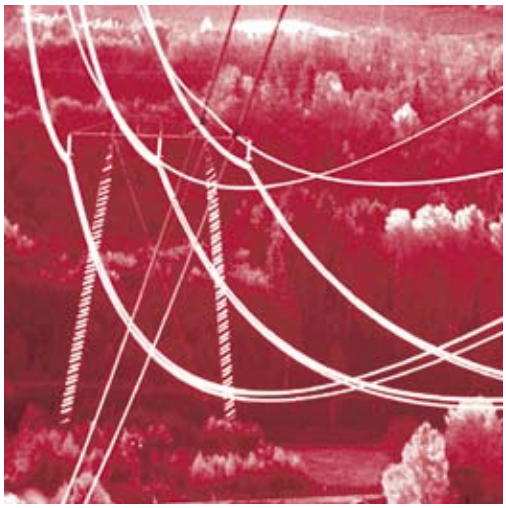


Svenska Kraftnät
Annual Report
2005

- Excellent reliability performance
- Healthy financial result, SEK 882 million
- High level of transmission on the national grid
- Three new power lines
- System responsibility for natural gas

Svenska Kraftnät

Svenska Kraftnät is a public utility that commenced operations on 1 January 1992. The company manages the national grid for electrical power and has system responsibility for the Swedish electricity supply. This responsibility involves ensuring that the system is in balance in the short term and that its facilities and installations interact in an operationally reliable way. The national grid comprises a total of approximately 15 000 km of 220 kV and 400 kV power lines with substations, cross-border links and control systems – IT systems and optical fibre cables for broadband communication. Since 1 July 2005, Svenska Kraftnät has also had system responsibility for natural gas supplies in Sweden.

Svenska Kraftnät has approximately 290 employees. The Head Office is in Vällingby, Stockholm, where the national control centre, Network Control, is also situated. In addition, there are offices in Halmstad, Sundsvall and Sollefteå, where there is a control centre for the northern part of the National Grid. We also have a training centre for linesmen on civil duty located at Åsbro, in central Sweden. Svenska Kraftnät also employs several hundred people on a contract basis for operation and maintenance of the national grid all over the country.

Svenska Kraftnät is also a group, which consists of three subsidiaries and six associated companies, the largest of which is the Nordic power exchange Nord Pool.

2005 in brief

		2005	2004
Operational data for the year			
Energy supplied to the national Grid	TWh	127.7	123.5
Reliability performance			
Operational disturbances on the grid	no.	251	187
Operational disturbances with failures	no.	22	10
Unsupplied energy	MWh	4	25
Financial data			
Group operating revenue	MSEK	5 885	5 335
Group income	MSEK	882	519
Return on adjusted equity*	%	10.1	6.2
Debt/equity ratio	times	0.22	0.43
Investments	MSEK	338	410

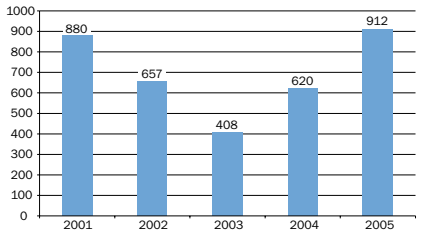
* after 28 % tax equivalence

Our mission

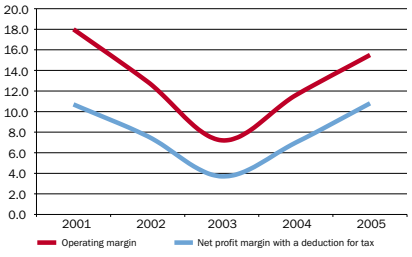
- To provide transmission of power on the national grid well in compliance with security, efficiency and environmental requirements.
- To perform the system operator function for electricity and natural gas cost-efficiently.
- To promote an open Swedish, Nordic and European market for electricity and natural gas.
- To ensure a robust nationwide supply of electricity.

Financial development

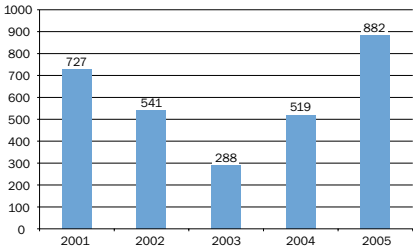
Operating income (SEK million)



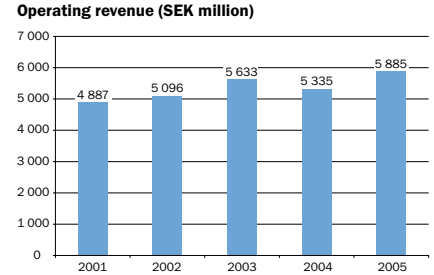
Operating and net profit margin (%)



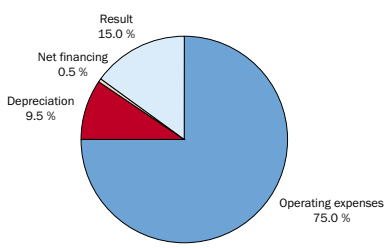
Net income for the year (SEK million)



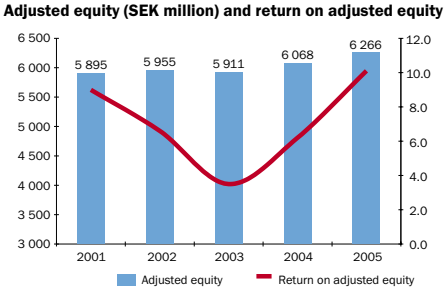
Operating revenue (SEK million)



Cost distribution 2005



Adjusted equity (SEK million) and return on adjusted equity



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Important operational events during the past year

January

- When Hurricane Gudrun hit southern Sweden on 8–9 January, the national grid was subjected to salt contamination and a few line failures of short duration, above all on the West Coast. Electricity supplies, however, were not influenced by these disturbances.
- After the storm, Svenska Kraftnät helped with repairing the distribution networks in the southern part of the country. Vehicles, standby power units, spare poles, telephones, etc. from our emergency stores were used. We were also able to provide aircraft, helicopters, drivers and standby power plants from the Armed Forces. Some sixty linesmen, who had previously undergone our training course as conscripts in Åsbro, were involved temporarily in the work.
- On 24 January, the DC link to Finland, Fenno-Skan, went off line as a result of a cable failure three kilometres offshore on the Finnish side. Repair work commenced immediately but had to be discontinued at the beginning of March owing to unfavourable weather. The link became operational again at the beginning of May.

February

- Mona Sahlin, Minister and Head of the Ministry of Sustainable Development, visited Svenska Kraftnät on 14 February. A presentation was given of our operations with the focus on current upgrading and reinforcement works in the National Grid, environmental issues, Nordic co-operation and the investigation in Stockholm's future electricity supply.
- On 18 February, the Board of Svenska Kraftnät adopted the decision to reinforce the Fenno-Skan DC link between Finland and Sweden with a further cable. This strengthens the transmission capacity of the link by 600–800 MW. The new cable means that it will be possible to operate the link in the form of a bipole, i.e. without the seawater being used as a conductor, which is an advantage from the environmental point of view. The link is expected to become operational in autumn 2010.
- At the end of February, Nordel submitted to the Nordic energy ministers the so-called Akureyri Report on developed Nordic co-operation on the electricity market.

March

- The cold weather on 3 March gave an electricity consumption of 25 800 MW (between the hours of 8 and 9 a.m.) which was the highest consumption for the winter period.

April

- Samvete 2005, a major emergency exercise for the electricity and telecom sectors, was held over the period 18–20 April. Some 150 people took part, 15 of whom were from Svenska Kraftnät. The exercise helped to bring the electricity and telecom sectors closer together.
- During April, Svenska Kraftnät was visited by delegations from newly established grid operators in Kazakstan and Iceland. We were also visited by delegations from electricity companies in China and Jordan.

May

- On 18 May, Svenska Kraftnät decided to invest in renewal of the substation at Hjälta and in the control equipment for our gas turbine power plant.
- At midnight on 31 May, the second unit at Barsebäck Nuclear Power Plant was shut down in line with the Government decision.

July

- On 1 July, Svenska Kraftnät was given system responsibility for the natural gas market in Sweden. A set of regulations and an organisation have been established for power balance regulation and balance settlement for gas in the same way as for the electricity market. At year-end, five balance providers were active on the natural gas market.

August

- In the middle of the month, Svenska Kraftnät submitted – at the Government's request – their annual report on the power balance. In the report, a description is given of the power balance during the previous winter and a forecast for the coming winter.
- The Board of Svenska Kraftnät decided at its meeting on 30 August to keep national grid tariffs unchanged for the year 2006.

September

- On 27 September, Svenska Kraftnät held a seminar on the Stockholms Ström Project, i.e. the investigation into the future national and regional networks (70–400 kV) within the County of Stockholm. Within a 30–50-year perspective, the investigation identified a total of over 50 construction projects that could improve the electricity supply and its environmental impact within the region. The cost of the measures is estimated to be in the region of SEK 3.3 billion.

– Following our procurement of power reserves in 2005, agreements on reduction in consumption make up about twenty-five per cent of the entire power reserve, says Tania Pinzón from our Market Design Unit, seen here in conversation with Unit Manager Magnus Stephansson.

October

- Procurement of the power reserve for winter 2005/2006 was concluded. It signified a breakthrough for power reductions that amounted to 503 MW. The power reserve for winter 2005/2006 is in total 1994 MW.
- Kraftsamling 2005, i.e. information days run in Åsbro on power contingency planning, attracted 107 participants from throughout the electricity sector. This year, special emphasis was placed on Nordic co-operation within power contingency planning and experience from the ravages of Hurricane Gudrun.
- The final report from the Government commission to draw up a proposal for increased research, development and demonstration operations within the field of electricity technology was submitted on 14 October. In the report, a proposal is made that Svenska Kraftnät be given the chance to increase its activities within this area by approximately SEK 40 million per year. This would make it possible for us to contribute towards greater competence at universities and institutes of higher education and to help to ensure that new technology is developed to the benefit of both the electricity system as well as the manufacturing industry. It is proposed that financing be effected by the lowering of Svenska Kraftnät's requirement for return on investment from 6 % to 5.5 %.

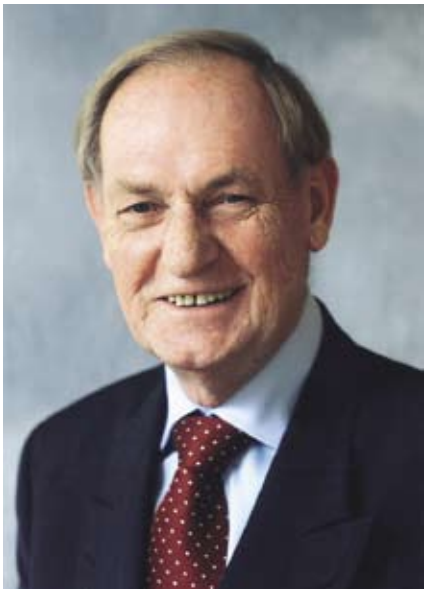
November

- A seminar was arranged on 8 November by Svenska Kraftnät, the Swedish Energy Agency and Swedenergy concerning the peak power situation in a longer term. There were some 100 participants.
- At its meeting on 25 November, the Board of Directors decided that the Southern Link – a national grid power line running between Hallsberg in Närke and Hurva in Skåne – should be built. The planned operational start-up will be in 2011. The choice of technical solution will be made at a later stage. Work will therefore proceed with two parallel feasibility studies: overhead power lines and buried DC cables.

December

- An operational disruption in the 400 kV network on 1 December was caused by a breaker fault in the switchyard at Porjus. No consumption in Sweden was affected by the disruption but parts of northern Norway were without power for a short period.
- Minister of Defence Leni Björklund visited Svenska Kraftnät. Among other things, she was given detailed information on the work carried out after Hurricane Gudrun, the training courses we run for conscripts and co-operation in emergency situations.

A word from the Chairman



Sven Hulterström, Chairman of the Board, Svenska Kraftnät.

2005 was another successful year for Svenska Kraftnät. Reliability performance was very good throughout the course of the year. Only in one or two cases did the national grid cause power outages, and then only of a minor nature.

Our economy developed well. This year too, Svenska Kraftnät has succeeded in reconciling low national grid tariffs with a healthy financial outcome.

During the year, the Board decided to implement three major investments that have been developed as part of the Nordel co-operation: the Southern Link between Närke and Skåne, the reinforcement of the Fenno-Skan link to Finland and the Nea–Järpströmmen link to Norway. The new power lines will increase the transmission capacity and further improve the reliability performance on the Swedish and Nordic electricity markets.

During 2005, Svenska Kraftnät was also given system responsibility for natural gas in Sweden. Although this does not involve extensive activities at present, it could be an interesting first step towards the development of new infrastructure in the energy sector in Sweden. Svenska Kraftnät is in such case fully prepared to take on this task.

At a well-attended seminar held by Svenska Kraftnät in September, a presentation was given of the initial results of the Stockholms Ström Project. The intention is, through a structural plan, to create a system for supplying Stockholm with electricity that is operationally reliable, environmentally sound and which will meet the transmission demand for many years to come. The measures also mean that a certain number of power lines in the area can be phased out. In our opinion, the value of the land which will in this way be released could be used to finance some of the investments. Discussions have begun with the local authorities concerned in order to shed light on how this could be done.

As is customary, the Board has devoted one of the year's meetings to reviewing strategically important issues. This year, the subjects have included the technical status of the national grid, telecom operations, IT-security work and the company's work on risk and vulnerability analysis. The review of the technical status of the grid indicates that the reinvestment level will increase over the next ten-year period, particularly in connection with substations.

Consequently, the work of the Board has to a large extent concerned the extensive investments in infrastructure that are needed on both a Swedish and a Nordic level. In conjunction with a Board meeting held in Brussels in May, the Board also received information on current issues within the European energy market.

Stockholm, February 2006
Sven Hulterström

Director General's statement

Jan Magnusson, Director General.

2005 was a relatively wet year, which resulted in well-filled reservoirs in both Sweden and Norway. As a consequence, transmission on the national grid followed the usual pattern, in other words mainly from north to south in the case of the Swedish network.

When the water supply is good, there is a high level of transmission on the grid, which increases Svenska Kraftnät's revenue. The financial result for 2005 was also very good, namely SEK 882 million. Relatively large congestion revenues, which are a result of differences in price when the Nordic electricity market is divided up into different price areas, made a significant contribution to the financial result. During 2005, the network was heavily used, which resulted more frequently in price area differences. The congestion revenues are now distributed according to how much each grid company invests in order to increase the capacity of the Nordic transmission network. The Swedish share is approximately 40 per cent.

During the three-year period 2003–2005, the financial outcome for Svenska Kraftnät was on average SEK 563 million, which is somewhat more than the required return on investment.

The number of disturbances in the national grid was 251. Over 90 % of these were dealt successfully with by automatic systems, whereas a few gave rise to short-term local disruptions. The volume of non-supplied energy amounted to 4 MWh, which is 0.000003 % of the 128 TWh of energy that was transmitted on the network during the course of the year.

Increased investment rate

Svenska Kraftnät is in the midst of an extensive investment programme. The extensions aim at both increasing the transmission capacity and at further strengthening reliability performance. Of the five major reinforcements that are proposed by the Nordic co-operation organisation – Nordel – three concern Sweden. The work on these projects is under way as well as on the programme for the conversion of important substations in the grid, which were initiated by Svenska Kraftnät following the power failure in September 2003. We also continue to modernise our telecom network through additional reinforcements to the fibre-optic network.

During the autumn, the results of the work in the first stage of the Stockholm Ström Project were presented. We propose a relatively extensive conversion of the Stockholm electricity supply in order to improve both reliability of supply and the environment. Some 150 km of power lines in the Stockholm area can be phased out as a result of these measures. Investments are calculated to amount to SEK 3.3 billion, primarily for work done to the grid. In the next step of the work, we intend to design the new lines and try to arrange the financing.

The national grid withstood the storm

Hurricane Gudrun, which hit Sweden at the beginning of the year, caused extensive damage to local and in certain cases regional electricity systems. However, the national grid withstood the effects of the storm without any power disruptions. Svenska Kraftnät was primarily affected by the hurricane in that personnel, who we had trained, voluntarily offered their services as repair staff, through equipment and special vehicles kept at our training centre in Åsbro being made available and through our contact role for military resources in such situations.

As usual, the question of peak demand capability came into focus during the winter months. The heaviest load on the system during the winter 2004/05 was 25 800 MW, and occurred as late as 3 March.

In the annual peak power report submitted to the Government in August, Svenska Kraftnät assessed that the situation for the coming winter was roughly the same as in previous years. This means that the electricity system has ample margins to cope with a normal winter. Even a strained balance with heavy electricity consumption in a 10-year winter (a winter statistically deemed to recur

Svenska Kraftnät takes active measures to develop the biological diversity in power lanes. The power lanes have proved to be a good environment for certain species. The photo shows a bumble-bee on a field scabious.

every ten years) could be coped with, but the margins would then be very small and there would be no spare capacity to deal with any subsequent deteriorations.

We are working on a long-term solution for managing the peak power situation focusing on winter 2008/09, when the temporary Act on government-procured power reserves will no longer be valid. The goal is for the companies on the market to take the necessary measures to ensure that the supply of electricity is also sufficient to cope with strained situations such as very cold weather conditions.

The environment in focus

It is inevitable that operations like ours may have a negative impact on the environment as a result, among other things, of their large-scale nature and explicit visual impression. It is therefore important that we try and conduct each part of our operations in an environment friendly way as possible in order to minimise the impact and gain acceptance for what we do. It is a clear ambition of Svenska Kraftnät to be a company that actively protects the environment.

During the year we published a magnetic field policy that clarifies our approach to power line projects. A level of caution for electromagnetic fields is a governing principle in our design of new power lines.

Our project concerning biological diversity in power lanes has shown that there are important natural values in this context. By adapting the upkeep of the power lanes we can protect valuable environments and create better preconditions for a number of threatened species.

A new role

During the course of the year, Svenska Kraftnät adopted a new role as the authority with system responsibility for natural gas. This signifies, I hope, that natural gas will begin to be organised in the same way as electricity, or in other words with an independent body responsible for transmission and systems that creates clear and neutral conditions for the commercial players on the market. A corresponding pattern of development can be seen in certain other countries, including those in the Nordic area. I hope that this will in time lead to good Nordic gas co-operation of the same kind that we enjoy in the electricity sector.

Nordic electricity co-operation was summarised by Nordel in a report to the Nordic energy ministers during spring 2005. The report, which was well received by players and authorities, shows how the good co-operation in connection with electricity can continue and be further developed.

Competent and healthy employees

We have for several years been working actively with competence transfer within Svenska Kraftnät, not least in order to ensure that within the company we can retain the enormous experience-based competence that is possessed by many employees who will soon go into retirement.

We have during recent years also focused on a programme called “A Healthier 2007” which aims at improving the health of employees and further reducing sick-leave levels within Svenska Kraftnät. The aim is that next year the proportion of full-time healthy employees shall be 65% (no absence for reasons of sickness) and that the sick leave shall be reduced to 2.5 %.

I would like to take this opportunity to thank all employees for yet another year of first-class effort.

Stockholm, February 2006
Jan Magnusson

Svenska Kraftnät Group

Subsidiaries

SwePol Link AB

The task of the company is to operate and maintain a DC link between Sweden and Poland. The link is rated at 600 MW.

Svenska Kraftnät's shareholding in the company is 51 %, Vattenfall AB owns 16 % and the Polish national grid company Polskie Sieci Elektroenergetyczne SA owns 32 %.

Group turnover in 2005: SEK 231 (305) million

SwePol Link Poland Sp.z.o.o. is a wholly-owned subsidiary of SwePol Link AB. The company owns that part of the DC link which runs through Polish territory.

Turnover in 2005: SEK 55 (86) million.

Svenska Kraftnät Gasturbiner AB

The company is wholly owned by Svenska Kraftnät and was founded in 1999 so that Svenska Kraftnät could in the long term secure resources for dealing with disturbances in the power system.

Turnover in 2004: SEK 66 (61) million.

Svenska KraftKom AB

The company is wholly-owned by Svenska Kraftnät. During 2005 as well as in 2004 and 2003, the company's operations were insignificant.

Turnover in 2005: SEK 0 (0) million.

Associated companies

Nord Pool ASA

Nord Pool ASA is an exchange for financial trading for players on the Nordic electricity market. The Head Office is situated in Oslo and there are branch offices in Stockholm, Helsinki and Odense. Nord Pool is also active on the European market by owning, for instance, 17 % of the German electricity exchange EEX.

During 2005, trading on the futures market amounted to 786.0 (590.2) TWh. Clearing operations amounted to 1 207.0 (1 207.0) TWh.

Svenska Kraftnät owns 50 % of Nord Pool ASA. The remaining 50 % is owned by Statnett SF.

Turnover in 2005: NOK 277 (243) million.

Nord Pool Spot AS

The physical trading exchange for electricity, the spot market, is conducted via a separate company: Nord Pool Spot AS. During 2005, trading amounted to 175.0 (167.0) TWh.

The company is owned by Svenska Kraftnät, Statnett SF, Nord Pool ASA, Fingrid Oyj and Energinet.dk.

Turnover in 2005: NOK 81 (80) million.

– Gas turbines are used to offset disruptions in the power system, says Olof Selin, MD of Svenska Kraftnät Gasturbiner AB. The company owns several similar plants. Olof is seen here together with Tina Hultqvist (on the left) and Annette Olofsson, both of whom are with Svenska Kraftnät Group Accounts.

Triangelbolaget D4 AB

On behalf of its partners, the company administers the fibre-optic links between Stockholm, Oslo, Gothenburg, Malmö and Stockholm. Leasing revenues go directly to the partners.

The company is owned in equal shares by Svenska Kraftnät, Vattenfall AB, Fortum Distribution AB and E.ON Sverige AB.

Turnover in 2005: SEK 23 (20) million.

Kraftdragarna AB

The primary task of Kraftdragarna AB is, on behalf of the owners, to provide contingency facilities for the transport of transformers, reactors and other heavy components that make up the electricity supply system.

Kraftdragarna AB co-operates with Statnett Transport AS to further strengthen the level of contingency preparedness for the transportation of replacement components.

The company is owned to 50% by Svenska Kraftnät, to 25% by Vattenfall AB and to 25 % by Vattenfall Regionnät AB.

Turnover in 2005: SEK 34 (29) million.

STRI AB

The company conducts research and development within the field of electrical power transmission, primarily on behalf of its partners.

Svenska Kraftnät owns 25 % of the company, ABB AB 50 %, Statnett SF 12.5 % and Vattenfall AB 12.5 %.

Turnover in 2005: SEK 49 (46) million.

Elforsk AB

Elforsk conducts joint operations in the field of R&D on behalf of the electrical power sector in Sweden.

Svenska Kraftnät is mainly involved within those areas that concern the transmission of electricity and development of the electricity market. The most important centres of focus are environmental issues, maintenance and the renewal of plants and other installations, as well as the provision of support for postgraduate projects.

Svenska Kraftnät owns 25 % of the company and the remaining 75% is owned by the trade association Swedenergy.

Turnover in 2005: SEK 149 (82) million.

Report of the Board of Directors 2005

Group operations and structure

Svenska Kraftnät's principal tasks are to administer and operate the national grid, including the links with neighbouring countries, and to be the authority holding system responsibility pursuant to the Electricity Act, which involves being responsible for the ongoing instantaneous electricity balance and the overall operational reliability of the Swedish power system. Furthermore, Svenska Kraftnät is the authority responsible for power contingency planning in accordance with the Power Contingency Act. Svenska Kraftnät also has official duties in connection with dam safety and renewable electricity certificates.

During 2005, the Svenska Kraftnät Group consisted of the public utility, three subsidiaries and six associated companies in Sweden and Norway.

Financial goals

Svenska Kraftnät shall on average require a return on adjusted equity[1], following deduction for tax equivalence, of 6 %. The return on adjusted equity in 2005 was 10.1 (6.2) %, which means that the 6 % goal was exceeded.

The debt/equity ratio[2] was 0.22 (0.43), which is in line with the goal of maximum 0.55.

The dividend policy is that 65 % of the net income for the year should be distributed to the Swedish state. Extra dividend may also be allocated.

Investments

The investments made by the Svenska Kraftnät Group amounted during the year to SEK 338 (410) million, see the graph and table to the right.

The investments are distributed as follows (SEK million):

	2005	2004
Parent entity:		
Investments in grid	208	317
Investments in fibre-optic cables	75	39
Leased fibre-optic connections	3	24
Intangible investments	49	23
Total Parent entity	**335**	**403**
SwePol Link	**1**	**5**
Svenska Kraftnät Gasturbiner AB	**2**	**2**
Total	**338**	**410**

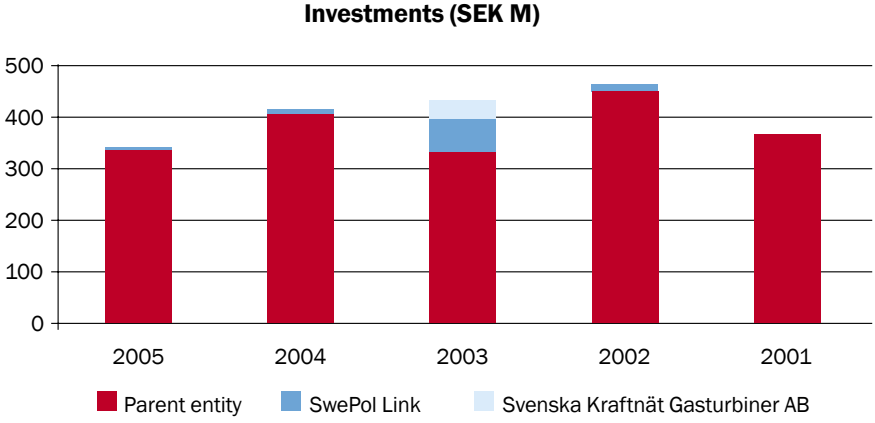
One of the largest investments during 2005 was the renewal of the DC link between the Swedish West Coast and Jutland, amounting to SEK 32 (122) million. Other major investments were the earth wire replacement and fibre-optic installation between Midskog and Tandö, amounting to SEK 37 million, conversion of the switchyard at Stenkullen, SEK 17 million, a new system transformer at Järpströmmen, SEK 13 million, and a new IT system for the settlement process amounting to SEK 13 million.

Operating revenue and net income

Since 2005, the Group has applied gross accounting for its income and expenses for grid and system revenue as an adaptation to the International Financial Reporting Standards (IFRS). The transition means that Svenska Kraftnät follows the same accounting principles as listed companies and the other Nordic grid companies. See page 40 for detailed information.

The Group operating revenue increased by just over 10 % in 2005 and amounted to SEK 5 885 million compared with SEK 5 335 million the previous year. The increase is primarily a consequence of the congestion income and energy charges caused by the increased transmission of electricity on the national grid during the course of the year.

The Group operating expenses amounted to SEK 5 003 (4 738) million. During the year, the parent entity has had higher costs



[1] Adjusted equity refers to the average of the year's restricted equity brought and carried forward, and 72 % of the non-restricted equity.

[2] Debt/equity ratio refers to interest-bearing liabilities minus interest-bearing assets in relation to adjusted equity carried forward, including minority interests.

– Reliability performance is one of our most important goals. We are focusing our efforts on modernising our switchyards and in this way improving our reliability performance still more, says Jan Nesterud (on the right), Project Manager, seen here together with Per-Olov Engman and Katrin Seuss.

for the purchase of electricity since transmission losses have increased as a result of the increased transmission.

The Group depreciation of intangible and tangible assets increased by SEK 21 million.

The Group operating income amounted to SEK 912 million, which is SEK 292 million better than in 2004. The operating margin for the Group was 15.5 %, which is 3.9 percentage points better than in the same period last year.

Net financial income/expense amounted during the period to SEK -29 million, which is an improvement of SEK 38 million, and is mainly attributable to lower interest expenses on Group loans.

The net income for the year amounted to SEK 882 (519) million. The net profit margin, after a deduction for standard tax of 28 %, amounted to 10.8 %, which is an improvement of 3.8 percentage points compared with the previous year.

Financing

The parent entity finances its operations with equity and loans in the National Debt Office. At the end of 2005, loans amounted to SEK 0 (-559) million and liquid funds to SEK 232 (72) million. Svenska Kraftnät has an overdraft facility with the National Debt Office that can be utilised up to SEK 1 500 million.

SwePol Link AB has entered into an agreement with Vattenfall AB for a loan of up to SEK 2 750 million. The intention is for this loan to be replaced by loans on the finance market and, if necessary, to a certain extent by partner loans. Svenska Kraftnät is authorised by the Government to take out partner loans up to an amount of SEK 500 million for SwePol Link AB. The Government has also authorised the National Debt Office to issue guarantees for up to SEK 1 000 million for loans that SwePol Link AB needs to raise on the finance market.

The level of borrowing in Svenska Kraftnät Gasturbiner AB decreased during the year from SEK 195 million to SEK 170 million. The majority of the financing has been previously effected on the open finance market, but is now carried out within the Group.

Risk management

Svenska Kraftnät Group risks can be arranged under two categories: operationally-related and financially-related factors. The financial risk management takes place at Group level in accordance with the guidelines that are specified in the Group finance policy.

Operational risks

Svenska Kraftnät operations are of central importance for the Swedish electricity supply. It must therefore be regarded as being of particular social importance in both the short and long terms. Operations can be subjected to disruptions and stresses of many different kinds. These may be a result of technical shortfalls or intentional actions aimed at causing damage. Certain factors may arise suddenly whereas others can be observed as slow processes in a certain direction that may subsequently have a negative impact on the operations.

In a separate report, Svenska Kraftnät gives an overall account of risk and vulnerability analyses in accordance with Ordinance 2002:472.

Through everyday work and the competence of its staff, there is within the organisation a significant capacity to assess how risks and vulnerabilities are linked together. Within certain areas it may need to be extended by greater business intelligence or be strengthened by means of external efforts. Different types of co-operation are also conducted in network form in order to gather experience from other areas, for example within the IT security area.

There is little risk of operational disturbances on the national grid, which would have serious consequences for the customers. The grid is powerfully structured with ample potential for reserve feeds. This means that if a line is disconnected, power can be transmitted via a different route. However, the risk of a major power failure can never be totally eliminated, as borne out by the events of 23 September 2003. Svenska Kraftnät is in the process of taking a series of measures to further increase the performance reliability of the national grid.

The risk of peak power shortages in the Swedish electricity system has been limited since Svenska Kraftnät, as an interim measure, has procured standby power in accordance with the Limited Duration Act on Reserve Power (2003:436).

Dependency on the world around us is increasing as electricity markets are gradually being internationalised. The Swedish electricity market has become more and more dependent on supplies of electricity from other countries. The demand for transmission capacity between countries is also increasing. Methods of receiving payment for transit have begun to be applied. The internationalisation of the electricity markets is increasing the complexity for and demands on Svenska Kraftnät. At the same time, an increasingly internationalised electricity market is also resulting in a better utilisation of resources.

Financial risks

The use of the national grid is influenced by the hydrological situation, generation in combined heat and power plants and exports/imports. In conjunction with extensive hydro-power generation and resultant major transmissions from Northern to Southern and Central Sweden, Svenska Kraftnät's income is increasing. On the other hand, income from the national grid decreases when hydro power supplies are low and imports from the south are high. The fluctuation in result may as a consequence amount to several hundred million SEK. Therefore, the

Svenska Kraftnät makes sure that the frequency in the power network remains at 50 hertz.

assessment of Svenska Kraftnät's result must apply to the average conditions over a period of several years.

Fibre-optic operations have been conducted in accordance with the Government's commission. In autumn 2001, Svenska Kraftnät informed the Government that the extension of the fibre-optic system to a number of municipalities could not be effected on a commercial basis. The development of Svenska Kraftnät's fibre-optic network has continued at a slower pace over the past year and has above all been focused on the needs of the national grid.

The ETSO model for transit compensation that is applied also for Svenska Kraftnät since 2004, influences the financial outcome. If the flow of electricity through Sweden is high, Svenska Kraftnät receives income, but at the same time there are high flows through Denmark and neighbouring countries, which incur costs for Svenska Kraftnät. By applying the model that is currently used by ETSO, there is normally a net expense for national grid companies that have low grid charges. This resulted in cost of SEK 19 (16) million for Svenska Kraftnät in 2005.

Customers
The customers consist mainly of well-established and stable companies with a high level of solvency. Altogether, Svenska Kraftnät has some 100 customers, the ten largest of which account for 75 per cent of the turnover. This means that Svenska Kraftnät has a sound distribution of commercial risks.

Investments
Svenska Kraftnät's investment demand over the coming five-year period is substantial. In spring 2004, a programme was presented with investments to strengthen the Nordic high-voltage network for electricity. The investments will increase the security of the electricity supply and improve the function of the Nordic electricity market. The following five projects in the Nordic power network are included in the programme:

- Reinforcement of Fenno-Skan, the link between Sweden and Finland
- Nea-Järpströmmen between Norway and Sweden
- The Southern Link between Central and Southern Sweden
- The Great Belt Link in Denmark
- Skagerak 4 between Norway and Denmark

The proposed reinforcements shall be regarded as an entity without mutual priority. They can all be completed in or around 2010. The total investment cost amounts to approximately SEK 10 billion.

Those factors that could have a significant impact on the consolidated result, apart from the hydrological situation, are linked with electricity prices and currency exchange rates.

Through its international operations, Svenska Kraftnät is to a certain extent exposed to exchange risks in connection with the translation of foreign assets and results. Svenska Kraftnät has not hedged its receivables and liabilities in foreign currency. The amounts involved are moderate in size and do not affect the financial result to any great extent.

Interest exposure
Interest risks in connection with liquidity and liability management are small, since Svenska Kraftnät's equity/assets ratio is high and its borrowing volume small.

Electricity prices
Svenska Kraftnät purchases electricity in order to cover the transmission losses at a fixed price in accordance with multi-year agreements.

Credit risks
The customers consist of well-established and stable companies with a high level of solvency. System responsibility for electricity and gas includes Svenska Kraftnät being responsible for the national balance settlement for those companies that are balance providers. In order to decrease the credit risk that arises, Svenska Kraftnät requires financial security from those companies that are balance providers.

Other risks

Environment
Svenska Kraftnät works actively with environmental issues. Among other things there is an environmental management system in network operations. The system is based on the environmental management standard ISO 14001. The environmental management system is an aid in structuring and organising environmental work. Through established routines, a guarantee is given that the environmental work is performed efficiently and effectively. Follow-ups with accompanying improvement measures shall result in a constant decrease in the environmental impact of the operations.

– At Balance Service we make sure that there is a balance every hour between the electricity that is fed into the power system and the electricity that is extracted, says Lena Johansson, pictured here together with Christer Norlander.

Business segments

Network

Business segment Network comprises the construction, maintenance and operation of the national grid in Sweden, which consists of 220 kV and 400 kV lines with stations and the foreign connections, which are administered by Svenska Kraftnät, including SwePol Link.

The grid tariff consists of a power component and an energy component. The power component is based on the power subscribed to by the customer on an annual basis for input and outtake at each connection point. The input fee is SEK 5 /kW in the south and increases linearly with latitude to SEK 25 /kW in the north. The outtake fee is SEK 47 /kW in the south decreasing linearly with latitude to SEK 11 /kW in the north. The energy component is based on the grid losses that are occasioned by supply and extraction at the individual connection points. Decreased losses involve corresponding crediting. The national grid fees account for most of the transmission income. Other income centres are congestion fees and transit income. Congestion income is generated when the Nordic market is divided up into different price areas. Transit income consists of reimbursement for costs of electricity flowing through the national grid with its points of origin in other countries.

Income for Network operations

Transmission volumes on the national grid have been unusually large during 2005, which has had an impact on both network income as well as network losses. The grid fees generated a total of SEK 2 449 (2 267) million. Of these, the power fees accounted for approximately 45 % and the energy fees for some 55 %. An account is given below of the income from Network operations.

Unlike previous years, the energy fees are accounted for on the basis of gross accounting from 2005 onwards. Svenska Kraftnät's expenses for the crediting of energy input and extraction amounted to SEK 347 (408) million, which means that the net total for the energy fees on the national grid amounted to SEK 1 031 (788) million.

The congestion revenues on the Nordic market have more than doubled compared with 2004. Furthermore, they are distributed in accordance with new principles with a basic starting point in the investments that are being made to bring about network reinforcements in the national grid. As far as Svenska Kraftnät is concerned, this means a substantial increase in revenue for 2005.

Transit revenues amounted to SEK 136 (125) million, whereas the costs for the transit transmission we incur in other countries was on a level of SEK 155 (141) million. This means a net cost for the transit of 19 (16) million.

The operating income for business segment Network amounted to SEK 801 (613) million.

SEK million	2005	2004
Operating revenue	3 283	2 863
Operating expense	-2 482	-2 250
Operating income	**801**	**613**

Transmission via the national grid and energy losses

During the course of the year, transmission has amounted to 124.5 (120.7) TWh. Input and extraction subscription fees have increased somewhat compared with 2004.

SEK million Network revenue	2005	2004
National grid fees		
Power fees	1 071	1 071
Energy fees	1 378	1 196
Total	**2 449**	**2 267**
Congestion income	413	125
Transit income	136	125
Transmission via SwePol Link	225	305
Other network income	60	41
Grand total	**3 283**	**2 863**
No of customers connected to the national grid	21	24

Power transmission	2005	2004
Power subscribed to on the national grid		
Input subscription, MW	20 576	20 383
Extraction subscription, MW	21 529	21 226
Energy fed into the national grid, TWh	127.7	123.5
Energy extracted from the national grid, TWh	124.5	120.7
Max. power outtake from the national grid, GWh/h	19.8	19.6

As a consequence of the increased transmission, the transmission losses on the national grid have increased, as shown in the table below.

Transmission losses, national grid	2005	2004
Energy losses, TWh	3.2	2.7
Percentage of extracted energy, %	2.6	2.2
Maximum power losses, MWh/h (hour with highest energy losses)	806	715

Reliability performance

Reliability performance has been good. The number of operational disturbances in the grid was 251, most of which were dealt with by the automatic equipment built into the technical systems without having any impact on power supplies. Those disturbances in the national grid that were not dealt with successfully have only resulted in small volumes of non-supplied energy. Twenty-two disturbances led to power failures for subscribers. The volume of energy that was not supplied amounted to 4 MWh. Most of the disturbances were a consequence of extensive thunderstorms during the summer. The table below shows operational disturbances in the national grid over a five-year period.

Operational disturbances	2005	2004	2003	2002	2001
Operational disturbances on the grid, no.	251	187	198	293	211
Ditto with power failure, no.	22	10	27	23	14
Non-supplied energy, MWh	4	25	10 400[3]	49	23

[3] Owing to the power failure on 23 September 2003.

System responsibility – electricity

System Responsibility for electricity incorporates, above all, activities for regulation of the country's electricity balance (frequency control) and settlement of the imbalances of those players who are balance providers.

Since 2005, Svenska Kraftnät has used gross accounting to report its revenue and expenses for System Responsibility for electricity per hour instead of per 14-day period, as was the case previously. If the customer buys electricity for one hour, this is reported as a revenue for Svenska Kraftnät and if the customer sells power during this hour it is reported as an expense. The transition means that Svenska Kraftnät follows the same accounting principles as the other Nordic countries that have system responsibility. The revenues and expenses of the business segment have for 2004 been adjusted by SEK 937 million as a result of this fact. The change has no impact on the result.

System Responsibility includes the balance service, Ediel and also, for a certain transitional period, the power reserve. The core of System Responsibility is the task of balancing, in the short term, the national generation and consumption of electricity. This is dealt with by Svenska Kraftnät's Balance Service, which is manned round the clock. During 2005, Svenska Kraftnät had agreements with 31 balance providers. The companies have undertaken to plan their input of electricity (generation and purchase) and their extraction (consumption and sale) for each hour so that they balance each other. Svenska Kraftnät then conducts a balance settlement, or in other words performs a financial settlement of the imbalances. The difference between purchased and sold balance power amounted to SEK 194 (137) million. Further expenses that are attributed to business segment System responsibility are the expenses associated with the automatic reserves (referred to as primary regulation), that are utilised to maintain the frequency in the network and the staff expenses related to System responsibility.

In the new balance responsibility agreement which came into force on 1 November 2005 and which is valid until 31 October 2006, the conditions were changed somewhat. For instance, the "dead-band" in the consumption balance, which was evaluated after being used for a period of two years, was abolished. The evaluation showed not only that the positive effects which had been hoped for were not forthcoming, but also that certain negative effects could be seen. Furthermore, Svenska Kraftnät restructured the fee that had previously been levied solely on consumption to also include generation. This restructuring meant that consumption fee was reduced from SEK 1 /MWh to SEK 0.5 /MWh and that consumption and generation are now burdened equally.

According to the Reserve Power Act, Svenska Kraftnät shall be responsible for ensuring that reserve power of at most 2 000 MW is available each winter up to and including February 2008. This reserve shall contribute towards covering consumption during extreme situations that can occur during the winter when normal power production is not enough. Svenska Kraftnät therefore conducts annual procurements for the purpose of meeting this requirement. Following the procurement in 2005, the power reserve amount to 1 994 MW. Approximately a quarter of this (503 MW) consists of a reduction in consumption, which is a significant increase compared with the previous year. The reserve power is financed by a special fee that is paid by the balance providers. Since this activity shall, over the years, be neutral as regards income, the surplus from winter 2004/2005 was paid out to the balance providers at the end of 2005.

The players on the electricity market have agreements with Svenska Kraftnät on Ediel communication. The net expense for Ediel amounted to SEK -1 (-3) million.

The operating income for System Responsibility amounted to SEK 56 (-47) million.

SEK million	2005	2004
Operating revenue	2 226	2 130
Operating expence	-2 170	-2 177
Operating income	**56**	**-47**

Telecommunications

Svenska Kraftnät has a nationwide telecommunications network extending from Malmö in the south to Ritsem in the north to control and monitor the national grid. The older parts of this network are based on carrier frequency via the power lines and on radio link connections. In 1994, a fibre-optic network was installed in the power line earth wires. The installation comprises approximately 6 000 km of own fibre-optic cables and some 2 500 km of leased fibre-optic cables from other network players.

On the fibre-optic network, Svenska Kraftnät operates a telecom network with a platform that is based on modern technology with high capacity and good reliability performance. The telecom network is a part of the restoration function in connection with a potential major disturbance in the country's electricity supply. In order to guarantee reliable operation, the telecom network is provided with a reserve system in the form of batteries and diesel generation units in order to cope with power supply in the event of an electricity failure. Telecom traffic is being successively shifted from older to more modern technology as the building of the fibre-optic network gradually progresses. The high capacity of the telecom network means that it is possible to lease network capacity to external customers. Svenska Kraftnät hires out black fibre (optical fibre without physical terminus equipment) to, for example, telecom operators. Furthermore, active connections are hired out in the form of capacity to, primarily, energy companies.

During 2006, a renewal of Svenska Kraftnät's operational telephone network was initiated, which involves a successive transition to modern IP telephony. The carrier of the new operational telephone network will now be a wide area network (WAN) that is in turn based on the fibre-

Most of Svenska Kraftnät's operative work is conducted from Network Control at Råcksta.

optic network. The WAN is at present under construction and will at year-end link together over 100 stations in the national grid.

During the year, fibre-optic cables have been installed over the following sections of line: Ritsem – Porjus, Midskog – Sveg, Stadsforsen – Järkvissle, Ockelbo – Vittersjö (Gävle), Stackbo (Gävle) – Forsmark – Gråska (Uppland), Hall – Ekudden, Strömma (Kungsbacka) – Ringhals och Hemsjö – Karlshamn.

For 2006, the following sections are planned to be made operational or upgraded: Porjus – Harads – Luleå – Skellefteå – Stornorrfors (Umeå) – Moliden (Örnsköldsvik) – Hjälta (Sollefteå), Ånge – Rätan, Sveg – Borgvik (Karlstad) och Ringhals – Horred.

During 2005, the market for the hiring of black fibre cable improved somewhat. Svenska Kraftnät can primarily supply fibre in the northern part of Sweden where the fibre-optic network is well developed.

In connection with the expansion of the 3-G network, interest is being shown among mobile telephone operators in hiring capacity in Svenska Kraftnät's masts and power line poles. A little over 50 power line poles and radio masts have so far been used for this purpose. The revenue earned on commercial fibre-optic operations amounted to SEK 51 (48) million. The operating income was SEK 13 million, which is a decrease of SEK 9 million compared with the previous year. It is the outcome of a depreciation of fixed assets by SEK 7 million. Investments for the year amounted to SEK 78 (63) million.

With a calculated interest of 7 % on employed capital, the operative result for the financial year will be SEK 4 (9) million. The calculated interest is based on the assessed total risk of the business segment.

In addition to the revenue from external customers on the fibre-optic network, Svenska Kraftnät, had revenue amounting to SEK 14 (14) million for data networks, telephone networks and the leasing of antenna space within segment Telecommunications.

The total operating revenue for Telecommunications amounted to SEK 98 (94) million. Included in this revenue is SEK 32 (32) million for in-Group services on behalf of business segment Network. The operating income amounted to SEK 18 (29) million.

SEK million	2005	2004
Operating revenue	98	94
Operating expense	-80	-65
Operating income	**18**	**29**

System responsibility – natural gas

Since 1 July 2005, Svenska Kraftnät has administered the system responsibility for natural gas in Sweden. The new assignment is linked to the fact that the Swedish natural gas market was reformed when new natural gas legislation came into force on 1 July 2005. The system responsibility means, among other things, that Svenska Kraftnät makes sure that there is a balance between the incoming supply and the consumption of gas. The commercial players own the gas lines. The assignment involves promoting competition, which is a long-term task and the first step is to introduce a set of regulations.

During the course of the year, five companies have entered into agreements on balance responsibility together with Svenska Kraftnät.

The operating revenue for 2005 amounted to SEK 8 million and the operating expense to SEK 9 million. The deficit is a consequence of the fact that running costs for preparing operations were incurred some time before the operations actually started and revenue could be generated.

SEK million	2005	2004
Operating revenue	8	-
Operating expence	-9	-
Operating income	**-1**	**-**

Renewable electricity certificates

On 1 May 2003, an electricity certificates system was introduced in order to promote renewable electricity generation in Sweden. The Act gives producers of renewable electricity the opportunity to receive one electricity certificate per MWh of electricity generated. The certificates can be sold to electricity suppliers/electricity consumers, who are bound to purchase electricity certificates corresponding to a certain proportion of their sales/consumption.

Svenska Kraftnät is responsible for issuing and accounting for electricity certificates. The Swedish Energy Agency is responsible for other official tasks.

Svenska Kraftnät issued approximately 11 million electricity certificates during 2005. Since the system started, some 27.6 million electricity certificates have been issued and approximately 32 million cashed in at an average price of SEK 222 per electricity certificate. During 2004, biofuel-fired electricity generation accounted for 75 % of the electricity certificates issued, hydro power for approximately 16.5 % and wind power for just over 8.5 %.

SEK million	2005	2004
Operating revenue	18	13
Operating expence	-10	-11
Operating income	**8**	**2**

The operating revenue for 2005 amounted to SEK 18 (13) million and was divided between account fees of SEK 17 (12) million and transmission charges of SEK 1 (1) million. The operating income from the operations amounted to SEK 8 (2) million.

The extent of the fees and charges is determined by the Government. In February 2006, Svenska Kraftnät proposed that the Government should introduce a substantial lowering of the fee/charge level.

Contingency planning

Contingency planning, consisting of electricity preparedness and dam safety, are financed through Government appropriations and grants from the Swedish Emergency Management Agency. The activities are in terms of the accounts neutral for Svenska Kraftnät. From the beginning of the year, approximately SEK 278.5 million was available for contingency measures. In August, Svenska Kraftnät's right to use contingency funds was restricted by the Government setting a limit of SEK 18 million. This means that the parent entity has had SEK 260.5 million at its disposal during 2005. These funds have been utilised for the purposes specified in Note 3.

During 2005, Svenska Kraftnät has held basic training for 55 conscripts in the repair of power lines and switchyards at the authority's training centre in Åsbro and for 61 conscripts as power plant operators at Vattenfall Training Centre in Jokkmokk. A special group of 30 persons from companies in the industry has been trained and equipped to repair electrical installations in a contaminated environment. During the year, some 300 individuals from the electricity sector have undergone training in crisis management for which Svenska Kraftnät has been responsible in co-operation with Swedenergy.

The facility at Åsbro also serves as a warehouse for strategic spare equipment for rapid repairs in connection with transmission line failures in the national grid and regional networks. The equipment includes special power line poles which can be assembled quickly and a number of standby power units. There are also complete sets of equipment for mobile repair crews that are organised by Svenska Kraftnät and which can be used for international help efforts.

Through agreements with the Swedish Armed Forces, various types of reinforcement can be added to deal with disruptions in the electricity supply. Among other things repair teams can be re-deployed by air. Through agreements with the voluntary defence organisations, resources can be made available from the Voluntary Motor Transportation Corps, the Women's Motor Transport Corps, the Voluntary Flying Corps and the Voluntary Radio Organization.

The capacity of the electricity supply to cope with critical situations has been strengthened during the year in that control centres have been provided with spare facilities, greater physical protection and improved local power. The possibilities for maintaining necessary telecommunications have been augmented through the acquisition of additional mobile command and communication units. During the course of the year, co-operation has also been established between electricity and telecom companies in order as far as possible to secure sensitive telecommunications in the event of power failures. Since the mobile telecommunications system Rakel is about to be opened to a wider circle of users, the electricity supply industry is set on using it during both normal and abnormal conditions. The previous trial operations with Mobielex have therefore been discontinued.

Measures have been taken in the production plants, primarily combined heat and power plants, to safeguard their black-start capability, when there is no contact with the central electricity system, and to secure their island operation capability. This capability has been verified by means of testing. In connection with the tests, operating staff have been trained in running their installations with adjacent networks in island operation.

Svenska Kraftnät collaborates with Swedenergy's member companies in an emergency co-operation organisation consisting of seven electricity co-operation areas. The purpose of the organisation is to create a good perception of the situation and to coordinate repair resources in connection with extensive electricity failures with damaged installations. The information system Susie, which has been developed in order to support the co-operation organisation, has been further developed and has now been placed at the disposal of authorities that have a need to follow the electricity supply situation in critical conditions.

Several of the activities and augmented resources that have been developed as a result of contingency operations were used in order to remedy the after-effects of Hurricane Gudrun in January 2005. Some 60 line repair staff who were trained at Åsbro were recruited on a voluntary basis by network companies. Repair equipment, standby power units, and telecommunications equipment from the stores at Åsbro were made available through the emergency co-operation organisation. The agreement with the Armed Forces was applied so that the network companies could utilise the Armed Forces' transport services and equipment. The voluntary organisations helped with the manning of various key functions.

In its role as supervisory authority for dam safety, Svenska Kraftnät has for the second year in succession submitted a report to the Government on the development of dam safety in Sweden. The report is based on the procedure developed by Svenska Kraftnät for the annual reporting of dam safety by dam owners.

A project for development of co-ordinated preparedness for dam failures, in which river Ljusnan has been used as an example, has been completed. During the course of the project, which was co-financed by Svensk Kraftnät and the Swedish power industry, both dam owners as well as county administrative boards and local government authorities, which are members of so-called river groups, have participated. A seminar for all Swedish river groups has been organised together with the Swedish Rescue Services Agency for discussions on contingency planning for dam failures. A training course for river groups concerning intervention in water regulation measures has been developed and a first training session has been held. The purpose is to provide the participants with basic competence in assessing the technical and legal effects of intervention in connection with high water flows.

As a step in securing knowledge and competence provision within the area of dam safety, Svenska Kraftnät has participated in the establishment of the Swedish Hydro Power Centre, which is a centre for support of university education and research within hydraulic engineering, water turbines and generators. A first meeting has been arranged in Sweden with a recently established network of European dam safety authorities. The purpose of the network is, through the exchange of experience, to contribute towards a high standard of dam safety.

In its role as principal for the Flow Committee's guidelines for the flow dimensioning of dams, Svenska Kraftnät has participated in a review of the guidelines for large lakes and small catchment areas. The review has also included discussions of an overall strategy for managing the effects of climate change.

Grants accounts for the parent entity

Politial area Total Defence SEK thousand 7: 5 Crisis preparedness	Opening amount	Re-allocation	Allocation for the year as per official appropriation document	Total disposable funds	Deducted expences	Closing amount
– Appropriation item 3 Electricity preparedness measures	20 365	–20 365	248 500	248 500	– 247 315	1 185

For this appropriation, there is also a framework for authorisation and undertakings that result in future expenses as per the following table.

Allocated framework for outstanding undertakings SEK thousand	Constituent undertakings	Outstanding undertakings	Forecast 2006	2007
129 750	136 957	103 997	68 308	35 689

In addition to appropriations, grants have also been received from the Emergency Management Authority for an amount of SEK 12 000 000, of which SEK 11 293 000 has been utilised and SEK 707 000 reported as non-utilized grant within the item Accrued expenses and prepaid income.

The dividend paid in is reported against an income title linked to the Government budget in accordance with the table below, in SEK thousand.

Income title, SEK thousand	Amount to pay in	Amount paid in
2116 Parent entity's delivered dividend	337 000	337 000

Associated companies

Those associated companies in the Group that have had the greatest impact on Svenska Kraftnät's result are Nord Pool ASA, Nord Pool Spot AS and Kraftdragarna AB. Since they are associated companies, only Svenska Kraftnät's share of income in the respective companies is included in the consolidated profit. The share of income for 2005 amounted to SEK 30 million compared with SEK 23 million for 2004. The improved income is primarily a result of the fact that volumes and net income in Nord Pool ASA have increased significantly compared with 2004.

Share of income in associated companies

Mkr	2005	2004
Nord Pool ASA	**24**	16
Nord Pool Spot AS	**5**	6
Kraftdragarna AB	**1**	1
Others	**0**	0
Total	**30**	**23**

Research and development

Svenska Kraftnät's research and development activities aim at increasing reliability performance, efficiency and environmental adaptation of the national grid and system responsibility operations. Research and development is also supported within the area of dam safety as well as risk and vulnerability questions for the power system.

The activities are primarily conducted by commissioning assignments to the part-owned development companies STRI and Elforsk. Furthermore, Svenska Kraftnät supports postgraduate research projects and examination work conducted at institutes of technology.

In January 2005, the Government commissioned Svenska Kraftnät to prepare a proposal for how Svenska Kraftnät can strengthen research, development and demonstration operations within the electricity technology area, primarily power transmission and electricity distribution. The commission was reported in October 2005 with a proposal for strengthened contributions of the order of SEK 40 million, for primarily support for demonstration projects.

Svenska Kraftnät is involved in three projects that concern different aspects of the large-scale introduction of wind power and other small-scale electricity generation. One of these projects was presented in autumn 2005 and concerns the consequences for the Swedish power system if 4 000 MW of wind power (corresponding to 10 TWh in annual production) were to be installed. One interesting conclusion was the fact that the need for new balancing and standby power is comparatively limited. At system level, the normal variations in electricity consumption are considerably greater than the impact of 4 000 MW of wind power.

The weather conditions can have a major impact on the national grid. A framework programme for weather-related development issues has been conducted for a number of years together with the grid companies Statnett in Norway and Fingrid in Finland. One partial result of the programme is the introduction of aids and routines in control rooms in order to reduce the significant transmission losses that arise in connection

with hoar-frost on our grid lines. The entire programme is due to be evaluated at the beginning of 2006.

Svenska Kraftnät has developed a computer program, Aristo, which allows the Nordic power system to be simulated in real time. Aristo is used by Svenska Kraftnät and Statnett for operator training and operational planning. Projects to improve simulation models for hydro power, thermal power and high voltage DC have been conducted during 2005.

Svenska Kraftnät also supports activities carried out at the Swedish Hydro Power Centre. Dam safety is included as an important field in the competence area Hydraulic Engineering. The safe administration of the country's aging stock of dams requires sound knowledge and competence within areas such as hydrology, hydraulics and dam construction technology.

Support has also been given to a number of research and development projects within dam safety, including a pilot project for contingency planning for dam failure. During the course of the project, dam owners, local authorities and county administrative boards have developed a model for co-ordinated preparedness for a dam failure in a harnessed river. Support has been given for two projects linked with climate questions, one for a sensitivity analysis of the guidelines for the flow dimensioning of dams in a changed climate and the other for a Nordic co-operation project on the impact of a climatic change on renewable energy sources, including hydro power.

During 2005, Svenska Kraftnät utilised SEK 16 (19) million for research and development within grid operations, including dam safety and contingency activities.

Nordic and European co-operation

At their meeting in Greenland held in August, the Nordic energy ministers supported the proposal for an action plan for further development of the Nordic electricity market which Nordel – the organisation of the Nordic national grid companies with system responsibility – submitted in the so-called Akureyri Report at the beginning of 2005. The market players have also given broad-based support for Nordel's proposal.

The goal is to create an energy market that promotes increased competition and the effective utilisation of common production resources. The Nordic electricity market shall be characterised by few borders and obstacles, and shall enjoy well-functioning and effective trading with the world around. Work is currently in progress within Nordel on implementing the action plan. The results shall be presented to the energy ministers in March 2006.

A number of questions are being covered. One concerns the possibilities of creating a Nordic end-user market. Today, there is a difference between the regulations for metering and settlement etc. between the Nordic countries. Nordel claimed in the report that a common set of Nordic regulations would make matters easier for electricity consumers. Furthermore, it would be easier for new players to establish themselves, which could result in greater competition on the Nordic electricity market. The regulatory authorities in the Nordic countries are at present investigating the preconditions for a common set of Nordic regulations within this area. Nordel can contribute towards this development by harmonising the principles for levying charges on balance providers, i.e. creating a common balance settlement.

Another question on Nordel's agenda concerns the management of transmission restrictions. Nordel has long-term goals for congestion management in electricity transmission in the Nordic countries so that trading is restricted as little as possible. In Svenska Kraftnät's opinion, this is best done by minimising the number of price areas.

Nordel's proposal for investments in five priority projects in the Nordic transmission network is now due to be implemented. Nordel will in its report to the Nordic energy ministers in March 2006 show how the upgrading work is to be organised and carried out. A plan for the next stage in the reinforcment of the grid in the Nordic countries will also be taken up.

The work of the European association of system operators ETSO, has continued to be dominated in 2005 by the question of transit compensation. It had been strongly anticipated that the EU Commission would during the year establish guidelines for the calculation of transit compensation with the support of the Regulation on Cross-border Electricity Trading, which would result in changed conditions for ETSO. During the autumn, however, it became clear that the EU Commission's proposal for guidelines would be delayed. ETSO was therefore asked by the EU Commission to extend previous regulations for transit compensation by another year.

ETSO has otherwise worked on central electricity market issues, including security of supply and the management of transmission congestions. ETSO has also contributed towards the development of regional electricity markets through participation in the EU Commission's regional meetings with representatives of member states, regulatory authorities and those bodies with system responsibility. The initiative has also been taken for a major project to evaluate technical and market-oriented issues in connection with wind power development.

Nordic co-operation within safety and preparedness activities has been further developed within the framework of the Nordic Electricity Preparedness and Safety Forum. Among the questions taken up as part of the co-operation are questions concerning how the Nordic countries can support each other during extensive and prolonged disruptions in electricity supply. Svenska Kraftnät is also involved in the standardisation work within the area and in a planning committee within NATO's 'Partnership for Peace' programme.

Environment

The operations of Svenska Kraftnät inevitably have a certain unavoidable negative impact on the environment, primarily through the effect of power lines on people's residential environment and immediate surroundings, through the use of environmentally harmful substances and through energy consumption and climatic impact. Our goal is for this impact to be as limited as possible and for Svenska Kraftnät to be regarded as an environmentally conscious company.

The environmental work is focused on a number of areas that are linked with Sweden's environmental quality objectives. Other priority issues are sound environmental competence on the part of employees and well-functioning routines for the environmental work.

Overall goals for the period 2005-2007

For the period 2005-2007, the following goals have been set:

- All employees shall have the correct environmental competence for their work
- Environmental management shall be applied within all relevant activities
- Energy losses from facilities shall have been reduced through control measures in network operation
- High electricity consumption in plants shall have decreased
- Carbon dioxide emissions as a result of travel shall have decreased
- Knowledge concerning and documentation of mercury content in the facilities shall have improved
- The management of environmentally harmful substances in depots and stores shall be effected in a safe way
- A programme for environmentally-oriented R&D shall have started

- The chances for threatened species to find their living environment in power lanes shall have improved
- A principle of caution shall be followed in connection with low-frequency electrical and magnetic fields

Measures and results during 2005

Each year, Svenska Kraftnät sets sub-goals and action plans which shall contribute towards the achievement of the overall goals. In addition, a long series of other environmental activities are carried out.

In autumn 2005, Svenska Kraftnät adopted a magnetic field policy which means that the magnetic field level for nearby residents shall not exceed 0.4 microtesla in connection with newly installed power lines. Through the policy, Svenska Kraftnät clarifies its interpretation of the principle of caution. A power line in the western part of Stockholm has been converted in order to reduce the magnetic fields in an adjacent school and residential buildings. The magnetic fields were reduced by 60 %.

An evaluation has been made of the project concerning biological diversity in power lanes that was conducted over the period 2002-2005. Experimental work has been carried out in connection with the maintenance of certain power lanes. One of the conclusions reached is that it is possible to influence the flora in a positive way by changing the maintenance methodology. An analysis has been made of which power lanes in the national grid are of most interest with respect to biological diversity. We have also trained some 20 forest inspectors in a method for identifying valuable biotopes in power lanes. The results of the project are positive and a plan has been drawn up for continued activities in 2006.

In 2005, the energy losses on the national grid were 3.2 TWh. It is possible to influence a certain percentage of these losses – some 1 to 2 % – by means of operative measures in the control room. A new tool that will support the management of network losses is under development. A survey has been made of electricity consumption in station facilities for which Svenska Kraftnät is the principal. During 2006, work will continue on metering and an action plan for how consumption is to be reduced.

Svenska Kraftnät stipulates that maintenance contractors shall report on the filling of sulphur hexafluoride gas (SF_6) in breakers and gas-insulated switchgear. SF_6 is an aggressive greenhouse gas and Svenska Kraftnät is endeavouring to minimise leakage from the facilities. Over the period 2002-2004, emission levels were very small, i.e. 31, 21 and 18.5 kg respectively (0.1-0.2 % of the installed quantity of SF_6). In 2005, three breaker failures occurred, which caused SF_6 gas to escape from the breakers. The total emission this year was 76 kg (0.4 % of the installed quantity). The emissions that were caused by normal leakage amounted to 0.2 % of the installed quantity of SF_6. According to international standards, the manufacturers guarantee that the emission from new installations shall not exceed 0.5 % (in some cases 1 %). Measures have been taken to rectify the causes of the breaker failures.

A number of inventories have been made with the aim of preventing the risk of ground contamination. For example, an inventory has been made of stockpiled impregnated timber poles. Oil sumps that are located beneath transformers and reactors have been assessed with respect to permits and the capacity impound outflowing oil. Careful preparations have been made for the 1.7 tonnes of mercury that are to be removed from the facilities at Stenkullen, Lerum, during 2006.

The possibilities of following up the environmental impact of business trips have been augmented as a result of improved statistics. The employees are continuing to make considerable use of the company's video conference equipment, which has meant that it has been possible to avoid travel. Of the ten cars that were ordered by Svenska Kraftnät in 2005, seven are environmentally classified cars. This means that the Government requirement – that at least 50 per cent of the cars which are purchased by the State are to be environmentally classified cars – was met with a satisfactory margin.

An Environmental Day was held during the autumn with the aim of raising the level of environmental awareness among employees. At the end of the year, an in-house environmental audit was conducted during which a review was made of special environmental work in investment projects and maintenance operations.

In connection with investment projects, considerable efforts have been made on an ongoing basis on different kinds of environmental impact assessments and environmental analyses. Within the framework of the Stockholms Ström Project, which aims at restructuring the Stockholm electricity supply, an analysis is being made of how power lines in the Stockholm area encroach on the environment.

Staff

Svenska Kraftnät shall be an attractive employer with competent employees who are happy in their work.

The number of full-time employed staff in the Group was at year-end 276 (276), of whom 199 (200) were men and 77 (76) women. Staff turnover amounted to 4.5 (1.5) %. Sick leave during the year was 3.5 (2.9) %.

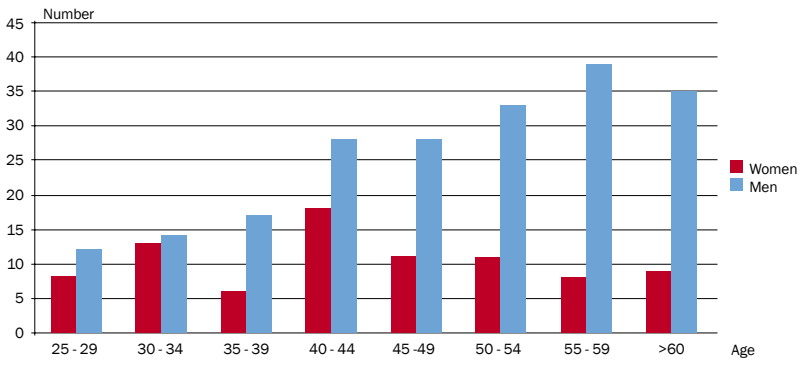
The average age within the company is 47 (47). The total distribution according to age and sex is shown in the table below.

A total of 44 employees are due to retire from Svenska Kraftnät within the next five years.

Goals for 2005

During 2005, Svenska Kraftnät has performed a number of activities aimed at achieving the following goals:

- The staff shall regard Svenska Kraftnät as being an attractive employer
- The proportion of female employees shall increase to 28 % and the proportion of female managers to 30 %
- Staff turnover shall remain at a low level
- Sick leave shall drop to 2.8 %
- Leadership skills shall be further developed
- The age distribution shall increase through the recruitment of younger staff
- Each employee shall have a personal development plan based on a fundamental skills analysis



- Svenska Kraftnät shall actively promote a planned transfer of experience from older to younger employees
- Svenska Kraftnät shall be regarded both as a company that offers equal opportunities and as a very good employer for the parents of young children
- Contacts shall be developed with universities and institutes of higher education, which are important for Svenska Kraftnät's recruitment
- Ethnic and cultural diversity shall be promoted, e.g. through recruitment

Result for 2005

During May, a survey was made of how the staff experience Svenska Kraftnät. The employee index, which constitutes a form of total assessment, dropped somewhat compared with the previous survey in 2003, but compared with other companies is still on a high level. Leadership was given a high grade by the staff.

During 2005, a total of 15 employees were recruited, 5 of whom were women and 10 men. The average age of these new employees is 40. Staff turnover has been low with the exception of retirements. During the year, 7 trainees – all of them graduate engineers – completed their periods of training and took up normal posts with the company.

The proportion of female employees has increased somewhat to 28 %. The percentage of female managers is also 28 %.

Svenska Kraftnät has during the course of the year continued to focus on the creation of a "healthier company". Keep-fit activities are centred on four overriding goals with the aim that Svenska Kraftnät will in 2007 to an even greater extent be a sound and healthy workplace. These goals are:

- Sick leave shall be max 2.5 %
- The number of long-term healthy employees shall be 65 %
- Physical fitness shall on average increase by 20 %
- There shall be no work-related long-term illnesses

In order to meet these targets, the company is conducting activities in four sub-areas: working environment, leadership, fitness and rehabilitation. However, sick leave has increased somewhat compared with the previous year, very much dependent on the fact that several staff have been absent on long-term sick leave. Short-term sick leave is still very low.

The company has during the course of the year invested SEK 12 000 per employee in external development activities. Svenska Kraftnät has for many years offered executives an advanced leadership programme. During 2005 a total of 8 managers took this programme, which continues for 18 months.

In 2004, an analysis was made of the experience and competence of all employees who are due to finish working at Svenska Kraftnät over the next five-year period. This work has been updated and the company has assessed what types of knowledge are of critical importance to them and which must in some form be transferred to other employees. One to two years before an employee is due to go into retirement, an assessment is made of which activities need to be carried out so that important knowledge is retained within Svenska Kraftnät. During the year, the company has planned for this type of competence transfer for some ten employees.

Sick leave (%)	Aged < 29	30-49	> 50	Total
Women	1.7	6.1	4.4	5.1
Men	0.7	3.1	3.0	2.9
Total	1.1	4.2	3.3	3.5

The proportion of long-term sick leave (longer than 60 days) has increased to 2.1 (1.4) %, which has had a significant effect on the total increase in sick leave. 56 (56) % of the staff have not had one single day of sick leave during the course of the year.

The employee survey showed that equality within the company is judged to be good. The employees regard the company as being a very good employer for the parents of young children.

Svenska Kraftnät's goals for 2006

Competence provision shall result in the maintenance of our leading role within the area of electricity supply.

Employees need to develop their own competence in line with market and company development as well as the changes that this involves in their working tasks. In this context, we shall increase our efforts to stimulate job rotation and create opportunities for competence transfer.

Competence development shall also focus on future management provision and the development of specialists. It is also based on changes that require special efforts, primarily the effect of a large number of retirements.

The company's efforts to achieve an even gender distribution and a more balanced age profile will be further stressed in the work carried out in 2006.

Goals for 2006:

- Employees shall continue to regard Svenska Kraftnät as an attractive employer
- The proportion of female employees shall increase to 29 % and the proportion of female managers to 30 %
- Staff turnover shall continue to remain at a low level
- Sick leave shall decrease to 2.8 % and the proportion of full-time healthy employees shall increase to 60 %
- A new leadership programme shall be started for future managers
- The age distribution shall be increased by the recruitment of younger staff
- A new trainee programme shall be started
- Each employee within Svenska Kraftnät shall have a personal development plan based on a detailed competence analysis
- Svenska Kraftnät shall work actively to achieve a planned transfer of competence from older to younger employees
- Svenska Kraftnät shall be known as a company that offers equal opportunities and as an excellent employer for the parents of young children
- Co-operation with selected universities and institutes of higher education shall be increased
- Ethnic and cultural diversity shall be promoted by, e.g. by recruitment
- The number of employees who change jobs internally (job rotation) shall increase to 15

Goals for the period 2007/2008

The possibilities for recruiting skilled employees will continue to be good. We shall actively increase the proportion of women and female managers within Svenska Kraftnät, primarily in the engineering departments.

Svenska Kraftnät intends also to invest in measures that further reduce sick leave and increase the number of full-time healthy employees.

Svenska Kraftnät will continue to conduct employee surveys in order to measure the extent to which employees are satisfied with their work and the company.

The direction of the surveys for 2007/2008 will be:

- Competence analyses and personal development plans for all employees
- Increased leadership development

Some of our employees who began as trainees in 2004. From the left: Anna Jäderström, Therese Fahlberg, Jakob Katzman and Habib Sabbagh.

- A focus on the transfer of competence from older to younger employees
- Active recruitment of young academics and of female employees and managers
- Sick leave reduced to 2.5 %
- The proportion of full-time healthy employees shall be at least 65 %
- Good contact with universities and institutes of higher education

Incentive programme

The purpose of Svenska Kraftnät's incentive programme is to create involvement in order to achieve a high level of operational reliability, a sound financial result, a high level of cost effectiveness and a well-functioning company. In this way, Svenska Kraftnät's primary objective can be fulfilled, i.e. a reliable and effective national grid.

The programme covers all employees apart from the Director-General, whose financial conditions are determined by the Government.

The incentive programme is structured so that the maximum bonus is a month's salary. Goal achievement for 2005 was 95 % of a monthly salary. The allocation for 2005 is SEK 11.2 (8.8) million, including social fees.

Governance for the Group

The operations of the Svenska Kraftnät Group are regulated through the Ordinance (1993:2013), including the instruction for the parent entity Svenska Kraftnät, and through an annual letter of governance. In connection with the adoption of the national budget for the next year, Parliament will make decision on Svenska Kraftnät's investments and financial operations. The letter of governance, within the expense area 21 Energy, describes the assignments and regulates the scope, conditions and authorizations for Svenska Kraftnät. The Government appoint the Board, as representing the Swedish State. According to 5§ of the Ordinance including the instruction for Svenska Kraftnät, the Director General and staff representatives are also included in the Board.

According to the letter of governance the statement of accounts in Svenska Kraftnät's annual and interim reports shall follow the policies and guidelines in the State ownership policy where these are applicable for a state utility.

The Board of Directors and its work

The Board of Svenska Kraftnät consists of nine members including two staff association representatives. During the year, the Board has held five meetings.
The work of the Board has been primarily focused on:

- The company's long-term development
- Financial effectiveness
- Major investments, above all the three new power lines and switchgear conversions
- The need for long-term re-investments
- The long-term structure of electricity supply in the Stockholm region
- Development of the Nordic and European electricity markets
- Natural gas operations
- The work of the company in connection with risk analysis
- Regulations on the technical reliability design of production facilities
- Environmental matters

The Board has adopted a new finance policy that is adapted to suit the operations of the Group.

The Board has visited the EU Commission and the Swedish EU Delegation in Brussels in order to find out about European development in the electricity area.

Svenska Kraftnät's values

In co-operation with the management and the employees, Svenska Kraftnät has worked out and determined which values best support our ambition to be one of the most effective national grid companies in the world. The values are summarised in the words: effectiveness, quality, social responsibility, spirit of co-operation and teamwork.

Effectiveness: We focus on good leadership and good routines in order to do the right things in a cost-conscious way.

Quality: It is extremely important that the operational reliability of the electricity system is high. Therefore, all aspects of our work must be characterised by good quality, reliability and a long-term perspective.

Social responsibility: Electricity supply is so important and of such benefit to society that we must work with a high level of involvement so that Sweden receives its electricity every second of the day. We also have an environmental responsibility to make sure that our power lines and stations are designed in such a way that they encroach as little as possible on human-beings and the countryside. As a central and neutral party in the open electricity market, it is important for us to treat the players equally and to provide them with good information.

Spirit of co-operation: We want to have satisfied customers and stakeholders. We shall be sensitive to their needs and be anxious to have good communication with them.

Teamwork: Within Svenska Kraftnät, we wish to have a strong corporate feeling that is characterised by openness, clarity and consideration.

Income Statements

SEK million

		Group		Parent entity	
	Note	2005	2004	2005	2004
Operating revenue					
Network revenue	1	3 283	2 863	3 083	2 590
System responsibility revenue	2	2 234	2 131	2 235	2 131
Telecommunications revenue		66	62	66	62
Renewable electricity certificates		18	13	18	13
Government grant for power contingency planning	3	259	245	259	245
Capitalised work for own account	4	25	21	25	21
Total operating revenue		**5 885**	**5 335**	**5 686**	**5 062**
Operating expenses					
Personnel expenses	5	-210	-198	-210	-197
Other operating expenses	6	-4 235	-4 003	-4 232	-4 003
Depreciation of tangible and intangible fixed assets	13, 14	-558	-537	-417	-393
Total operating expenses		**-5 003**	**-4 738**	**-4 859**	**-4 593**
Share of income in associated companies	7	30	23	-	-
Operating income	8	**912**	**620**	**827**	**469**
Result from financial investments					
Result from other securities and receivables that are fixed assets	9	9	5	33	19
Interest income and similar income items	10	5	7	2	5
Interest expenses and similar expense items	11	-43	-79	-4	-17
Income after financial items		**883**	**553**	**858**	**476**
Tax on income for the year	12	-3	-15	-	-
Minority shares		2	-19	-	-
Net income for the year		**882**	**519**	**858**	**476**

Comments on Income Statements

Operating revenue and expenses
From 2005 onwards, the Group and parent entity report revenue and expenses in accordance with the International Financial Reporting Standards (IFRS). Network revenue for the year 2004 has been adjusted by SEK 408 million and System responsibility revenue by SEK 937 million. Other operating expenses have been adjusted by a total of SEK 1 345 million. The change has no effect on the outcome.

The Group's operating revenue increased by SEK 550 million and amounted to SEK 5 885 (5 335) million.

The Group's network revenue increased by SEK 420 million compared with the previous year. The transmission revenues on the national grid increased by SEK 182 million as a result of a re-adaptation to normal transmission patterns. Congestion revenues increased by SEK 288 million since the difference in price between system price and area price, in connection with the division of the market into price areas, has been significantly more frequent during the course of the year. Svenska Kraftnät's share has also been greater during 2005 than in 2004.

System responsibility revenue amounted to SEK 2 234 million and increased in total to SEK 104 million. Included in this item is sold balancing power, which increased by SEK 108 million as a result of higher electricity prices during the year and revenue for standby power and system responsibility revenue for natural gas by SEK 8 million. Telecommunications revenue increased by SEK 4 million as a result of new customers in the optical fibre area during 2005. Contingency planning has utilised funds amounting to SEK 259 (245) million, which is equivalent to the costs of contingency operations. Of these, SEK 248 million has been financed by appropriations and SEK 11 has been received in the form of grants from the Swedish Emergency Management Agency.

The revenue from renewable electricity certificates amounted to SEK 18 (13) million. The fees for electricity certificates are set by the Government and regulated by Ordinance (2003:120) on Renewable Electricity Certificates.

The Group's operating expenses amounted to SEK 5 003 (4 738) million.

Staff expenses amounted to SEK 210 million, an increase of SEK 12 million.

The Group's other operating expenses increased by SEK 232 million. The costs incurred for energy losses in connection with transmission on the grid increased by SEK 171 million primarily as a result of increased transmission on the grid. During the year, the entire volume of electricity was purchased on long contracts. The costs associated with supplying energy to the grid amounted to SEK 347 million, which is a decrease of SEK 61 million compared with 2004. The year's expenses for balancing power increased and exceeded the previous year's level by SEK 54 million as s a consequence of the higher electricity prices.

Depreciation of tangible and intangible fixed assets amounted to SEK 558 (537) million.

Operating income

The operating income for the Group improved by SEK 292 million to SEK 912 million. The operating income consists of external revenue and expenses in the business segments and the profit/loss from participations in associated companies. The operating income includes Group depreciation.

The predominant business segment in Svenska Kraftnät's operations is the business segment Network, with an operating income of SEK 801 (613) million. Certain items concern both the business segments Network and System responsibility. When it has not been possible to link these activities to a business segment, the costs have been distributed on a standard basis.

Business segment System responsibility generated a profit for 2005 of SEK 56 (-47) million. Revenue for sold balancing power increased by SEK 109 million and the costs for purchased balancing power increased by SEK 53 million.

Telecom operations contributed to the operating income with SEK 18 million compared with SEK 29 million the previous year, which is explained by lower costs.

Associated companies within the Group are Nord Pool ASA, Nord Pool Spot AS and Kraftdragarna AB. Since they are associated companies, only Svenska Kraftnät's profit/loss component in each company is included in the consolidated profit/loss. The profit components amounted to SEK 30 million compared with SEK 23 million for the previous year. Nord Pool ASA and Nord Pool Spot AS account for the majority of this.

The operating margin for the Group amounted to 15.5 %, which is 3.9 percentage points better than the previous year.

Net financing

Net financial income/expense amounted to SEK -29 (- 67) million. This is an improvement of SEK 38 million compared with the previous year. The result from securities and financial receivables amounted to SEK 9 (5) million and concerns the parent entity. The difference is a result of an exchange rate profit on loans to Nord Pool ASA of SEK 5 million. The Group's interest income decreased by SEK 2 million to SEK 5 million as a consequence of the lower interest rate on the finance market. The Group's interest expenses and similar expense items amounted to SEK 43 million and thus decreased by SEK 36 million. The majority of this amount was for the financing of loans in SwePol Link, which decreased by SEK 24 million compared with the previous year.

The interest coverage ratio amounted to 21.5 (7.6) times.

Net income for the year

The net income for the year amounted to SEK 882 million, which is SEK 363 million better than in 2004. The result means a return of 10.1 (6.2) % on adjusted equity. The net profit margin with a deduction for standard tax was 10.8 %, which is an increase of 3.8 percentage points compared with 2004.

Balance Sheet for the Group

SEK million

	Note	Group	
		2005-12-31	2004-12-31
ASSETS			
Fixed assets			
Intangible fixed assets	13		
Capitalised expenditure for computer programs		12	18
Land rights		71	74
Right of use		53	54
Construction in progress		71	25
Total intangible fixed assets		**207**	**171**
Tangible fixed assets	14		
Buildings and land		524	558
Machinery and equipment		7 664	7 972
Construction in progress		467	386
Total tangible fixed assets		**8 655**	**8 916**
Financial fixed assets			
Shares and participations in associated companies	16	328	315
Deferred receivables		2	1
Receivables from associated companies		59	54
Long-term receivables		2	2
Total financial fixed assets		**391**	**372**
Total fixed assets		**9 253**	**9 459**
Current assets			
Inventories		73	69
Current receivables			
Accounts receivable		274	324
Receivables from associated companies		4	4
Other receivables		53	31
Receivables from Government cheque account	17	49	31
Prepaid expenses and accrued income	18	396	291
Total current receivables		**776**	**681**
Cash and bank balances		**264**	**120**
Total current assets		**1 113**	**870**
Total assets		**10 366**	**10 329**

Balance Sheet for the Group

SEK million

	Note	Group	
		2005-12-31	2004-12-31
EQUITY AND LIABILITIES			
Equity			
Referrable to owners			
Government capital		600	600
Other reserves		3 314	3 314
Retained earnings incl. net income for the year		3 473	2 928
The Government's capital		**7 387**	**6 842**
Minority interests		**48**	**50**
Total equity		**7 435**	**6 892**
Deferred tax liability		**14**	**8**
Interest-bearing provisions			
Provisions for pensions	19	240	220
Interest-bearing long-term liabilities	20	**1 333**	**2 423**
Non-interest-bearing long-term liabilities			
Advance payments from customers		106	101
Other long-term liabilities		385	2
Total non-interest-bearing long-term liabilities		**491**	**103**
Interest-bearing current liabilities	21	**98**	**128**
Non-interest bearing current liabilities			
Accounts payable		292	236
Other liabilities		67	42
Accrued expenses and prepaid income	22	396	277
Total non-interest-bearing current liabilities		**755**	**555**
Total equity and liabilities		**10 366**	**10 329**
Pledged assets, etc.		None	None
Contingent liabilities	23, 24	20	20

Balance Sheet for Parent Entity

SEK million

	Note	Parent Entity	
		2005-12-31	2004-12-31
ASSETS			
Fixed assets			
Intangible fixed assets	13		
Capitalised expenditure for computer programs		12	18
Land rights		71	74
Rights of use		53	54
Construction in progress		71	25
Total intangible fixed assets		**207**	**171**
Tangible fixed assets	14		
Buildings and land		172	184
Machinery and equipment		5 951	6 136
Construction in progress		466	386
Total tangible fixed assets		**6 589**	**6 706**
Financial fixed assets			
Shares and participations in Group companies	15	12	12
Receivables from Group companies		157	182
Shares and participations in associated companies	16	177	177
Receivables from associated companies		59	54
Long-term receivables		2	3
Total financial fixed assets		**407**	**428**
Total fixed assets		**7 203**	**7 305**
Current assets			
Inventories		5	-
Current receivables			
Accounts receivable		256	307
Receivables from Group companies		21	28
Receivables from associated companies		4	4
Other receivables		44	17
Receivables from Government cheque account	17	49	31
Prepaid expenses and accrued income	18	392	290
Total current receivables		**766**	**677**
Cash and bank balances		**232**	**72**
Total current assets		**1 003**	**749**
Total assets		**8 206**	**8 054**

Balance Sheet for Parent Entity

SEK million

	Note	Parent Entity	
		2005-12-31	2004-12-31
EQUITY AND LIABILITIES			
Equity			
Restricted equity			
Government capital		600	600
Restricted reserves		3 314	3 314
Total restricted equity		**3 914**	**3 914**
Unrestricted capital			
Retained earnings		2 390	2 251
Net income for the year		858	476
Total unrestricted capital		**3 248**	**2 727**
Total equity		**7 162**	**6 641**
Interest-bearing provisions			
Provisions for pensions	19	240	220
Interest-bearing long-term liabilities	20	**0**	**559**
Non-interest-bearing long-term liabilities			
Advance payments from customers		106	101
Other long-term liabilities		2	2
Total non-interest-bearing long-term liabilities		**108**	**103**
Interest-bearing current liabilities	21	**–**	**–**
Non-interest-bearing current liabilities			
Accounts payable, trade		283	228
Liabilities to Group companies		0	12
Other liabilities		18	17
Accrued expenses and prepaid income	22	395	274
Total non-interest-bearing current liabilities		**696**	**531**
Total equity and liabilities		**8 206**	**8 054**
Pledged assets, etc.		None	None
Contingent liabilities	23, 24	20	20

Comments on Balance Sheets

Balance sheet total

The consolidated balance sheet total amounted to SEK 10 366 (10 329) million, which is an increase of SEK 37 million.

Fixed assets

Svenska Kraftnät's intangible fixed assets consist of land rights, rights of use for fibre-optic cables, licences and balanced outlays for computer programs. The value of these is SEK 207 (171) million. The increase is a consequence of investments in computer programs of SEK 52 (17) million in, among other items, settlement systems.

The tangible assets consist primarily of power cables, stations, buildings and land, fibre-optic connections and other technical facilities and construction in progress. The value of the tangible assets amounted to SEK 8 655 (8 916) million, which is a decrease of SEK 261 million. The net investments during the year have been lower than the depreciation

The financial assets consist of participations in associated companies and long-term receivables from associated companies. Participations in associated companies amounted to SEK 328 (315) million. The profit participation in the financial statements is SEK 30 million, which increased the financial assets. During the year, a dividend of SEK 18 (8) was received from Nord Pool ASA.

Current assets

The Group's current assets amounted to SEK 1 113 (870) million. The increase was primarily attributable to prepaid expenses and accrued income, which are SEK 105 million higher owing to an increased volume of energy fees at the end of the year compared to December 2004. Liquid funds amounted to SEK 264 (120) million at year-end and have increased by SEK 144 million. The increase is mainly attributable to the the fact that the parent entity's liquidity was SEK 160 million higher than the previous year.

Equity

Equity at year-end was SEK 7 394 (6 842) millio, of which SEK 3 302 (2 769) million consisted ofunrestricted equity. During the course of the year, SEK 337 (309) million has been distributed to the owners. The net Group profit for the year amounted to SEK 889 (519) million.

Provisions

Pension provisions amounted to SEK 240 (220) million, i.e. an increase of SEK 20 million. The provisions are based on an actuarial calculation by the National Government Employee Pensions Board and Svenska Kraftnät's own data. The provisions include a special employer's contribution.

Liabilities

The Group's long-term liabilities that are interest-bearing consist normally of the parent entity's financing with the National Debt Office of SEK 0 (559) million and the external financing of subsidiaries of SEK 1 333 (1 864) million. The borrowing requirement in the Group has decreased during 2005 by SEK 715 million. The short-term component of this borrowing is SEK 98 (128) million. The average interest on the loans for the Group has been 2.2 (3.0) %.

Long-term liabilities that are not interest-bearing consist largely of advance payments from customers within the optical fibre operations and amount to SEK 106 (101) million. The agreement periods vary from 15 to 25 years and the advance payments are taken up as income during this period. The level of the net loan debt decreased by SEK 1 244 million and amounted to SEK 1 407 (2 651) million. The decrease was a result of the reclassification of loans from interest-bearing to non-interest-bearing long-term liabilities. This also means that the debt/equity ratio amounted to 0.22 (0.43).

Extraordinary dividend

According to Government decision at 20 December 2005, Svenska Kraftnät delivered at 31 January 2006 SEK 1 000 million in extraordinary dividend to the government.

Cash Flow Statement

SEK million

	Group		Parent Entity	
	2005	**2004**	**2005**	**2004**
The year's operations				
Operating income before depreciation	1 440	1 129	1 244	862
Adjustment for items not included in cash flow	23	40	45	48
Interest paid	-46	-80	-6	-16
Cash flow from operations before changes in working capital	**1 417**	**1 089**	**1 283**	**894**
Increase in inventories	-4	2	-6	-
Increase in current receivables	-95	-4	-89	-14
Increase in current liabilities	200	-105	166	-3
Cash flow from the year's operations	**1 518**	**982**	**1 354**	**877**
Investment activities				
Investments in tangible and intangible fixed assets	-338	-410	-335	-403
Change in long-term receivables	0	0	21	0
Sale of fixed assets	1	0	1	0
Cash flow from investment activities	**-337**	**-410**	**-313**	**-403**
Financing activities				
Change in interest-bearing liabilities	-1 120	-243	-559	-106
Change in other long-term liabilities	405	0	0	0
Advance payments from customers	15	1	15	1
Dividend paid	-337	-309	-337	-309
Cash flow from financing activities	**-1 037**	**551**	**-881**	**-414**
Cash flow for the year	**144**	**21**	**160**	**60**
Liquid assets at the beginning of the year	120	99	72	12
Liquid assets at year-end	264	120	232	72

Comment on Cash Flow Statement

The purpose of the Cash Flow Statement is to describe the capacity of the Svenska Kraftnät Group to generate liquid assets and to serve as a complement to the income statement and balance sheet descriptions of profitability and financial position. Liquid assets is understood to be cash and bank balances.

The year's operations
The cash flow from the year's operations before changes in operating capital increased by SEK 329 million compared with the previous year and amounted to SEK 1 417 million. The cash flow from the year's operations amounted to SEK 1 518 (982) million. The improvement is primarily a result of the increase in operating income.

Investment activities
The Group's investments amounted to SEK 338 (410) million. Investments in the parent entity amounted to SEK 335 million, SEK 1 million in the subsidiary SwePol Link and SEK 2 million in Svenska Kraftnät Gasturbiner AB. Investments were made in the parent entity during 2004 of SEK 403 million and in the subsidiary SwePol Link of SEK 5 million and SEK 2 million in Svenska Kraftnät Gasturbiner AB.

Financing activities
Interest-bearing liabilities in the Group decreased by SEK 1 120 (243) million. Interest-bearing liabilities in the parent entity decreased by SEK 559 million, and in the subsidiary SwePol Link external interest-bearing liabilities dropped by SEK 560 million. Some of this debt (SEK 405 million) was converted during the year into Other non-interest-bearing long-term liabilities. The other subsidiary, Svenska Kraftnät Gasturbiner AB, reduced its in-Group interest-bearing liabilities by SEK 26 million. A dividend has been paid of SEK 337 (309) million.

Change in Equity

SEK million

Group	Referrable to the Government				Referrable to minority interests	Total equity
	Government capital	Other injected capital	Profit brought forward incl. net income for year	Total		
Opening balance 1 Jan. 2004	**600**	**3 314**	**2 718**	**6 632**	**31**	**6 663**
Dividend	—	—	-309	-309	—	-309
Net income for the year	—	—	519	519	19	538
Closing balance, 31 Dec. 2004	**600**	**3 314**	**2 928**	**6 842**	**50**	**6 892**
Dividend	—	—	-337	-337	—	-337
Net income for the year	—	—	882	882	-2	880
Closing balance, 31 Dec. 2005	**600**	**3 314**	**3 473**	**7 387**	**48**	**7 435**

Above statement is compiled in accordance with the IFRS rules as if Svenska Kraftnät were an independent group with formal ownership. Svenska Kraftnät is a pubic utility and a part of the Swedish Government. The Group has not changed any accounting principle during the course of the financial year. The allocation of profit proposed in the annual report for 2004 was adopted by the Government.

Parent entity	Government capital	Restricted reserves	Retained earnings	Net income for the year
Equity brought forward acc. to adopted balance sheet	600	3 314	2 251	476
Allocation of profit acc. to Government decision				
- carried forward to new account	-	-	476	- 476
- dividend	-	-	- 337	-
Net income for the year	-	-	-	858
Amount at year-end	**600**	**3 314**	**2 390**	**858**

Five-year Reviews for the Group

SEK million

Income Statement, SEK million	**2005**	**2004**	**2003**	**2002**	**2001**
Operating revenue	5 885	5 335	5 633	5 096	4 887
Operating expenses	-4 445	-4 201	-4 717	-3 967	-3 551
Depreciation	-558	-537	-527	-512	-493
Result of participations in associated companies	30	23	19	40	37
Operating income	**912**	**620**	**408**	**657**	**880**
Financial items	-29	-67	-118	-109	-145
Income after financial items	**883**	**553**	**290**	**548**	**735**
Tax on income for the year	-3	-15	1	-5	6
Minority share	2	-19	-3	-2	-14
Net income for the year	**882**	**519**	**288**	**541**	**727**

Balance Sheet, SEK million	**2005**	**2004**	**2003**	**2002**	**2001**
Intangible fixed assets	207	171	132	110	74
Tangible fixed assets	8 655	8 916	9 081	9 240	9 424
Financial fixed assets	391	372	364	372	178
Inventories	73	69	71	59	62
Current receivables	776	681	677	835	715
Liquid funds	264	120	99	165	212
Total assets	**10 366**	**10 329**	**10 424**	**10 781**	**10 665**
Equity	7 435	6 892	6 664	6 729	6 661
Provisions	240	220	195	190	168
Long-term liabilities					
Interest-bearing	1 333	2 423	2 667	2 813	2 968
Non-interest-bearing	505	111	112	104	104
Current liabilities					
Interest-bearing	98	128	127	138	138
Non-interest-bearing	755	555	659	807	626
Total equity and liabilities	**10 366**	**10 329**	**10 424**	**10 781**	**10 665**

Key business ratios		**2005**	**2004**	**2003**	**2002**	**2001**
Return on adjusted equity after tax[1]	%	10,1	6,2	3,5	6,6	8,9
Return on total capital	%	8,9	5,8	3,9	8,3	7,7
Return on capital employed	%	10,8	6,7	4,6	8,4	10,6
Equity/assets ratio	%	62,4	58,7	56,7	55,2	55,4
Operating margin	%	15,5	11,6	7,2	12,9	18,0
Net profit margin after tax	%	10,8	7,0	3,7	7,6	10,7
Capital turnover ratio	%	56,9	51,4	53,1	48,1	45,6
Debt/equity ratio	times	0,22	0,43	0,49	0,50	0,51
Self-financing level	times	4,3	2,6	2,0	2,3	3,3
Interest coverage ratio	times	21,5	7,6	3,3	4,6	5,6

Miscellaneous		**2005**	**2004**	**2003**	**2002**	**2001**
Internally allocated funds	MSEK	1 417	1 089	844	989	1 230
Net liability	MSEK	1 407	2 651	2 897	2 982	3 062
Investments (CAPEX)	MSEK	338	410	411	460	363
Average no of employees	no.	277	269	261	249	241

[1] The depreciation demand for return on adjusted equity was 9 % in 1998 and was subsequently 7 % up to and including 2002. Since 2003, the demand has been 6 % and is modified compared with 2002. Adjusted equity is understood to mean the average of the year's equity brought and carried forward and 72 % of unrestricted equity.

Accounting Principles

At the end of 2005, the Svenska Kraftnät Group consisted of the parent entity Svenska Kraftnät, which is a public utility, three subsidiaries and six associated companies. The subsidiaries and associated companies are limited liability companies or companies with a corresponding legal status abroad.

One of the subsidiaries, SwePol Link AB, has in turn its own wholly-owned subsidiary in Poland.

System of rules and regulations

Svenska Kraftnät's accounts concur with Ordinance (2000:606) on public authority book-keeping and The Swedish National Finance Management Authority's (ESV's) regulations and general advice. The ordinance concurs with the Book-keeping Act but is adapted to the special preconditions that apply for Government authorities and utilities. With certain exceptions that are stipulated in the document on Government appropriations, the Annual Report is drawn up in accordance with the Ordinance (2000:605) on annual reports and budget input and ESV's regulations and general advice. Part of Svenska Kraftnät's operations – contingency planning – is financed via Government grants. For this particular activity, the provisions of Ordinance (1996:1189) on grants also applies, which among other things regulates the principles for grant settlement and how non-utilised funds may be retained between different budget years. Svenska Kraftnät shall also follow the recommendations of the Swedish Financial Accounting Standards Council and the recommendations of the Swedish Society of Financial Analysts where these are applicable for public utilities.

Svenska Kraftnät has adapted its accounts to the new accounting recommendations in Ordinance (2000:606) and to those of the Swedish Financial Accounting Standards Council, which came into force on 1 January 2002. Of the new recommendations, only RR 15 Intangible assets has led to any change in the accounting principles with a significant impact on amounts. This recommendation means that the land rights from and including 2002 have been written off after the assessed period of use. During previous years, land rights have not been subject to depreciation.

Svenska Kraftnät has adapted its income statements to the new structural arrangement of the National Financial Management Authority for public utilities and the guidelines published by FAR (the Institute for the Accounting Profession in Sweden) on annual reports for limited liability companies.

For the companies in the Group, the Book-keeping Act, Annual Reports Act and corresponding national acts, primarily the Companies Act, apply. Two of the associated companies are Norwegian, and in their case equivalent national laws apply.

The supervisory authority for network operations is the Swedish Energy Agency.

Consolidated accounts

The consolidated accounts cover Svenska Kraftnät together with all subsidiaries and associated companies in Sweden and abroad. Subsidiary is understood here to mean a legal person in which Svenska Kraftnät holds or has control over more than half the votes or owns shares in the legal person and has the right to alone exercise a considerable influence over this as the consequence of an agreement or some other regulation. Associated company means a legal person that is not a subsidiary, but in which Svenska Kraftnät owns participations and exercises a considerable influence over the legal person's operational and financial control.

The consolidated accounts are drawn up in accordance with the acquisition method, which means briefly that the acquisition cost for the shares in the subsidiary are eliminated against the equity that exists in the subsidiary at the time of the acquisition. The recommendation of the Swedish Financial Accounting Standards Council concerning consolidated accounts is applied.

Minority participations in the net profit and equity in part-owned subsidiaries are presented separately in the calculation of the Group's net profit and equity. Internal profits and balances within the Group are eliminated in the consolidated accounts.

Associated companies are reported in accordance with the equity method. This means that the book value of shares and participations in associated companies in the consolidated accounts is valued at the Group's share of the associated companies' equity and non-depreciated goodwill. In this way, Svenska Kraftnät's share of the associated companies' result is included in the Group's result reduced for the depreciation of goodwill and dividend distributed. The share is included in the restricted reserves.

From and including 2005, all listed companies within the EU shall prepare their consolidated accounts in accordance with International Financial Reporting Standards (IFRS). According to guidelines from the Ministry for Industry, Employment and Communications, state-owned companies and public utilities shall also follow these regulations. The recommendations of the Swedish Financial Accounting Standards Council concur largely with existing IAS/IFRS, which means that Svenska Kraftnät's consolidated accounts are largely adapted to the new regulations.

IFRS shall be applied from and including 1 January 2005, and the comparison year 2004 shall be translated. The transition will have no material effects on the Group's balance sheet. The Group's income statement is affected by higher operating revenues and operating expenses, but there is no influence on the operating income or net income for the year. See page 40.

Accounting of foreign currency

Receivables and liabilities in foreign currency

Receivables and liabilities in foreign currency have been valued at the exchange rate on the balance sheet date. Unrealised exchange rate gains and exchange rate losses are included in the result.

Translation of foreign subsidiaries and associated companies

The subsidiary SwePol Link AB's Polish subsidiary's annual accounts have been translated into Swedish kronor in accordance with the monetary method, which means that monetary items are translated into the balance sheet date rate and non-monetary items into the rate at the time of the investment. The translation difference between monetary assets and liabilities is included in the net income for the year for the Group and is reported in the income statement.

The monetary method is used because the operations of the Polish company are regarded as an integrated part of SwePol Link AB's activities.

Important currencies used in the consolidated annual accounts are specified below.

		Average exchange rate		Balance sheet rate	
Country	**Currency**	**2005**	**2004**	**2005-12-31**	**2004-12-31**
Norway	NOK	1.1160	1.0905	1.1760	1.0880
Poland	PLN	2.3102	2.0192	2.4400	2.2100

Revenue accounting

Svenska Kraftnät's network revenue consists of both subscriber fees as well as energy-dependent fees. Subscriber fees or power charges are fixed annual fees that are reported as income linearly throughout the period in which the fee is meant to cover, while the energy-dependent fee is reported as income in connection with the use of Svenska Kraftnät's services. From 2005 onwards, Svenska Kraftnät reports the energy-dependent fees gross, i.e. in those cases where Svenska Kraftnät remunerates a customer for the input or extraction of electricity at a connection point in the national grid, it is booked as an expense. Previously it was booked as a reduction in revenue.

The system responsibility revenue consists of power sold for balance services, revenue for the use of the IT system Ediel and revenue in order to cover the costs of power reserves. The sold balancing power is invoiced per 14-day period. If the customer has all in all purchased power during the period, this is shown as an income for Svenska Kraftnät whereas if the customer has instead all in all sold power, it is reported as a balancing power cost.

The system responsibility revenue for natural gas consists of sold natural gas for the power balancing service. System responsibility for natural gas generates both revenue for sold natural gas as well as expenses for purchased natural gas. This is reported and settled on a gross basis per day.

Other operating revenue is reported as revenue in conjunction with the provision of the service. To a certain extent, customers can pay in advance. The advance payment is then deducted against income as the service is carried out.

Intangible fixed assets

Intangible fixed assets consist of land rights, rights of use in fibre-optic connections, licences, construction in progress and development costs for computer programs.

From and including 2002, Svenska Kraftnät will write off land rights after the assessed period of use, which for a cable concession is often 40 years. Before 2002, land rights were not usually written off.

Rights of use are for fibre-optic cables and are written off over a period of between 15 and 25 years.

Tangible fixed assets

Tangible fixed assets, which usually consist of station and cable facilities, machinery, equipment buildings and land, are reported at their acquisition value with a deduction made for accumulated depreciation. Investments are regarded as being new construction as well as conversions and extensions that in the long term increase standard, quality or performance. Included under maintenance are works that are needed in order for it to be possible for a facility to be used in the original way intended, but which do not increase its performance or significantly extend its lifetime. Maintenance is cost accounted on a continuous basis.

External contributions to investments reduce the acquisition value of the investment by the corresponding amount.

Interest expenses during the construction period are activated with the construction of facilities in excess of SEK 50 million.

Depreciation according to plan

Depreciation according to plan is calculated linearly on the original acquisition value of the assets with depreciation periods that are decided after assessment of the financial and technical lifetimes. Annual depreciation rates are shown in the table below.

Taxes

Svenska Kraftnät's subsidiaries are obliged to pay income tax for limited liability companies, whereas Svenska Kraftnät as a state utility is free from income tax. Deterred tax for differences between the reported and fiscal result is not reported by the parent entity and the Group, with the exception of SwePol Link Poland and for untaxed reserves in the Swedish subsidiaries. Deferred tax receivables are reported to the extent that sufficient taxable surplus is deemed likely to be available within the foreseeable future.

Inventories

The stock has been valued at the lowest of the acquisition value and the real value.

Pension commitments

Svenska Kraftnät follows the state pension provisions PA-91 and PA-03 depending on the age category of the employees.

The capital value of the pension undertakings is calculated on the basis of insurance principles and reported as provision. The calculation has been made on the basis of a recommendation from the Board for Government Collective Agreement Insurances. The interest component in the year's pension expenses is reported under financial expenses.

Svenska Kraftnät pays a special payroll tax on paid out pensions in accordance with Ordinance (1991:704) on the establishment of special payroll tax on state pension expenses and not based on allocations for pensions. Since the pension provision is for future pension outlays, an allocation is made for special payroll tax based on the size of the pension provision.

Annual depreciation rates	
Transmission lines, excluding sub-marine cables and associated lines	2.5 %
Sub-marine cables, excluding SwePol Link, and associated lines	3.3 %
SwePol Link	5.0 %
Control equipment in stations	6.7 %
Other station components	3.3 %
Fibre-optic connections	4.0 %
Spare parts	6.7 %
Telecom and information systems	6.7 - 20.0 %
Gas turbine plants	5.0 %
PCs and equipment	33.3 %
Goodwill	10.0 %

Notes

Unless otherwise stated, the amounts in the notes are specified in SEK million. Amounts in brackets refer to 2004.

1 Network revenue

	Group		Parent entity	
	2005	2004	2005	2004
Power fee, national grid	1 071	1 071	1 104	1 105
Energy fee, national grid	1 378	1 196	1 378	1 196
Congestion revenue	413	125	413	125
Transit revenue	136	125	136	125
Transmission on SwePol Link	225	305	-	-
Other revenue	60	41	52	39
Total	**3 283**	**2 863**	**3 083**	**2 590**

2 System responsibility revenue

Sold balancing power is for invoiced income for the imbalance that balance providers have caused in the national electricity system.

	Group		Parent entity	
	2005	2004	2005	2004
Sold balancing power	1 702	1 429	1 703	1 429
Sold remaining power	59	140	59	140
Sold supportive power	92	101	92	101
Sold regulation power	166	240	166	240
Peak-power reserve	189	204	189	204
System revenue - natural gas	8	-	8	-
Ediel	18	17	18	17
Total	**2 234**	**2 131**	**2 235**	**2 131**

3 Contingency planning

This item is for funds that are used to finance contingency planning. The funds tally with an equally sized operating expense for power contingency planning and thus give a zero result for the parent entity.

The grants consumed during the course of the year amounting to SEK 259 (245) million have been used for the training of conscripts, as a contribution to the emergency reserve, for the purchase of equipment for immediate repairs in connection with power line failures in grid and regional networks, mobile command support for crisis management, measures in control centres, monitoring regional networks and measures in power plants to permit island operation.

4 Activated work on own account

This item concerns labour costs for Svenska Kraftnät's own personnel that are activated against investment projects. Investment products refer on the one hand to construction work in progress and on the other to activated IT development projects.

	Group		Parent entity	
	2005	2004	2005	2004
Construction work in progress	16	14	16	14
Activated development of computer programs	9	7	9	7
Total	**25**	**21**	**25**	**21**

Since the activation is reported on the income side, a gross account of personnel expenses is given.

5 Staff expenses

The average number of employees during 2005 was in the group 277 (269), of whom 275 (267) in the parent entity and 2 (2) in the SwePol Link Group.

The distribution between men and women at year-end can be seen from the table below.

	Group		Parent entity	
(Number)	2005	2004	2005	2004
Women	77	76	76	75
Men	199	200	198	199
Total	**276**	**276**	**274**	**274**

The Group's staff expenses amounted to 210 (198), of which the payroll costs were 128 (119). To this shall be added social fees of 71 (68). Included in these amounts are pension costs of 28 (30). The remaining costs are other personnel expenses.

The fee paid to the Chairman of the Board amounted to SEK 78 996. The fees paid to other Board members have amounted to SEK 52 992 per member for the whole year. No fees are paid to Board members who are employed within Svenska Kraftnät, apart from their normal salaries.

The Director General's salary amounted to SEK 1.1 (1.1) million and the pension expense for the year to SEK 0.6 (0.8) million. The Deputy Director General's salary amounted to SEK 0.9 (0.9) million. As far as the Director General is concerned, pension conditions concur with the Ordinance (2003:55) on state pensions for managerial staff and follow the conditions of PA-91 pursuant to calculations from the National Government Employee Pensions Board.

The composition of the Board, excluding staff representatives, can be seen from the table below.

	2005	2004
Women	2	3
Men	5	4
Total	**7**	**7**

6 Other operating expenses

	Group		Parent entity	
	2005	2004	2005	2004
Purchase of electricity	860	689	860	689
Energy crediting	347	408	347	408
Operation & maintenance	231	213	198	178
Leases on fixed assets	59	57	59	57
Transit	155	140	155	140
Purchased balancing power	1 844	1 790	1 849	1 790
System operation services	198	195	229	228
Peak-power reserve	165	163	186	185
Own contingency planning	11	8	11	8
Research & development	12	14	12	14
Contingency planning costs	206	196	217	196
Other	147	130	109	110
Total	**4 235**	**4 003**	**4 232**	**4 003**

Included in System operation services are costs for counter-trade provided by Balance Service amounting to 54 (5).

The item Other includes payments to accountants in the following amounts:

Fees and expenses	Group		Parent entity	
	2005	2004	2005	2004
Swedish National Audit Office with prescribed auditor	0.8	0.9	0.8	0.9
Other auditors	0.4	0.3	-	-
Auditing duties	**1.2**	**1.2**	**0.8**	**0.9**
Other tasks	1.3	1.0	-	-
Total fees and expenses	**2.5**	**2.2**	**0.8**	**0.9**

Auditing duties comprise examination of the annual accounts and book-keeping as well as the administration of the Board of Directors and the Director-General/Managing Directors and other tasks that fall within the responsibility of the parent entity/company's auditors to perform. Included among other tasks are consultations in subsidiaries.

7 Share of income from associated companies

	Group	
	2005	2004
Nord Pool ASA	24	16
Nord Pool Spot AS	5	5
Kraftdragarna AB	1	1
Total	**30**	**23**

Share of income from the associated companies above is reported after tax and the depreciation of goodwill by SEK 0 (5) million. The share of income from the other associated companies was less than SEK 1 million.

8 Business segments

The predominant business segments within the Group are Network and System responsibility – electricity.

	Group			
	Operating revenue		Operating income	
	2005	2004	2005	2004
Network	3 308	2 884	801	613
System responsibility - electricity	2 226	2 131	56	-47
Telecommunications	98	94	18	29
System responsibility - natural gas	8	-	-1	-
Renewable electricity certificates	18	13	8	2
Associated companies	-	-	30	23
Contingency	259	245	0	0
Segment elimination	-32	-32	-	-
Total	**5 885**	**5 335**	**912**	**620**

Included in the operating income are the business segments' external revenue and expenses.

Business segment Telecommunications has performed services for Network for SEK 32 (32) million, which is reported as operating income for Telecommunications and a corresponding increase in operating expense for Network. Activated own work is included in the business segment Network's revenue in an amount of SEK 25 (21) million.

Within business segment System responsibility for electricity, the balance providers have agreements with the parent entity on frequency maintenance and settlement of their imbalances. Profit trends are shown below for the years 2005 and 2004 in the parent entity.

	Parent entity	
	2005	2004
Operating revenue		
Balancing power revenue	2 017	1 908
Peak-power reserve	189	204
Ediel	18	17
Other system revenue	3	1
Total operating revenue	**2 227**	**2 130**
Operating expenses		
Balancing power expenses	-1 830	-1 770
System operation primary regulation	-89	-138
Disturbance reserve	-34	-35
Peak-power reserve	-186	-185
Ediel	-19	-20
Other expenses	-28	-28
Depreciation	-1	-1
Total operating expenses	**-2 187**	**-2 177**
Operating income	**40**	**-47**

9 Result from securities and receivable accounted for as fixed assets

	Group		Parent entity	
	2005	2004	2005	2004
Dividend on shares and participations in associated companies	-	-	18	8
Interest income	5	5	11	11
Exchange rate differences	4	0	4	0
Total	**9**	**5**	**33**	**19**

10 Interest income and similar items

	Group		Parent entity	
	2005	2004	2005	2004
Interest income	5	7	2	5
Exchange rates differences	0	0	0	0
Total	**5**	**7**	**2**	**5**

11 Interest expenses and similar items

	Group		Parent entity	
	2005	2004	2005	2004
Interest expenses, National Debt Office loan	2	10	2	10
Interest expenses, Other loans	40	64	0	0
Interest expenses, Pension debt	5	4	5	4
Activated interest for new construction	- 4	-1	-4	- 1
Exchange rates differences	-41	-58	0	0
Translation difference	40	56	0	0
Other financial expenses	1	4	1	4
Total	**43**	**79**	**4**	**17**

12 Tax on income for the year

	Group	
	2005	2004
Current tax	-1	- 7
Deferred tax	-2	- 8
Total	**-3**	**-15**

Since the majority of the Group's income before tax is earned in the parent entity, which is relieved from income tax, no account is given of the connection between the tax expense for the year and the reported income before tax in the Group.

13 Intangible fixed assets

Intangible fixed assets consist of land rights in the form of easements and line rights, rights of use for fibre-optic cables, licences and capitalised expenditure for computer programs.

Group and Parent entity	Capitalized expenditure for computer programs	Land rights	Rights of use for fibre-optic cables	Construction in progress	Total
Opening acquisition value	26	169	62	25	282
Acquisitions	0	-	-	52	52
Sales/disposal	-	0	-	-	0
Reclassifications	4	1	3	-6	2
Closing accumulated acquisition value	**30**	**170**	**65**	**71**	**336**
				0	
Depreciation brought forward	8	95	8	-	111
Sales/disposal		0		-	0
Depreciation for the year	10	4	4	-	18
Accumulated depreciation carried forward	**18**	**99**	**12**	**0**	**129**
PLANNED REMAINING VALUED CARRIED FORWARD	**12**	**71**	**53**	**71**	**207**
Depreciation previous fiscal year	7	2	5	-	14

14 Tangible fixed assets

Group	Buildings and land	Machinery and other technical facilities	Construction in progress	Total
Opening acquisition value	904	15 731	386	17 021
Acquisitions	1	4	281	286
Sales/disposal	-2	-33	0	-35
Depreciation in connection with disposal	-1	-7	-7	-15
Reclassifications	2	189	-193	-2
Closing accumulated acquisition value carried forward	**904**	**15 884**	**467**	**17 255**
Depreciation brought forward	346	7 759	-	8 105
Sales/disposal	-2	-33	-	-35
Depreciation for the year	36	494	-	530
Accumulated depreciation carried forward	**380**	**8 220**	**0**	**8 600**
CLOSING PLANNED RESIDUAL VALUE	**524**	**7 664**	**467**	**8 655**
Depreciation previous fiscal year	33	484	-	517

Parent entity	Building and land	Machinery and other technical facilities	Construction in progress	Total
Opening acquisition value	430	13 390	386	14 206
Acquisitions	-	3	280	283
Sales/disposal	-2	-31	0	-33
Depreciation in connection with disposal	-1	-2	-7	-10
Reclassifications	2	189	-193	-2
Closing accumulated acquisition value carried forward	**429**	**13 549**	**466**	**14 444**
Depreciation brought forward	246	7 254	-	7 500
Sales/disposal	-2	-32	-	-34
Reclassifications	13	376	-	389
Accumulated depreciation carried forward	**257**	**7 598**	**0**	**7 855**
CLOSING PLANNED RESIDUAL VALUE	**172**	**5 951**	**466**	**6 589**
Depreciation previous fiscal year	12	367	-	379

The item Machinery and other technical facilities includes in particular switchyard equipment, power cables, sub-marine cables, control equipment, fibre-optic activities as well as telecommunications and information systems. Disposals arise primarily in connection with the commissioning of facilities after reinvestments.

The tax value for properties in the Group amounts to SEK 361 (361) million.

15 Shares in Group companies

Company	Corporate ID number	Domicile	Share %	Quantity	Nominal value	Book value
Svenska KraftKom AB	556575-7274	Stockholm	100	1	0	0
Svenska Kraftnät Gasturbiner AB	556451-0260	Stockholm	100	900	9	9
SwePol Link AB	556530-9829	Stockholm	51	306 000	3	3
Total					**12**	**12**

16 Shares in associated companies

Company	Corporate ID number	Domicile	Share %	Quantity	Book value Group	Book value Parent entity
Nord Pool ASA	NO 965662952	Lysaker	50	100 000	303	172
Nord Pool Spot AS	NO 984058098	Lysaker	20	2 880	12	0
Stri AB	556314-8211	Ludvika	25	375	6	4
Kraftdragarna AB	556518-0915	Västerås	50	5 000	6	1
Elforsk AB	556455-5984	Stockholm	25	750	1	0
Triangelbolaget D4 AB	556007-9799	Stockholm	25	525	0	0
Total					**328**	**177**

The acquisition value is the same as the book value in the parent entity.

17 Receivable on public utility's overdraft facility

The receivable carried forward of SEK 49 (31) million consists of the difference between withdrawn/deposited funds from the public utility's overdraft facility and deducted expenses/deposited income against the Government budget as follows:

Group and Parent entity (SEK thousand)	2005	2004
Balance brought forward (receivable +, liability -)	**31 393**	**48 651**
Settled against Government budget:		
Appropriation	247 315	232 742
Income titles, dividend and small-scale energy	-337 000	-309 000
Settled against public utility's overdraft facility:		
Appropriation funds withdrawn	-230 000	-250 000
Dividend paid in	337 000	309 000
Balance carried forward	**48 708**	**31 393**

18 Prepaid expenses and accrued income

	Group 2005	Group 2004	Parent entity 2005	Parent entity 2004
Prepaid expenses, maintenance	1	3	1	3
Prepaid expenses, other	11	8	7	7
Accrued income, network	206	210	206	210
Accrued income, system responsibility	168	60	168	60
Accrued income, other	10	10	10	10
Total	**396**	**291**	**392**	**290**

19 Provision for pensions

The pension provision has changed in the following way during the course of the year. During 2003, the part of the pension provision that is for supplementary retirement pensions, Kåpa, was redeemed by Svenska Kraftnät. Subsequently, premiums have instead been paid for this part.

	Group and Parent entity 2005	Group and Parent entity 2004
Opening balance	**220**	**195**
Pensions paid	-3	-2
Annual indexation	21	22
Payment of payroll tax for previous year	-4	
Provision for payroll tax	6	5
Closing balance	**240**	**220**

20 Interest-bearing long-term liabilities

	Group 2005	Group 2004	Parent entity 2005	Parent entity 2004
Liability to National Debt Office	0	559	0	559
Liability to credit institute	0	1	-	-
Loans, other external	1 333	1 863	-	-
Total	**1 333**	**2 423**	**0**	**559**

The liability to the National Debt Office is for the current bank overdraft. Of the other external loans, a total of SEK 639 (637) million falls due for payment after five years in the case of the Group and SEK 0 (0) million for the parent entity.

21 Interest-bearing current liabilities

	Group 2005	Group 2004	Parent entity 2005	Parent entity 2004
Short-term part of long-term loan, other external	98	128	-	-
Total	**98**	**128**	**-**	**-**

22 Accrued expenses and prepaid income

	Group		Parent entity	
	2005	2004	2005	2004
System responsibility – purchased balancing power	157	73	157	73
Loss power	91	68	91	68
Peak-power reserve	11	19	11	19
Transit compensation, net	25	21	25	21
Accrued salaries	25	24	25	24
Facility leases, maintenance	32	30	32	27
Contingency planning	29	2	29	2
Interest expenses	2	2	0	2
Accrued expenses, natural gas	5	-	5	-
Accrued expenses, renewable electricity certificates	1	0	1	0
Accrued expenses, other	13	12	14	12
Prepaid investments	5	8	5	8
Prepaid income power reserve	0	15	0	15
Prepaid income, other	0	3	0	3
Total	**396**	**277**	**395**	**274**

23 Contingent liabilities

A guarantee has been issued for a loan of SEK 20 (20) million to Stri AB for the acquisition of a property.

In the parent entity's assessment, Svenska Kraftnät and its subsidiaries are not party to any legal material proceedings that could have a significant negative impact on the Group's result.

24 Future leasing commitments

Agreed future leasing fees fall due for payment as indicated below. All rental agreements are operational leasing agreements. The amounts in the case of the parent entity also include commitments to the subsidiary Svenska Kraftnät Gasturbiner AB.

	Group		Parent entity	
	2005	2004	2005	2004
Within one year	230	257	284	290
Later than one year but within five years	442	266	610	396
Later than five years	6	6	174	170
Total	**678**	**529**	**1 068**	**856**

Change to IFRS SEK million

Reconciliation of capitals as per 1 January 2004	1 Jan 2004 as per local principles	Effect of change to IFRS	1 Jan 2004 as per IFRS
Intangible fixed assets	132		132
Tangible fixed assets	9 081		9 081
Financial fixed assets	364		364
Inventories	71		71
Current receivables	677		677
Liquid assets	99		99
Total assets	**10 424**	**0**	**10 424**
Equity	6 632	31	6 663
Minority interest	31	-31	-
Long-term liabilities			
Interest-bearing	2 862		2 862
Non-interest-bearing	113		113
Long-term liabilities			
Interest-bearing	127		127
Non-interest-bearing	659		659
Total equity and liabilities	**10 424**	**0**	**10 424**

Reconciliation of income and equity as per 31 December 2004	Jan-Dec 2004 as per local principles	Effect of change to IFRS	Jan-Dec 2004 as per IFRS
Operating revenue	3 990	1 345	5 335
Operating expenses	-2 861	-1 345	-4 206
Depreciation	-532		-532
Income from shares and participations in associated companies	23		23
Operating income	**620**	**0**	**620**
Financial items	-67		-67
Income after financial items	**553**	**0**	**553**
Tax on income for the year	-15		-15
Minority participation	-19	19	0
Net income for the year	**519**	**19**	**538**
Intangible fixed assets	171		171
Tangible fixed assets	8 916		8 916
Financial fixed assets	372		372
Inventories	69		69
Current receivables	681		681
Liquid assets	120		120
Total assets	**10 329**	**0**	**10 329**
Equity	6 842	50	6 892
Minority interest	50	-50	-
Long-term liabilities			
Interest-bearing	2 643		2 643
Non-interest-bearing	111		111
Current liabilities			
Interest-bearing	128		128
Non-interest-bearing	555		555
Total equity and liabilities	**10 329**	**0**	**10 329**

Proposed disposition of earnings

and adoption of income statements and balance sheets.

The Group's non-restricted equity amounts to SEK 3 473 million, of which the result for the year amounts to SEK 882 million. Of parent entity's non-restricted equity of SEK 3 248 million, of which the result for the year amounts to SEK 858 million, it is proposed that SEK 573 million of the result for the year be allocated for dividend in accordance with the dividend policy and that the surplus of SEK 285 million be carried forward.

The board suggests that the parent entity's income statement and balance sheet as well as the Group's income statement and balance sheet will be adopted.

Stockholm, 23 februari 2006

Sven Hulterström
Chairman

Jan Magnusson
Director General

Yvonne Gustafsson
Deputy Chairman

Anna-Stina Nordmark-Nilsson

Christer Samuelsson

Tomas Bruce

Bo Diczfalusy

Agata Persson
Staff representative

Sture Törnstam
Staff representative

Auditor's Report

The Swedish National Audit Office has audited the public utility Svenska Kraftnät's annual accounts, the consolidated accounts, the underlying accounting records and the administration of the management for the financial year 2005.

The management of the public utility Svenska Kraftnät is responsible for ensuring that the operations are conducted efficiently and constitutionally. This responsibility includes ensuring that the Government receives reliable feedback on the operations in the annual accounts.

It is the responsibility of the Swedish National Audit Office, in accordance with good auditing standards, to examine the public utility Svenska Kraftnät's annual accounts and consolidated accounts with the aim of judging whether the accounts and underlying accounting records are reliable and the books true and correct, and whether the administration of the management follows applicable regulations and special Government decisions.

The audit has been conducted in accordance with sound auditing standards. These standards require that the audit be planned and conducted with the aim of obtaining reasonable grounds to assess whether the annual accounts and the consolidated accounts are true and correct. The audit has thus been made on a selection of important transactions and administrative decisions.

The audit carried out has provided reasonable grounds on which to base the following statement.

The annual accounts and the consolidated accounts have been prepared in accordance with the Ordinance on annual accounts and budget data, the Government's appropriations document and other rulings relating to the public utility Svenska Kraftnät.

The Swedish National Audit Office deems that the annual accounts and the consolidated accounts are in all essential respects true and correct.

Audit Director Göran Selander made the decision in this matter. Audit Director Anne Bryne contributed with the decision.

The Auditor's Report of the National Swedish Audit Office was submitted on 27 February 2006.

Göran Selander Anne Bryne

The major projects – current status

In the summer of 2004, Nordel presented a plan for a substantial reinforcement of the transmission networks in the Nordic region. The plan entailed strengthening five important network sections. The proposed investments would lead to considerable improvements in both reliability performance and trading capacity between the countries concerned. The five projects are Nea–Järpströmmen (Central Norway–Jämtland), reinforcement of the Fenno-Skan Link, the Southern Link (Central Sweden–Skåne), the Great Belt Cable and Skagerak 4.

Joint Nordic planning

The plan is based on extensive investigations and studies. These were conducted jointly by the companies with system responsibility in the Nordic region, which are all behind the plan. Previously, studies have usually been co-ordinated or conducted bilaterally, but this time a joint plan was drawn up following a united effort.

So, what has been the result of the plan? Well, it was decided in 2005 to implement the three projects that Svenska Kraftnät is involved in: Nea-Järpströmmen, the Southern Link and the reinforcement of the Fenno-Skan Link. In addition, it has been decided to go ahead with the Great Belt Cable project. It is expected that a decision on the Skagerak 4 project will be taken in the first half of 2006.

Greater capacity between Nea and Järpströmmen

A new 400 kV line will replace the existing 275 kV line between Nea in Norway and Järpströmmen in Sweden. This will make it easier to conduct electricity trading between Central Norway and Sweden. In dry years, in particular, power shortages can arise in Norway and the new line will thus provide welcome additional capacity. The project is now proceeding apace on both sides of the border. In this phase we are working with permits and studying the route in more detail. The main alternative is to build the new line alongside the existing one. The old line can then be dismantled when the new line is completed in the autumn of 2009.

Reinforcement of the Fenno-Skan DC link

The Fenno-Skan Link, a submarine interconnection between Sweden and Finland, will be reinforced by the addition of another cable. This will more than double the capacity to 1 350 MW compared to 550 MW for the present link. Like the existing scheme, the reinforcement will utilize direct current (DC) – a technical requirement for cables of this length. The fact that there will now be two cables will make it possible to transmit current to Finland through one and return it through the other. This is environmentally advantageous as the current that now passes through the water – and which can cause corrosion problems – can then be eliminated.

The existing link to Finland is connected to the grid at Forsmark. Connecting the new cable to the same point is not appropriate for several reasons. It would, for example, be a disadvantage in terms of operational reliability. The power input at this point would also be huge, especially if the plans to increase the output of the Forsmark Nuclear Power Station are realised. The new cable will therefore take the form of an overhead DC cable at Forsmark and be connected to the grid at a new station at Finnböle, south of Gävle. This will distribute the power input to the grid in a more advantageous way.

The project is at present concerned with land and permit issues. Meetings with landowners, local authorities, county administrative boards and other stakeholders have been held. Various alternatives for the routing of the overhead line are being investigated. If all goes according to plan, the link will be commissioned in 2010.

The Southern Link will improve transmission to Southern Sweden

The Southern Link will provide an important connection from Hallsberg in Central Sweden to Höör in Skåne. It will improve the transmission capacity of the national grid to Southern Sweden and increase operational reliability. This improvement in transmission capacity will also make it possible to increase the export of electricity to Zealand, Germany and Poland over the international links.

This project began recently. In this case too, questions relating to permits have to be dealt with first. We will investigate two different technical solutions, one involving a 400 kV overhead transmission line for alternating current (AC) and one using an underground DC cable. An underground solution makes laying the cable alongside roads an interesting alternative. It is expected that the new link will be completed in 2011.

The Great Belt Cable will link Denmark together

The prime motive for the new interconnection between Western and Eastern Denmark is to improve the functioning of the Danish electricity market, which suffers from a lack of competition. Being able to co-ordinate

– We are currently in the process of increasing the capacity of the grid to transmit electricity, but the installations sometimes affect both residential environments as well as nature and the countryside. Our aim is to minimise this impact, says Katrin Seuss, who is concerned with land and permit issues. Here she is talking to Johnny Norling (in the middle) and Jan Nesterud at Hagby Transformer Station.

power reserves and to handle the fluctuations in wind power output more effectively are other important benefits.

Skagerak 4

No decision has yet been taken on this strengthening of the interconnection between Southern Norway and Jutland. Apart from improving the functioning of the electricity market in Jutland by making it possible to increase trading with Norway, the most important motive for the investment is that the transmission system operators will be able to co-operate at the operational level more effectively.

Next steps

The five projects will be completed in about five years. The increase in transmission capacity provided by the investments will tangibly improve the electricity market in the Nordic region by removing a number of bottlenecks.

What will happen after that? Can it be said that this will complete the development of the network? Within Nordel, we have begun to analyse transmission needs after 2010. A dramatic expansion of wind power in new regions will require local improvements so that the electricity can be fed into the network. Above all, however, the transmission networks will have to be strengthened so that the energy can be transported to the users.

The expansion of wind power installations on the Continent will require greater power regulation resources. The positive regulation properties offered by hydro power in the Nordic region may be a part of the solution. This will require an increase in transmission capacity in the form of more cable links to the south as well as internal reinforcements in Sweden, Norway and Denmark.

The planning work in Nordel over the next few years will be marked by these important questions for the future.

Nordel has taken the initiative for five major reinforcement projects in the Nordic area:

1) The 400 kV power line between Central and Southern Sweden.

2) Reinforcement of the HVDC connection between Sweden and Finland.

3) The 400 kV power line between Nea and Järpströmmen.

4) Reinforcment of the HVDC link between Norway and Jutland.

5) The interconnection between Jutland and Zealand over the Great Belt.

The new natural gas market and the role of Svenska Kraftnät

On 1 July 2005, an important step was taken towards promoting the positive development of natural gas operations in Sweden when a new Natural Gas Act was adopted. The new Act gives major customers the freedom to choose their supplier, while household customers will be given this freedom on 1 July 2007.

An important element of the new Act is that system responsibility for natural gas must lie with an autonomous and neutral company that is completely independent of all commercial interests. For a number of reasons, primarily relating to efficiency, it has been decided that Svenska Kraftnät should have this responsibility.

This reflects developments in Denmark, where the new company Energinet.dk has been given system and transmission responsibility for both electricity and gas. Discussions on how to organise gas operations are also underway in Norway. In the longer term, it appears therefore that there is every chance of establishing positive Nordic co-operation in the natural gas field similar to the constructive co-operation that already exists with regard to electricity.

Sound basis for positive development

So far, natural gas has only been used to a limited extent in Sweden. In 2005, consumption reached approximately 10 TWh and it is difficult to see any scope for a major expansion at the moment. Nevertheless, it must be said that the new Natural Gas Act creates a sound basis for the positive development of natural gas operations in Sweden – and the Nordic region – in the future.

Svenska Kraftnät will in many respects use the same organisation, system and personnel to monitor gas operations that it uses for electricity. We expect this to provide efficient management and a good platform on which the commercial players can base their activities.

Sweden is in a strategic position between Norway and Russia, which are both major producers of natural gas, but extensive and costly projects are required to bring the gas here through pipelines. An alternative method of gaining access to natural gas is to transport liquid natural gas (LNG) by sea. This is an alternative that may be considered in order to replace the town gas that is used in Stockholm today.

No decisions have yet been made to expand the Swedish natural gas network to any great extent, but Svenska Kraftnät feels that it is positive that the foundations are now being laid in Sweden for an efficient organisation in the natural gas field in the event that it eventually becomes apparent that there is a need for a new infrastructure in the energy system. Current events therefore represent a step in the right direction.

Nordic co-operation in the long term

The outlines of future Nordic co-operation on natural gas are beginning to emerge, and to a great extent they reflect the co-operation on electricity that exists today. This has been developed in various phases within Nordel and has been successfully complemented by the establishment of the Nordic electricity exchange Nord Pool.

Those who were involved in the 1990s, when the current model for co-operation on electricity in the Nordic region emerged, know that there were many different opinions on the most suitable course of development. In retrospect, it can be noted that since the model involving independent system grid companies with system responsibility, coupled with an electricity exchange as part of the infrastructure, was established it has never been questioned. The generally held opinion today seems rather to be that there should be more co-operation between the grid companies with system responsibility in the Nordic region.

Svenska Kraftnät is responsible for maintaining the balance

Svenska Kraftnät's system responsibility for natural gas means, among other things, that we must ensure that there is a balance between the amount of gas fed in to the system and consumption. To carry out this duty, Svenska Kraftnät concludes agreements with balance providers. Svenska Kraftnät also has the possibility to issue certain regulations for the natural gas market. The regulatory function for the natural gas market is performed by the Energy Markets Inspectorate, which has been given a similar role to the one it plays on the electricity market.

The intention is that our Balance Service, which ensures that there is always a balance between supply and consumption, will deal with the physical monitoring of the gas network. During a transitional period, however, Svenska Kraftnät has chosen to procure this service externally.

Co-operation through the Gas Market Council

In the autumn of 2005, Svenska Kraftnät and the transmission companies together set up a market council for natural gas issues made up of representatives of the players on the gas market. This will be an important forum for co-operation with the industry. The role and status of this council, and the appointment of members, follows the same principles that apply, for example, to Svenska Kraftnät's Electricity Market Council.

The players in the gas industry invested considerable effort over a period of two years to prepare for the new legislation. The same applied to Svenska Kraftnät once it became clear that we would be given system responsibility. In the course of this preparatory work, we had access to a reference group containing representatives of the gas companies, industrial organisations and gas users. It was important to all the parties concerned to put in place the systems required for settlement, metering and communication, and to create good and effective routines for co-operation in the future.

Natural gas is relatively environment-friendly

Natural gas is a fuel with many environmental advantages. It consists of light hydrocarbons, primarily methane, which emit less carbon dioxide compared to heavy hydro-

– Important customers are now free to choose their own suppliers of natural gas, says Mats Karlsson (on the left), who is concerned with the settlement of supply undertakings by balance providers. He is seen here showing Katarina Cooper and Birger Fält the extent of the Swedish natural gas network.

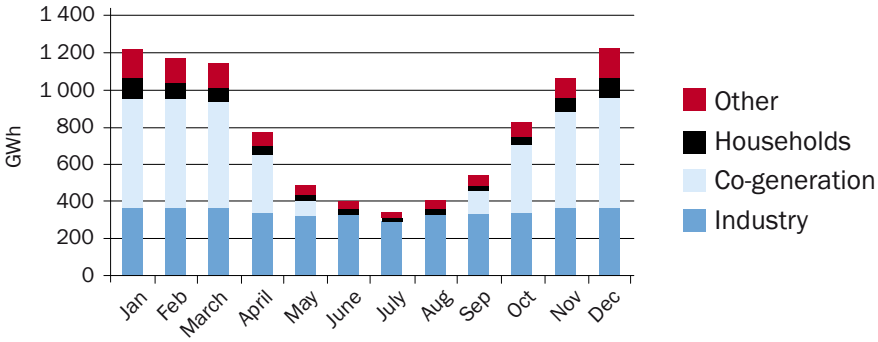
carbons such as oil. It is also a rather clean fuel compared to coal and oil. Transmission losses are also limited in a gas network.

The gas is transported to the Swedish market under its own pressure. A number of small plants are required for metering and regulation, but otherwise it is, technically speaking, a rather simple system. Natural gas is used to advantage in operations where there are high demands for cleanliness, for example in the food industry. Gas is also easy to control. This makes it attractive to the process industry for example, where a high degree of accuracy in the amount of energy supplied is required. Natural gas is also used to generate electricity more efficiently in CHP power stations. New stations can have an efficiency as high as 95 %. An example is the new CHP plant Rya in Gothenburg which will be commissioned in the autumn of 2006.

Natural gas accounts for 20 per cent of the energy used

Natural gas has been used in Sweden since 1985. Last year, consumption reached approximately 10 TWh, which represents slightly less than two per cent of Sweden's total energy consumption. In the areas where the natural gas network has been fully developed the gas accounts for 20 % of the energy used, which corresponds to the percentage in the rest of Europe. In Denmark, over 50 TWh of natural gas was used in 2005, while in Finland the figure was just over 45 TWh. Norway, which is one of the largest natural gas producers in Europe, uses only around 4 TWh per year within the country.

In the years immediately following the introduction of natural gas in Sweden, it was primarily used in the industrial sector to replace coal and oil. Today the industrial sector accounts for around 45 % of the use of natural gas, while around 35 % is used for co-generation of electricity and heat in CHP plants and for production of district heat. 20 % is used for other heating. The diagram above illustrates the use of gas in different market segments in Sweden and how this varies over the course of the year. Power and heat account for almost half of the gas used during the period from October to March. The percentage used by industry is evenly distributed throughout the year.



The use of natural gas in Sweden in 2005. Source: The Swedish Energy Agency's report "Trygg Gas" ("Safe Gas").

The use of natural gas and biogas as vehicle fuels is increasing in Sweden but is still limited, i.e. approximately 0.1 per cent of the total amount of energy used in the transport sector.

To date, almost all of the natural gas used in Sweden has come from two Danish fields, Tyra and Harald, in the North Sea. The gas is supplied through a pipeline from Dragör in Denmark to Klagshamn south of Malmö. From Denmark, pipelines runs to the Continent, which means that Sweden is linked

to the Continental system. The natural gas network currently extends from Trelleborg in the south to Stenungsund in the North and to Gnosjö in the County of Småland, see map below.

The natural gas system in Sweden can be divided into transmission and distribution systems, and storage facilities. In the transmission pipelines the gas is transported over long distances under high pressure, normally between 50 and 65 bar. The pressure is then reduced at metering and control stations before the local distribution network takes over for transportation to the customers. The distribution system is usually designed for a pressure of between 4 and 30 bar, depending on the needs of the customer. In 2004, the Swedish natural gas system consisted of around 650 kilometres of transmission pipelines and some 3 000 kilometres of distribution pipelines.

Natural gas is stored either in separate storage facilities or in the transmission pipelines by changing pressure levels, so-called linepacking. Linepacking was the only form of storage used in Sweden until 2003 when Sydkraft Gas, now part of E.ON Gas, inaugurated its rock cavern storage facility

The Swedish natural gas network.
Source: The Swedish Gas Association.

at Skallen in Halland, which is a research facility. Sweden has no known potential underground natural gas storage sites in the form of aquifers or salt caverns as, for example, Denmark has. For the foreseeable future, it is expected that Sweden will have to rely on other countries for load equalisation and supplies to meet the fluctuations of the market.

Plans for the continued expansion of the natural gas system

Since the natural gas system was first developed in Sweden, many proposals on the expansion of the existing gas grid and new supply pipelines have been investigated but not realised.

In recent years, the question of extending the natural gas system has come up again. Commercial players are studying various options for expanding the gas network in Sweden. For example, the planning and design of an extension of the existing pipeline in Småland up to Jönköping, and of a continuation from there into Central Sweden, is underway. This includes the preliminary design of natural gas pipelines via Linköping to Norrköping, Örebro and Oxelösund.

As a complement to the pipeline system for the transportation of gas, a company has also explored the possibility of locating a terminal for liquid natural gas (LNG terminal) in Oxelösund. The liquid gas could, after being regasified, be distributed in gas form to Central Sweden and energy-intensive industrial plants in the Bergslagen region.

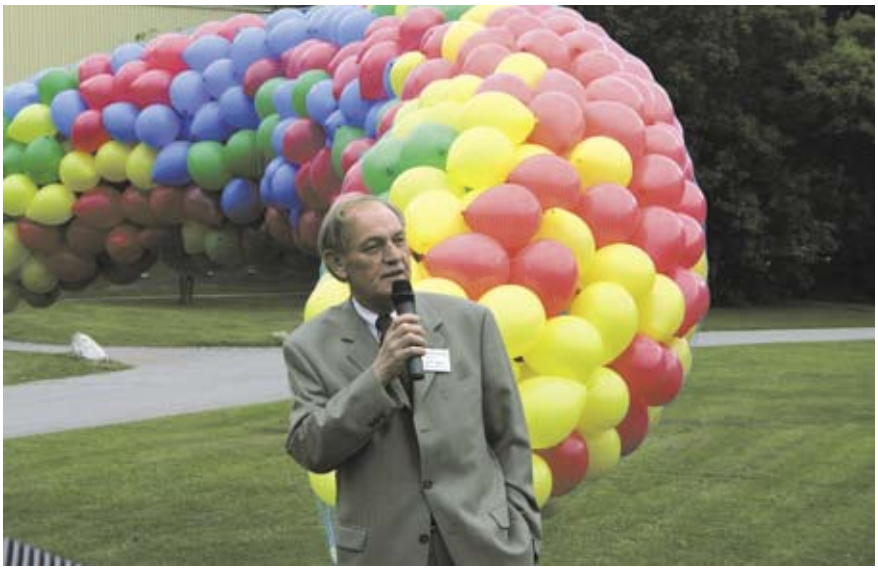
In Stockholm the possibility of building a LNG terminal to be able to receive, store and gasify liquid gas is being studied. This is primarily intended to replace an existing gasworks where town gas is produced using naphta as a raw material. The town gas networks in Stockholm has over 100 000 users who together consume approximately 0.4 TWh per year. The possibility of locating LNG terminals in Nynäshamn and Gävle is also being investigated.

Projects are also underway with the aim of expanding the links with Sweden's neighbouring countries. A permit has been granted for a new gas pipeline between Germany and Sweden via Denmark. A number of Swedish and foreign energy companies are behind this project.

In Norway, there are plans to build a pipeline from the North Sea to the industrial region in southern Norway. If this project is realised, it will open up the opportunity for the construction of a pipeline to the Swedish natural gas system on the west coast. Major gas users along the west coast of Sweden are working to make this a reality.

Under the name the Scandinavian Gas Ring, Danish and Norwegian stakeholders have been running a project to investigate the possibility of working together to expand the transmission network for natural gas in Scandinavia.

A Russian gas company is running a project called the North European Gas Pipeline which is intended to be a transit pipeline for gas from Russia direct to Germany across the Baltic Sea, with a possible branch line to Sweden.



– We see the new Act and our system responsibility as being an important step towards an open market for natural gas in Sweden, says Svenska Kraftnät's Chairman Sven Hulterström at the inauguration of Svenska Kraftnät's new operations on 1 July.

Facts on the gas network

The gas grid consists of steel pipes with a diameter of around 50 cm. The distribution system is made up of steel or plastic pipes of varying dimensions.

The maximum pressure in the gas grid is 70 bar. This pressure is reduced to 4 bar. The gas supplied to the end customer is usually at 0.1 bar, but higher pressures are used for supplies to large industrial plants.

Svenska Kraftnät and the environment:

Responsibility for people and the environment

One of the values that should characterise the activities of Svenska Kraftnät is social responsibility. Our operations are highly beneficial to society, but we are well aware that they may also entail a negative impact on the environment and an encroachment on human habitats. It is our responsibility to ensure that this impact is as limited as possible.

We want to safeguard both people and the environment and thus contribute to the sustainable development of society. For many years now, we have worked in a farsighted and goal-oriented way with environmental issues of both a local and global nature. Below we present some of the areas we worked with in 2005.

– Environmental consideration is an important part of our work, says Svenska Kraftnät's Environmental Director Eva Bergius (on the right). – Our survey into how the future power line network in the Stockholm region is to be designed shows that some 60 000 people, who today live less than 200 m from a power line, will be able to enjoy a local environment without power lines. Jan Halvarson (on the left), Matilda Pihlgren and Mathias Rönbeck have also taken part in the survey work .

Clearer guidelines on magnetic fields from power lines

In the autumn of 2005, Svenska Kraftnät adopted a policy on magnetic fields that states that the exposure of those living in the vicinity should not exceed 0.4 microtesla (as an annual average) when new power lines are constructed. This level applies to all new 400 and 220 kV power lines in the Swedish national grid and is governing for the design of power lines.

There is no scientific evidence that magnetic fields from power lines have a damaging effect on people's health. In some studies, however, researchers have been able to demonstrate a certain link between leukaemia in children and magnetic fields. No such link is evident at levels below 0.4 microtesla.

Those who live close to our power lines must be able to feel safe. We therefore apply the principle of caution on low-frequency electricity and magnetic fields that is recommended by the Swedish authorities. The fact that we have now stipulated 0.4 microtesla as a precautionary level means that we have clarified our approach and our interpretation of the principle of caution.

In the case of existing power lines, Svenska Kraftnät will examine how magnetic fields that deviate significantly from the norm can be reduced. This examination will be carried out in connection with the renewal of the permits for the power lines. In the event of high levels, we will take measures that reduce the exposure to magnetic fields if this can be done at a reasonable cost and without other negative consequences. Examples of such measures are to change the routing of the power line or, along sensitive stretches, to select pylons that provide significantly weaker magnetic fields than the usual pylons.

Environment important in the study of Stockholm's electricity supply

Svenska Kraftnät has been commissioned by the government to study the form and structure of the power line network in the Stockholm region in the future. Considera-

Svenska Kraftnät's policy on magnetic fields

When planning new power lines, Svenska Kraftnät shall ensure that magnetic fields do not normally exceed 0.4 microtesla in areas where people spend long periods of time.

When renewing concessions for existing power lines, Svenska Kraftnät shall consider adopting measures that reduce exposure to magnetic fields. Measures shall be taken where people over long periods of time are exposed to magnetic fields that deviate significantly from normal conditions. A basic precondition is that the costs and consequences are otherwise reasonable.

tion for the environment has been a central element of this work. An analysis of the encroachment of the existing network on the natural environment and on the urban environment has been conducted. In this analysis, we chose to present the impact of the power lines on their surroundings under three different headings:

- Impact on documented natural environments, cultural environments and areas for outdoor leisure activities
- The number of residents and schools alongside the power lines
- Visual impact on the landscape

The impact on the natural environment, cultural environment and outdoor leisure activities was calculated on the basis of data provided by the County Administrative Board and the local authorities. The routing of the lines was assessed in terms of how much they affect the natural environment, cultural environment and outdoor leisure activities. This makes it possible to compare the impact of the various alternative routes.

The second part of the encroachment analysis gives an account of the number of people that live close to the power lines and the schools in the vicinity of the lines. The third part is an analysis and evaluation of how visible the lines are and how they are perceived from various points in the landscape, i.e. the visual impact of the lines on the landscape.

The encroachment analysis provides part of the basis for the proposal on the future electricity network in the Stockholm region that Svenska Kraftnät presented in the autumn of 2005. The proposed solution offers many environmental improvements. Approximately 150 kilometres of power lines can be phased out, mostly in densely built-up areas. Around 60 000 people who today live less than 200 metres from a power line will instead enjoy a local environment without power lines. This represents a 50 per cent reduction of the number of residents who live within this distance. Some 7 000 children in schools and day-care centres that are now located less than 200 metres from a power line will also be spared such lines in their local environment. Some of the lines will be replaced by underground cables or by cables in tunnels, while others will be converted using new pylons that reduce the magnetic fields. Environmental considerations will continue to play a major part in the planning and design of the different parts of the proposal.

In summer 2005, work continued on making an inventory of the flora in Svenska Kraftnät's power lanes. The work was conducted by research staff from the Swedish University of Agricultural Sciences.

Adapting the maintenance of power lanes can increase biological diversity

For several years now, we have been trying in various ways to help to increase biological diversity in our power lanes. An evaluation of the measures carried out has revealed positive results and that there is every reason to continue with this work.

Power lanes provide an environment in which many species that really belong to the cultural landscape thrive. This is because certain activities, such as clearing, are repeated here at regular intervals. The maintenance of the lanes is somewhat reminiscent of the way that farmers traditionally work meadows and pastures, even though the land in the lanes is not used as intensively. Many species in the cultural landscape are threatened with extinction as the number of farmers and freely-grazing livestock has declined in recent years. It will therefore be of great value if the lanes can provide a refuge for these species.

In our power lanes, there are several areas that are so-called Natura 2000 areas, i.e. natural areas that have been identified as being particularly worthy of protection in an EU perspective. Examples of endangered species in these areas are the Field Gentian, Moonwort, and the Marsh Fritillary.

Over the course of four seasons, researchers from the Swedish University of Agricultural Sciences have conducted experiments on clearing measures at four trial areas in power lanes in Uppland and Småland. The aim has been to determine whether it is possible to exert a positive influence on the flora by changing the upkeep measures used. The trial areas have been cleared of bushes and mowed. The researchers have conducted an inventory of the flora each year.

The results show that more intensive clearing has a positive effect on species that are usually found on open ground. Species of this type which have increased include the Common Bird's-foot Trefoil, Harebell, Common Eyebright, Common Milkwort, Pyramidal Bugle, Mouse-ear Hawkweed, Mountain Everlasting, Fairy Flax, Grass-of-Parnassus, and Heath Speedwell. Several finds of Moonwort, a small fern, have also been reported. Examples of Thesium alpinum (no English name) appeared at one of the trial areas in the third season and increased in 2005. This is a typical open-ground species that has a limited distribution in south-eastern Sweden.

It is possible, therefore, to exert a positive influence on the flora in an area by changing the way clearing is carried out. It is of course not possible to introduce mowing as a general upkeep method in all our power lanes, but by keeping areas open and by removing clearing waste in suitable habitats we can help many species that are dependent on active land use to survive. In several particularly valuable areas it may be well worth the effort to apply more intensive upkeep.

In order to establish which of our 15 000 kilometres of power lanes are of greatest interest with regard to biological diversity we have conducted a GIS analysis of the entire power line network (GIS = Geographical Information System). As result we have now given priority to some thirty stretches of line which will be studied in more detail.

The aim is, with the help of our subcontractors, to pay special consideration to sensitive environments. At the same time as they inspect the power lanes, forest inspectors should also look for sites that have great natural value and propose appropriate upkeep measures for these sites. Around 20 forest inspectors have received training in this.

The results of these four years of work on protecting and promoting biological diversity have been positive. In 2006, therefore, we intend to proceed with

- the development of routines for adapting maintenance
- special maintenance measures in a number of selected areas
- further scientific studies that can provide more knowledge about biological diversity in power lanes.

Selected environmental data	2005	2004	2003
Energy losses, % of energy extracted	2.6	2.2	2.1
CO_2 emissions, own gas turbines, tonnes	3805	1892	40 297
Amount of SF_6 gas added, kg	76[1]	18.5	21
SF_6 gas emissions, tonnes of CO_2 equivalents	1816	442	502
SF_6 gas emissions, % of installed quantity	0.4[2]	0.1	0.1
No. of business trips/employee	10.2	9.9	9.3
CO_2 emissions, business trips by air, tonnes	255[3]	-	-
No. of video conferences held/employee	0.6	0.5	0.4
% of environmental cars of total no. of cars	30	4	-
% of employees that feel that Svenska Kraftnät is an environmentally conscious company	74	-	67

1 Of which 44 kg due to breakdowns
2 Emissions not due to breakdowns amounted to 0.2 %
3 Trips from the Halmstad office are not included

Phasing out 1.7 tonnes of mercury

In connection with modernisation of the DC link Konti-Skan 1 between Sweden and Jutland, the converter station at Stenkullen outside Gothenburg will be phased out. In 2005, we prepared the extensive environmental clean-up that will be carried out. The station, which was built in the 1960s, contains over 1.7 tonnes of mercury. All the mercury will be removed in 2006 and will be dealt with in a safe way while awaiting transfer to a final repository.

The liquid mercury is contained in a closed system (ion valves) that consists of steel cylinders, pipes, seals and pumps. No mercury has been consumed during the operation of the station, and it will now be drained from the system. The equipment that has been in contact with the mercury is regarded as hazardous waste and must also be dealt with. This amounts to 60 tonnes of scrap steel. When the equipment has been dismantled, the building will be cleaned up as small amounts of mercury may be present in drains and ventilation systems and in the plaster on the walls.

The environmental clean-up of the station also covers the oil – which may contain PCB – in apparatus and machinery, asbestos, electronic waste and land that has been polluted by oil.

More environmental activities

Some of the environmental objectives for 2005 involved investments to reduce the risk of ground pollution. An inventory of the impregnated wooden poles kept at depots and in stores has been carried out. We have also conducted an inventory of the oil pits under transformers and reactors and assessed their condition and capacity to hold any oil that leaks or runs out of the equipment concerned. In 2006, an action programme to improve the oil pits will be drawn up.

We have also compiled data on electricity consumption in all of our stations. In 2006, an action plan on how to reduce electricity consumption will be adopted. We have investigated the technical aspects, benefits and operational suitability of a tool that will make further reductions in network losses possible.

In 2005, Svenska Kraftnät converted yet another power line in western Stockholm in order to reduce the magnetic field emitted to schools and houses nearby. This conversion was paid for by the urban district council concerned. Calculations show that the magnetic field can be reduced by 65 per cent by arranging the phase lines in the existing power line pylons in the form of a triangle.

In the autumn, we arranged a seminar on electric fields in co-operation with Elforsk AB. The seminar was held at Svenska Kraftnät's transformer station at Hagby. The issue of electric fields is a topical one, given that the EU directive on the limitation of the exposure of workers to electro-magnetic fields will soon be incorporated into Swedish law. At the seminar, researchers from the Swedish Institute for Working Life, STRI AB, Vattenfall Utveckling AB and the Chalmers University of Technology presented the studies that have been carried out. The measurement of electric fields was demonstrated in the switchyard. In 2006, Svenska Kraftnät will participate in several studies on electric fields under the auspices of Elforsk's EMF programme.

In November, approximately 130 employees took part in an environmental day during which both external and internal experts made presentations. Part of the programme dealt with the causes and consequences of climate change.

Common eyebright.

Investments in preventive health care are good for the individual and the company

Svenska Kraftnät strives to be an attractive employer and an important feature in this respect is to offer a sound and healthy workplace. Both efficiency and job satisfaction increase if the employees are healthy. This is why the company started a special preventive health care and fitness programme in 2003. This programme has the following objectives, and the aim is to achieve these objectives by 2007:

- The percentage of full-time healthy employees shall be at least 65 %
- The level of absence due to illness shall be no more than 2.5 %
- Fitness levels shall be increased by 20 %
- No employee shall be on long-term leave of absence

Four areas

The work is divided into four areas: leadership, the work environment, preventive health care/fitness and rehabilitation. Each area has its own objectives and a variety of activities.

Lars Granström, who works with electricity and telecommunications for Svenska Kraftnät's internal IT network, previously felt an increasing lack of job satisfaction.

"I got a kick out of our fitness day when I had the chance to test the weight-training equipment in the company's gym. Now I train four to five times a week. I am enjoying myself and I think that it's fun to go to work again. I hope that every employee takes the opportunity to join the company's fitness programme – it really makes a difference," says Lars.

Low level of absence due to illness

The percentage of full-time healthy employees is currently 56 %. We believe that the company has a good chance of reaching the target of 65 % by 2007.

Why is it that Svenska Kraftnät has such healthy employees? The average age is high and this usually entails a high level of absence due to illness. We put the question to Hans Jacob Nilsen who works in the Commercial Department.

"I have benefited a lot from the preventive health care and fitness programme at Svenska Kraftnät. It has encouraged me to exercise more. Following a difficult period in my private life in 2003 my weight increased by 10 kilos. With active coaching and the support of Svenska Kraftnät I was able to

– My job satisfaction has increased since I started to exercise more through the active support I have received from the company, says Hans Jacob Nilsen, seen here on his training cycle being encouraged by Claes Vallin and Linda Sabel.

– It is a good idea that the company offers all its employees recurring physical fitness tests, and reviews their eating and exercise habits, says Eva Werdin.

– I mostly use the keep-fit subsidy that Svenska Kraftnät offers. It gives me the freedom to exercise at times and in fitness centres that suit me, says Matilda Pihlgren.

– I've felt much fitter since I started exercising actively here in the gym, says Lars Granström.

lose eight of these. I kept the momentum going and managed to lose another seven kilos on my own. I have also had burn-out symptoms, including a lack of sleep and increased stress," says Hans Jacob. "I got support to begin a course of treatment for this. Now I sleep a lot better and I feel much more motivated in my work."

The national grid, which Svenska Kraftnät is responsible for, must be monitored around the clock. The work in the control centre requires great expertise and a high level of attention. A particularly high degree of concentration is required in connection with disturbances in the electricity supply system. A low level of absence due to illness and healthy employees are therefore preconditions for the safe and efficient operation of the National Grid. Eva Werdin, who works in the control centre, makes regular use of the various opportunities that the company offers to stay fit and healthy.

"As my work involves long periods of sitting still I especially value the opportunity to have a massage now and then," says Eva.

Preventive health care in a variety of forms

Svenska Kraftnät offers its employees extensive support in the field of fitness and preventive health care – everything from the advanced medical attention provided by the company's health service and preventive health care and fitness activities in a variety of forms to preventive and corrective rehabilitation. Good leadership is also important for the atmosphere in a working group and to the well-being of individual employees.

"I think that my manager provides a good basis for this. She really understands that preventive health care and fitness activities help employees to perform well and increase job satisfaction," says Matilda Pihlgren, who works with land and permit issues for power lines and stations. "I mostly use the fitness subsidy that Svenska Kraftnät offers. It gives me the freedom to exercise at times and in keep-fit centres that suit me," says Matilda.

Power contingency planning – part of society's crisis management capacity

– In its role as the contingency planning authority, Svenska Kraftnät supports the electricity companies in their planning for dealing with emergency situations, says Sture Larsson (on the left), Technical Director and Head of the Contingency Planning Staff. – We also have a warehouse for strategic spare equipment for rapid repairs in connection with transmission line failures in the national grid and regional networks. Through agreements with the Swedish Armed Forces, military resources can be used to deal with disruptions in the electricity supply. Tina Fridolf is concerned with dam safety issues, while Peter Helsing's area is coordination and international contingency planning matters.

An extensive power failure resulting from purely technical causes can in itself have serious consequences for activities that are of importance to society. It would, of course, be even more serious if society were at the same time to be subjected to other pressures, such as extreme weather conditions or antagonistic actions. The use of modern information technology has made it possible for general development and rationalisation within society, at the same time as it has created increasingly complex interdependencies. As a result, the degree of vulnerability to failures in the electricity supply has increased.

There are therefore good reasons for having contingency plans for how to deal with serious problems and crises. For many years, the situation was dominated by the view that war was the most serious form of crisis that could affect society. It was therefore only natural to direct all contingency planning towards actions that could contribute towards safeguarding the most important social functions in the event of an armed attack or war in the surrounding area.

As a result of the developments in security policy and society's changed vulnerability, the perspective has gradually changed towards a focus on dealing with serious ordeals that can affect society during peacetime. A new crisis management plan has thus evolved for society in general, to which the electricity supply must be adapted.

Capacity during periods of severe strain

The capacity of the electricity supply to withstand periods of severe strain is in the first instance based on the fundamental qualities that normally guarantee a secure electricity supply. It is the built-in endurance of plants, installations and interconnected systems and the capacity to constantly be able to take the right action that shall be used to cope with all forms of critical situations. The responsibility for making sure that the various components of the electricity system function – individually and in combination – thus rests with the same parties, regardless of whether or not the situation is normal or critical.

It is the owners of the electricity system assets who shall make sure that a sufficiently robust system is achieved and that specified functional requirements are met. This is done by applying technical standards, codes, design criteria and quality systems, and by utilising competence and other resources up to the level that is required in order to cope with problems that have a certain level of difficulty and probability during peacetime conditions.

Power contingency planning is a tool for achieving a higher security level in the electricity supply than can normally be demanded through the plant owners' own initiatives and financial frameworks. The motive is to be able to deal with circumstances that are exceptional and which the owner companies can not reasonably be expected to be able to cope with. War or a higher level of preparedness are the kind of circumstances that have in the past served as clear criteria for special measures. In peacetime, it is terrorist actions and extensive natural disasters that would require such enormous efforts and resources that they would have to be handled by society and through Government

involvement.

But what constitutes the limit between what is required of the electricity supply companies during "normal" difficult peacetime conditions and what is justified to strengthen through power contingency planning? Is the limit a wind speed of 30 or 40 metres per second? How serious shall antagonistic actions be to be regarded as terrorism and not ordinary vandalism, which every company shall be able to protect itself against? The answer, of course, is that a limit like this cannot be hewn from stone and last for ever. It must be constantly proven against changes in the values of society, risk acceptance and the prioritisation of available financial funds.

Regulations and roles

The Power Contingency Act, which came into force in 1997, regulates the responsibility for measures that are needed in order to supply electricity at times of greater preparedness, i.e. in wartime or conditions that seriously threaten the security of the country. In an ordinances, Svenska Kraftnät is appointed to be the power contingency authority. In this capacity, Svenska Kraftnät shall decide on measures to ensure how production, transmission and trading with electricity shall be maintained. In order to cover the costs for such contingency measures, Svenska Kraftnät receives appropriations, at present around SEK 250 million per year, that are financed by a special charge that is levied on the network companies' customers. However, these appropriations may not be used for measures within the public utility's own plants and installations, which are financed in the same way as Svenska Kraftnät's other investments.

The role of power contingency authority has been given to Svenska Kraftnät as a consequence of its close connection with the tasks involved in being responsible for the national grid and as the authority with system responsibility. Svenska Kraftnät has also recently been given system responsibility within the field of gas supply, with the same authority as for electricity supply. This justifies Svenska Kraftnät having a role within gas supply that is similar to that of the power contingency authority.

An extreme duty or authority that Svenska Kraftnät can be given is regulated in the Government's instructions. Here it is stipulated that in wartime – or when the Government otherwise decides – it is the duty of Svenska Kraftnät, in co-operation with other defence authorities, to meet the demands of society for electricity by planning, directing and co-ordinating power supply resources.

Peacetime benefit

According to the Power Contingency Act, consideration shall be given to the benefit of the contingency measures during severe strain on society in peacetime. However, in its present state it does not provide any scope for deciding on and financing measures that are only of benefit in peacetime. The objectives for the power contingency planning is defined annually in consultations with the Swedish Emergency Management Agency. The goals that are formulated in this context are clearly influenced by the overall focus on strengthening the peacetime crisis management capacity. This is one of several reasons for reviewing the delimitations of the Power Contingency Act, possibly in connection with an integration into the Electricity Act.

The goals of the power contingency work aim at strengthening the electricity supply at times of severe strain, mainly within the areas of:

- Management, activation and information capacity
- Protection against encroachment and damage
- Restoration of the electricity supply after disruptions
- The repair of damaged infrastructure
- The storage of critical spare parts and equipment

With the aim of achieving parts of the power contingency goals, a number of activities have been conducted to create effective co-operation between, primarily, electricity network companies in order to be able to cope with situations involving extensive damage to the infrastructure. Svenska Kraftnät's role when damage has occurred within the area of responsibility of other companies is to support them with spare parts and equipment, communication resources, personnel reinforcements, etc. and, through an agreement with the Swedish Armed Forces, to provide transport and equipment resources. During the restoration period following Hurricane Gudrun in January 2005, the joint action organisation functioned in precisely this way.

Firm limits of responsibility

The various official duties and special areas of authority held by Svenska Kraftnät within the field of electricity supply have sometimes been understood as being more far reaching and as taking over far more responsibility than they in fact are. It is important to see that Svenska Kraftnät in no way encroaches on some other company's area and takes over the responsibility for the operations. It cannot be expected, for example, that Svenska Kraftnät will go in and rectify a power failure caused by damage to a local network. This responsibility rests under all circumstances with the local network company. On the other hand, the company may need support through the forms of co-operation in which Svenska Kraftnät participates.

In a similar way, consideration must be given to the reinforcement measures that are taken within the framework of power contingency. These cannot be regarded as replacing a reinforcement that is needed in order to maintain the normal quality or supply reliability that is required from an electricity company. Power contingency measures can only serve as a complement

Hurricane Gudrun disrupted the electricity network in the south of Sweden, but the 400 kV and 220 kV national grid power lines remained intact. Svenska Kraftnät helped the electricity companies to restore electricity supplies, among other ways by lending out equipment and contacting people who had previously been trained as linemen at our training centre in Åsbro.

for achieving a further level of security that would otherwise not exist.

The role of power contingency authority is limited to the extent that it cannot in itself guarantee that the electricity supply can cope with all serious pressures. It is based entirely on the fact that companies look after their own areas of responsibility and carry out necessary reinforcement measures, both those that they have to pay for themselves as well as those that are financed by contingency funds. Similarly, the possibility of identifying weaknesses that need to be rectified is dependent on information from the electricity companies themselves.

If Svenska Kraftnät, following a decision by the Government, were to be given ultimate authority to direct the power supply, it is on the assumption that all other parties continue to work in their own responsibility roles. The circumstances would in such case demand an exercise of authority for special management and co-ordination in the control structure over and above what is normally required.

The electricity market reform has led to new interfaces between activities and operative functions that must unconditionally function together in critical situations. This applies both in connection with extensive power failures in peacetime as well as in more difficult external circumstances and wartime conditions. Companies generally focus more on how their own operations shall be managed under normal conditions than on how their collaboration with others shall function in critical situations. Similar developments are also taking place in the telecom sector. Effective co-operation, however, is very important with respect to crisis management capacity. It is therefore justified, as contingency measures, to initiate and support training activities and exercises with the aim of achieving a sufficiently high level of co-operation proficiency.

Conclusions

In general, the reason for collecting funds to be distributed for special measures is that by so doing, a generally accepted benefit will be achieved that would otherwise not be the case. If this benefit is not gained, maintaining centrally financed instruments is no end in itself. Power contingency operations, with their original direction and aims, could be questioned against the background of the reduced risk of war within the foreseeable future. It is, however, necessary to place it in the kind of crisis management perspective that will appear in the near future, together with an insight into the increased vulnerability of society to outages in power supply.

There are a number of factors to indicate that power contingency operations are justified, both for securing important capabilities as well as for dispelling the uncertainties that exist regarding how important security predicaments will be developed in the future:

- The Armed Forces are undergoing a process of change and downsizing that will lead to a significantly lower level of regional and local presence. The need for extra efforts, which it has been previously possible to satisfy with the support of Armed Force resources, must from now on be largely coped with in some other way.
- The volume as well as the age and competence profiles of the personnel resources within the country for carrying out extensive repair work on electrical installations has developed in a negative direction over the past ten years.
- The new interfaces, role divisions and preconditions for co-operation that were created through the electricity market reform and the deregulation within the telecom sector, need to be further developed in order for the overall measures to be able to function optimally in critical situations.
- The peacetime risks of antagonistic actions have been accentuated by the terrorist actions that have taken place during recent years. Risks for unauthorised access into IT systems and telecommunications that can lead to serious disruptions have emerged.

Power contingency shall of course be adapted to and arranged under the crisis management capacity within society in general. The integration of the normal peacetime operations and power contingency work will need to be elucidated more clearly. It is among other things reflected in the fact that Svenska Kraftnät has nowadays mainly organised the power contingency operations together with other operation and development activities.

For Svenska Kraftnät, the contingency perspective is one of the most important driving forces in the efforts to maintain a secure and efficient power supply.

The Board of Directors

Sven Hulterström, Chairman
born 1938, appointed 2003.

Other directorships: Chairman of AB Stokab.

Yvonne Gustafsson, Deputy Chairman
born 1952, appointed 1995, Deputy Chairman 2001. Director General, Swedish National Financial Management Authority.

Other directorships: Chairman of the National Nuclear Waste Fund, Board member of Bofors Defence AB and National Government Employee Pensions Fund.

Tomas Bruce
born 1944, appointed 2004.
Managing Director, AB Tomas Bruce.

Other directorships: Board member of Euroheat & Power, Capital Cooling Europe AB, AB Borlänge Energi, Laxå Pellets AB, Gaia Leadership AB, Swedish Orienteering Association, Viking Telecom AB.

Bo Diczfalusy
born 1952, appointed 2005.
Director, Ministry of Sustainable Development.

Other directorships: Board Member of IEA (International Energy Agency).

Anna-Stina Nordmark-Nilsson
born 1956, appointed 2004.
Assistant County Director of the Stockholm County Council, County Administrative Board Administration.

Other directorships: Chairman of Centre of Novum Foundations of Karolinska Institutet. Board member of Setra Group AB, Västerbottenkureren AB, Diös Fastigheter AB.

Christer Samuelsson
born 1954, appointed 2001.
MD and Partner, Sensa Corporate Advisors AB.

Jan Magnusson,
born 1948, appointed 1998.
Director General, Svenska Kraftnät.

Other directorships: Board member of Nordel, Deputy Chairman of Nord Pool ASA.

Agata Persson
born 1946, appointed 2004.
Staff representative.
Representative of the Swedish Confederation of Professional Associations SACO.

Sture Törnstam
born 1947, appointed 2005.
Staff representative.
Representative of the Swedish Federation of Civil Servants, ST.

Power industry terms

Ancillary services
Procured services, primarily from power producers, which are necessary for the technical operation of the system. These services primarily include frequency regulation and access to gas turbines as a emergency reserve.

Balance provider
Power trading company that has entered into a balance responsibility agreement with Svenska Kraftnät. Balance providers are obliged to ensure that a state of balance exists between the supply and consumption of power in respect of their undertakings.

Balance settlement
Svenska Kraftnät's calculation of the balance providers' imbalances on an hourly basis (balance power). This results in a financial settlement being produced every fourteen days in the form of an invoice (Svenska Kraftnät has sold balance power) or payment (the balance provider has sold balance power).

Balance power
The imbalance that the balance provider has caused in the national electricity system.

Constraint
Congested sector on the grid or cross-border interconnectors where the capacity to transmit power is less than the demand.

Counter trading
The purchase/sale of electricity by the system operator, i.e. Svenska Kraftnät in Sweden, to reduce the transmission of electricity in a constraint on the grid. Counter trading prevents customers from experiencing transmission limitations.

Final power
The difference between the actual, metered values after 14 months and the provisionally-calculated values.

Final settlement
Svenska Kraftnät calculates the difference between the balance providers' actual deliveries to profile customers (customers whose consumption is not measured on an hourly basis) and their provisionally-calculated deliveries to these customers. Final settlement means that the costs are redistributed between the balance providers.

Island operation
Entails an electricity system being operated locally within a limited geographic area (production, transmission and consumption). The area may have been disconnected automatically from the rest of the network or planned for island operation.

Load frequency control
Svenska Kraftnät is responsible for permanently maintaining the frequency of the electrical grid at around 50 Hz. Deviations are compensated for via the rapid regulation of production.

Point of connection tariff
Charging model for utilizing the electricity network. The size of the charge is dependent upon, among other things, the connection point's geographical location.

Profile settlement
A model for calculating and distributing the volume of consumed electricity not measured on an hourly basis. In doing so, deliveries can be distributed among the players concerned.

System protection
A system for boosting transmission capacity and/or operational reliability. For example, system protection exists on the DC links between Southern Sweden and the Continent. System protection immediately reduces electricity exports on the DC links if transmission levels in constraint 4 (a line running approximately from Oskarshamn to Varberg) risk becoming too high.

Spot market
Nord Pool's spot market, which is a marketplace for power. Agreements are made at lunchtime for all 24 hours of the following calendar day.

System-responsible company
(System Operator)
A company responsible for the reliability and balance of the national electricity system. Svenska Kraftnät has this role in Sweden.

Transit
The transmission, or transiting, of power via a "third country".

Transmission losses
The energy losses occurring in a network.

Definitions

Debt/equity ratio
Interest-bearing liabilities divided by adjusted equity including minority shares.

Equity/assets ratio
The adjusted equity at yearend divided by the total capital. Adjusted equity is defined under Return on adjusted equity below.

Interest coverage ratio
The income for the year plus interest charges divided by interest charges. Specifies how much greater the income is when compared with the interest charges.

Net loan liability
Allocation and interest-bearing liabilities with deductions for financial interest-bearing assets.

Net profit margin
The income for the year with deductions for standard tax at 28 % in relation to operating revenues.

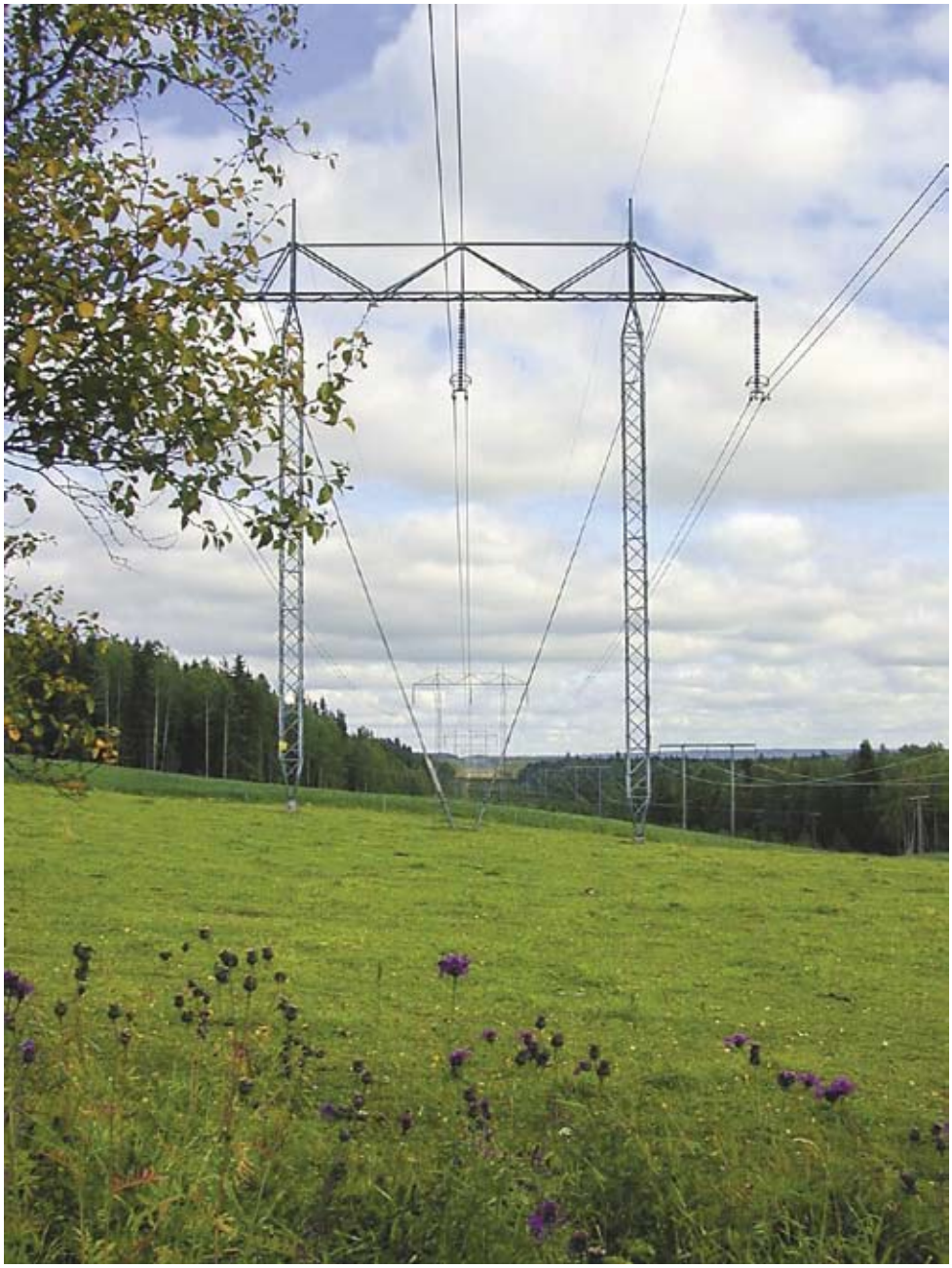
Operating margin
Operating income in relation to operating revenues.

Return on adjusted equity
The income for the year with deductions for standard tax (28 %), divided by adjusted equity defined as the mean value of the restricted equity at the start of the year and at yearend (treasury capital and restricted reserves) and 72 % of the unrestricted equity.

Return on capital employed
The result for the year plus interest charges in % of the average employed capital, i.e. the balance sheet total less non interest-bearing liabilities including deferred standard tax in equity.

Return on total capital
The ratio between the income for the year plus interest charges, and the total average capital.

Self financing level
The cashflow prior to changes in the operating capital and investments in relation to the investments for the year.



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Photos: Håkan Flank and others

Svenska Kraftnät's values

In co-operation with the management and the employees, Svenska Kraftnät has worked out and determined which values best support our ambition to be one of the most effective national grid companies in the world. The values are summarised in the words: **effectiveness, quality, social responsibility, spirit of co-operation and teamwork.**

Effectiveness: We focus on good leadership and good routines in order to do the right things in a cost-conscious way.

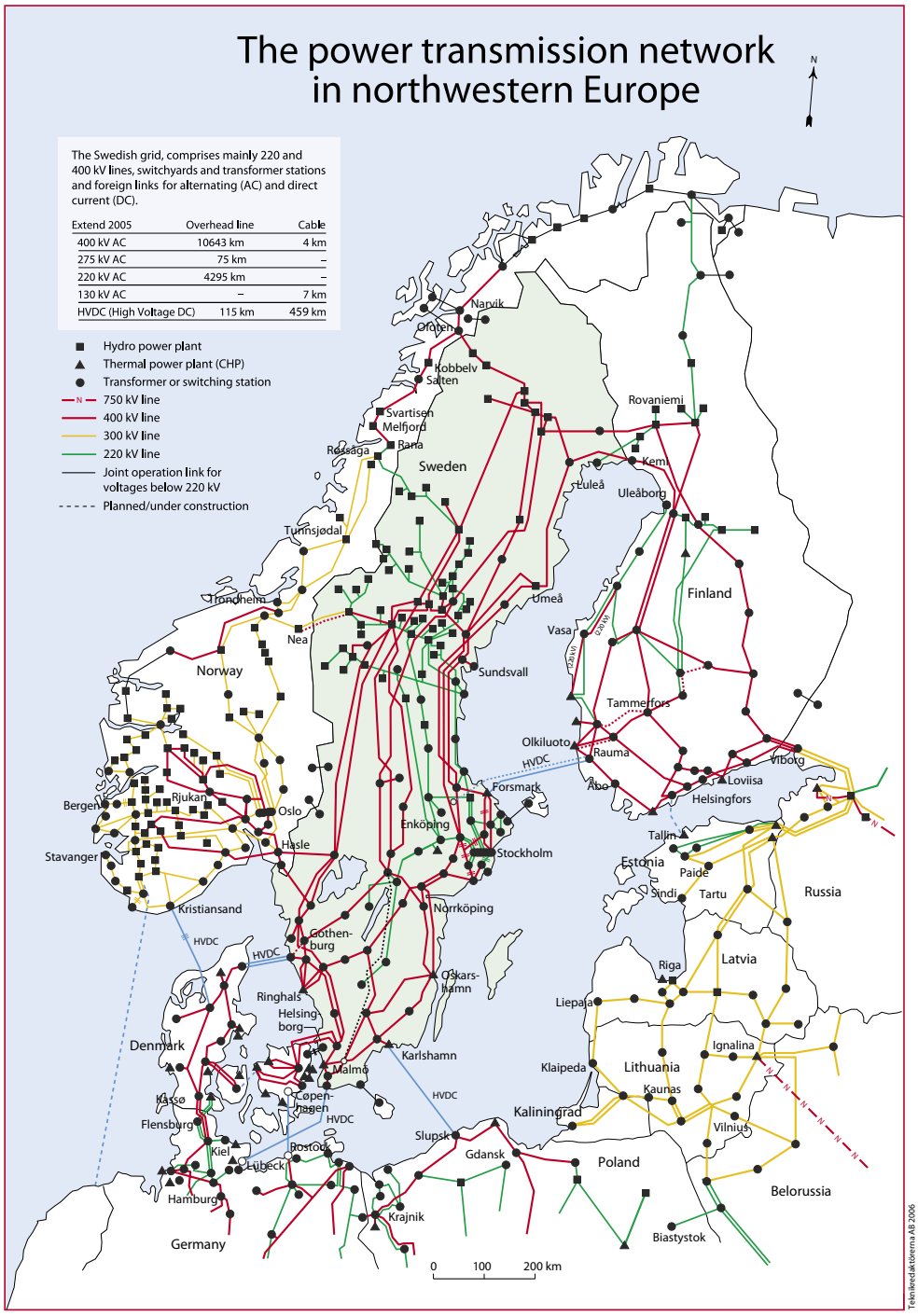
Quality: It is extremely important that the operational reliability of the electricity system is high. Therefore, all aspects of our work must be characterised by good quality, reliability and a long-term perspective.

Social responsibility: Electricity supply is so important and of such benefit to society that we must work with a high level of involvement so that Sweden receives its electricity every second of the day. We also have an environmental responsibility to make sure that our power lines and stations are designed in such a way that they encroach as little as possible on human-beings and the countryside. As a central and neutral party in the open electricity market, it is important for us to treat the players equally and to provide them with good information.

Spirit of co-operation: We want to have satisfied customers and stakeholders. We shall be sensitive to their needs and be anxious to have good communication with them.

Teamwork: Within Svenska Kraftnät, we wish to have a strong corporate feeling that is characterised by openness, clarity and consideration.

The power transmission network in northwestern Europe



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