

## Annual Report 2003



## The Gallen-Kallela Museum, Tarvaspää

Akseli Gallen-Kallela (1865-1931) was one of the leading influences in the golden age of Finnish art. His works capture national motifs and he is also known for his romantic paintings illustrating the Kalevala, Finland's national epic. Not only was he an outstanding painter, but also a pioneer in graphic and applied art. Tarvaspää was designed by the artist and completed in 1913. The crenellated tower, fantastic details and stateliness - recalling knightly tales - of this art nouveau studio-home make it a unique work of art.

Today, the Gallen-Kallela Museum displays changing exhibitions of works by Gallen-Kallela and his contemporaries, as well as works of contemporary art that have points in common with the life's work of this national artist.

Gasum Oy is one of the museum's principal partners in 2004.

### Work on cover

*The Lair of the Lynx, Oil, 1906.*  
Size 67 x 98 cm. Private collection.

*Early Spring, 1906.* Gallen-Kallela was on a painting trip and ski hunt for lynx at Konginkangas. The sunshine and glistening crust of snow are immortalised in many of Gallen-Kallela's bright winter landscapes, which reflect a new, bolder and brighter use of colour and form.

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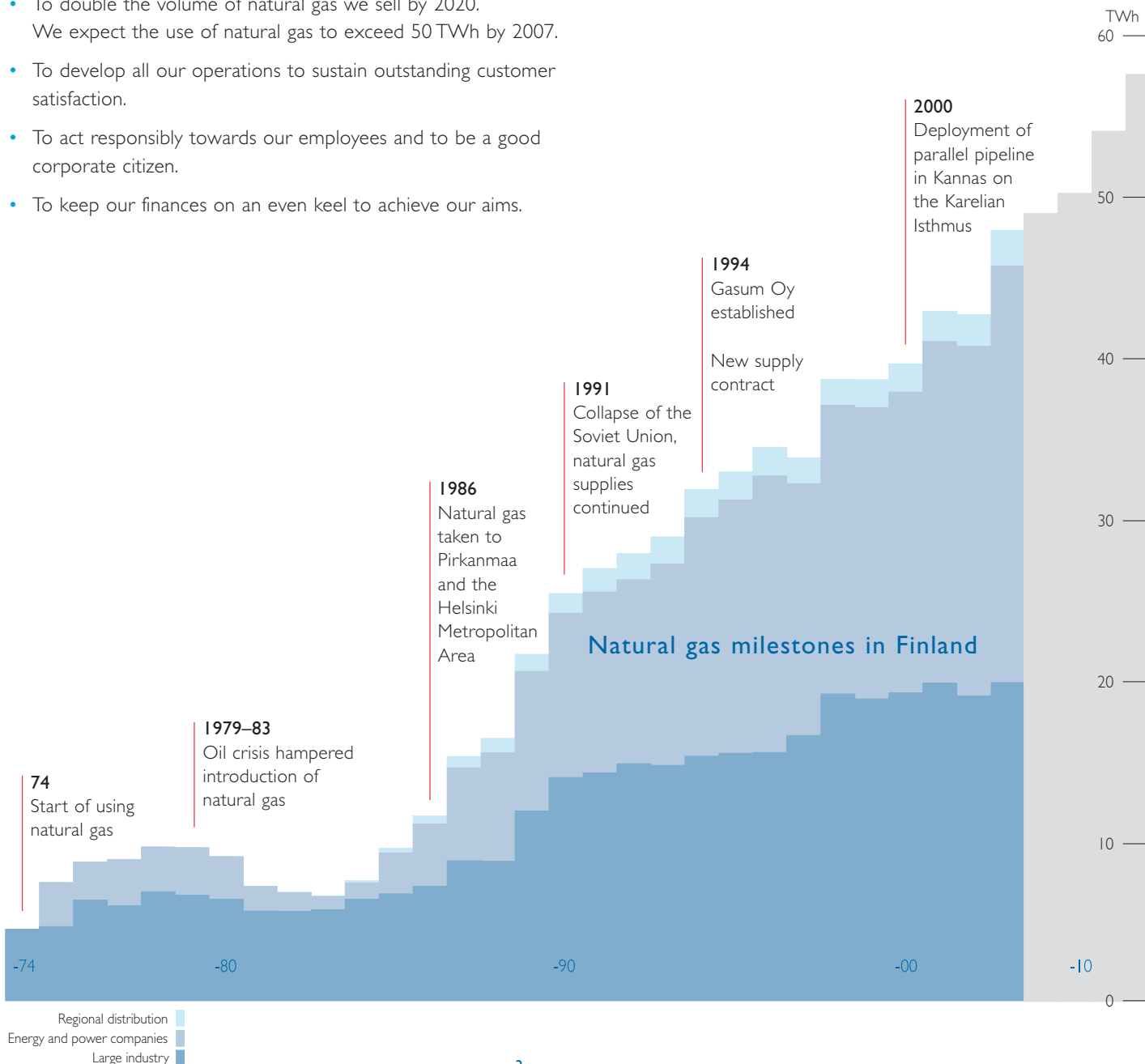
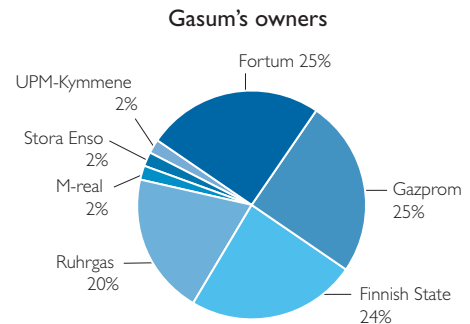
# Gasum – the leading innovator on the natural gas market

## Financial indicators for 2003

- Sales of natural gas 47.7 TWh
- Turnover €653 million
- ROCE after taxes 10.6%
- Equity ratio 61.4
- Investments 7.87 million
- Balance sheet total €526 million

## Future aims

- To diversify our business by drawing on our core expertise for the benefit of our customers. To be at the forefront of innovation on the natural gas market in Finland.
- To double the volume of natural gas we sell by 2020. We expect the use of natural gas to exceed 50 TWh by 2007.
- To develop all our operations to sustain outstanding customer satisfaction.
- To act responsibly towards our employees and to be a good corporate citizen.
- To keep our finances on an even keel to achieve our aims.



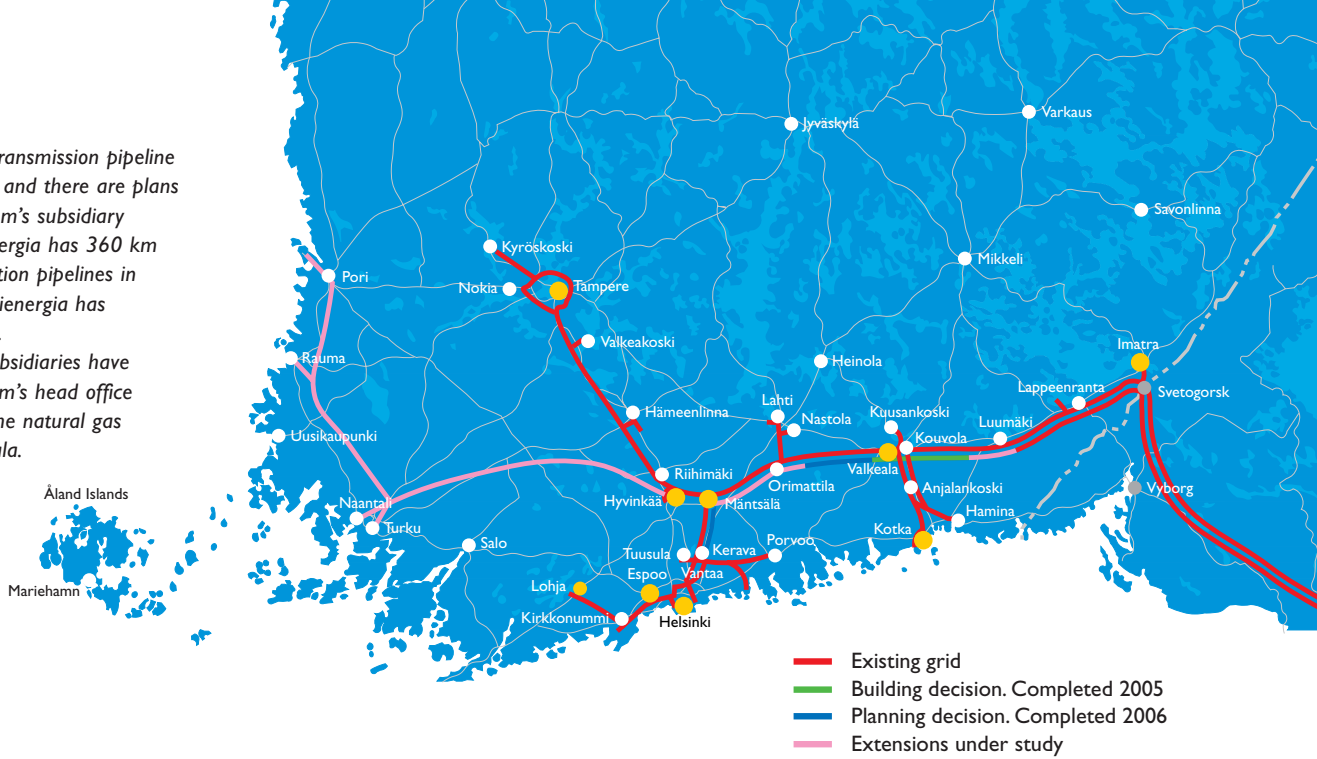


00:01

### Start of a day of natural gas

The volume and quality of the natural gas entering Finland is measured and determined at Rääkkölä in Imatra. Although the measuring automation system is highly advanced, recording discs are used in secondary measurement. The recording discs are replaced at midnight, at the start of a new day of natural gas. Consumption of natural gas is very modest during the early hours of the day, with average capacity being around 7,000 MWh. Gas consumption starts to rise after about 6am, when households and industry begin to use more heat and power.

The natural gas transmission pipeline is 1,000 km long and there are plans to extend it. Gasum's subsidiary Suomen Kaasuenergia has 360 km of plastic distribution pipelines in Finland and Gaasienergia has 10 km in Estonia. Gasum and its subsidiaries have nine offices. Gasum's head office is in Espoo and the natural gas centre is in Valkeala.



## Committed natural gas expert

Gasum's mission is to procure natural gas and to market and sell it in Finland. Gasum operates its own pipelines to transmit natural gas to customers and is responsible for maintaining and extending the transmission system. Gasum's subsidiaries Suomen Kaasuenergia and Helsinkikaasu operate on the local natural gas distribution market. Suomen Kaasuenergia sells natural gas and Helsinkikaasu supplies gas appliances and services.

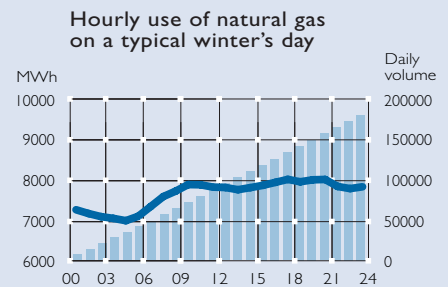
The Gasum Group employs almost two hundred people, all of whom are natural gas experts who, during the course of the day, are responsible for ensuring that customers receive the natural gas they need and the expert services required to use it.

## Natural gas is energy for every day

Natural gas consumption peaks in midwinter, when it is used both by industrial and municipal power plants to generate heat and power. Between the start of October and end of November, a so-called separate seasonal capacity is defined in the natural gas pricing system. Less gas is consumed during the summer when it is warm and industry has summer

shutdowns. If the price of electricity on the exchange rises, the use of natural gas can also climb quite high in the summer, too.

The rate of consumption of natural gas also fluctuates during the day, peaking early in the morning, when industry starts up and households use more electricity, and in the early evening.



08:00

*57,500 MWh of natural gas delivered*

*Gasum's CEO Antero Jännes has arrived at head office and goes through the day's programme with his secretary Ritva Lönnberg. At the same time, the main control centre revises estimates of natural gas consumption during the day based on weather conditions, etc.*



Finland joined the natural gas users in 1974. Together with customers, Gasum Oy and its predecessor Neste Oy Maakaasu have carved out a major role for natural gas in Finland's energy economy, which has benefited from its diverse functional and environmental advantages. Our customers are satisfied with the excellent properties and delivery reliability of natural gas. Increasing use of natural gas bears witness to its excellent ability to compete on price.

Establishing the use of natural gas in Finland would not have been possible without Gasum's dedicated employees and our efforts to constantly develop the business. Our customers, partners, other business associates and the regulatory authorities have also contributed to the progress made in the natural gas industry.

In 2003, Gasum Oy exceeded its performance targets, with sales of natural gas up by 11 per cent compared to 2002. Likewise, Gasum's subsidiaries achieved their growth and performance targets. Gasum's sound finances provide a healthy platform that enables us to respond to the many challenges facing the natural gas industry in the decades to come. Use of natural gas in Finland to meet primary energy needs is only half the average figure for EU Member States.

Finland's national climate strategy is based on increasing the use of natural gas. Replacing the use of coal and oil by natural gas would considerably reduce CO<sub>2</sub> emissions attributable to energy production. At the same time, it would lead to lower adverse environmental impacts, such as particulate emissions, both regionally and locally. Finland's climate strategy as regards natural gas is based on increasing the share of natural gas used in industry and district heating in Southern Finland.

Obsolete plants need to be replaced and additional heat and power produced as consumption rises.

Climate strategy targets call for major investments in extending the natural gas transmission system to provide transmission capacity in line with increasing consumption. The natural gas pipeline must also be taken to Western Finland. For reasons of competition and emergency supplies, we also need a pipeline connection to the natural gas network of other EU Member States and possibly to Latvia's underground gas storage facilities. The climate strategy envisages these steps taking place between 2008 and 2012. Local distribution also has growth potential, which Gasum will seek to take advantage of through its subsidiaries.

### Investment potential must not be jeopardised

The climatic and environmental targets based on increasing the use of natural gas can be achieved. However, our customers must have the courage to decide on their own power plant investments before Gasum and its owners can go ahead and invest in the necessary pipelines.

The EU emissions trading scheme currently being drafted encourages parties to reduce emissions where it costs the least to do so. If the price of emission rights is too low, it will fail to encourage Finland to close old coal power plants and to invest in natural gas ones. This is why present tax controls should be retained, otherwise we could end up in a situation where emissions in Finland rise even though we are able to meet Kyoto targets.

For its own part, Gasum is geared up to increase transmission capacity of the natural gas network and to take the natural gas pipeline to the Turku economic zone

and possibly later to Pori. In addition, we continue to work on a study aimed at building a pipeline connection between Finland and Estonia. This would further safeguard the gas supply in the Helsinki Metropolitan Area. A Baltic connection would also pave the way to work together to utilise Latvia's underground gas storage facilities to benefit Finnish needs.

Government decisions must not be allowed to jeopardise these investments and the ensuing climate and environmental targets. Checking the reasonability of the rate of return under the Natural Gas Market Act should take into account the peculiarities of the Finnish natural gas market and allow an internationally competitive rate of return on investments made. The best way of reducing the unit cost of natural gas transmission system services is to increase the volume of gas transmitted.

I would like to warmly thank our employees, customers and partners who have contributed to promoting the use of natural gas in Finland both last year and over the past thirty years. Our work to utilise the potential afforded by natural gas continues.

Espoo, 23 March 2004

**Antero Jännes**

## Natural gas market in 2003

### A year of record, emissions trading decisions expected

#### Key figures:

- Sales of natural gas: 47,685.59 GWh
- Average share of extra gas: 6.37%
- Share of secondary market gas of total consumption: 0.7%
- Share of natural gas of total energy consumption in Finland: 11%
- Share of natural gas used in electricity production in Finland: 13%
- Share of natural gas used in district heat production in Finland: 37%

Several natural gas records were broken in 2003. Annual sales of natural gas were higher than ever. A new 24-hour record was made on January 3, when 203.8 GWh of natural gas were sold. Likewise more natural gas was sold in June 2003 than at any time earlier during the same month.

Higher use of natural gas was mostly fuelled by exceptional weather conditions and the high price of market electricity. The January temperature was 4-6°C colder than average. February, too, provided some exceptionally cold days, even though the mean temperature for the month was higher than the long-term average. The autumn was exceptionally warm, which balanced natural gas consumption figures towards the end of the year.

A dry summer and autumn again meant there was no cheap hydropower available on the Nordic electricity markets. Municipal and industrial natural gas

powered CHP plants operated at full capacity almost throughout the year. Natural gas powered condensing power plants were also operating at full capacity.

#### Densely populated area of Finland heats by natural gas

Almost 50 per cent of Finland's building stock is connected to a district heat system. In the largest cities the figure is over 90 per cent. Natural gas is the most important fuel used in generating district heat and is used to produce 37 per cent of district heat in Finland. Within the existing natural gas catchment area in the Helsinki Metropolitan Area and Tampere, this figure is considerably higher than the national average.

#### Industrial use of natural gas unaffected by economic cycles

Industrial use of natural gas remained relatively stable. The forest industry remains Finland's largest industrial user of natural gas and accounted for 27 per cent of Gasum's natural gas sales. The chemical industry is the second largest user, accounting for 10 per cent of consumption. This figure will rise considerably with the completion of the enlargement of Fortum's oil refinery in 2006.

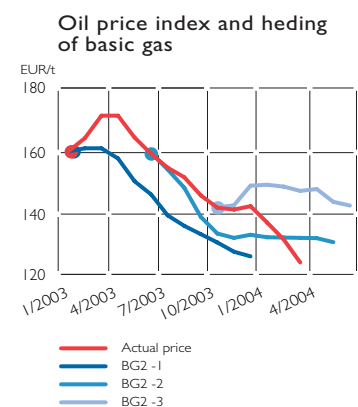
#### Gas prices steady

Natural gas prices remained steady throughout the year. The impact of the rise in coal and oil indices was offset by the rise of the euro against the US dollar. Additionally, Gasum offered its customers

hedging against fluctuations in the price of oil. In 2003, hedging was used in respect of 1500 GWh, which is over three per cent of total natural gas sales. Many industrial plants took advantage of the opportunity offered to M2002 tariff customers to extend the seasonal capacity period to the end of April. Gasum has launched a project to revise the M2002 tariff. There are plans to introduce the revised tariff at the start of 2006.

#### Most secondary market trading took place on Gas Exchange

The secondary market accounted for 0.7 per cent of natural gas use in Finland. A total volume of 322 GWh of natural gas was traded on the secondary market.



The diagram shows examples of hedging against the price of oil offered during various months (Basic gas 2). The actual price indicates the oil price factor to which the sale of gas (Basic gas 1) is linked.





09:00

65,200 MWh of natural gas delivered

Veli-Heikki Niiranen, Gasum's sales manager, and Tiina Kotiniemi, managing director of Valkeakaasu Oy discuss use of natural gas during the coming year. The sale of natural gas is based on annual orders and the price depends on the volume of natural gas ordered and the steadiness at which it is used.

In this context, secondary market means the trading among natural gas users themselves of natural gas originally bought for their own use on the wholesale market.

Around 95 per cent of trading on the secondary market took place online on the Gas Exchange. Gas Exchange Ltd is a subsidiary of Gasum. In 2003, Gas Exchange received more than 7,600 commissions to buy and sell, up by over ten per cent on the figure a year earlier.

Working together with Gas Exchange's development working group, which comprises customers, we innovated a new FUT trading product that can be used to trade gas lots during the following 30 days in advance using a continuous trading principle. The first FUT trades took place in February 2004.

### Power plant investments depend on climate programme terms

Greater use of natural gas in 2003 was primarily a result of the higher operating capacity of existing power plants. New power plant projects are pending in the present natural gas catchment area in Espoo, Vantaa and Kerava. The natural

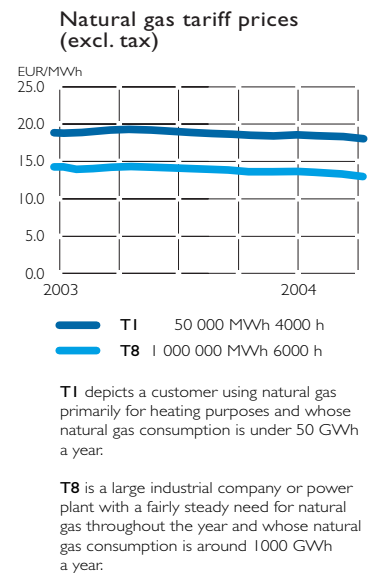
gas pipeline extension project is also waiting for a decision to be made to replace antiquated coal power plants with natural gas plants in the Turku region.

Power plant decisions have been put on hold because of uncertainty in the electricity market. Uncertainty is also being generated by emissions trading policies currently being drafted and other control measures relating to Finland's national climate programme.

The national climate programme seeks to meet the targets agreed in the Kyoto Protocol. A burden sharing agreement between EU governments commits Finland to keeping its level of greenhouse gas emissions to no more than the base year (1990) average during the period 2008-2012. Emissions trading is one way in which Finland seeks to meet its climate target. Emissions trading in the EU commences at the start of 2005.

Finland has agreed the total amount of emission rights during the first emissions trading period and the allocation of these rights to different sectors. Emissions rights for each plant will be announced

during September 2004 and emissions permits by the end of the year. The Ministry of Trade and Industry has also studied the need to continue to use taxation as well as emissions trading to keep emissions under control.



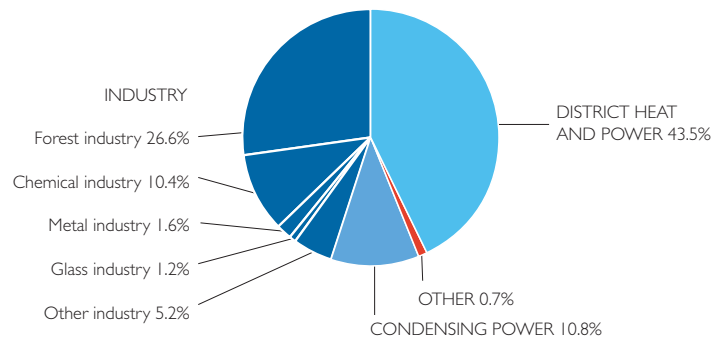
## Natural gas and emissions trading

Industrial plants that are subject to an emissions quota consume more than 90 per cent of the natural gas used in Finland. In 2003, sectors subject to emissions quotas emitted nine million tonnes of carbon dioxide emissions attributable to using natural gas. If the cost per tonne of carbon dioxide was €10, for example, this would put the value of emissions covered by emissions trading in the natural gas sector at around €90 million.

In a study commissioned by Gasum, Electrowatt-Ekono estimates that power plant emissions of carbon dioxide both in the existing natural gas catchment area and in that of the envisaged extension to the Turku economic zone could be reduced by 4.8 million tonnes a year if natural gas were to replace coal. This calculation took into account the fact that natural gas produces less emissions than coal does and that natural gas power plants have a higher efficiency rate.

The competitiveness of natural gas compared to coal depends on energy taxation practice. Gasum considers that

Gasum's natural gas sales 2003



emissions trading in itself is not enough and that tax-control similar to that currently used is also required.

Working together with Gasum, Gas Exchange is studying the potential to use information in the monitoring system to provide a service for natural gas customers enabling them to manage emissions quotas and to monitor and report emissions.

## Greater use of natural gas as a traffic fuel

The European Union has proposed that by 2020, 10 per cent of traffic in the EU could be powered by natural gas. Italy currently boasts the highest number of natural gas powered vehicles, although many new distribution stations are under construction in Germany.

Finland is also working to increase the use of natural gas. Subsequent to an amended act entering into force at the start of 2004, natural gas powered vehicles are treated in the same way as petrol (gasoline) driven vehicles for taxation purposes. Earlier natural gas vehicles under 3,500 kg were taxed at 20 times the rate at which diesel vehicles are taxed. Taxation practice meant that natural gas was mostly used in buses.

The change in taxation practice will now make the use of natural gas a much more attractive option in delivery vehicles, taxis and cars. With the increasing use of natural gas in mind, Gasum has decided to build a natural gas refuelling station in the Helsinki area for use by the public. Existing natural gas refuelling stations are at bus depots and are exclusively for the use of buses. It has been decided to build the new refuelling station in the Malmi district of Helsinki.

Gasum also plans to switch the company's own fleet to vehicles powered by natural gas. Refuelling points will be built at all Gasum's maintenance centres. At year-end 2003, natural gas powered vehicles could refuel at Valkeala, Hyvinkää, Tampere and Suomen Kaasuenergia's workplace in Helsinki.

Gasum's subsidiary Suomen Kaasuenergia is responsible for deliveries of natural gas for traffic.

## Local distribution companies

### *Good progress in sales of services and products*

Gasum's subsidiary, Suomen Kaasuenergia Oy, is responsible for natural gas sales and transmission services in Helsinki, Kotka, Lohja, Porvoo and Siuntio. Suomen Kaasuenergia sold slightly less natural gas than in 2002. A warm spell towards the end of the year led to lower demand for natural gas for heating purposes. Suomen Kaasuenergia built 25 kilometres of new distribution pipeline, the longest section of which, some 10 kilometres, was built in Kotka.

Suomen Kaasuenergia signed 113 new natural gas delivery contracts. Major new natural gas users include Veho's collision repair workshop in the Suutarila district of Helsinki, where some five kilometres of new distribution pipeline were built. One new approach was marketing natural gas as a heating fuel for small houses. Home-

owners were very interested in this option.

Meira's spice factory and coffee roastery in the Vallila district of Helsinki and Marimekko's production facilities in the Herttoniemi district of Helsinki also joined the natural gas users. In Lohja, new natural gas customers included Lemminkäinen's roofing felt factory and in Kotka, Laajakoski Hospital. Towards the end of the year, Suomen Kaasuenergia concluded a natural gas delivery agreement with Duni Oy of Riihimäki. Gas deliveries will commence in 2004.

#### **Helsinkikaasu busily building distribution networks**

The Gasum Group sells and markets appliances and services under the trading name of Gasum Energiapalvelut. Helsinki-

kaasu Oy provides services relating to natural gas distribution and appliances and appliance installation and maintenance. Helsinkikaasu reported a significant increase in net sales during 2003. Whilst highest growth was witnessed in the construction of distribution networks, good progress was also made with appliance sales, maintenance and installation services. Sales of heat and the leasing of heating devices for temporary needs were higher than expected. Helsinkikaasu is responsible for heating the construction site at Kamppi in the centre of Helsinki.



## Local distribution company in Estonia

In Estonia, Eesti Gaas AS is mainly responsible for sales of natural gas. However, on the eve of Estonia's accession to the European Union, local distribution is also being opened up to other companies. Gaasienergia AS was established in late 2002, although did not begin trading until the first half of 2003. Gaasienergia AS is a subsidiary of Suomen Kaasuenergia.

Gaasienergia has built a 14-km natural gas distribution pipeline in the municipality of Harku, to the west of Tallinn. By the end of the year, nine customers had been connected to the distribution network. The largest customer is Tabasalu Soojus heating company.

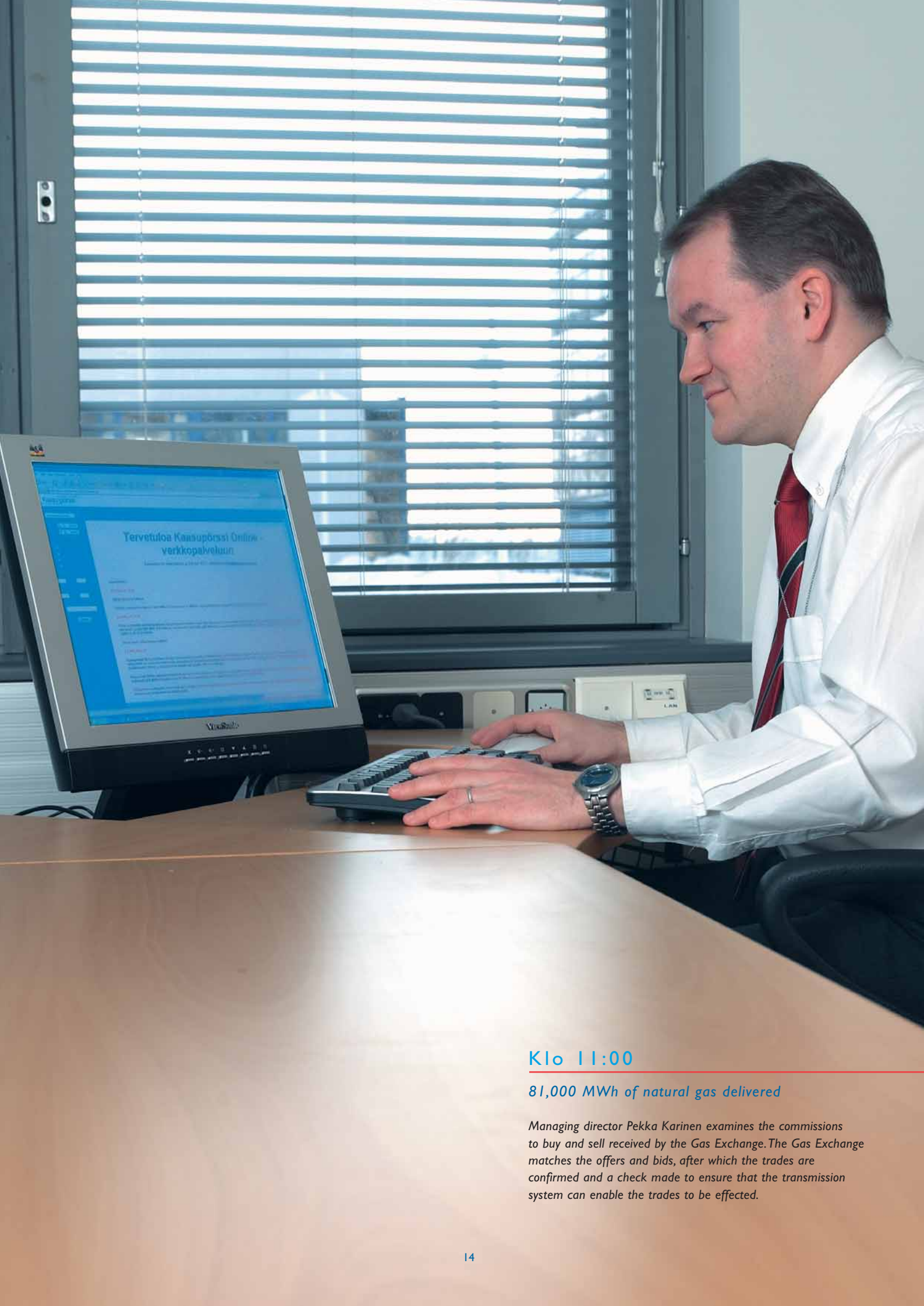
Gaasienergia's managing director is Simo Lahesalu (on the right). Kari Salminen from Gasum and Kalevi Kempainen from Helsinkikaasu are also shown inspecting the pressure reduction station in Tabasalu.



10:00

73,100 MWh of natural gas delivered

Gas cookers have become increasingly popular with ordinary consumers, not least because of cookery programmes on television. HelsinkiKaasu's fitter Kimmo Eronen ensures that a customer's gas cooker is installed ready for use in the kitchen.



## Klo 11:00

### 81,000 MWh of natural gas delivered

Managing director Pekka Karinen examines the commissions to buy and sell received by the Gas Exchange. The Gas Exchange matches the offers and bids, after which the trades are confirmed and a check made to ensure that the transmission system can enable the trades to be effected.

## Natural gas supply

### Natural gas has major role in European Union

#### Key figures:

- Distance from production field: 3,400 km
- Imports in 2003: 4.78bn m<sup>3</sup>
- Largest daily volume imported (3 Jan.): 20.4m m<sup>3</sup>
- Average daily volume imported in winter: 16m m<sup>3</sup>
- Cumulative volume purchased 1974-2003: 65 115 200 000 m<sup>3</sup>

The natural gas producer proved to be very flexible in supplying gas in early 2003, when demand during several days considerably exceeded the amount of gas Gasum's customers had ordered in advance.

The supply of natural gas in Finland is based on a 20-year contract signed in 1994.

The supply price takes into account the competitiveness of natural gas compared with that of other fuels used at power plants in Finland.

There is still enormous potential to further increase the use of natural gas in Finland. The availability of natural gas does not preclude greater use. Gazprom controls one fifth of the world's natural gas reserves and accounts for roughly 23 per cent of global gas production. The Russian gas industry aims to develop gas deposits

both on the Jamal Peninsula and in the Northern Arctic Ocean region, Eastern Siberia and in the Far East. Gazprom has also repeatedly expressed an interest in moving forward with the North European gas pipeline project.

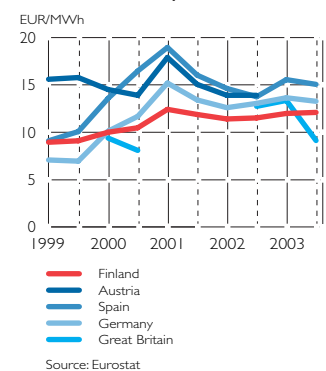
#### New directives govern the EU's natural gas market

The EU adopted the new Gas Directive (2003/55/EC) in June 2003. The Directive aims at opening the gas market for all non-household customers by July 2004 and for all customers by July 2007. The EU has granted Finland an exemption until such time as natural gas can be procured from more than one independent supplier or until the Finnish natural gas network is connected to the interconnected system of any other EU Member State.

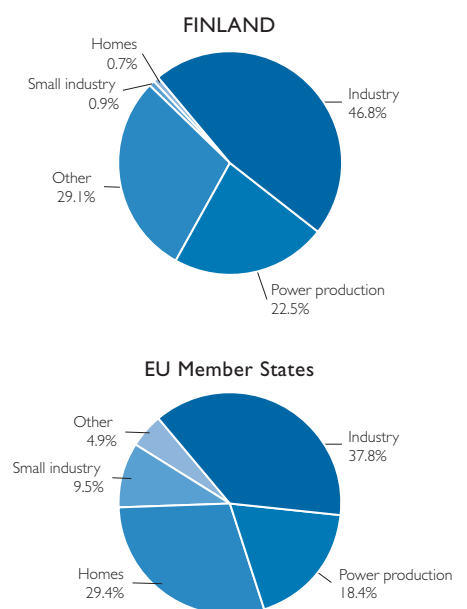
There are plans in the pipeline to give the Energy Market Authority, which is tasked with supervising the natural gas market in Finland, considerable additional regulatory powers. Supervision of the market will take place in periods of five years, with the first period possibly beginning in 2005.

According to the Directive on Security of Gas Supply, Member States define their own supply security policy, the responsibilities of the various parties in the event of disruptions in the supply of natural gas and the minimum standards applying to

Price of natural gas for industrial customers in selected European countries



Natural gas sales by sector



Source: Eurogas

**Other:** District heat and CHP heat

**Power production:** Condensing and CHP power

supply security. The Directive also includes rules on cooperation in the event of interruptions in the supply of natural gas affecting the entire community.

In Finland, emergency supplies are dealt with by storing reserve fuels, primarily oil, and by guaranteeing transport capacity. Users that are unable to switch to using replacement fuels can be supplied with mixed gas, a mixture of propane and air, during any disruption in the gas supply. Finland's existing arrangements to secure the supply of natural gas meet the requirements of the Directive.

### Accession of the Baltics to the EU creates potential

Enlargement of the European Union by ten new members in May 2004 also brings about changes in the EU's energy strategy. New members have considerable emission rights that can be sold. Of the new EU Member States, Hungary consumes the most natural gas.

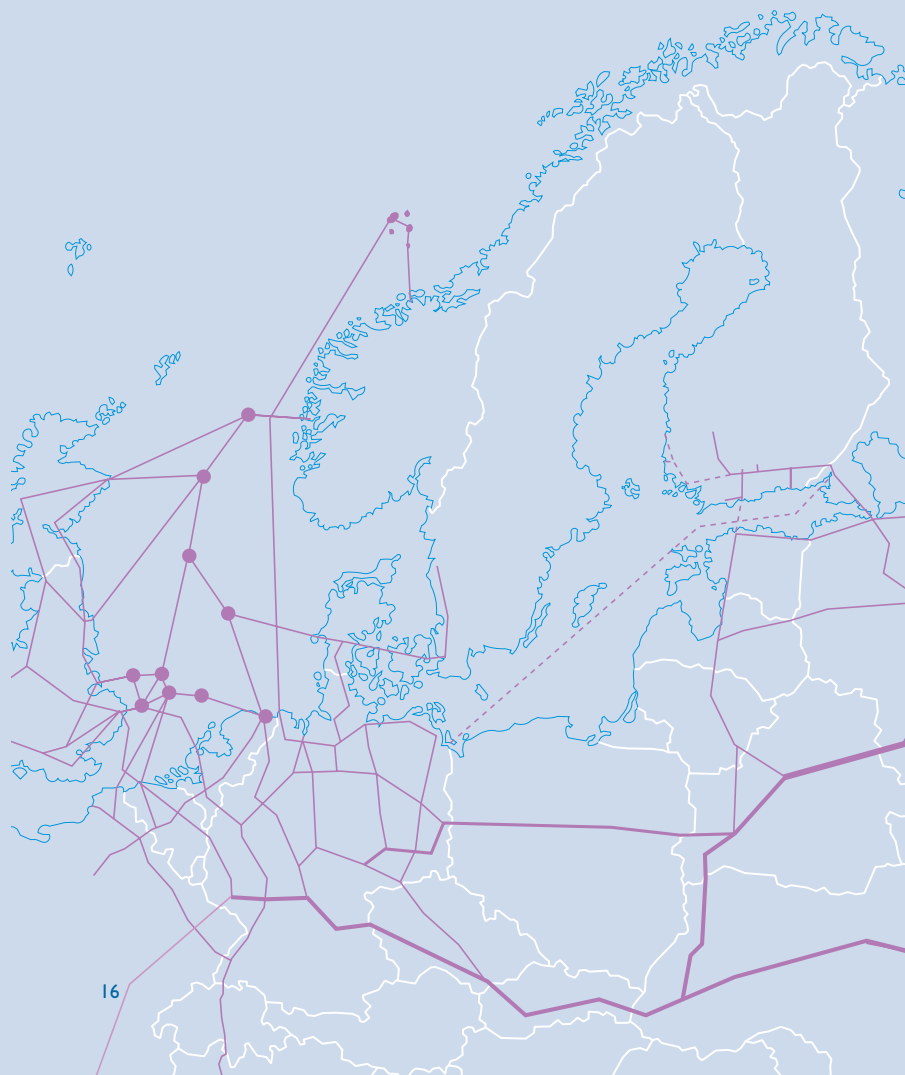
There are also plans to integrate the new Member States as effectively as possible to Trans European Network (TEN) projects currently underway. These projects include a proposed gas pipeline

under the Baltic Sea. Together with gas operators in the Baltic states, Gasum is exploring the partnership potential to utilise Latvian gas storage facilities.

## EU increases use of natural gas

A marked rise in the use of gas in the European Union is expected in future. Natural gas currently accounts for around a quarter of total energy consumption. In 2003, EU Member States, Norway and Switzerland consumed a total of 423 billion cubic metres of natural gas. Eurogas estimates show that annual consumption will exceed 500 billion cubic metres by 2020.

Over the same period, imports of natural gas, especially from Russia, will rise because Europe's own reserves will be unable to meet the increased demand. Around two thirds of natural gas used in the EU is currently sourced within the EU or Norway, a third is imported from Russia. EU countries with natural gas reserves include Germany, Denmark, the Netherlands and the UK. Germany, Italy, France, Austria and Finland are the EU's largest buyers of Russian natural gas.







12:30

92,000 MWh of natural gas delivered

*Fitters Leo Åkerlund and Juhani Saarinen from Gasum's mechanical maintenance team in Hyvinkää are at work servicing the Herajoki pressure reduction station in Riihimäki. Modifications were made to the station when a new customer in the industrial park nearby began to use natural gas. By midday, the main control centre has provided the gas seller with its forecast of the gas entering Finland for the present and following day. Consumption is expected to rise partly because colder weather is forecast and partly because of high electricity prices on the Nordic Power Exchange.*

## Operation of the transmission pipeline

### *More information for customers about changes in operation status*

#### Key figures:

- Connections from Gasum's transmission pipeline: 189
- Highest mean hourly transmission flow rate: 10 January, 9am-10am, 889,481 m<sup>3</sup>/hour
- Energy not delivered as a % of energy transmitted via the system: 0.04%
- Number of interruptions in transmission pipeline: 1
- Duration of interruption: 2 hours 15 minutes

Operation was exceptionally challenging in early 2003 when the natural gas transmission pipeline was operating at full capacity. At times Gasum supplied 20-30 per cent more gas than customers had ordered in their annual contracts.

Gas consumption was temporarily restricted by increasing the energy price of extra gas. Those natural gas customers who had signed an interruptible use contract switched temporarily to replacement fuels to safeguard the availability of natural gas for other customers.

#### Improved information exchange

Customer events were held to analyse the situation at the turn of the year. Gasum drew on the feedback from these events to improve its communications strategy during exceptional situations.

Most communication about the natural gas trade and transmission pipeline operations is dealt with electronically via the customer service system or extranet. Extensive data about pressure in the natural gas transmission pipeline was added to the customer service system to enable customers to track changes in pipeline operation status.

Gasum continued to work on developing information exchange with Russian gas transmission company Lentransgaz and now has access to more process information than earlier about the Russian transmission system.

#### Upgrade of automation system completed

Upgrading of the automation systems at compressor stations was completed in 2003, when automation of the oldest compressors at Valkeala was incorporated into the new system. The structure of the new system has cut overall costs and improved system integration.

Gasum owns and maintains the measuring instruments that verify the volume of natural gas arriving in Finland and the amount of gas delivered to customers. The measuring system and reporting are to be upgraded within the next few years.

September 2003 saw Gasum hold a flow measurement seminar for its customers. The seminar dealt with the gen-

eral principles of gas measurement and the technology and instruments involved. The event was attended by some 50 people and received encouraging feedback from those present.

#### Special measures deployed in maintenance

Major connection and modification work was carried out at Midsummer on the natural gas transmission pipeline in Helsinki and in the area of the new straight section of railway track between Kerava and Lahti. The pipeline was vented at 6am on the morning of Midsummer's Eve to allow connection work to be carried out. Operations at valve and compressor stations were planned carefully in advance so that all the work sites were degassed and yet enable as many customers as possible to continue using gas despite the shutdown. At the same time every effort was made to minimise the amount of gas released into the atmosphere during venting. This was done by transmitting the gas from the stretch of pipeline to be vented for storage in the Tampere pipeline and by keeping the pressure to a minimum in the stretch of the pipeline to be vented.

Extensive internal pipeline inspections by pigs also called for special measures in transmission pipeline operations. Pigs require very accurately defined flow and pressure conditions to operate.



16:00

120,020 MWh of natural gas delivered

Olli Mäki-Tuuri, manager of the Mäntsälä compressor station is ending his working day. There are two compressor units at Mäntsälä. Owing to colder weather, one of the compressor units is running to ensure sufficient pressure also at the western end of the natural gas pipeline in Kyröskoski.

## Maintenance and development of the natural gas grid

### *Investments safeguard the transmission of natural gas as use increases*

#### Key figures:

- Length of transmission pipeline: 999.7 km
- Pressure reduction stations: 128
- Compressor units: 9
- Investments: €7.87 million

In 2003, Gasum introduced a new information system to monitor the utility value of the natural gas network and to evaluate maintenance and extension investments in the network. Gasum constantly tracks the condition of the transmission system to assess replacement needs. The maintenance costs of the transmission system are estimated as much as 50 years ahead.

Network asset management is important not just to maintain reliable transmission, but also to ascertain the grounds for transmission pricing. There are changes in the pipeline to check the pricing of natural gas transmission. The EU requires EU Member States to overhaul the pricing methodology and means of checking the reasonability of rates of return of natural gas transmission in accordance with the Internal Energy Market Directive by the beginning of July 2004. Transmission operations should correspond to costs and permit a reasonable rate of return. Determination of this rate of return is based on the capital tied up in the network.

#### More pipelines under construction and planned

Gasum expects the annual consumption of natural gas to exceed 50 TWh by

2007. This requires network investments approaching €85 million between 2004 and 2005.

To ensure adequate transmission capacity, Gasum has decided to extend the parallel natural gas pipeline. Parallel pipelines increase transmission capacity across the entire natural gas grid catchment area. The parallel pipeline from the reception centre at Imatra currently goes as far as Luumäki. A start was made in December on taking the pipeline from Pajari in Anjalakoski to Valkeala and Elimäki by marking out the route and removing the trees. The stretch of new pipeline is some 30 kilometres long and is scheduled to be completed and ready for use in September 2005.

The new natural gas pipeline will cross the river Kymijoki. The pipeline will be placed in a tunnel under the river Kymijoki. This approach was chosen for environmental reasons because disturbing the sediment on the riverbed could release environmentally hazardous substances. The tunnel is the first of its kind in Finland's natural gas network.

Planning and land purchase decisions have also been made to extend the parallel pipeline from Kymijoki to Niinikoski. To this end, nature inventories and other studies were carried out to identify the best route for the pipeline. Gasum presented the initial route options to landowners in May.

Gasum also made plans and land purchase decisions to build a 29-km parallel pipeline from Mäntsälä to Sipoo.

The project to extend the natural gas pipeline to Turku progressed with land purchases. Gasum submitted a land

purchase application to the Government in November. If Gasum is to supply natural gas to the Turku economic zone from 2008 as planned, the decision to build the pipeline has to be given the green light by 2005 to enable a start to be made on building in 2006.

#### Replacement of radio link network and flow measurement devices

Gasum upgraded its network of radio links between Valkeala-Mäntsälä-Espoo and Mäntsälä-Tampere. These links are used in the remote control of the transmission system. The old 1985 link system operating at a frequency of 2.6 GHz was replaced by a new one operating at 7.5 GHz, increasing the system's data transmission capacity at the same time.

The gas volume correctors used to measure pressure and temperature at pressure reduction stations were replaced in a bid to improve the accuracy of flow measurement and to ensure the availability of spare parts far into the future. The year under review saw the completion of upgrading automation systems at compressor stations. Automation will be further improved during 2004 by integrating equipment performance monitoring and analysis into the system.

At the Imatra reception station, new filters doubled the gas filtering capacity of incoming gas from 500,000 cubic metres to one million cubic metres an hour. This was done to ensure we have sufficient capacity to filter natural gas both during existing periods of peak use and taking into account higher future gas consumption.

Owing to the increasing number of drawings spawned by pipeline extension investments, Gasum has decided to upgrade its document management of network drawings.

#### Major connections at Midsummer

Pipeline connections to the natural gas transmission pipeline are usually carried out at Midsummer, when use is at a minimum and the pipeline can easily be vented for the duration of the work. The largest connection to date in the history of the Finnish natural gas network was carried out at Midsummer 2003. Connections were made on Midsummer's Eve in six places.

The largest connection project was in Mäntsälä, where the pipeline was moved 6 kilometres out of the way of the new straight section of railway track between Kerava and Lahti. In Helsinki, the pipeline was moved out of the way of a new office block to be built in Pohjois-Haaga. Additionally, several smaller connections were made to enable pigs to inspect the pipelines internally.

Seven new valve stations are being planned in connection with pipeline extension projects. These valve stations make it easier to connect stretches of pipeline.



*Lawrence Ling of PII-Pipetronix sends a smart pig off on its inspection journey at the Imatra reception station.*

## Nippy pigs

During 2003, Gasum carried out internal inspections of over 300 kilometres of pipeline. Pig launchers and receivers, or pig traps, at Mussalo, Lappeenranta and Vuosaari (Helsinki) were employed for the first time.

The pigs travel with the gas flow and remove any debris left in the pipeline during the building stage or impurities occurring later. More than 30 pigs were put through the Mussalo branch pipeline to make it clean enough for smart pigs to inspect it. Smart pigs operate using magnetic flux density to identify all the magnetic and geometric deviations in the pipeline casing and provide exact information about the pipeline structure.

Initial inspection findings were reported in January 2004 and among other things led to the repair of damage identified in the Vuosaari branch pipeline.

## Gasum and the community

### Our aims – safety and transparency

#### Key figures:

- Investments in the environment, health and safety: €285,300
- Employee sick leave: 2.05% of working hours
- Industrial accident frequency per million working hours (resulting in more than one day's absence): 17
- Methane emissions: 572 tonnes
- Carbon dioxide emissions: 70,658 tonnes

Gasum seeks to further national wellbeing and the business conditions of its customers through the provision of natural gas and related services. Natural gas plays a major role as a fuel in industrial and municipal power plants. Finnish society needs reliable, safe deliveries of natural gas.

Gasum's most important stakeholders are its customers, employees, owners, the supervisory authorities and local residents within the natural gas grid catchment area. Collaboration with customers is described in the market review and owner interaction in the Board of Directors' report. Interaction with other important stakeholders is reported here.

Gasum has identified the adverse environmental impacts in transmission activities and is making every effort to reduce them. In 2002, Gasum became a signatory to the industrial energy savings

agreement. Another point for development is to minimise the environmental impacts arising in grid construction.

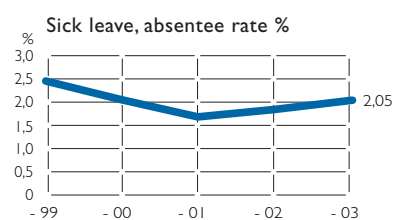
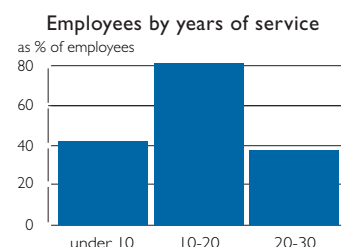
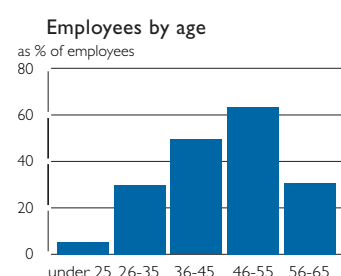
#### Gasum employees

The Gasum Group employed 182 employees at year-end 2003. The parent company employed 145 persons and subsidiaries 37. The Group employs 41 women and 141 men. Staff numbers have remained fairly steady in recent years and staff churn is negligible. Gasum employed some 60 fixed-contract trainees, mostly seasonal employees during the summer.

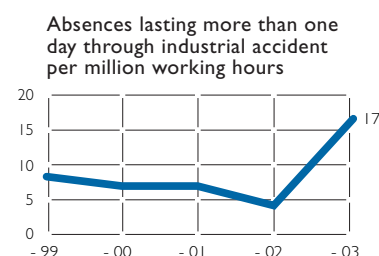
A considerable number of Gasum employees will reach the age of retirement during the following ten years. To enable us to retain our high level of expertise, the company launched a study to identify those areas of competence that we need to improve.

There was an average of four training days per person in 2003. The training focus in 2003 was to improve basic computer skills. Eleven persons completed their computer driving licence and there are plans to continue driving licence training.

Six persons took part in training for the occupational health card. There are plans to apply for occupational health cards for all maintenance staff during 2004. Since maintenance services are also sold direct to customers, there is an increasing need for information about occupation health. Our maintenance staff now need to be equipped to work in different conditions on our customers' premises.



The average industrial absentee rate through sickness in 2002 was 5.5.  
(Source: TT)



The comparative figure in 2002 for Finnish companies pledged to the RC initiative was 14

18:00

136,000 MWh of natural gas delivered

Suomen Kaasuenergia's sales manager Voitto Rihu relaxes on the slopes at the end of a working day. Voitto was nominated Gasum Employee of the Year 2003. The nomination was made by previous Gasum employees of the year, who noted that Voitto shows a rare ability, coupled with great empathy and humour, to work with others to take even the most difficult matters forward. Voitto's happiness is contagious, although he remains very modest despite having received many positive comments from customers.





*Director Veikko Virtanen and materials manager Olavi Toiva from Tampere Power Utility were among those present at the opening of Gasum's new premises in Tampere.*

## New premises in Tampere

Gasum's maintenance centre in Tampere moved into its first very own premises on Raspinkatu street in the Lahdesjärvi industrial area. The five-person strong Tampere maintenance team had earlier worked in rented premises. The new premises were opened in November.

The Tampere maintenance centre is responsible for maintenance of the natural gas transmission pipeline between Iittala and Kyröskoski. The maintenance centre serves as a base for the Tampere maintenance team and is where preventative maintenance of natural gas transmission pipeline equipment is carried out. The maintenance centre also manages any supplementary and additional building work and services customers' gas appliances.

### Natural gas deployed diversely

The new premises deploy natural gas as diversely as possible. The entire 600 square metre building is heated by gas-fired central heating. There is also a radiation heater in the repair workshop. The building also boasts a natural gas sauna and a natural gas cooker. Gas lamps illuminate the yard.

The Tampere maintenance centre can also use a natural gas powered vehicle on service runs. A natural gas refuelling outlet has been built on the site. The outlet is similar to ones commonly built at private houses in Canada to refuel natural gas powered passenger cars.

Construction of the maintenance centre commenced in May and the rooftoping ceremony was held in August. An open day was held to officially open the building in January 2004. The maintenance centre cost around €780,000.

Gasum could again report better key figures describing health and occupational safety than those of similar industrial companies. Gross healthcare costs per employee were around €300, which includes preventative occupational health care and medical treatment. After a pre-employment medical examination, employees receive regular medical check-ups at least every five years.

### Offices

The parent company has six offices. The largest employers are the Natural Gas Centre in Valkeala, with 61 permanent employees, and the head office in Espoo, with 35 employees. There are also most fixed-term trainees in these offices. The subsidiaries have offices in Helsinki, Kotka and Lohja. Gaasienergia has an office in Tallinn in association with the offices of Eesti Gaas and employs a staff of two, one of whom is part-time.

Gasum seeks to sponsor local activities in the vicinity of its offices. Since 1993, the company has sponsored Valkealan Kajo ladies volleyball team. In Hyvinkää we sponsored the Hyvinkään Tahkon Pro 06 junior baseball team. In Espoo, we sponsored the FC Espoo football club. Gasum's subsidiary Suomen Kaasuenergia sponsors a class in Sipoo. We also sponsored numerous small local projects.

Together with Mäntsälä Sähkö, Gasum Oy is involved in the Energy in Uusimaa project, which seeks to tell comprehensive school pupils about the different forms of energy. All major energy companies in Uusimaa took part in the project. Some 140 8th-grade comprehensive school pupils visited the Mäntsälä compressor station.

### Impact of transmission pipeline on landowners

Thousands of landowners come within the catchment area of the natural gas transmission pipeline. Gasum redeems the right of access to pipeline areas and ownership rights to valve and pressure reduction station properties. The pipeline imposes some restrictions on use on some properties. In 2003, Gasum issued



98 written permits and statements in respect of land use and construction work taking place in the immediate vicinity of the natural gas pipeline. In addition, Gasum supervised numerous excavations on site.

#### Information about extension plans

Gasum's principal construction projects are an extension of the parallel pipeline from Luumäki to Kymijoki and in turn to the Mäntsälä compressor station and an extension of the natural gas pipeline to a new region in Western Finland. There are also plans to build a parallel pipeline from Mäntsälä to Sipoo.

During 2003, we held consultation meetings with landowners in all municipalities along the route of the proposed new pipeline to the Turku economic zone. These meetings provided landowners with an opportunity to comment on the project and to ask about matters of particular interest to them. There are some 1,500 landowners affected by the pipeline. More than 800 persons attended the meetings, which particularly raised questions about the impact on

fields during construction, compulsory purchase and the pipeline route. Landowners submitted 95 comments on the project. These comments were duly appended to the application for a compulsory purchase order that Gasum submitted to the Finnish Government in November.

During May 2003, three meetings were held for landowners in respect of extensions to the parallel pipeline. These meetings were attended by some 45 persons. Consultation meetings with landowners in respect of the section of parallel pipeline between Valkeala and Elimäki were held in October.

#### Dependability and safety of the natural gas supply

Strategic preventative maintenance and inspections ensure the dependability and safety of the natural gas supply. Hazard assessment and safety analyses evaluate the risks involved in gas transmission.

Supplies of natural gas flowed smoothly throughout 2003. There was no pipeline

#### Energy savings agreement gives rise to new development projects

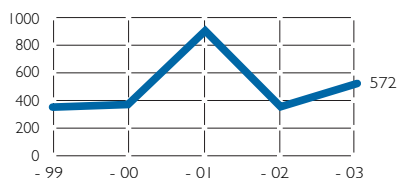
Gasum signed the Finnish Ministry of Trade and Industry's power industry's energy savings agreement in 2002 and commissioned an energy savings study. The projects suggested in the study were launched during 2003.

The heat from exhaust emissions at compressor stations is recovered to produce district heat in Kouvola. Gasum and Vari Oy signed an agreement to this effect in July. The investment seeks to both save energy and cut greenhouse gas emissions. Gasum delivers some 20 GWh of district heat a year to Vari Oy. This is equivalent to the annual heating requirement of around houses. The investment will result in a fall of some 4,000 tonnes of carbon dioxide emissions and some 7 tonnes of oxides of nitrogen emissions in district heat production.

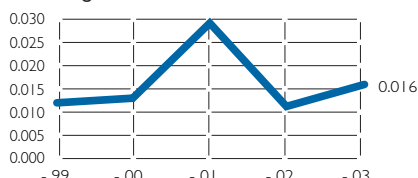
Gasum has also decided to go ahead with building its own CHP plant as recommended in the energy review. The plant will be built in Valkeala and produce thermal energy to heat the workplace and electricity to meet the needs of the Valkeala and Imatra offices.



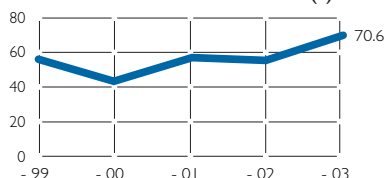
Methane emissions (t)



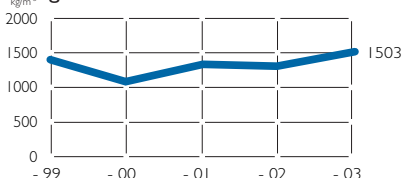
Methane emissions / as % of gas transmitted



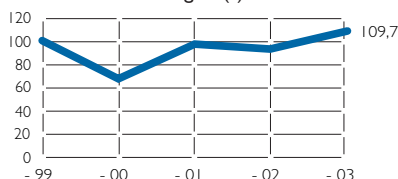
Carbon dioxide emissions (t)



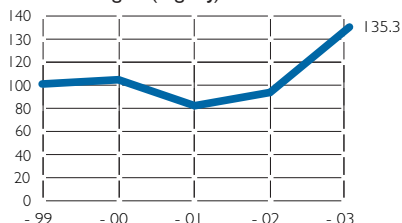
Carbon dioxide emissions / gas transmitted



Oxides of nitrogen (t)



Specific emissions of oxides of nitrogen (mg/MJ)



damage or emergency situations in the transmission system. Six near-miss situations were reported.

There was one disruption in the supply of natural gas to a customer and six faults that, if not dealt with, could have resulted in an interruption to supply.

### Origin of natural gas

The gas imported into Finland originates from the Jamburg and Urengoi fields in Western Siberia, home to the world's richest gas deposits.

The gas sourced in Siberia is located at three levels ranging from a depth of 1000-4000 metres. When a gas field is developed, a production hole is drilled into the reservoir. A productive hole is called a gas well. Gas wells generally produce gas for 25 years, although some can do so for as long as a hundred years. Finland's gas requirement can be met by some 20 gas wells.

The journey from Western Siberia to Finland is around 3,400 kilometres. Several transmission pipelines over one metre in diameter run parallel to each other. In areas of permafrost the pipelines run above ground and elsewhere at a depth of about one metre underground.

### Environmental impacts

Gasum's environmental management system complies with the international ISO 14001 standard. Subsidiary companies have no certified environmental management systems. The figures shown below cover the environmental impacts caused by the activities of the parent company.

The key principles governing environmental management are outlined in Gasum's environmental manual and in the related instructions for each business. Gasum has been a signatory to Chemical Industry Federation of Finland's Responsible Care initiative since 1996. Gasum has also signed an agreement to promote energy saving in the power industry.

The Mäntsälä compression station received a new environmental permit in 2003. The new permit required improve-

ments in noise measurement and wastewater treatment. Gasum has also applied for a new environmental permit for the compressor stations at Valkeala and Imatra.

### Methane emissions

The natural gas imported into Finland is 98 per cent methane, which is a greenhouse gas. Methane escapes into the atmosphere during venting, or emptying, a section of a natural gas pipeline. Venting is required when a pipeline has to be depressurised because of an emergency, maintenance work or when joining it to another pipeline.

Methane emissions totalled 572 tonnes. Almost half of this figure occurred during venting in connection with the extensive pipeline connection work carried out at Midsummer.

### Carbon dioxide and oxides of nitrogen emissions

Compressor stations increase the pressure of natural gas at distances of about 100 km in the grid. The compressors are driven by natural gas turbines. This means carbon dioxide, steam and NO<sub>x</sub> are produced during natural gas combustion.

Carbon dioxide emissions totalled 70,658 tonnes during 2003. Total oxides of nitrogen emissions amounted to 135.3 tonnes and the average NO<sub>x</sub> specific emission from compressor stations was 109.5 mg per MJ. The aim is to cut NO<sub>x</sub> emissions to below 100 mg/MJ by 2005.

Compressors in the natural gas transmission system have a total capacity of 64 MW. Compressors are covered by emission limits and participate in the allocation of national emission rights.

### Energy consumption

Use of natural gas as a turbine fuel at compressor stations was 282 GWh. Pressure reduction stations consumed 71 GWh of natural gas to drive turbines and heat the premises.

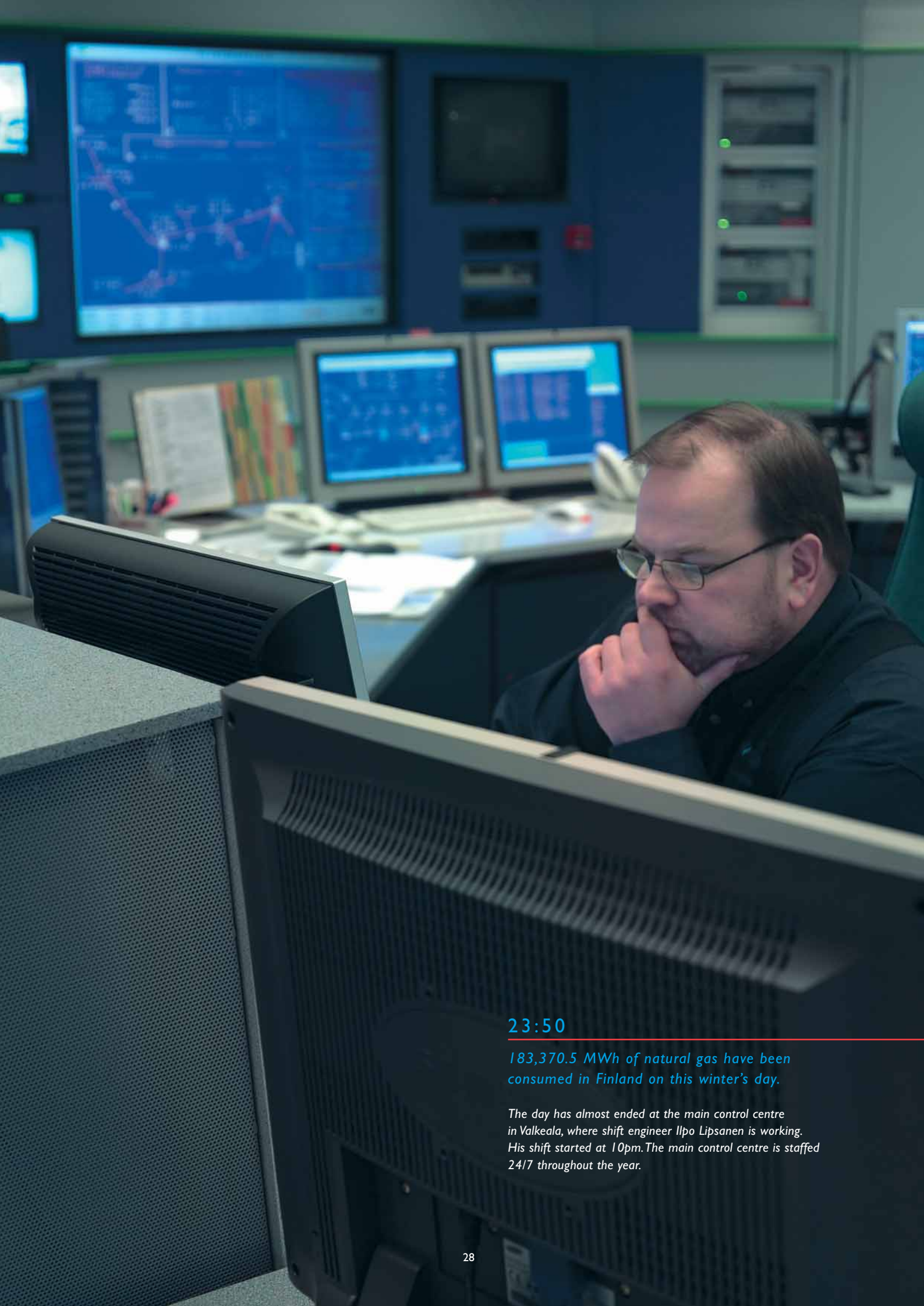
The transmission process consumed 0.74 per cent of the natural gas transmitted.



19:30

*148,000 MWh of natural gas delivered*

*A consultation meeting is getting underway at Artjärvi. The meeting presents Gasum's natural gas pipeline extension project to landowners, who have an opportunity to comment on the project, ask questions and check the planned pipeline route on a map.*



23:50

*183,370.5 MWh of natural gas have been consumed in Finland on this winter's day.*

*The day has almost ended at the main control centre in Valkeala, where shift engineer Ilpo Lipsanen is working. His shift started at 10pm. The main control centre is staffed 24/7 throughout the year.*

## Gasum Oy's Board of Directors' report for 2003

### Sales of natural gas

Natural gas sales totalling 47,686 GWh in 2003 marked a new annual record for Gasum. Consumption of natural gas in Finland rose by 11 per cent during the year, primarily because of higher utilisation rates at power plants driven by the high market price of electricity and the exceptionally cold weather during the early part of the year. Local distribution volumes were also slightly up. District heat output is also growing at 2-3 per cent a year. No new natural gas plants came on stream during the year under review.

Extra gas, in other words gas exceeding the volume ordered by customers in advance, accounted for 6.4 per cent of natural gas sales. We sought to increase sales to customers covered by the M2002 tariff by offering them an opportunity to extend the seasonal capacity period to the end of April.

Further improvements were made to our customer relationship management model and we decided to acquire a new CRM system.

Natural gas is supplied by natural gas company Gazprom under a 20-year contract signed in 1994. Supply reliability remained good throughout the year. The natural gas transmission cooperation agreement with Lentransgaz was extended.

### Index-linking used in pricing

Gasum and its wholesale customers have accepted a proposal by Statistics Finland to replace the E31-33 index by a new E40 index that better reflects price

changes in the domestic energy market. The new index came into effect at the start of 2004. At the time of change, switching to the index had no impact on the selling or supply price of natural gas.

### Hedging against fluctuations in the price of oil

Gasum offers its customers a chance to reduce the price risk of natural gas because of fluctuations in the price of oil. In 2003, the validity of these hedging contracts was extended from 12 to 18 months and customers were offered an opportunity to also hedge against currency risks affecting fluctuations in the price of oil. In 2003, hedging was used in respect of 1500 GWh, which is over three per cent of total natural gas sales.

### Investments

Investments in 2003 totalled €7.87 million.

Based on the expected growth in the use of natural gas, Gasum has decided to continue with constructing a parallel pipeline from Pajari in Anjalankoski to Valkeala and under the river Kymijoki to Elimäki. The stretch of pipeline is scheduled for deployment in September 2006. There are also plans underway to extend the parallel pipeline from Elimäki to Niinikoski in Orimattila and to build a parallel pipeline between Mäntsälä and Sipoo.

At Midsummer 2003, new pipelines were connected to Gasum's existing transmission system in three different places. Valves were also fitted at the same

time to facilitate future pipeline inspections.

A 15 MW heat recovery boiler is being built at the Valkeala compressor station. The boiler will generate heat for Vari Oy's distribution network, which sells district heat in the Kouvola area. A natural gas engine power plant is being built at the Valkeala natural gas centre to replace the heat produced for the centre in separate heating boilers and thus cut the use of electricity purchased. The plants will enter service in October 2004.

The new office premises at the maintenance centre in Tampere were completed and opened in November. The maintenance centre is also home to the first filling station in Tampere for natural gas powered vehicles.

### Start of land purchase process in connection with Turku pipeline

Gasum has applied to the Finnish government to purchase rights of use and ownership rights to land areas required to build the natural gas pipeline from Mäntsälä to the Turku economic zone. Land purchase affects some 1500 landowners in 20 municipalities. Local consultation meetings were held with these landowners. If Gasum is to supply gas to the Turku region from 2008 as planned, the decision to build the pipeline has to be given the green light in 2005. The envisaged pipeline is 195-km long and the plan also enables later branch pipelines to be built to Rauma and Pori.

## Environment, health and safety

Gasum's quality and environmental management systems are certified and comply with ISO 9001:2000 and ISO 14100 respectively. The company is signatory to the Chemical Industry of Finland's Responsible Care Initiative and to the industrial energy savings agreement.

In 2003, Gasum inspected the internal condition of the main natural gas transmission pipeline between Imatra, Valkeala and Mäntsälä. Three major branch pipelines were also inspected. Inspections are carried out in accordance with an inspection programme.

The tunnel option was chosen to extend the parallel pipeline under the river Kymijoki. This option avoids disturbing the river bed sediment.

It was decided to fit the main pipeline with connection valves to avoid having to disrupt gas supplies when connecting new stretches of the parallel pipeline. This reduces the methane emissions caused by emptying the pipeline.

Gasum largely achieved its environment, health and safety targets.

## Employees

Gasum Oy employed an average of 163 people during 2003. A further 40 people were employed by subsidiaries. The year under review saw the launch of a development programme aimed at ensuring the company retains its core expertise in natural gas supply, transmission and marketing in the future.

## Subsidiaries and sale of services

Suomen Kaasuenergia Oy (SK) sells natural gas in Helsinki, Kotka, Siuntio, Porvoo and Lohja. SK has a market share of around 16 per cent of local natural gas delivery in Finland. SK's subsidiary, Gaasienergia AS, has begun to deliver natural gas in Estonia. SK achieved its financial and other targets set for the year under review and will continue to expand its business into new areas. The aim is to increase local distribution by one fifth by 2008.

Helsinki Kaasu Oy sells gas appliances, constructs distribution pipelines and is an expert in installation and maintenance services. The company's result of operations improved considerably during

2003. Growing local distribution activities creates a sound platform on which to expand and diversify the sale of natural gas appliances and services.

Helsingin Kaupunkikaasu Oy is responsible for grid services in the Helsinki distribution network.

Gasum Energiapalvelut is the name under which Gasum and its subsidiaries provide maintenance, construction, installation and appliance sales services to customers. Customers are also offered heat or steam produced by natural gas.

The year 2003 marked Gas Exchange Ltd's third year of trading. Gas Exchange brokered 305 GWh of natural gas, equivalent to 0.6 per cent of the natural gas used in Finland. This figure is the same as in 2002. Gas Exchange has 25 customers trading natural gas. During the year under review, we worked together with customers to develop a possibility to trade lots of natural gas for use in the future.

## Ownership structure

The year 2003 marked Gasum Oy's tenth year of business. There have been no changes to Gasum Oy's ownership structure since summer 1999. Gasum is owned by:

Fortum Oil and Gas Oy	25%
OAQ Gazprom	25%
Finnish state	24%
Ruhrgas Energie Beteiligungs Aktiengesellschaft	20%
M-real Corporation	2%
Stora Enso Oyj	2%
UPM-Kymmene Corporation	2%

In addition, the Finnish state owns one K Share.

## Annual General Meeting, Supervisory Board and Board of Directors

Gasum Oy's Annual General Meeting was held on 15 May 2003.

The following members of the Supervisory Board handed in their resignation: Heikki Sara, Director UPM-Kymmene Corporation, Bo Lindfors, Senior Vice President Fortum Corporation and Matthias Keuchel, Director, Ruhrgas. They were replaced by Aarre Metsävirta, Senior Executive Vice Presi-

*Ritva Lönnberg acts as secretary at meetings of the Board of Directors. Members of the Board of Directors are Juha Vainikka, vice chairman, Senior Vice President Transmission, Antero Jännes, chairman, CEO, Birger Sandström, Senior Vice President, Law and Finance, Björn Ahlnäs, Senior Vice President, Marketing and Vladimir Hramoff, Senior Vice President, Supply.*

dent and Deputy CEO of M-real, Tapio Kuula, President of Fortum Power and Heat and Seppo Aho, Vice President of Fortum for the remaining term of office. Members of Gasum's Supervisory Board retiring by rotation were Alexander Riazanov, Deputy Chairman of Gazprom's Management Committee, Sergey Sedukov, General Director of Lentransgas and Dr Eike Benke of Ruhrgas. All three were re-appointed for a further term of office.

Harri Malmberg LLM and Taisto Turunen, Director-General, Ministry of Trade and Industry, were re-appointed as chairman and vice chairman respectively of the Supervisory Board.

The Annual General Meeting re-appointed PricewaterhouseCoopers Oy as Gasum Group's auditors, with Eero Suomela APA as the principal auditor.

CEO Antero Jännes served as chairman of Gasum Oy's Board of Directors. Other members were Vladimir Hramoff, Birger Sandström and Björn Ahlnäs.

During the year under review, the Supervisory Board met three times and the Board of Directors 11 times.



### Future prospects

In its own scenarios, Gasum expects the annual use of natural gas in combined heat and power (CHP) production to rise between 2004 and 2008 by some 9 TWh or almost 20 per cent from its existing figure of 47.7 TWh. Industry would account for one half of this increased consumption and municipalities for the other half. We still aim to see natural gas being available for use in the Turku economic zone in 2008.

Based on the requirements of the EU's Natural Gas Directive, Gasum has prepared a new post financial statement information model to monitor the reasonableness of returns from its natural gas grid business. A monitoring period of five years has been put forward. A methodology decision given at the start of the period would specify reasonable revenue and efficiency improvement aims and the decision at the end of the monitoring period in respect of over- or under-achievement of reasonable revenue can be appealed. It has been proposed that appeals in respect of monitoring de-

terminations take on a two-stage model. The function and application of the model depends on the content of the methodology decisions currently being drafted by the Energy Market Authority. Gasum considers it important that these decisions take account of the peculiar features of the Finnish natural gas market.

Changes in vehicle taxation entering into force at the start of 2004 improve the potential of natural gas as a traffic fuel. Gasum seeks to foster the use of natural gas as a traffic fuel through Suomen Kaasuenergia Oy and is prepared to invest in new natural gas filling stations to meet any growth in demand.

In continuation of the feasibility study to lay a natural gas pipeline under the Gulf of Finland, Gasum, AS Eesti Gaasi and A/S Latvijas Gaze launched a joint project aimed at improving the natural gas infrastructure in Finland and the Baltic states.

### Net sales and result

Gasum Oy's net sales for 2003 were €646.5 million, up by 12.2 per cent on

the figure for 2002. Net financial charges were €2.3 million and planned depreciation €21.4 million. The profit before extraordinary items was €60.3 million and the profit for the financial year €32 million. The balance sheet total was €511.6 million in 2003 and the equity ratio 61.4 per cent.

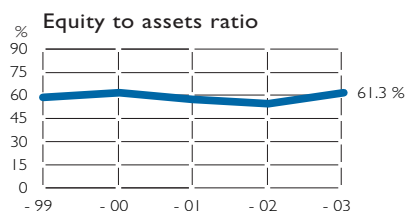
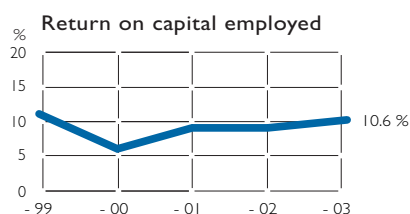
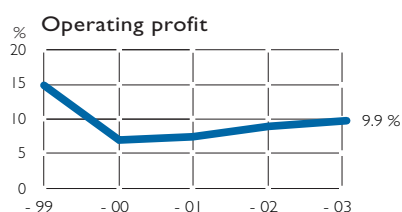
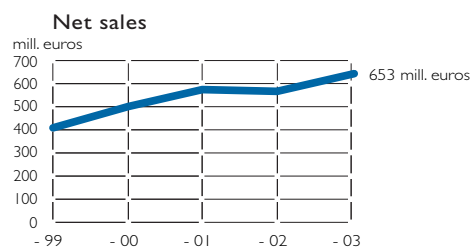
Financial business targets were exceeded in 2003 primarily owing to higher sales of natural gas.

### Proposal for the distribution of profit

The Group's unrestricted equity and distributable funds at 31 December 2003 amounted to €33,116,332.68. The distributable funds of the parent company were €34,743,139.79.

The Board of Directors proposes that Gasum Oy pay a 2003 dividend of €32,090,256.97, equivalent to 18 per cent of the share capital, and that the remaining distributable funds be retained.

## Selected Financial Information



### Formulae for the key financial indicators:

Operating profit (%)	= Operating profit / Net sales × 100
Return on capital employed (%)	= (Profit before extraordinary items + interest and other financial expenses) / Capital employed average × 100
Equity to assets ratio (%)	= (Shareholders' equity + minority interests) / (Total assets – advances received) × 100
Gearing	= (Interest-bearing net debt + deferred tax liabilities) / (Shareholders' equity + minority interests) × 100
Capital employed	= Total assets – interest-free liabilities – deferred tax liabilities – provisions for liabilities and charges
Interest-bearing net debt	= Interest-bearing net debt – cash and marketable securities
Cash and marketable securities	= Cash and cash equivalents + marketable securities



## Income statement

€ million		GROUP		PARENT COMPANY	
		2003	2002	2003	2002
<b>Net sales</b>	(1)	<b>653</b>	581	<b>646</b>	576
Other operating income	(2)	<b>1</b>	0	<b>0</b>	0
Materials and services	(3)				
Raw materials and consumables					
Purchases during the financial year		<b>-548</b>	-472	<b>-548</b>	-471
Staff costs					
Wages and salaries	(4)	<b>9</b>	9	<b>7</b>	7
Social security costs					
Pension costs		<b>1</b>	2	<b>1</b>	2
Other social security costs		<b>1</b>	1	<b>1</b>	1
		<b>-11</b>	-11	<b>-9</b>	-10
Depreciation and value adjustments	(6)				
Depreciation according to plan		<b>-22</b>	-35	<b>-21</b>	-34
Other operating charges		<b>-7</b>	-10	<b>-6</b>	-9
<b>Operating profit</b>		<b>65</b>	53	<b>63</b>	52
<b>Financial income and charges</b>	(7)				
Other interest receivable and similar income					
From others		<b>1</b>	1	<b>1</b>	0
Interest payable and similar charges					
To others		<b>-4</b>	-5	<b>-4</b>	-5
		<b>-3</b>	-4	<b>-3</b>	-5
<b>Profit before extraordinary items</b>		<b>62</b>	49	<b>60</b>	48
<b>Profit before appropriations and taxes</b>		<b>62</b>	49	<b>60</b>	48
Appropriations					
Increase in depreciation difference (-)	(8)			<b>-15</b>	0
Income taxes	(9)	<b>-18</b>	-14	<b>-13</b>	-14
<b>Profit for the financial year</b>		<b>44</b>	35	<b>32</b>	33

## Balance sheet

€ million	GROUP		PARENT COMPANY	
	2003	2002	2003	2002
<b>ASSETS</b>				
<b>FIXED ASSETS</b>				
<b>Intangible assets</b> (10)				
Other long-term expenditure	4	4	4	3
Goodwill on consolidation	3	3	0	0
	<b>8</b>	<b>8</b>	<b>4</b>	<b>3</b>
<b>Tangible assets</b>				
Land and water	2	2	2	2
Buildings	339	348	322	333
Machinery and equipment	57	57	56	56
Other tangible assets	4	4	4	4
Tangible assets in the course of construction	5	8	5	8
	<b>407</b>	<b>419</b>	<b>389</b>	<b>403</b>
<b>Financial assets</b>				
Shares in Group companies			7	7
Amounts owed by Group companies			4	3
			<b>11</b>	<b>10</b>
<b>CURRENT ASSETS</b>				
<b>Stocks</b> (12)	<b>6</b>	<b>7</b>	<b>5</b>	<b>6</b>
<b>Debtors</b> (13)				
Short-term				
Trade debtors	73	92	71	89
Amounts owed by Group companies			1	1
Prepayments and accrued income	0	1	0	1
	<b>73</b>	<b>93</b>	<b>72</b>	<b>91</b>
<b>Cash and cash equivalents</b>	<b>31</b>	<b>41</b>	<b>30</b>	<b>41</b>
	<b>526</b>	<b>568</b>	<b>512</b>	<b>555</b>

€ million		GROUP		PARENT COMPANY	
		2003	2002	2003	2002
<b>SHAREHOLDERS' EQUITY AND LIABILITIES</b>					
<b>SHAREHOLDERS' EQUITY</b> (14)					
	Share capital	<b>178</b>	178	<b>178</b>	178
	Retained earnings	<b>100</b>	99	<b>3</b>	2
	Profit for the financial year	<b>44</b>	35	<b>32</b>	33
		<b>322</b>	312	<b>213</b>	214
<b>ACCUMULATED APPROPRIATIONS</b>					
	Accumulated depreciation difference			<b>142</b>	127
<b>DEFERRED TAX LIABILITY</b> (16)		<b>45</b>	41		
<b>CREDITORS</b>					
<b>Long-term</b> (17)					
	Loans from financial institutions	<b>69</b>	67	<b>69</b>	67
		<b>69</b>	67	<b>69</b>	67
<b>Short-term</b> (18)					
	Loans from financial institutions	<b>15</b>	51	<b>15</b>	51
	Trade creditors	<b>54</b>	67	<b>53</b>	66
	Other creditors	<b>13</b>	19	<b>12</b>	18
	Accruals and deferred income	<b>7</b>	11	<b>7</b>	11
		<b>89</b>	148	<b>87</b>	146
		<b>526</b>	568	<b>512</b>	555

## Cash flow statement

€ million	GROUP		PARENT COMPANY	
	2003	2002	2003	2002
<b>Cash inflow from operating activities</b>				
+ Payments received from sales	666	568	660	563
+ Payments received from other operating activities	1	0	0	0
- Payments of other operating charges	-580	-479	-577	-476
Cash inflow from operating activities before financial items and taxes	87	89	83	87
- Interest paid and payments of other financial charges for operating activities	-5	-6	-5	-6
+ Interest received from operating activities	1	1	1	1
+ Dividends received from operating activities	0	0	0	0
- Taxes paid	-14	-10	-14	-10
Cash inflow from operating activities before extraordinary items	69	74	66	72
+/- Net cash flow from extraordinary financing items	0	0	0	0
<b>Cash inflow from operating activities (A)</b>	<b>69</b>	<b>74</b>	<b>66</b>	<b>73</b>
<b>Cash inflow/outflow from investing activities</b>				
- Investments in tangible and intangible assets	-10	-30	-7	-28
+ Gains on the divestment of tangible and intangible assets	0	0	0	0
- Investments in other financial assets	0	0	0	0
+ Gains on the divestment of other financial assets	0	0	0	0
- Loans granted	0	0	0	0
+ Repayment of loan receivables	0	0	0	0
+ Interest received from investments	0	0	0	0
+ Dividends received from investments	0	0	0	0
<b>Cash inflow/outflow from investing activities (B)</b>	<b>-11</b>	<b>-30</b>	<b>-7</b>	<b>-28</b>
<b>Cash inflow/outflow from financing activities</b>				
+ Increase in short-term loans	0	0	0	0
- Repayments of short-term loans	0	0	0	0
+ Increase in long-term loans	38	31	37	31
- Repayments of long-term loans	-72	-17	-72	-17
-/+ Increase/decrease in long-term debtors	-1	0	-1	0
- Dividends paid and other distribution of profit	-33	-22	-33	-22
<b>Cash inflow/outflow from financing activities (C)</b>	<b>-68</b>	<b>-8</b>	<b>-69</b>	<b>-8</b>
Change in liquid assets (A+B+C)	-10	37	-10	36
Liquid assets at 1 January	41	4	40	4
Liquid assets at 31 December	31	41	30	40
	-10	37	-10	36

## Notes to the financial statements

### ACCOUNTING PRINCIPLES

#### CONSOLIDATION

Gasum Oy is the parent company of the Gasum Group and has its registered office in Espoo, Finland. Copies of the consolidated financial statements are available from Gasum Oy's head office at Keilaranta 6 B, FI-02150 Espoo, Finland.

The consolidated financial statements include the accounts of the parent company Gasum Oy and of subsidiaries Helsinginkäasu Oy, Helsingin Kaupunkikäasu Oy, Gas Exchange Ltd, Suomen Kaasuenergia Oy and Gaasienergia AS. Suomen Kaasuenergia Oy and Gaasienergia AS form a subgroup within the Gasum Group. Gaasienergia AS is fully owned by Suomen Kaasuenergia Oy. No separate consolidated accounts have been prepared for the subgroup. The difference between the acquisition cost and equity at the time of acquisition, arising from the elimination of mutual shareholdings, has been treated as goodwill on consolidation and is depreciated over its estimated lifetime subject to a maximum of 20 years. Intra-group transactions have been eliminated in the income statement and balance sheet.

#### FOREIGN CURRENCY ITEMS

Debtors and creditors denominated in foreign currency have been valued at the middle rates quoted by the Central European Bank at the balance sheet date.

#### DEPRECIATION

The acquisition cost of fixed assets is booked as straight-line depreciation based on economic life expectancy.

The economic life expectancies used are:

	Group		Parent company	
	2003	2002	2003	2002
Buildings	20-40 years	20-40 years	20-40 years	20-40 years
Other tangible assets	20-40 years	20-40 years	20-40 years	20-40 years
Machinery and equipment	4-15 years	5-15 years	4-15 years	5-15 years
Other long-term expenditure	5-10 years	5-10 years	5-10 years	5-10 years
Intangible rights	5 years	5 years	5 years	5 years
Goodwill on consolidation	20 years		20 years	

#### STOCKS

Stocks have been valued on the FIFO principle at direct acquisition cost or market value, whichever is the lower.

#### DEFERRED TAX LIABILITY

The depreciation difference in the consolidated financial statements has been divided into distributable equity and deferred tax liability.

€ 1,000

	Group		Parent company	
	2003	2002	2003	2002
<b>I. NET SALES</b>				
By geographical area				
Finland	652,228	580,781	646,107	575,239
Rest of Europe	387	652	387	652
Other	3	0	0	0
<b>Total</b>	<b>652,626</b>	<b>581,433</b>	<b>646,494</b>	<b>575,891</b>

€ 1,000	Group		Parent company	
	2003	2002	2003	2002
<b>2. OTHER OPERATING INCOME</b>				
Gains on the divestment of fixed assets	112	25	111	22
Rents	354	350	295	235
Forestry	11	2	11	2
Other	113	101	6	11
<b>Total</b>	<b>590</b>	<b>478</b>	<b>424</b>	<b>270</b>
<b>3. MATERIALS AND SERVICES</b>				
Raw materials and consumables				
Purchases during the financial year	547,540	471,478	547,354	471,266
Change in stocks	652	246	684	120
	<b>548,193</b>	<b>471,724</b>	<b>548,038</b>	<b>471,386</b>
<b>4. STAFF COSTS</b>				
Staff costs and benefits				
Wages and salaries	8,627	8,604	7,202	7,241
Pension costs	1,292	1,875	1,080	1,659
Statutory social security costs	775	841	696	777
<b>Total</b>	<b>10,694</b>	<b>11,321</b>	<b>8,979</b>	<b>9,677</b>
Benefits	336	340	259	261
<b>Total</b>	<b>11,030</b>	<b>11,661</b>	<b>9,238</b>	<b>9,938</b>
Staff costs in the income statement exclude the cash value of benefits				
<b>Management salaries and remuneration</b>				
Managing directors	447		314	
Members of the Board of Directors and Supervisory Board	594		486	
Average number of employees in the Group and parent company during the year				
Salaried employees	136	131	114	111
Manual employees	64	72	49	54
<b>Total</b>	<b>200</b>	<b>203</b>	<b>163</b>	<b>165</b>
<b>5. MANAGEMENT PENSION COMMITMENTS</b>				
Senior management within the Gasum Group may retire at the age of 60 and receive pension benefits in accordance with the regulations of Neste's Pension Foundation.				
<b>6. DEPRECIATION</b>				
Depreciation according to plan				
Depreciation on tangible and intangible assets	22,408	35,019	21,365	34,057
<b>7. FINANCIAL INCOME AND CHARGES</b>				
<b>Interest receivable from non-current financial assets</b>				
From Group companies	0	0	122	138

€ 1,000	Group		Parent company	
	2003	2002	2003	2002
<b>Other interest receivable and similar income</b>				
From Group companies	0	0	32	43
From others	1,230	811	1,223	806
	1,230	811	1,256	849
<b>Interest receivable from non-current financial assets and other interest receivable and similar income, total</b>	1,230	811	1,378	987
<b>Interest payable and similar charges</b>				
To Group companies	0	0	8	1
To others	3,674	5,189	3,671	5,188
	3,674	5,189	3,680	5,189
<b>Financial income and charges, total</b>	2,444	4,377	2,302	4,202
<b>Extraordinary charges</b>				
Group contribution			0	262
<b>8. APPROPRIATIONS</b>				
Depreciation difference			-22,740	-373
<b>9. DIRECT TAXES</b>				
Income taxes on ordinary business operations	13,274	13,699	13,125	13,711
Change in deferred tax liability	4,884	611	0	0
	18,158	14,310	13,125	13,711
<b>10. FIXED ASSETS</b>				
<b>Intangible assets</b>				
Intangible rights				
Acquisition cost at 1 January	276	222	0	0
Increase	3	54	0	0
Decrease	0	0	0	0
<b>Acquisition cost at 31 December</b>	279	276	0	0
Accumulated depreciation at 1 January	208	196	0	0
Accumulated depreciation on decrease	0	0	0	0
Depreciation for the financial year	19	12	0	0
<b>Accumulated depreciation at 31 December</b>	227	208	0	0
<b>Book value at 31 December</b>	51	68	0	0
Other long-term expenditure				
Acquisition cost at 1 January	8,365	7,620	6,982	6,288
Increase	1,006	833	966	783
Divestments and scrapping	11	0	11	0
Decrease	0	88	0	88
<b>Acquisition cost at 31 December</b>	9,360	8,365	7,937	6,982

€ 1,000	Group		Parent company	
	2003	2002	2003	2002
Accumulated depreciation at 1 January	4,086	3,316	3,536	2,809
Accumulated depreciation on divestments and scrapping	1	0	1	0
Accumulated depreciation on decrease	1	41	1	41
Depreciation for the financial year	899	811	854	768
<b>Accumulated depreciation at 31 December</b>	<b>4,984</b>	<b>4,086</b>	<b>4,388</b>	<b>3,536</b>
<b>Book value at 31 December</b>	<b>4,378</b>	<b>4,279</b>	<b>3,550</b>	<b>3,447</b>
Goodwill on consolidation				
Acquisition cost at 1 January	5,147	5,147	0	0
Increase	0	0	0	0
Decrease	0	0	0	0
<b>Acquisition cost at 31 December</b>	<b>5,147</b>	<b>5,147</b>	<b>0</b>	<b>0</b>
Accumulated depreciation at 1 January	1,785	1,526	0	0
Accumulated depreciation on decrease	0	0	0	0
Depreciation for the financial year	259	259	0	0
<b>Accumulated depreciation at 31 December</b>	<b>2,044</b>	<b>1,785</b>	<b>0</b>	<b>0</b>
<b>Book value at 31 December</b>	<b>3,103</b>	<b>3,362</b>	<b>0</b>	<b>0</b>
<b>Book value of intangible assets, total</b>	<b>7,533</b>	<b>7,709</b>	<b>3,550</b>	<b>3,447</b>
<b>Tangible assets</b>				
Land and water				
Acquisition cost at 1 January	2,307	2,195	2,307	2,195
Increase	17	112	17	112
Decrease	0	0	0	0
<b>Acquisition cost at 31 December</b>	<b>2,324</b>	<b>2,307</b>	<b>2,325</b>	<b>2,307</b>
Accumulated depreciation at 1 January	0	0	0	0
Accumulated depreciation on decrease	0	0	0	0
Depreciation for the financial year	0	0	0	0
<b>Accumulated depreciation at 31 December</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Book value at 31 December</b>	<b>2,325</b>	<b>2,307</b>	<b>2,325</b>	<b>2,307</b>
<b>Buildings</b>				
Acquisition cost at 1 January	451,248	475,247	433,029	458,111
Increase	6,718	2,039	3,809	732
Decrease	183	26,038	183	25,814
<b>Acquisition cost at 31 December</b>	<b>457,783</b>	<b>451,248</b>	<b>436,655</b>	<b>433,029</b>
Accumulated depreciation at 1 January	103,481	100,122	99,982	97,076
Accumulated depreciation on decrease	1,132	12,783	1,132	12,783
Depreciation for the financial year	16,406	16,142	15,902	15,689
<b>Accumulated depreciation at 31 December</b>	<b>118,755</b>	<b>103,481</b>	<b>114,752</b>	<b>99,982</b>
<b>Book value at 31 December</b>	<b>339,029</b>	<b>347,767</b>	<b>321,902</b>	<b>333,047</b>



€ 1,000	Group		Parent company	
	2003	2002	2003	2002
Machinery and equipment				
Acquisition cost at 1 January	81,416	63,045	79,251	61,041
Increase	5,978	18,665	5,638	18,412
Divestments and scrapping	363	0	363	0
Decrease	49	294	30	202
<b>Acquisition cost at 31 December</b>	<b>86,982</b>	<b>81,416</b>	<b>84,495</b>	<b>79,251</b>
Accumulated depreciation at 1 January	24,680	20,118	23,284	18,859
Accumulated depreciation on decrease	14	75	14	75
Accumulated depreciation on divestments and scrapping	256	0	256	0
Depreciation for the financial year	5,834	4,637	5,629	4,500
<b>Accumulated depreciation at 31 December</b>	<b>30,244</b>	<b>24,680</b>	<b>28,641</b>	<b>23,284</b>
<b>Book value at 31 December</b>	<b>56,738</b>	<b>56,736</b>	<b>55,854</b>	<b>55,967</b>
Other tangible assets				
Acquisition cost at 1 January	4,683	4,629	4,646	4,602
Increase	11	54	11	44
Decrease	0	0	0	0
<b>Acquisition cost at 31 December</b>	<b>4,694</b>	<b>4,683</b>	<b>4,657</b>	<b>4,646</b>
Accumulated depreciation at 1 January	711	577	683	558
Accumulated depreciation on decrease	0	0	0	0
Depreciation for the financial year	137	134	128	126
<b>Accumulated depreciation at 31 December</b>	<b>848</b>	<b>711</b>	<b>810</b>	<b>683</b>
<b>Book value at 31 December</b>	<b>3,846</b>	<b>3,972</b>	<b>3,847</b>	<b>3,963</b>
Payments on account and tangible assets in the course of construction				
Acquisition cost at 1 January	7,992	2,374	7,966	2,374
Increase	3,019	6,505	2,965	6,479
Decrease	5,541	887	5,541	887
<b>Acquisition cost at 31 December</b>	<b>5,470</b>	<b>7,992</b>	<b>5,390</b>	<b>7,966</b>
<b>Book value at 31 December</b>	<b>5,470</b>	<b>7,992</b>	<b>5,390</b>	<b>7,966</b>
<b>Book value of tangible assets at 31 December</b>	<b>407,408</b>	<b>418,773</b>	<b>389,319</b>	<b>403,251</b>
<b>Book values, total</b>	<b>414,941</b>	<b>426,482</b>	<b>392,868</b>	<b>406,697</b>

The acquisition cost of fixed assets includes assets that have yet to be booked in full as planned depreciation.

€ 1,000	Group		Parent company	
	2003	2002	2003	2002
<b>11. FINANCIAL ASSETS</b>				
<b>Shares in Group companies, %</b>				
Suomen Kaasuenergia Oy, Kotka	100%	100%	100%	100%
Helsingin Kaupunkikaasu Oy, Helsinki	100%	100%	100%	100%
Helsinkikaasu Oy, Helsinki	100%	100%	100%	100%
Gas Exchange Ltd, Espoo	100%	100%	100%	100%
Gaasienergia AS, Tallinn	100%	0%	0%	0%
<b>Group companies</b>				
Acquisition cost at 1 January	0	0	6,637	6,637
Increase	0	0	0	0
Decrease	0	0	0	0
<b>Acquisition cost at 31 December</b>	<b>0</b>	<b>0</b>	<b>6,637</b>	<b>6,637</b>
<b>Book value at 31 December</b>	<b>0</b>	<b>0</b>	<b>6,637</b>	<b>6,637</b>
<b>Other shares and holdings</b>				
Acquisition cost at 1 January	372	362	367	358
Increase	5	9	5	9
Divestments and scrapping	55	0	55	
Decrease	0	0	0	0
<b>Acquisition cost at 31 December</b>	<b>322</b>	<b>372</b>	<b>317</b>	<b>367</b>
<b>Book value at 31 December</b>	<b>322</b>	<b>372</b>	<b>317</b>	<b>367</b>
Amounts owed by Group companies				
<b>Acquisition cost at 1 January</b>	<b>0</b>	<b>0</b>	<b>3,027</b>	<b>3,196</b>
Increase	0	0	1,032	0
Decrease	0	0	0	168
<b>Acquisition cost at 31 December</b>	<b>0</b>	<b>0</b>	<b>4,059</b>	<b>3,027</b>
<b>Book value at 31 December</b>	<b>0</b>	<b>0</b>	<b>4,059</b>	<b>3,027</b>
<b>Book value of financial assets at 31 December</b>	<b>322</b>	<b>372</b>	<b>11,013</b>	<b>10,030</b>
<b>12. STOCKS</b>				
Goods	6,043	6,695	5,473	6,157
Work in progress	0	0	0	0
	6,043	6,695	5,473	6,157
Replacement cost	5,986	7,845	5,686	7,307
Book value	6,043	6,695	5,743	6,157
<b>Difference</b>	<b>-57</b>	<b>1,150</b>	<b>-57</b>	<b>1,150</b>
<b>13. DEBTORS</b>				
<b>Long-term</b>				
Amounts owed by Group companies	0	0	50	30
By others	376	471	353	471
<b>Long-term debtors, total</b>	<b>376</b>	<b>471</b>	<b>403</b>	<b>501</b>

€ 1,000	Group		Parent company	
	2003	2002	2003	2002
<b>Short-term</b>				
Amounts owed by Group companies				
Trade debtors	0	0	855	1,151
Loan receivables	0	0	168	168
Prepayments and accrued income	0	0	0	0
Other debtors	0	0	60	121
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1,083</b>	<b>1,440</b>
Trade debtors	72,874	91,520	70,752	88,837
Other debtors	460	138	402	118
Prepayments and accrued income	83	1,076	71	1,039
<b>Short-term debtors, total</b>	<b>73,417</b>	<b>92,734</b>	<b>72,308</b>	<b>91,434</b>
<b>Debtors, total</b>	<b>73,793</b>	<b>93,205</b>	<b>72,711</b>	<b>91,935</b>
<b>14. SHAREHOLDERS' EQUITY</b>				
Share capital at 1 January	178,279	178,279	178,279	178,279
<b>Share capital at 31 December</b>	<b>178,279</b>	<b>178,279</b>	<b>178,279</b>	<b>178,279</b>
Retained earnings at 1 January	133,398	121,052	35,857	24,653
Payment of dividend	-33,134	-22,285	-33,134	-22,285
<b>Retained earnings at 31 December</b>	<b>100,263</b>	<b>98,766</b>	<b>2,723</b>	<b>2,368</b>
<b>Profit for the financial year</b>	<b>44,071</b>	<b>34,632</b>	<b>32,021</b>	<b>33,489</b>
Translation difference	-1	0	0	0
<b>Shareholders' equity, total</b>	<b>322,612</b>	<b>311,677</b>	<b>213,022</b>	<b>214,137</b>
<b>Statement of distributable funds at 31 December</b>				
Retained earnings	100,263	98,766	2,723	2,368
Profit for the financial year	44,071	34,632	32,021	33,489
Translation difference	-1	0	0	0
Less share of depreciation difference booked in shareholders' equity	-111,216	-99,258	0	0
<b>Total</b>	<b>33,116</b>	<b>34,140</b>	<b>34,744</b>	<b>35,857</b>
The parent company's share capital is distributed as follows:	No. of shares		No. of shares	
Series A	53,000,000		53,000,000	
Series K	1		1	
<b>15. ACCUMULATED APPROPRIATIONS</b>				
In the parent company, accumulated appropriations consist of the accumulated depreciation difference.				
<b>16. DEFERRED TAX LIABILITIES</b>				
Deferred tax liabilities arising from appropriations	47,613	40,542	0	0

€ 1,000	Group		Parent company	
	2003	2002	2003	2002
<b>17. LONG-TERM CREDITORS</b>				
Loans from financial institutions	68,629	67,286	68,629	67,286
Other long-term creditors	86	0	0	0
<b>Total</b>	<b>68,715</b>	<b>67,286</b>	<b>68,629</b>	<b>67,286</b>
<b>18. SHORT-TERM CREDITORS</b>				
Amounts owed to Group companies				
Trade creditors	0	0	43	11
Accruals and deferred income	0	0	24	21
Other creditors	0	0	0	262
	0	0	66	294
Loans from financial institutions	15,257	51,268	15,257	51,268
Trade creditors	53,819	66,493	53,455	65,686
Other creditors	13,159	19,221	11,831	17,942
Accruals and deferred income	7,310	11,078	6,751	10,640
<b>Short-term creditors, total</b>	<b>89,545</b>	<b>148,060</b>	<b>87,360</b>	<b>145,830</b>
<b>Significant items included in accruals and deferred income</b>				
Annual holiday provision and social security costs	971	1,107	780	931
Unpaid wages and social security costs	1,309	1,139	1,132	953
Pensioners' sickness benefit	0	298	0	298
Income billed in following year	448	2,315	448	2,315
Interest	487	1,706	487	1,706
Taxes	4,034	4,445	3,899	4,437
Employees' Pension Act (TEL) matching	50	66	0	0
Bank charges	1	1	0	0
<b>19. SURETY</b>				
Securities pledged			2,523	2,523
Cash pledged			3	3
Debtors pledged			0	0
<b>Total</b>			<b>2,526</b>	<b>2,526</b>
<b>20. CONTINGENT LIABILITIES</b>				
Leasing commitments				
Payable during 2004	0	2	0	0
Payable later	0	0	0	0
	0	2	0	0

## Unbundling of natural gas operations

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Chapter 5 of the Natural gas Market Act (508/2000) requires natural gas operations and other activities to be unbundled.

Since 2003, natural gas sales activities include the share of energy charges in sales tariffs in Gasum Oy's basic gas business.

Gasum Oy's transmission activities include transmission charges in the selling price of natural gas as well as most of the business in respect of old contracts outside the tariff arrangement.

Other activities include the energy amount of day sales of natural gas, the sale of liquefied natural gas for testing and research purposes and sales of maintenance services.

Charges and income are allocated in accordance with the matching principle using internal accounting. Deprecation is calculated in accordance with the valid depreciation plan.

Balance sheet items are divided in accordance with the matching principle. Financial assets and short-term creditors have been divided mathematically according to the matching principle. Share capital and long-term creditors have been divided in relation to assets.

Itemised income statement and balance sheet on following spread.



## Income statement

€ 1,000.00	TRANSMISSION ACTIVITIES		SALES ACTIVITIES		OTHER ACTIVITIES	
	2003	2002	2003	2002	2003	2002
	<b>Net sales</b>	<b>256,478</b>	250,608	<b>345,914</b>	323,430	<b>44,187</b>
Other income	227	178	0	0	197	91
Materials and services						
Raw materials and consumables						
Purchases during the financial year	<b>-165,445</b>	-156,416	<b>-347,906</b>	-313,982	<b>-34,914</b>	-1,197
Staff costs	<b>-5,779</b>	-6,389	<b>-386</b>	-399	0	0
Depreciation and value adjustments						
Depreciation according to plan	<b>-21,365</b>	-34,057	0	0	0	0
Other operating charges	<b>-5,571</b>	-8,879	<b>-2,407</b>	-2,670	<b>-585</b>	-201
<b>Operating profit</b>	<b>58,544</b>	45,045	<b>-4,784</b>	6,379	<b>8,886</b>	614
Financial income and charges	<b>-2,274</b>	-4,040	<b>-28</b>	-162	0	0
<b>Profit before extraordinary items</b>	<b>56,270</b>	41,005	<b>-4,811</b>	6,217	<b>8,886</b>	614
Extraordinary charges						
Group contribution	0	0	0	-262	0	0
<b>Profit before appropriations and taxes</b>	<b>56,270</b>	41,005	<b>-4,811</b>	5,956	<b>8,886</b>	614
Appropriations						
Increase in depreciation difference (-)	<b>-15,200</b>	-373	0	0	0	0
Income taxes	<b>-12,239</b>	-11,818	<b>1,047</b>	-1,717	<b>-1,933</b>	-177
<b>Profit for the financial year</b>	<b>28,832</b>	28,814	<b>-3,764</b>	4,239	<b>6,953</b>	437

## Balance sheet

€ 1,000.00	TRANSMISSION ACTIVITIES		SALES ACTIVITIES		OTHER ACTIVITIES	
	2003	2002	2003	2002	2003	2002
	<b>ASSETS</b>					
<b>FIXED ASSETS</b>						
Intangible assets	3,245	3,037	305	409	1	1
Tangible assets	388,628	402,574	598	593	91	85
Financial assets	314	364	10,699	9,667	0	0
<b>CURRENT ASSETS</b>						
Stocks	2,108	2,452	3,365	3,705	0	0
Debtors	26,469	32,947	40,936	58,744	5,306	244
Cash and cash equivalents	22,697	32,982	759	5,904	6,097	952
	443,461	474,356	56,661	79,021	11,496	1,282
<b>SHAREHOLDERS' EQUITY AND LIABILITIES</b>						
SHAREHOLDERS' EQUITY	194,036	197,439	11,801	15,565	7,185	1,132
<b>ACCUMULATED APPROPRIATIONS</b>						
Accumulated depreciation difference	142,607	127,407	0	0	0	0
<b>CREDITORS</b>						
Long-term	63,591	62,347	5,037	4,939	0	0
Short-term	43,227	87,162	39,822	58,518	4,311	150
	443,461	474,356	56,661	79,021	11,496	1,282

Gasum Oy's Board of Directors

Espoo, 19 April 2004

Antero Jännes

Juha Vainikka

Björn Ahlnäs

Vladimir Hramoff

Birger Sandström

## Auditors' report

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### To the shareholders of Gasum Oy

We have audited the accounting, the financial statements and the corporate governance of Gasum Oy for the period 1 January – 31 December 2003. The financial statements, which include the report of the Board of Directors, consolidated and parent company income statements, balance sheets and notes to the financial statements, have been prepared by the Board of Directors and the CEO. Based on our audit we express an opinion on these financial statements and on corporate governance.

We have conducted the audit in accordance with Finnish Standards on Auditing. Those standards require that we perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining on a test basis evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by the management as well as evaluating the overall financial statement presentation. The purpose of our audit of corporate governance is to examine that the members of the Supervisory Board and the Board of Directors and the CEO have legally complied with the rules of the Companies Act.

In our opinion the financial statements have been prepared in accordance with the Accounting Act and other rules and regulations governing the preparation of financial statements. The financial statements give a true and fair view, as defined in the Accounting Act, of both the consolidated and parent company's result of operations as well as of the financial position. The financial statements with the consolidated financial statements can be adopted and the members of the Supervisory Board and the Board of Directors and the CEO of the parent company can be discharged from liability for the period audited by us. The proposal by the Board of Directors regarding the distribution of retained earnings is in compliance with the Companies Act.

We have reviewed the income statements, balance sheets and supplementary information for the separated operations in the notes to the financial statements. In our opinion they have been prepared in accordance with the Natural Gas Market Act and the regulation and stipulations required by it.

Helsinki, 19 April 2004

PricewaterhouseCoopers Oy  
Authorised Public Accountants

Eero Suomela  
Authorised Public Accountant



## Corporate Governance

### General meeting of shareholders

Ultimate decision-making power in Gasum Oy is vested in the general meeting of shareholders, which convenes at least once a year. The general meeting of shareholders receives the financial statements and auditors' report, resolves the adoption of the income statement and balance sheet and decides on the discharge of liability for members of the Supervisory Board, members of the Board of Directors and the CEO. The general meeting of shareholders elects members to the Supervisory Board, new members to replace those retiring by rotation and the chairman and deputy chairman of the Supervisory Board.

### Supervisory Board

Gasum Oy's Supervisory Board comprises the chairman, vice chairman and six other members. Members of the Supervisory Board and its chairman are appointed for a term of office lasting three years at a time. The Supervisory Board convenes at the invitation of the chairman, or if he is prevented from doing so, by his deputy. The Supervisory Board is responsible for ensuring that the company is run in line with the decisions and instructions of the general meeting of shareholders and sound business principles.

#### Members:

*Chairman:* **Harri Malmberg** LLM

*Vice Chairman:* **Taisto Turunen**, Director-General, Ministry of Trade and Industry, Energy Department

**Seppo Aho**, Director, Fortum Corporation  
(from 15 May 2003)

Dr **Eike Benke**, Ruhrgas AG

**Matthias Keuchel**, Director, Ruhrgas AG  
(until 15 May 2003)

**Tapio Kuula**, President, Fortum Corporation  
(from 15 May 2003)

**Bo Lindfors**, Senior Vice President, Fortum Corporation  
(until 15 May 2003)

**Aarre Metsävirta**, Senior Executive Vice President and deputy CEO, M-real Oyj  
(from 15 May 2003)

**Alexander Rjanzanov**, Deputy Chairman, Gazprom  
**Heikki Sara**, Director, UPM-Kymmene Group  
(until 15 May 2003)

**Sergei Serdjukov**, Managing Director, Gazprom

#### Auditors

PricewaterhouseCoopers Oy.

Principal auditor **Eero Suomela** APA

### Gasum Oy's Board of Directors

The Board of Directors is elected by the Supervisory Board and comprises a chairman and a minimum of three and a maximum of six ordinary members. Members of the Board of Directors and their deputies serve a term of office lasting three

years. The Board of Directors is responsible for company's administration and business in compliance with the law, Articles of Association and the instructions issued by the Supervisory Board, to decide on the conveyance and mortgaging of fixed assets and to hire and dismiss senior managers not appointed by the Supervisory Board.

#### Members:

**Antero Jännes**, chairman, CEO

**Juha Vainikka**, vice chairman, Senior Vice President, Transmission

**Björn Ahlnäs**, Senior Vice President, Marketing

**Vladimir Hramoff**, Senior Vice President, Supply

**Birger Sandström**, Senior Vice President, Law and Finance

#### Gasum Oy's organisation:

*CEO:* **Antero Jännes**

*Marketing:* **Björn Ahlnäs**

- *Sales:* **Veli-Heikki Niiranen, Ossi Savolainen, Arto Riikonen**

- *CRM Manager:* **Sonja Hellén-Nieminen**

- *Distribution:* **Osmo Jääskeläinen**

*Supply:* **Vladimir Hramoff**

- *Development projects:* **Kari Salminen**

*Transmission:* **Juha Vainikka**

- *Use:* **Jarmo Aho**

- *Compressors:* **Ari Suomilammi**

- *Mechanical maintenance:* **Arto Korpela**

- *Electronic maintenance:* **Timo Parikka**

- *Safety and technical support:* **Esko Hyvärinen**

- *Projects and materials supplies:* **Kaj Christiansen**

*Accounting:* **Paula Lähde**

- *Controller:* **Leena Wallenius**

*Law and finance:* **Birger Sandström**

*Business planning:* **Christer Paltschik**

- *Tariffs:* **Jukka Kajansinkko**

- *Information management:* **Jussi Hyvärinen**

- *Product risk management:* **Satu Raikaslehto**

- *Quality manager:* **Rami Saajoranta**

*Human resources and corporate communications:* **Tuomo Saarni**

- *Employees:* **Pekka Mäkitalo**

#### Subsidiaries

**Suomen Kaasuenergia Oy**

**Helsingin Kaupunkikaasu Oy**

Managing director Jarko Alanko

**Gaasienergia AS**

Managing director **Simo Lahesala**

**Helsinkikaasu Oy**

Managing director Kalevi Kemppainen

**Kaasupörssi Oy (Gas Exchange Ltd)**

Managing director Pekka Karinen

## Gasum Group

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Telephone +358 020 4471 (group switchboard)  
[www.gasum.fi](http://www.gasum.fi)

### **Gasum Oy**

Head office  
Keilaranta 6, FI-02150 ESPOO  
FINLAND

Natural gas centre  
Kiehuvantie 89, FI-45100 KOUVOLA

Reception station  
Räikköläntie 170, FI-55100 IMATRA

Hyvinkää maintenance centre  
Kerkkolankatu 42, FI-05800 HYVINKÄÄ

Tampere maintenance centre  
Raspinkatu 4, FI-33840 TAMPERE

Compressor station  
Hyvinkääntie 565, FI-04680 HIRVIHAARA

### **Subsidiaries**

#### **Suomen Kaasuenergia Oy**

Pulttikatu 1, FI-48690 KARHULA  
[www.suomenkaasuenergia.fi](http://www.suomenkaasuenergia.fi)

#### **Gaasienergia AS**

Liivalaia 9, EE-10118 Tallinn, ESTONIA

#### **Helsinkikaasu Oy**

Kaasutehtaankatu 1, FI-00580 HELSINKI  
[www.helsinkikaasu.fi](http://www.helsinkikaasu.fi)

#### **Gas Exchange Ltd**

Kaasupörssi Oy  
Keilaranta 6, FI-02150 ESPOO  
[www.kaasuporssi.com](http://www.kaasuporssi.com)

