these reserves, but there are also significant quantities in the Norwegian and Barents Seas. Norway is the eighth-largest natural gas producer in the world, producing 2.59 Tcf in 2003. However, because of the country's low domestic consumption, which totaled only 146 billion cubic feet (Bcf) in 2003, Norway was the world's third-largest net exporter of natural gas in 2003, behind Russia and Canada.

### **Sector Organization**

As is the case with the oil sector, Statoil and Norsk Hydro dominate natural gas production in Norway. Several international majors, such as ExxonMobil and BP, also have a sizable presence in the NCS gas sector, though they often work in partnership with Statoil or Norsk Hydro.

Norway has begun to slowly reform the midstream and downstream gas sectors. In June 2001, the Norwegian government eliminated controls on natural gas prices. Also in 2001, the government created Gassco, a state-owned company responsible for administering the natural gas pipeline network. Previously, Statoil and Norsk Hydro had controlled the network; it is hoped that placing control of the system with an independent company will ensure fair, indiscriminate access for all companies. The company also manages Gassled, the network of pipelines and receiving terminals that exports Norway's natural gas production to the United Kingdom and continental Europe.



### Norway's Natural Gas Production and Consumption 1980-2003

### **Exploration and Production**

A small group of fields account for the bulk of Norway's total natural gas production. The single largest field is Troll, which produced 930 Bcf in 2004 and represents about one-third of Norway's total natural gas production. Other important fields include Sleipner Ost (450 Bcf), Asgard (360 Bcf), and Oseberg (250 Bcf). These four fields compose over 70 percent of Norway's total gas production (see chart).

Despite the maturation of its major natural gas fields in the North Sea, Norway has been able to sustain annual increases in total natural gas production by incorporating new fields. In October 2004, the Kvitebjorn field came onstream with an expected production level of 710 million cubic feet per day (Mmcf/d). Statoil expects to bring the Halten Bank West project onstream in October 2005, which includes estimated reserves of 1.2 Tcf spread among five fields (Kristin, Lavrans, Erlend, Morvin, and Ragnfrid).

Over the long term, Norway is counting on non-North Sea projects to provide significant natural gas production. In the Norwegian Sea, Norsk Hydro is currently developing the Ormen Lange field. The project consists of an offshore production facility and a subsea pipeline linking the field to the gas processing terminal in Nyhamma. In addition, the Ormen Lange project includes a pipeline linking Nyhamma to Easington, England (see below). Ormen Lange holds an estimated 14 Tcf of recoverable reserve and will have a full production capacity of 710 Bcf per year. Shell will take over as operator of the project from Norsk Hydro in the production phase, which is scheduled to begin in 2007. Also in the Norwegian Sea, Shell announced in 2005 that it had made a major discovery in the Onyx prospect, west of the company's existing Draugen field. According to the Norwegian Petroleum Directorate (NPD), the find could contain as much as 2.1 Tcf of recoverable gas reserves.



Source: Norwegian Petroleum Directorate

In the Barents Sea, Statoil is developing the Snohvit project, which contains an estimated 5.7 Tcf of proven natural gas reserves. Snohvit will combine production from three gas fields (Snohvit, Albatross, and Askeladd), a pipeline connecting these fields to an onshore receiving terminal near Hammerfest, and a liquefied natural gas (LNG) export terminal (see below). According to Statoil, first production from the Snohvit field should occur in 2007, with production from the other two fields beginning in over the following 5-10 years.

### Natural Gas Exports

Norway is the second-largest exporter of natural gas to the EU, behind Russia. According to Statistics Norway, the country exported an exported 2.0 Tcf of natural gas to the EU in 2004. Germany is the largest source of Norway's gas exports, followed by France, the United Kingdom, and Belgium.

### **Pipelines**

Gassco owns and operates most of the domestic and export pipelines in Norway, as well as onshore receiving facilities. The domestic pipeline network consists of numerous subsea systems that bring offshore production ashore for further processing. The Asgard Transport System (ATS) links the Asgard and numerous nearby fields in the Norwegian sea to the receiving terminal at Karsto; the 42-inch, 440-mile ATS has a capacity of 706 Bcf per year. The Karsto facility also receives natural gas via the Statpipe system, which brings 320-Bcf/y ashore from the Statfjord area; an outbound extension of the Statpipe carries gas from the Karsto terminal to an interface with the Norpipe near the Ekofisk platform. The 80-Bcf/y Haltenpipe connects the Heudrum field with a gas receiving terminal and methanol plant at Tjeldbergodden. The system connecting the Kollsnes processing facility with the Troll and Kvitebjorn fields has a maximum capacity of 4.2 Bcf/d.

### International Gas Pipelines

Norway operates numerous natural gas pipeline connects with the rest of Europe. Some connection run from production facilities directly to receiving terminals in export markets, while others connect Norway's onshore processing facilities to these markets. Many pipelines run through riser platforms in the North Sea, hubs that allow different pipeline systems to interface and provide pressure regulation and quantity metering; the most important such platforms are the Draupner, Sleipner, and Heimdal platforms.

The 520-mile Franpipe carries 530 Bcf/y from the Troll and Sleipner fields to Dunkerque, France. The Zeepipe I carries 460 Bcf/y from the Sleipner system to Zeebruge, Belgium; an expansion of the system, Zeepipe II, connects the Kollsnes terminal to the Sleipner and Draupner riser platforms, where gas can then flow through the Zeepipe I to Belgium. Three pipelines connect Norwegian natural gas production with Germany: the 290-mile, 640 Bcf/y Europipe I connects the Draupner riser platform to Dornum, Germany, the 410-mile, 850-Bcf/y Europipe II connects the Karsto terminal to Dornum, and the 500-Bcf/y Norpipe connects the Karsto terminal (via the

Statpipe) to Emden. Finally, Total operates the Frigg gas pipeline, connecting Norway's Frigg field to the gas receiving terminal at St. Fergus, Scotland.

In June 2005, Norsk Hydro began construction on the Langeled gas pipeline linking Norway's Ormen Lange natural gas field to Easington, England. The project includes two subsea pipes connecting Ormen Lange to a new receiving terminal at Nyhamna and a 750-mile pipeline linking Nyhamma to Easington via the Sleipner riser platform. Langeled will be the longest subsea pipeline in the world, with an initial capacity of 1.9 Bcf/d and planned maximum capacity of 2.9 Bcf/d. Shell will take over the Langeled pipeline in the operational phase, and the company expects construction on the \$10.3 billion project to finish by 2007.

### Liquefied Natural Gas (LNG)

Norway has a small LNG terminal located in Tjeldbergodden, with a capacity of only 12,000 tonnes per year (t/y). In 2004, all output from this plant went to Sweden, according to Statistics Norway. On a much larger scale, Statoil plans to construct an LNG export terminal at Melkoya, near Hammerfest. The Melkoya facility, which will be the first, large-scale LNG export terminal in Europe, will consist of an anchored barge with pipeline connections to the Snohvit project. Statoil plans to have the the project online by the end of 2006, with an initial capacity of 4.1 million t/y (202 Bcf of natural gas) and a potential expansion to 8.2 million t/y. Most of the output from the Melkoya facility has already been contracted to El Paso for delivery to the United States, with smaller amounts going to Iberdrola in Spain.

## Coal

Norway has little coal production or consumption

Almost all of Norway's electricity supply comes from hydroelectric generation Norway has a small coal sector, producing only 3.25 million short tons (Mmst) and consuming just 1.43 Mmst in 2003. State-owned Store Norske Spitsbergen Kulkompani controls the sector, which includes two production facilities in the Svalbard Islands (Spitsbergen and Svea Nord). Much of the coal mined fuels a coal-fired power plant there, the only such facility in Norway.

# Electricity

In 2003, Norway generated 105.6 billion kilowatthours (Bkwh) of electricity while consuming 106.1 Bkwh. Almost all of Norway's electricity generation comes from hydroelectric facilities. Norway's peak electricity usage occurs in the winter, as many rely upon electricity for climate control and heating water.

### Sector Organization

Norway has fully deregulated its electricity sector, in accordance with EU rules, and there is free and open access to the sector. However, state-owned actors still play an important role, as many generating and distribution companies are partially or wholly state-owned. The largest power producer in Norway is Statkraft, which controls about one-third of total generating capacity. Regional companies control most of the rest, though Statkraft has begun to acquire many of these in order to increase its market share. State-owned Statnett owns and operates Norway's national electricity transmission network and international interconnections. Small, local companies control most of the electricity distribution market, with these companies also controlling their respective local electricity grids.

Norway is also a member of Nordel, the Nordic power exchange. Nordel is an integrated electricity market consisting of Norway, Sweden, Finland, and Denmark, featuring a spot market, financial markets for hedging and risk management, and an information clearinghouse.



### Hydroelectricity

As mentioned above, Norway is highly dependent upon hydropower for its electricity needs. In 2003, the country generated 104.5 Bkwh of hydropower, or 99 percent of total electricity generation. Norway's hydroelectric infrastructure consists of many small plants. The largest, Kvilldal, has an installed capacity of 1,240 megawatts (MW), or 4 percent of national installed capacity. Norway's reliance on hydropower does leave the country vulnerable to climactic fluctuations, which requires imports to meet seasonal shortages, but also opens the possibility of exports during wetter conditions. Norway still has the potential to increase hydro-generated power, through refurbishing existing facilities, as well as constructing new hydropower plants. However, most of Norway's waterways have been developed and any new facilities would likely be small developments. In addition, many waterways are protected from further development as a result of environmental concerns.

### **Conventional Thermal**

As an alternative to hydroelectricity, the Norwegian government has tried to encourage the diversification of the country's power sector by granting permits for the construction of natural gasfired power plants. Naturkraft, a joint venture of Norsk Hydro and Statkraft, plans to begin construction in late 2005 on a 400-MW gas-fired plant near the gas terminal at Karsto. The future of gas-fired generation capacity, however, is in doubt due to government regulations concerning carbon dioxide emissions and resistance from environmentalists.

### **Other Renewables**

Norway has also looked towards wind power as a way to supplement hydroelectric capacity. The country has a modest amount of installed wind capacity, which generated 0.22 Bkwh in 2003. Havgul, a consortium of Norwegian energy companies, has proposed building a 1,795-MW, offshore wind farm in More & Romsdal, western Norway. The project would consist of four wind parks and would be one of the largest such projects in the world. However, Norway's Water Resources & Energy Directorate told the company in April 2005 to cancel one of the planned parks, representing 395 MW of capacity, due to opposition from local municipalities.

### **International Connections**

Norway has transmission lines that connect its power grid to Sweden, Finland, Russia, and Denmark. Currently Norway can only import electricity from Russia while it can import and export with the other countries. The Norway-Sweden line is the largest, with a capacity of 2,800 MW. There are plans to connect Norway's grid beyond the immediate Nordic vicinity. In 2004, Statnett and Dutch transmission company TenneT applied for regulatory approval for the 600-MW NorNed line, which could connect Norway with the Netherlands. Statnett has proposed building a connector to the United Kingdom along with UK grid operator NGT, which would be the longest subsea electric cable in the world. However, the Norwegian government cancelled plans for the line in 2003, stating that the plan was not economical.

### Environment

Norway has the second-highest energy intensity in the OECD In 2003, Norway consumed 1.78 quadrillion Btu of total energy\* in 2003. Owing to the availability of cheap domestic energy, Norway has fostered the development of many energy-intensive industries; as a result, the energy intensity of the Norwegian economy, 15,600 Btus per dollar of GDP\*\* in 2002, is second only to Iceland as the highest amongst the 25 members of the Organization for Economic Cooperation and Development (OECD).

Norway is a signatory of the Kyoto Protocol, and as an Annex I country, it has agreed to decrease its carbon dioxide emissions to 1 percent above its 1990 levels during the 2008-2012 commitment period. The country emitted 45.0 million metric tons (Mmt) of carbon dioxide in 2003, which was 33 percent above the 1990 level of 33.8 Mmt (see chart).



For more information about Norway's environmental issues, please see the <u>separate</u> environmental report.

# **Profile**

### **Country Overview**

| -                                   |   |
|-------------------------------------|---|
| Location                            | Northern Europe, bordering the North Sea and the North Atlantic Ocean, west of Sweden                           |
| Population (2005E)                  | 4,593,041   |
| Languages                           | Bokmal Norwegian (official), Nynorsk Norwegian (official), small Sami- and Finnish-speaking minorities          |
| Religion                            | Church of Norway 85.7%, Pentacostal 1%, Roman Catholic 1%, other Christian 2.4%, Muslim 1.8%, other 8.1% (2004) |
| Currency                            | Norwegian krone (NOK)   |
| Inflation Rate (2004E)              | 1%  |
| Gross Domestic Product (GDP, 2004E) | purchasing power parity - \$183 billion   |
| Real GDP Growth Rate (2004E)        | 3.3%  |
| Exports (2004E)                     | \$76.64 billion f.o.b.  |
| Imports (2004E)                     | \$45.96 billion f.o.b.  |
| Energy Overview                     |   |

| Proven Oil Reserves (January 1, 2005E) | 8.5 billion barrels   |
|--|---|
| Oil Production (2004E)                 | 3,183.9 thousand barrels per day, of which 88% was crude oil. |
| Oil Consumption (2004E)                | 244.3 thousand barrels per day                                |
| Proven Natural Gas Reserves (January   | 73.6 trillion cubic feet                                      |

| 1, 2005E)  |  |
|--|--|
| Natural Gas Production (2003E)                                 | 2.6 trillion cubic feet  |
| Natural Gas Consumption (2003E)                                | 146.2 billion cubic feet   |
| Recoverable Coal Reserves (2003E)                              | 5.5 million short tons   |
| Coal Production (2003E)  | 3.2 million short tons   |
| Coal Consumption (2003E)                                       | 1.4 million short tons   |
| Electricity Installed Capacity (2003E)                         | 26.6 gigawatts   |
| Electricity Production (2003E)                                 | 105.6 billion kilowatt hours   |
| Electricity Consumption (2003E)                                | 106.1 billion kilowatt hours   |
| Total Energy Consumption (2003E)                               | 1.8 quadrillion Btus*, of which Hydroelectricity (64%), Oil (22%), Natural Gas (14%), Coal (2%), Nuclear (0%), Other Renewables (0%) |
| Total Per Capita Energy Consumption (2003E)                    | 393 million Btus   |
| Energy Intensity (2002E)                                       | 15,605.2 Btu per \$1995-PPP**  |
| Environmental Overview   |  |
| Energy-Related Carbon Dixoide<br>Emissions (2003E)             | 45 million metric tons, of which Oil (58%), Natural Gas (34%), Coal (8%)   |
| Per-Capita, Energy-Related Carbon<br>Dixoide Emissions (2003E) | 9.9 metric tons  |

\* The total energy consumption statistic includes petroleum, dry natural gas, coal, net hydro, nuclear, geothermal, solar, wind, wood and waste electric power. The renewable energy consumption statistic is based on International Energy Agency (IEA) data and includes hydropower, solar, wind, tide, geothermal, solid biomass and animal products, biomass gas and liquids, industrial and municipal wastes. Sectoral shares of energy consumption and carbon emissions are also based on IEA data. \*\*GDP figures from OECD estimates based on purchasing power parity (PPP) exchange rates.

0.4 Metric tons per thousand \$1995-PPP\*\*

## Links

EIA - Country Information on Norway

Carbon Dioxide Intensity (2002E)

### **U.S. Government**

CIA World Factbook - Norway U.S. Embassy in Oslo

### Foreign Government Agencies

Norwegian Petroleum Directorate (NPD) Norwegian Ministry of the Environment Norwegian Water Resources and Energy Directorate

### **Oil and Natural Gas**

Gassco Statoil Norsk Hydro BP Norway ConocoPhillips Norway Esso Norway Marathon Norway Norsk Shell Petoro Total E&P Norge INTSOK

### Coal

Store Norske Spitsbergen Kulkompani

### Electricity

Industrikraft Midt-Norge (IMN) Statkraft TrønderEnergi Vest-Oppland Kommunal Kraftselskap (VOKKS) Naturkraft

### Sources

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