

Svenska Kraftnät

# Annual report for 2008

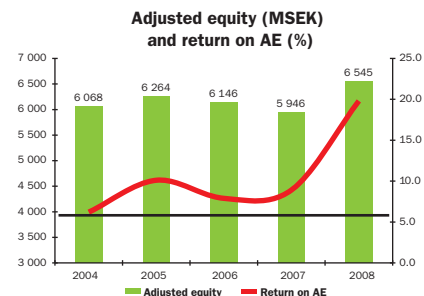
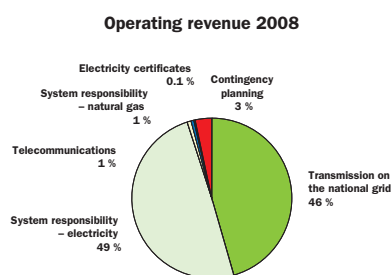
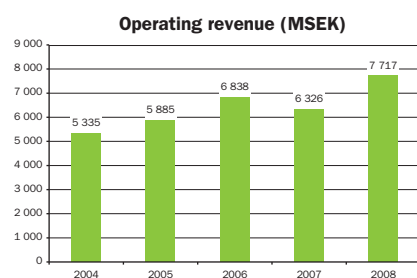
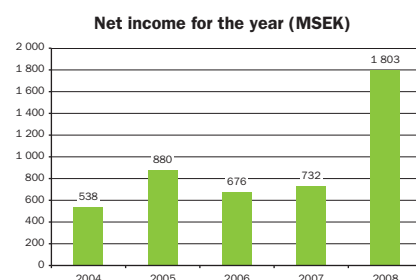
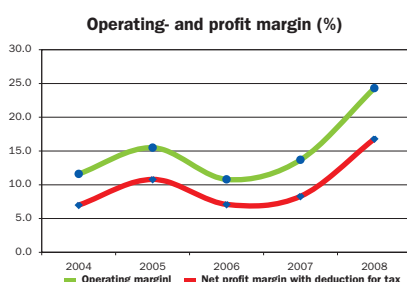
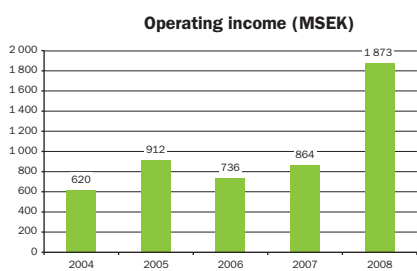
# Financial overview 2008

## 2008 in brief

		2008	2007
<b>Operations during the year</b>			
Energy supplied	TWh	115.0	120.5
<b>Reliability performance</b>			
Number of disturbances in the national grid		157	150
Number of disturbances with breakdowns		9	5
Non-supplied energy	MWh	3	13
<b>Financial facts</b>			
The Group's operating revenue	MSEK	7 717	6 326
Consolidated profit	MSEK	1 803	732
Return on adjusted equity*	%	19.8	8.9
Debt/equity ratio	times	0.28	0.33
Investments	MSEK	963	596

\* after tax equivalence, 28 %

## Economic development



Pictures on the front page:

**Powerline.** Overhead lines have been and will remain the main option for the Swedish national grid for electricity. Underground cables for AC voltages of 400,000 volts are only technically and economically viable for short sections, and where the cable does not constitute a substantial weakening or limitation in the national grid. Photo: Håkan Flank

**Wind power – a challenge for Svenska Kraftnät.** A large-scale expansion of wind power will increase the capacity requirements on the national grid and for balance regulation. A really large expansion will entail strengthening the national grid with new, long powerlines, according to a report that Svenska Kraftnät submitted to the Government at the start of June. Photo: © Westend61/Matton

**The South West Link.** In January Svenska Kraftnät's board decided to expand the Southern Link project into the South West Link with a branch to Norway, and that the capacity should double compared with previous plans.

**Trainees.** A new set of trainees started at Svenska Kraftnät in mid-September 2008. Photo: Mikael Zetterström

# Contents



Serving society – around the clock! An important function in Svenska Kraftnät's Network Control Centre is the Balance Service, which ensures that a balance is maintained between supply and demand in the electricity system and that there is a balance in the natural gas system.

Director General's statement .....	4	Cash flow statements – Parent Entity .....	48
This is Svenska Kraftnät .....	6	Change in equity – Parent Entity .....	48
Svenska Kraftnät's stakeholders .....	7	Seven year review for the Group .....	49
Important operational events during 2008 .....	8	Additional information and notes .....	50
<b>Report of the Board of Directors 2008 .....</b>	<b>11</b>	Notes .....	53
Operations and structure .....	12	Proposed disposition of earnings etc. ....	61
Business segments .....	16	Auditor's report .....	61
Subsidiaries and associated companies .....	27	The Board of Directors .....	62
Environment .....	29	Addresses .....	63
Employees .....	31		
Internal control and risk management .....	35		
Financial reports .....	38		
Income statements – the Group .....	38		
Balance sheet – the Group .....	40		
Cash flow statements – the Group .....	42		
Change in equity – the Group .....	43		
Income statements – Parent Entity .....	45		
Balance sheets – Parent Entity .....	46		

# Director General's statement

Svenska Kraftnät has the important task of providing the state authorities – Government and Parliament – with maximum freedom of action in relation to climate- and energy policy. Irrespective of whether new nuclear power stations or 30 TWh wind turbines are built, we have to ensure that the electricity can be delivered to the customers. It is a considerable challenge on a number of levels.

Major investments were made in the Swedish national grid, firstly when hydro-electric power was expanded and the country was electrified, then when the era of nuclear power arrived. We have subsequently been in a phase where Svenska Kraftnät has administered and maintained the national grid. It's true that foreign links such as the Baltic Cable and the SwePol Link have been added, but new investment has nevertheless been limited.

## From administering to investing

That picture is now changing radically. We are leaving the administration phase and entering a phase of intensive expansion. Extensive investments are being planned and implemented in order to deal with generation of renewable electricity, and to overcome limitations in the transmission capacity, within Sweden as well as between Sweden and the neighbouring countries. We are also continuing to carry out conversions and other reinvestments with the aim of making the Swedish electricity system more robust and reliable.

A year ago Svenska Kraftnät's investments during the three year period 2009 – 2011 were estimated to amount to SEK 4,575 million. Now that we are submitting our investment plans for the three year period 2010 – 2012, the equivalent figure is SEK 7,780 million.

This rapidly increasing volume of investment represents a substantial adjustment for



Mikael Odenberg, Director General

Svenska Kraftnät's organisation. The operation is expanding and we need to take on more staff as the generation born in the 1940s starts to depart. The latter is certainly not unique to Svenska Kraftnät, but it does entail a particular challenge for such a knowledge-intensive organisation. We are going to have to deal with both the generational change and expansion simultaneously, without losing expertise.

## Infrastructure is never easy

In common with other actors that are involved with infrastructure, Svenska Kraftnät frequently encounters opposition to its expansion plans. The arguments are similar, regardless of whether it concerns roads, railways or powerlines; feel free to build – but not here. And if they have to be built, then bury them.

It is in this conflict between opposing interests that the success of climate policy will be determined. It is not the expansion of wind farms, but the expansion of the transmission grids that will be the foremost

limiting factor for how much renewable electricity we will be able to introduce by 2020. It would therefore be unwise to simplify and shorten the licensing processes for building new wind power unless there was a simultaneous corresponding simplification of our licensing processes for building powerlines.

After the Gudrun and Per storms Swedish electricity customers in exposed areas have learned that everything is better if overhead lines can be replaced with ground cables. This is true in the local distribution networks, but it is not possible to transfer to the high-voltage grid. This was constructed to cope with the most severe weather conditions and the hurricanes of recent years have not caused any power failures.

The Swedish national grid is and remains an AC network. It is not possible to bury it. In the national grid it is only possible to put AC connections underground on short sections – and then often at the expense of reduced reliability.

Underground cables over long distances are only possible with DC technology. It entails transmitting electricity from one point to another. It is appropriate in more exceptional cases such as in our submarine cables to neighbouring countries and in parts of the South West Link.

## The South West Link

The South West Link is Svenska Kraftnät's largest and single most important network investment. The aim of the project is to reinforce the AC network, increase reliability and deal with limitations in transmission capacity to Southern Sweden and between Norway and Sweden. The South West Link is also important for the plans for large-scale expansion of wind power that are part of Swedish climate policy.

The South West Link will be constructed in three sections with a nodal point outside Nässjö. DC links will be constructed from there to Hörby in Skåne and to the Oslo region in Norway using new technology. The intention is that long sections of these DC links will be buried underground, e.g. along the E4 down towards Skåne and westwards to Trollhättan. A new 400 kV AC powerline is being built from Nässjö and northwards to Hallsberg in Närke.

### Better communication

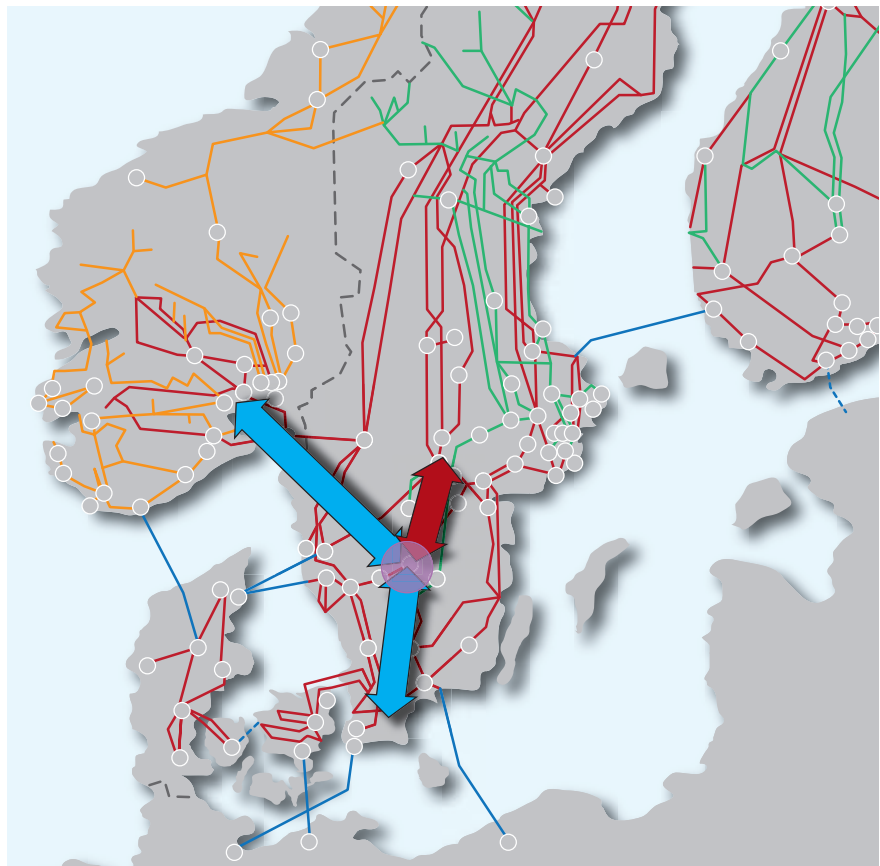
Svenska Kraftnät must improve in its communications with county administrative boards, municipalities, landowners and the public. We need to be clearer about what our assignments are and why we choose a particular route for powerlines.

Our attitude must be pragmatic and sensitive to points of view that are put forward in the consultation processes. At the same time it is important to emphasize that a concession procedure is an official review of opposing interests not an endless negotiation between Svenska Kraftnät and different interests. It is not possible to have a new enquiry for every objection, rather our endeavour will be to refer more concession cases to the Energy Market Inspectorate and the Government for a decision.

### Cooperation with Norway

The land mass of Norway and Sweden comprises about 70 % of the Nordic electricity market and from here cables go to Denmark, Finland, Poland, Germany and the Netherlands. The Swedish and Norwegian networks are substantially linked to each other and joint planning is necessary to, for example, deal with an extensive expansion of wind power in North Norway and Sweden.

On this basis, a process was started last year with the aim of merging Svenska Kraftnät and the Norwegian Statnett into a joint Swedish-Norwegian system operator. The work was discontinued in September when the Norwegian government said no to the plans. However, Svenska Kraftnät and Statnett will continue implementing a strategic partnership to develop network planning and to get closer to a functioning Nordic end customer market.



The South West Link is Svenska Kraftnät's largest investment project. Its aim is to reinforce the AC network, increase operational reliability and deal with limitations in transmission capacity to Southern Sweden and between Norway and Sweden. From a nodal point outside Nässjö, DC links will be built to Hörby in Skåne and the Oslo region in Norway using new technology. A new 400 kV AC powerline is being built from Nässjö and northwards to Hallsberg in Närke.

### A good result

2008 was characterised by a very high level of operational reliability in the national grid. During the year Svenska Kraftnät had its largest turnover ever at some SEK 7.7 billion. Investments in the next few years will enable us to further increase turnover in the future.

During the year two damaged cables in the Oslo region blocked electricity production from the well-filled reservoirs in South Norway. This did not just lead to extremely low electricity prices in southern Norway, but also to major congestion revenues for Svenska Kraftnät. These revenues are being returned through investments in the networks, as well as by temporarily reducing the power fee in the national grid tariff to zero during the months of November and December.

Despite the excellent results, we now have to prepare for the major increases in investments in coming years. The national grid tariff is therefore being increased from 2009 and further increases will be likely in coming years.

Svenska Kraftnät will be moving to Sundbyberg in the summer. We will leave the long, dreary corridors in Räcksta in favour of a modern and open office in a newly built building. It is a logistical adventure. But the move will also represent the final stage of the divorce within Statens Vattenfallsverk that commenced in 1992.

*Stockholm, February 2009*  
Mikael Odenberg

# This is Svenska Kraftnät

Svenska Kraftnät is a state-owned public utility with the task of administering Sweden's national grid for electric power, which comprises 400 kV and 220 kV powerlines with stations and foreign links. The parent entity also has system responsibility for electricity and natural gas. Svenska Kraftnät develops the national grid and the electricity market in order to meet

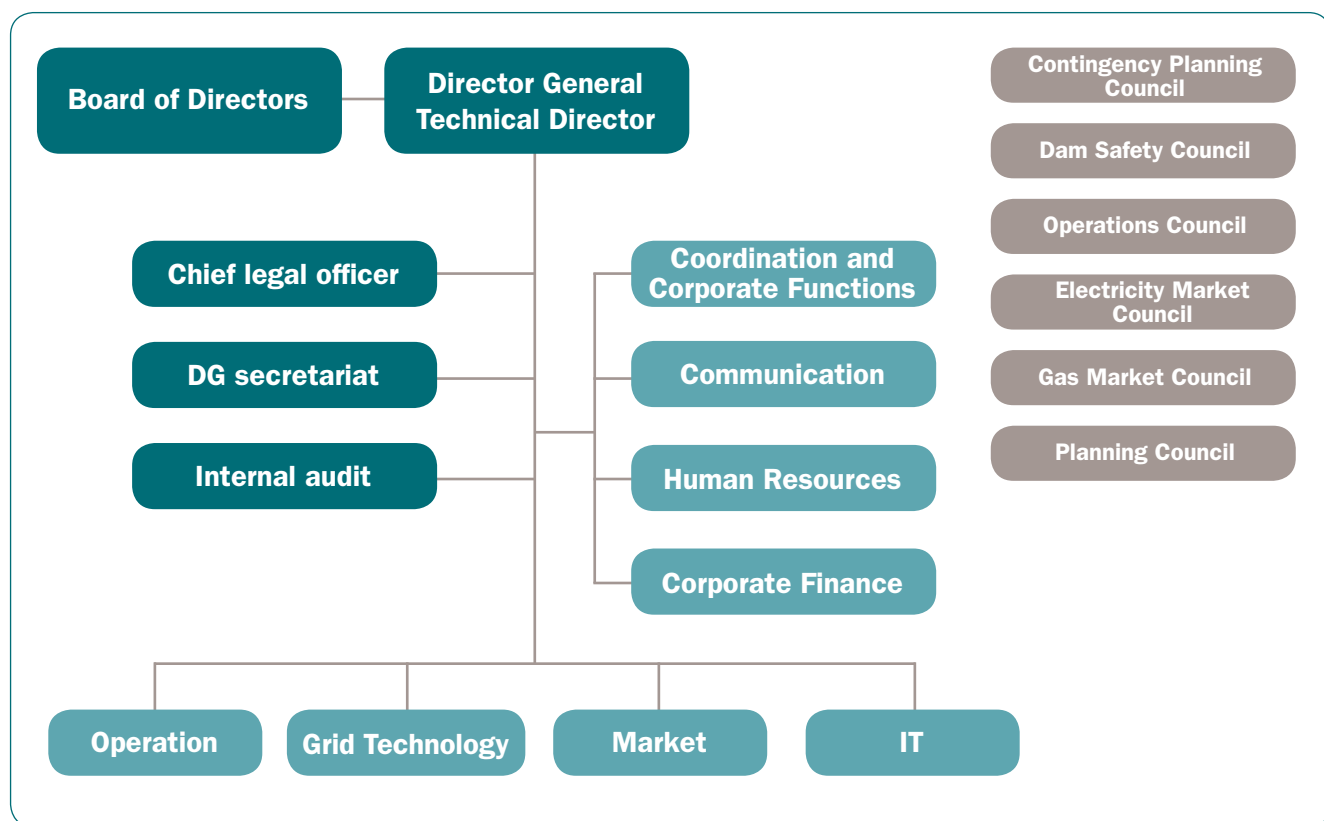
society's need for a secure, environmentally-friendly and economic electricity supply. It thereby also has an important role in climate policy. We have some 300 employees – the majority at the head office, which is located in Vällingby in Stockholm, but which will be moving to Sundbyberg during 2009. We also have offices in Sundsvall, Halmstad and Sollefteå. A further couple of

hundred people are employed as contractors for operation and maintenance of the national grid throughout the country. Turnover in 2008 was SEK 7,700 million. Svenska Kraftnät has four subsidiaries and six associated companies, including Nord Pool, the Nordic electricity exchange. More information is available on our website [www.svk.se](http://www.svk.se).

## Our mission

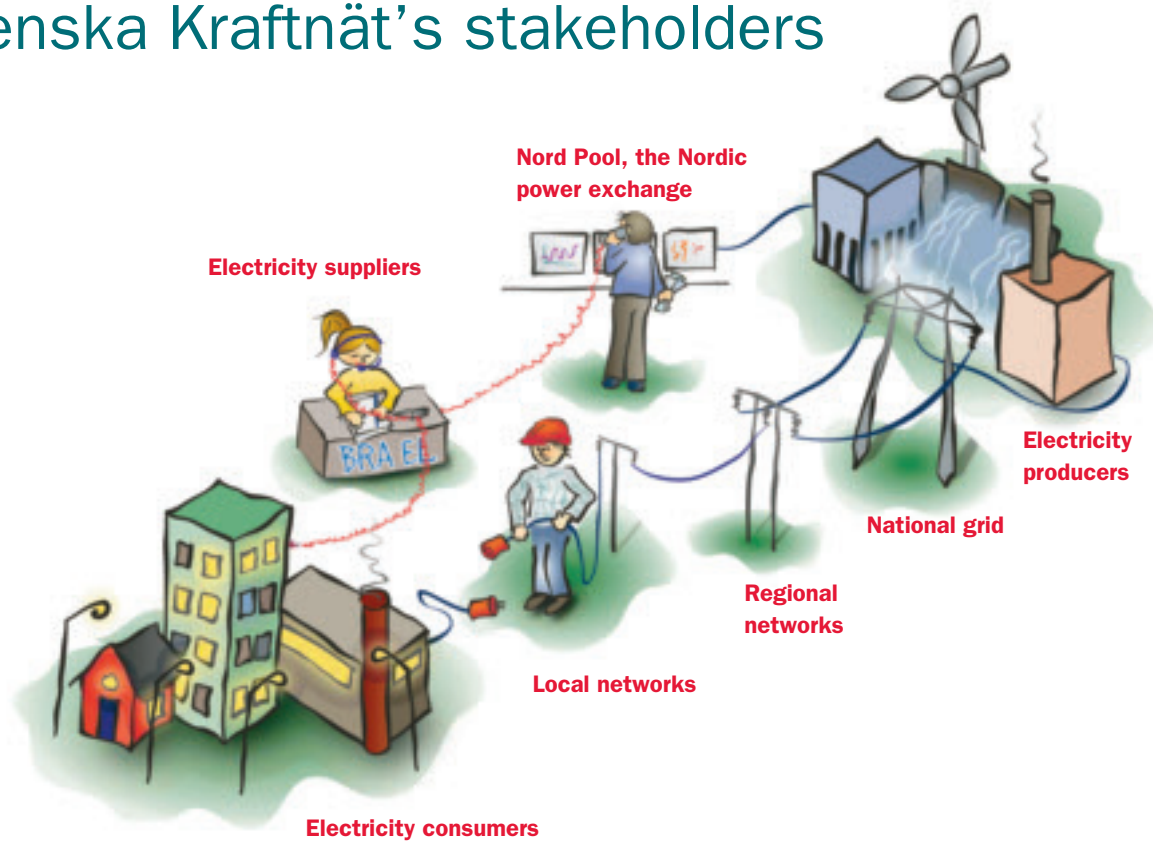
- To provide transmission of power on the national grid well in compliance with security, efficiency and environmental requirements.
- To perform the system operator function for electricity and natural gas cost-efficiently.
- To promote an open Swedish, Nordic and European market for electricity and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

## Organisation



Svenska Kraftnät's Board of Directors and Director General are appointed by the Government. The parent company is organised into eight departments. In addition there are six councils for cooperation with various stakeholders.

# Svenska Kraftnät's stakeholders



The national grid is the electricity network's "motorways". The electricity produced is transmitted via the national grid to the regional networks and onward to local networks to finally reach the electricity user. Electricity producers sell their electricity via the power exchange, Nord Pool, or to an electricity supplier, which sells it onward to the electricity user. Electricity suppliers and electricity network companies have different roles. They are separate companies.

Svenska Kraftnät is a state-owned public utility that has maintained the national grid, the backbone of the Swedish electricity system, since being set up in 1992. We also ensure that there is a balance between supply and demand in the system, so that the frequency is always close to 50 Hz. This and our other activities affect large numbers of people and organisations, all of which can be included as Svenska Kraftnät's stakeholders.

## The actors in the electricity market

In its role as national grid operator Svenska Kraftnät has direct contact with companies that own facilities connected to the grid, i.e. large production plants and regional electricity networks.

Maintaining the balance between supply and demand is conditional on production being planned on the basis of forecasted consumption. Svenska Kraftnät does this in collaboration with the balance providers, which have taken on financial responsibility for ensuring that there is sufficient electricity produced to satisfy consumption. All electricity consumers have to have a balance

provider for their consumption, however, in practice the electricity supplier ensures that there is one. Electricity suppliers can be balance providers themselves, or transfer the responsibility to another company. The local electricity network company submits the consumption figures to Svenska Kraftnät, which uses them to calculate whether the balance providers have succeeded in balancing production against consumption.

Companies with system responsibility in other countries can also be included as actors. Svenska Kraftnät enjoys close cooperation with Norway, Finland and Denmark in operating the electricity system efficiently and safely.

## Land owners and nearby residents

Svenska Kraftnät administers approx. 15,000 km of powerlines, and some 130 switching stations. We are also continually building new facilities. Land owners and nearby residents are important stakeholders, and they are given the opportunity to express an opinion when Svenska Kraftnät converts or builds new facilities.

## The Government commissions our activities

Svenska Kraftnät's activities are regulated primarily through an instruction and an annual letter of governance that is issued by the Government. In connection with adoption of the national budget, Parliament decides on the framework for Svenska Kraftnät's investments and financial activities. As a public utility and authority Svenska Kraftnät also enjoys a large number of contacts with other authorities.

## A lot of other stakeholders

Above we have only mentioned a small number of all our stakeholders. Examples of others are municipalities, county administrative boards, operators in the natural gas market, the Nord Pool electricity exchange, dam owners, journalists, wind power companies, universities, researchers, students, job applicants, interest organisations, suppliers, voluntary organisations and financial institutions.

# Important operational events during 2008

## January

- Svenska Kraftnät's Board of Directors made a general decision to build the South West Link, an expansion of the Southern Link with a link to Norway. The decision provided an answer to the question of which technology – DC or AC – is to be used in the different parts of the link. An important aim of the South West Link is to remedy bottlenecks in the grid on the Swedish west coast and in links to Southern Norway.

## March

- Mikael Odenberg takes up the post of Director General of Svenska Kraftnät. Mikael Odenberg was Minister for Defence during 2006 and 2007. Among other positions, Mikael Odenberg has previously been both a member and Deputy Chairman of the Standing Committee on Economic Affairs. During his various periods in Parliament he was the Moderate Party's spokesperson for economic policy and energy policy.
- A new plan for expanding the electricity network in the Nordic region – Nordel Grid Master Plan 2008 – was completed. It includes the South West Link. The integrated Nordic planning to strengthen and expand the national grid is unique in Europe. The new plan represents an important new phase for the Nordel countries. Together with the plans that were already in place, the new projects constitute a doubling of investments to 600–700 million Euros per year.
- Svenska Kraftnät's 2008 environmental prize went to two senior lecturers at Chalmers Technical University for their crucial contributions to the development of wind power technology through the creation of a strong, productive research environment. The research has resolved important problems in enabling the expansion of wind farms and integrating wind power into the electricity networks. Their research will make it easier to exploit

this source of energy. Torbjörn Thiringer and Ola Carlson received the award at Svenska Kraftnät's meeting of customers and stakeholders on March 27.

## April

- Svenska Kraftnät submitted a statement of opinion regarding the Energy Network Commission's interim report SOU 2007:99 "Advance review of network tariffs". Points of view were also submitted on the Swedish Energy Agency's final report for the Styrel project 2004–2007, "Prioritisation of electricity consumers in the event of an electricity shortage".
- The Government awarded a concession (permit) for Fenno-Skan 2, a new DC connection between Sweden and Finland. Fenno-Skan 2 will make the Nordic electricity market more integrated. The capacity to transmit electricity between Sweden and Finland will increase by about 40 %. This will enhance operational reliability in the electricity systems and reduce temporary differences in the electricity price between the countries. The connection will also reduce the losses in conjunction with electricity transmission in the Nordic national grids.
- Svenska Kraftnät and its Finnish equivalent, Fingrid, signed a contract with Nexans Norway AS with regard to manufacture and delivery of the DC cable for Fenno-Skan 2. The contract totalled some SEK 1.4 billion. Completion of Fenno-Skan 2 is scheduled for late 2011. It will have an output of 800 megawatts and a total length of 270 kilometres, of which the submarine underwater cable will be 200 kilometres.
- The annual report on the Swedish power balance was submitted to the Government. The forecast for winter 2008/2009 was that the margins in the Swedish system at maximum electricity consumption would improve as electricity generation capacity is expected to increase.

## May

- Svenska Kraftnät set up a new communication department and employed a new head of corporate communications who is part of the parent company's executive body. Svenska Kraftnät's investments in the national grid will increase dramatically in the next few years, simultaneously with a tendency for all major infrastructure projects to be called into question. The parent entity's ability to communicate with the electricity industry's actors such as landowners, municipalities, county administrative boards and other stakeholders will consequently be subject to an entirely different set of demands.
- Svenska Kraftnät submitted a statement of opinion on the report: the Climate Committee's final report "Swedish climate policy", where among other things the parent entity emphasizes that a development of the electricity supply and the electricity system could lead to reduced emissions of greenhouse gases due to the increase in the proportion of renewable energy. Expansions in the electricity network often lead to positive environmental effects globally. It is therefore important not to regard reduced electricity consumption as a primary environmental goal.

## June

- A report on the consequences of a large-scale expansion of wind power was submitted to the Government. It observed that it is not the expansion of wind farms, but the reinforcement of the networks that will set the limit on how much renewable electricity can be introduced. More extensive investments in the national grid will be necessary when wind power exceeds around 10 TWh. The licensing process for new powerlines will be crucial.
- Svenska Kraftnät's Director General Mikael Odenberg and Fingrid Oyj's MD Jukka Ruusunen signed an agreement with ABB on delivery of the converter



stations for Fenno-Skan 2 – the new DC link between Sweden and Finland. The agreement comprises about 110 million Euros or one billion Swedish kronor. Fenno-Skan 2 is a joint project between Svenska Kraftnät and the Finnish national grid company Fingrid Oyj.

- Svenska Kraftnät submitted a statement of opinion on the Environmental Objectives Council's evaluation of Sweden's environmental objectives for 2008 and pointed out the conflicts in objectives between local environmental interests and global environmental objectives. The expansion of renewable electricity generation is taking place in order to address global environmental threats, but the reviews pertaining to the granting of concessions for the necessary powerlines only take local environment interests into account. Increased wind power also results in an increased requirement for regulating power, however new water rights courts are restricting the most important regulating resource, hydroelectric power.

- The procurement of the power reserve for winter 2008/2009 was completed. It comprised a total of 2,000 MW, 300 MW of which constituted a reduction in consumption, i.e. industrial companies that receive compensation for reducing their consumption, the rest was made up of electricity generation.
- Svenska Kraftnät and the Norwegian Statnett explained their joint intention to implement the major national grid project the South West Link. Svenska Kraftnät's Director General Mikael Odenberg and Statnett's group chief executive Odd Håkon Hoelsaeter signed a joint memorandum of understanding in connection with Nordel's annual meeting.
- Svenska Kraftnät signed a contract with Siemens for delivery of two new switching stations that are to be built in Finnböle and Ängsberg south of Gävle. The stations are a part of the investment in reinforcing the national grid in north-east Svealand. The contract is worth a total of about SEK 145 million.

- There should be increased monitoring of dam safety, according to the report "Dam safety development in Sweden in 2007", which Svenska Kraftnät submitted to the Government. The report observes that the Government's initiatives for safety and preparedness for dam failures have been weak. Improved monitoring and clearer regulations must be put in place. It applies in particular to the approximately 25 plants in the country where a dam failure would have far-reaching consequences for life, socially important infrastructure and irreplaceable environmental value. Major investments are being made to reinforce existing dam facilities, however, the pace of development is circumscribed by access to skills.

#### July

- Svenska Kraftnät submitted its final application regarding extended permission for the Kimstad–Sege–Arrie high voltage powerline. The application includes the much discussed route through Södra



The final cohort of linemen during civil service completed their training at Åsbro Training Centre in June 2008, after which training of civil conscripts by Svenska Kraftnät was phased out in accordance with a parliamentary resolution.

Sandby in Skåne. The powerline runs from Östergötland to Skåne and is of major significance for the electricity supply in southern Sweden. The application recommends the powerline's existing design and route through Södra Sandby. The application also describes an alternative route south of Södra Sandby, which is however not recommended as it entails a major encroachment on the landscape and important natural values. The alternative route also entails a substantial increase in price.

### September

- The Norwegian government halts Svenska Kraftnät's and Statnett's plans for creating a joint Swedish-Norwegian system operator.
- Svenska Kraftnät met Latvia's Prime Minister Ivars Godmanis and discussed a new link between Sweden and the Baltic States.

### October

- Svenska Kraftnät's website is given a new appearance. At the same time the website is given a new structure and improved security. It is also designed with the aim of being as easy to navigate as possible.
- Svenska Kraftnät's Board of Directors decided to review the details that were previously submitted to the Government concerning the power balance for the winter 2008/2009. The new calculations revealed that the power balance should be somewhat less than was previously reported. The margin that was stated in the spring report to the Government was reduced from 5,100 MW to 4,000 MW during a normal winter.
- The Board of Directors also decided to temporarily lower the national grid tariff's power fee to SEK 0 for November and December 2008. Svenska Kraftnät's net loss is estimated at SEK 180 million as a result of lowering the tariff. The background to the fee reduction was that congestion revenues in 2008 were estimated to produce a surplus in relation to the estimate in the budget as a consequence of a major, long-time cable disruption in Oslo Fjord.
- The largest ever emergency network operation training exercise in Sweden "Elövning

2008" was implemented in conjunction with E.ON, Fortum and Vattenfall. The exercise was based on a scenario consisting of extensive weather-related disruptions in the country's electricity supply and was an important element in further developing the capacity to deal with severe pressures on society.

### November

- Following a procurement procedure, Svenska Kraftnät selected Statkraft AS as supplier of transmission losses in the national grid for 2010–2011. The losses amount to between 2.5 and 3.2 TWh/year.
- On 1 November, Bliekevare, a 36 MW wind farm in Dorotea municipality, was connected to the national grid at the new Storbäck connection point. It is Svenska Kraftnät's second new connection to the national grid. The first one took place in 2004 when Jämtkraft connected Enafors in order to secure the electricity supply to Åre.
- The Ediel- and settlement conference that Svenska Kraftnät arranges every year was held on 25 and 26 November in Stockholm. As usual the aim was to provide information on new features within Ediel

and the balance settlement that affects actors in the electricity market. 224 people took part in a packed conference.

### December

- On 19 December the European national grid companies with system responsibility, a total of 42 from 34 countries, formed the cooperative body, European Network of Transmission System Operators for Electricity (ENTSO-E). ENTSO-E's objective is to work for reliable and effective Pan-European and regional electricity markets. The organisation will be operational from April 2009. The Nordic TSOs will be part of ENTSO-E and Nordel will consequently be phased out as an organisation during 2009.
- Management teams from Svenska Kraftnät and the Norwegian Statnett met and discussed strategic cooperation in areas including network planning and the Scandinavian end customer market.



The 220 kV cables that will provide a new feed for Uppsala were delivered in November 2008, thereby strengthening the supply to the city.

# **Report of the Board of Directors 2008**

# Operations and structure

## The Svenska Kraftnät public utility

Svenska Kraftnät is a state-owned public utility with the task to administer, operate and develop a cost-effective, reliable and environmentally compatible power transmission system, and selling transmission capacity in a business-like manner. It is the authority with system responsibility for electricity and natural gas, and the authority for electricity contingency planning in accordance with the Power Contingency Act.

Svenska Kraftnät shall

- expand the national transmission grid for electricity based on socio-economic profitability assessments.
- have supervisory responsibility for questions that concern the reliability of the national electricity system.
- work to ensure that the transmission operation can be run with a high level of reliability and availability.
- ensure that Sweden has a satisfactory power supply and that the risk of peak power shortages can be reduced.
- promote competition in the electricity- and natural gas markets.
- promote research, development and demonstration of new technologies that are important for operations.
- have responsibility for contingency planning within the electricity sector during crises or conditions of war.
- work to ensure that the overall resources available within the electricity industry, plus resources from the Swedish Armed Forces and from civil defence activities can be coordinated and combined in the event of severe disruptions to electricity supply in peace time.
- engage in export of services within the public utility's field of operations.
- promote dam safety in the country.
- expand, install and administer lines for electronic communication, primarily in the national grid, and also allocate network capacity in them.

- be the accounting authority in accordance with the Electricity Certificates Act.
- deal with issues concerning guarantees of origin for electricity.
- monitor access to peak load capacity in the Swedish electricity system and regularly provide information about power supply to operators in the market.
- facilitate the expansion of renewable electricity production.

## Governance for the Group

The Government has issued a new Government Agencies Ordinance (2007:515), which applies from 1 January 2008 for all Government authorities including utilities. New instructions for the Svenska Kraftnät public utility (2007:1119) have also come into effect from 1 January 2008. Operations were also regulated for 2008 through the annual letter of governance ratified by the Government.

In connection with the adoption of the national budget for the next financial year, Parliament decides on Svenska Kraftnät's investments and financial operations. The letter of governance, within the 21 Energy expense area, describes the assignments and regulates the scope, conditions and authority for Svenska Kraftnät.

The Government appoints the Board of Directors and the Director General of Svenska Kraftnät. According to section 8 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 the Svenska Kraftnät Group.

From 1 January 2008 a new Ordinance

(2007:603) also applies with regard to internal governance and control for Svenska Kraftnät.

## The Group's structure

During 2008, the Svenska Kraftnät Group consisted of the public utility, four subsidiaries and six associated companies in Sweden and Norway. The largest associated company is Nord Pool ASA with its head office in Oslo, Norway. In December 2007 an agreement was reached on the sale of Nord Pool ASA's clearing- and consultancy operations to OMX AB in Stockholm. The takeover was implemented in October 2008.

## Developments in operations

During the year the Board of Directors has adopted new rules of procedure adapted to the new Agencies Ordinance and the new Ordinance with instructions for Svenska Kraftnät. A special audit committee has been set up within the Board of Directors with the aim of improving the Board's work on internal governance, following-up and control. The organisation of the utility has been refined in that the old management staff organisations have been disbanded and two new departments have come into existence. A communication department has been set up and the important function of internal and external communication has been made part of the executive management. A staff- and coordination department was set up on 1 January 2009 with the aim of controlling overall planning processes such as operational plans, risk- and vulnerability analyses and emergency measures. Global contacts and international operations are also coordinated in this new department.

## Financial goals

The Svenska Kraftnät Group will achieve an average return on adjusted equity, following deduction for tax equivalence, of 6 %. The return on adjusted equity in 2008 was 19.8 (8.9) %, which means that the goal was exceeded.

The debt/equity ratio was 28 (33), which is in line with the goal of a maximum of 55%.

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

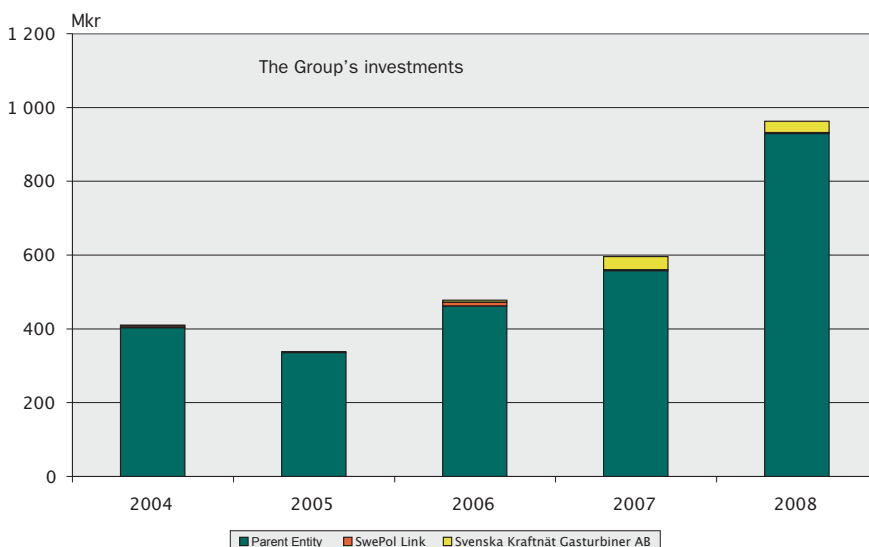
## Investments

Investments made by the Group increased sharply during 2008 and amounted to SEK 963 (596) million. The investments are allocated as follows:

MSEK	2008	2007
<b>Parent entity</b>		
Investments in grid	856	506
Investments in fibre-optic cables	30	15
Other intangible investments	43	36
<b>Total Parent entity</b>	<b>929</b>	<b>557</b>
<b>SwePol Link</b>	<b>2</b>	<b>3</b>
<b>Svenska Kraftnät Gasturbiner AB</b>	<b>32</b>	<b>36</b>
<b>Total</b>	<b>963</b>	<b>596</b>

Svenska Kraftnät's investment volume will increase substantially in the coming years. The start of this trend could be observed during 2007 and during 2008 the annual investment volume approached SEK 1,000 million. It thus entails a considerable increase in the investment volume compared with 2007.

Three large powerline projects that affect Sweden are part of the package of strategic projects that have been developed within Nordel, the Nordic cooperation. These are the South West Link, Fenno-Skan 2 and Järpströmmen-Nea. In addition, the Stockholm Ström project is now in the implementation phase and is starting to consume investment funds. The renewal programmes



for rebuilding switchyards and replacement of earth wires in the national grid are also continuing at the same time.

## Ongoing investment programme

The largest investment project is the South West Link. The investment is estimated to total almost SEK six billion excluding the Norwegian section, and the aim is to reinforce the AC network, increase grid reliability and deal with limitations in transmission capacity to Southern Sweden and between Norway and Sweden. The South West Link is also an important element of the plans for a large-scale expansion of wind power in South and Central Sweden and for the possibility of utilizing the regulating ability in Norwegian hydroelectric power. Costs during the year have amounted to SEK 20 million.

The South West Link will be constructed in three sections with a nodal point outside Nässjö. DC links will be constructed from there to Hörby in Skåne and to the Oslo region in Norway using new technology (HVDC VSC). A new 400 kV AC powerline is being built from Nässjö and northwards to Hallsberg in Närke.

Svenska Kraftnät is building a new DC link between Sweden and Finland (Fenno-Skan 2) together with Fingrid in Finland. The link will run between Rauma in Finland

and Finnböle in Gästrikland and the plan is to put it into operation in November 2011. In addition to the submarine cable, the link includes two new converter stations, 70 km of new 500 kV overhead lines and a new 400 kV switchyard in Gästrikland. Costs during the year amounted to SEK 132 million.

In autumn 2007 the Swedish government granted a concession for a new 400 kV powerline between Järpströmmen in Jämtland and Nea in Norway with an overall length of 100 km. Construction of the new link began during autumn 2008 and it is planned to be operational at the end of 2009. The switchyard in Järpströmmen is simultaneously being rebuilt and the existing 275 kV powerline will subsequently be dismantled. Costs during the year amounted to SEK 141 million.

The aim of the Stockholm Ström project is to improve the electricity supply in the Stockholm area by adding a 400 kV network from Hagby in Upplands Väsby to Ekudden in Västerhaninge. This will form a 400 kV ring around the Stockholm area. The project will enable several corridors of overhead lines to be dismantled so that land can be freed up to facilitate an expansion of green areas and exploit attractive locations. A prerequisite for a large proportion of the sub-projects in Stockholm Ström is that the municipalities involved and other land owners contribute to the financing. During 2008 the expenses amounted to SEK 80 million. Work has proceeded on a number of sub-projects:



On 2 June 2008 Svenska Kraftnät and Fingrid Oyj signed an agreement with ABB regarding the delivery of the two converter stations for the new Fenno-Skan 2 DC link. The agreement comprises 110 million euros.

- Värtan–Lidingö, new 220 kV cable between the station in Värtan and the Koltorp station on Lidingö
- Nacka–Värmdö, new 220 kV cable between Nacka and a new station outside Gustavsberg on Värmdö
- Hagby–Anneberg (Danderyd), a new 400 kV powerline between Hagby and a new station in Danderyd
- Danderyd–Järva, Danderyd–Bergshamra, new 220 kV cables between Danderyd and Värtan and also between Danderyd and Bergshamra
- Hägerstalund–Beckomberga, new 220 kV cable between Hägerstalund and Beckomberga.

Uppsala Ström is a project with the aim, among others, of increasing reliability in the Uppsala area. Implementation of the project commenced during 2006 and it is a collaborative venture between Svenska

Kraftnät, the municipality of Uppsala and Vattenfall Eldistribution AB. Within the shared project Svenska Kraftnät is responsible for a new station outside Uppsala and also for a cable link from this station to the combined heat and power plant where Vattenfall is erecting a new switchyard. Construction of the new station outside Uppsala was completed during 2008 and cable laying has commenced. Costs during the year amounted to SEK 40 million.

After the major disturbance of September 2003, Svenska Kraftnät decided to initiate a reconstruction programme for the 400 kV stations in the national grid. This task is underway and renewal of stations in the vicinity of Oskarshamn and Danderyd commenced during 2008. The rebuilding of three stations west of Sollefteå and one north east of Varberg during 2008 cost SEK 91 and 68 million respectively. The cost of rebuilding the station in Forsmark and the construction of a new station south of Gävle

during 2008 amounted to SEK 33 and 31 million respectively.

During 2005 Svenska Kraftnät commenced a programme to replace the oldest type of earth wires on the powerlines with the aim of raising reliability and personal safety. The work has continued during 2008 on several sections. The costs of replacing earth wires and installation of fibre optic cable during the year amounted to SEK 93 million.

During the year a wind power connection has been put into operation in Jämtland. A major expansion of wind power is expected in Sweden and a large number of enquiries regarding connections of large wind farms are under consideration.

To increase reliability in the supply to the Göteborg area, in connection with the reconstruction of the DC link to Denmark, Svenska Kraftnät decided to build a new 400 kV powerline in the existing corridor for the previous DC powerline between the coast and Stenkullen, east of Göteborg. The concession has not yet been granted, and work on permit issues has been proceeding during 2008.

The subsidiary Svenska Kraftnät Gasturbiner AB has carried out replacement of control equipment in the gas turbine plants at a cost of SEK 27 million.

## Operating revenue and income for the year

The Svenska Kraftnät Group's operating revenue increased by 22 % to SEK 7,717 million during 2008 compared with SEK 6,326 million in 2007. Operating revenue has been substantially affected by the higher revenues within system responsibility for electricity, where the sale of balance power was SEK 1,290 million higher than last year due to the higher electricity price. The electricity price was 75 % higher on average during 2008 compared with last year.

Congestion revenues increased considerably during the spring and early summer compared with last year. Congestion revenues were excessive at the start of the year partly depending on the good supply of water in South Norway and partly due to damaged cables in Oslo Fjord

in Norway that has reduced transmission capacity between Sweden and Norway since April. This means that there has been a substantial interest in exporting to Sweden and onward to other countries, above the transmission capacity of the interconnectors. The price area method was used to deal with the restrictions in the transmissions, leading to congestion revenues for the Nordic TSO companies where allocation takes place according to a common distribution quota. In total congestion revenues amounted to SEK 820 (641) million.

Operating expenses amounted to SEK 6,913 (5,531) million. Expenses for purchase of loss power during the year increased by SEK 109 million to 871 million due to higher transmission levels from northern Sweden on the national grid compared with last year. The costs for purchase of balance power rose substantially during the period by SEK 1,221 million due to the higher electricity price.

The associated company Nord Pool ASA disposed of its clearing and consultancy

operations, as well as its share holding in the German electricity exchange EEX during 2008. The share in profits from associated companies has thereby increased substantially to SEK 1,069 million compared with SEK 69 million in 2007.

Group operating income amounted to SEK 1,873 million, which is SEK 1,009 million higher than in 2007. The operating margin for the Group was 24.3 %, which is 10.6 percentage points higher than last year.

Net financial income/expense for 2008 amounted to SEK -67 million, which is an improvement of SEK 60 million in comparison with last year. Last year a provision of SEK 66 million was made for indexation of the parent entity's pension liability in accordance with new security grounds determined by the National Government Employee Pensions Board.

Net income for the year amounted to SEK 1,803 (732) million. The net profit margin with a deduction for standard tax amounted to 16.8 %, which is an increase of 8.5 percentage points compared with last year.

## Financing

The parent entity finances its operations with equity and loans in the National Debt Office. At the end of 2008, loans amounted to SEK 573 (471) million and liquid funds to SEK 77 (28) million. Svenska Kraftnät has a variable loan parameter with the National Debt Office that can be utilised up to SEK 1,500 million.

Since February 2007 the subsidiary SwePol Link AB has had a loan at Handelsbanken of SEK 1,145 (1,243) million. The National Debt Office has issued a maximum guarantee for the loan of SEK 150 million.

At year end borrowing in Svenska Kraftnät Gasturbiner AB amounted to SEK 157 million. Financing takes place within the Group.

The Group's liquid funds amounted to SEK 104 (51) million and the interest-bearing borrowing requirements to SEK 1,621 (1,616) million.



The work of building the Swedish part of the new 400 kV powerline between Järpströmmen and Nea started during the latter part of 2008. A large proportion of the material was flown in by helicopter.

# Business segments

The Government divides Svenska Kraftnät's operations into the political areas, Business segments and Lines of business, presented below. At the request of the auditors, operations carried out are reported in this chapter according to business segment. However, no specific reporting requirements for the business segments' emergency management and operational capacity are indicated in the utility's letter of governance.

Political area	Operations area	Business segment
Energy policy	Energy market policy	Electricity market Telecommunications
	Other energy market policy	Natural gas market
Civil emergency planning	Emergency management ability	Emergency management ability
	Operational ability	Operational ability
	Ability to withstand serious disturbances to activities that are important to society	Ability to withstand serious disturbances to activities that are important to society

## Electricity market

The Electricity market business segment is divided into three Lines of business that are monitored financially– Transmission on the national grid, System responsibility and Electricity certificates.

### Transmission on the national grid

The line of business Transmission on the national grid comprises the construction,

maintenance and operation of the national grid in Sweden, which consists of 220 kV and 400 kV lines with stations and foreign links administered by Svenska Kraftnät, including SwePol Link.

Svenska Kraftnät's network customers – i.e. owners of large electricity generation facilities connected to the national grid, regional networks and consumption facilities– are billed for their access to and utilization of the national grid in accordance with a pre-set tariff.

A point of connection tariff is applied on the national grid for physically connected customer facilities. The tariff consists of a power component and an energy component. The power component is based on the power that the customer subscribes to on an annual basis for input and outtake at each connection point. The input fee is lowest in the south and increases linearly with the latitude to its highest value in the north. The reverse applies for the outtake fee.

The energy component is based on the transmission losses in the national grid that are occasioned by supply and extraction at the individual connection points. Increased losses entail payment and reduced losses entail an equivalent crediting.

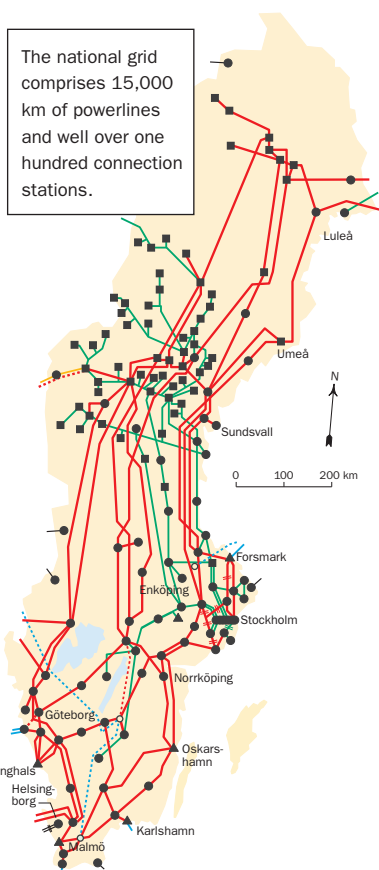
The tariff for 2008 was unchanged compared with 2007. The power fees are being raised by 23 % for 2009, which represents an overall increase in the total tariff of about 10 %.

Other income centres are congestion revenues and transit compensations. Congestion revenues are generated when the Nordic

market is divided into different price areas due to shortage of capacity. The revenues are used for investments to increase capacity and thereby reduce limitations. Transit compensations consists of reimbursement for the cost of electricity flowing through the national grid with its points of origin in other countries.

The grid fees generated SEK 2,186 (2,332) million. Of these, the power fees accounted for approximately 41 (45) % and the energy fees for some 59 (55) %. Congestion revenues increased markedly during the year compared with last year. The principle cause was a major, long-term cable fault in Oslo Fjord. Svenska Kraftnät's Board of Directors therefore decided to compensate for this increase in revenue by charging the grid customers no power fee for November and December.

During the year transmission was 112.2 (117.3) TWh. The decrease was primarily due to lower consumption during the latter



Network revenue (MSEK)	2008	2007
<b>National grid fees</b>		
Power fees	894	1 061
Energy fees	1 292	1 271
<b>Total</b>	<b>2 186</b>	<b>2 332</b>
Congestion revenue	820	641
Transit revenue	168	112
Transmission on SwePol Link	248	246
Other network revenue	56	46
<b>Grand total</b>	<b>3 478</b>	<b>3 377</b>



half of the year. The damage to the cable in Oslo Fjord resulted in reduced imports from South Norway.

<b>Transmission on the national grid</b>	<b>2008</b>	<b>2007</b>
Energy fed into the national grid, TWh	115.0	120.5
Energy extracted from the national grid, TWh	112.1	117.7
Max. power outage, MWh/h (hour with highest power extracted)	18 979	18 528

The input subscription increased somewhat while the extract subscription remained at the same level as 2007. Two customers were added, one of which was in conjunction with the connection of a new wind farm. This makes the number of customers connected to the national grid 23 (21)

<b>Power subscriptions for the national grid</b>	<b>2008</b>	<b>2007</b>
Input subscription, MW	20 476	20 340
Extract subscription, MW	21 343	21 367
Number of customers	23	21

Transmission losses on the national grid amounted to 2.9 (2.8) TWh, which was in line with last year despite the decrease in transmission. Less nuclear power generation in combination with reduced possibilities of importing from South Norway were compensated by increased hydro-power generation in the north, which led to greater transmission distances and thereby proportionally higher losses.

<b>Transmission losses on the national grid</b>	<b>2008</b>	<b>2007</b>
Energy losses, TWh	2.9	2.8
Percentage of extracted energy, %	2.5	2.4
Maximum power losses, MWh/h (hour with highest energy losses)	734	634

Operating income for transmission on the national grid amounted to SEK 822 (791) million. Operating revenue increased by SEK 107 million compared with last year. The higher operating income is due to

rising congestion revenue, which amounted to SEK 820 (641) million during 2008. A temporary decrease in the power fee in November and December reduced revenues by SEK 180 million. Transit revenues increased during 2008 by SEK 56 million

<b>Income statement – Transmission on the national grid</b>		
<b>MSEK</b>	<b>2008</b>	<b>2007</b>
Operating revenue	3 516	3 409
Operating expenses	-2 694	-2 618
<b>Operating income</b>	<b>822</b>	<b>791</b>

Operating expenses increased by SEK 76 million compared with 2007, which is primarily due to higher costs for the purchase of loss power and transit, and also maintenance.

The operating margin for the business segment amounted to 23.4 %, which is 0.2

<b>Operational disturbances</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>	<b>2005</b>	<b>2004</b>
Operational disturbances on the grid, no.	157	150	181	251	187
Ditto with power failure, no.	9	5	15	22	10
Non-supplied energy, MWh	3	13	95	4	25

### System responsibility–electricity

According to the Electricity Act, system responsibility for electricity entails Svenska Kraftnät ensuring that plants interact reliably in combination and that there is a balance between production and consumption of electricity.

Ensuring that plants interact reliably is achieved primarily through rules and requirements in connection agreements, and regulations for network and production facilities. The volume of revenues and expenses for system responsibility are assigned in relation to the management of the balance between production and consumption of electricity. This is dealt with by Svenska Kraftnät's Balance Service, which is manned round the clock.

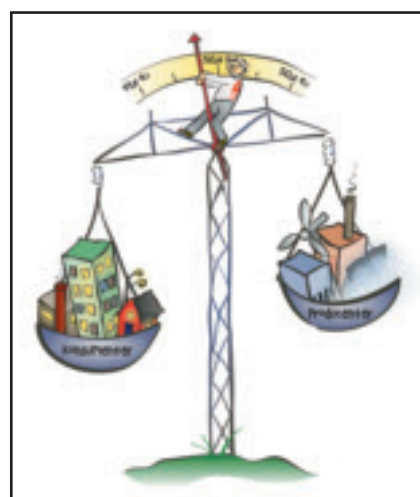
An important part of the balance regulation is the approximately 30 balance providers that have signed agreements with Svenska Kraftnät regarding balance responsibility. The companies have undertaken to plan their input of electricity (generation and purchase) and their extraction (consumption and sale) for each hour so that they balance each other. Svenska Kraftnät then conducts a balance settlement, or in other words

percentage points higher than the equivalent period in 2007.

Svenska Kraftnät's principal goal is a high level of reliability in the Network operation. Reliability performance has been good during 2008. There were 157 (150) operational disturbances in the grid, 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 it has not been possible to deal with successfully have only resulted in small volumes of energy not being supplied.

Nine disturbances led to power failures for subscribers. The volume of energy that was not supplied amounted to 3 (13) MWh. The number of operational disturbances in the national grid over a five year period is set out below.

performs a financial settlement of the imbalances that have arisen when the measured values for production and consumption are reported. A company that one hour reports a deficit, buys the electricity (balance power) that is required to achieve a balance from Svenska Kraftnät. Correspondingly, companies that have a surplus sell electricity to Svenska Kraftnät. The price of the electricity



An important aspect of Svenska Kraftnät's system responsibility for electricity is ensuring that the frequency is maintained at a constant of close to 50 Hz.



System responsibility for electricity includes ensuring that a balance is maintained between generation and demand of electricity in the Swedish electricity system. Svenska Kraftnät's Balance Service attends to the task.

that is bought or sold is the hourly rate on the electricity spot market with a surcharge for expenses that Svenska Kraftnät has incurred in starting or stopping production, the so-called upwards-/downwards regulating price. The difference between purchased and sold balance power in the public utility amounted to SEK 241 (213) million. The difference arises as the power sold always has the same or a higher price than the power bought.

To balance the power system physically there are automatic reserves (so-called primary regulation) that increase the production when the frequency falls and decreases it when the frequency rises. The automatic reserves are chiefly located at producers with hydro-electric power production and are procured on a weekly and daily basis. To maintain the frequency within given limits the balance service activates upwards- or downwards regulation based on a list of bids from producers that have the potential to start or stop production. Svenska Kraftnät also collaborates with the national grid companies in our neighbouring Nordic countries in order to always regulate the balance where it can take place at the lowest price. A similar settlement takes place between the Nordic national grid companies as between Svenska Kraftnät and the balance providers. Disturbance Reserves, primarily in the form of gas turbines, are in place to deal with major disturbances to the electricity balance, for example if a large production facility is shut down due to failure. Svenska Kraftnät has access to these via agreements.

According to the Power Reserve Act,

Svenska Kraftnät shall be responsible for ensuring that capacity reserve of at most 2,000 MW is available during the winter. The reserve contributes to managing electricity supply even during extreme situations that can arise in extremely cold weather conditions. During the 2007/2008 winter the capacity reserve amounted to 1,998 MW. The capacity reserve is financed by a special fee that is paid by the balance providers. The cost of the capacity reserve to the Group during the year amounted to SEK 97 (129) million.

The financial result for the business segment concerned with System Responsibility for electricity was:

<b>Income statement – System responsibility for electricity</b>		
<b>MSEK</b>	<b>2008</b>	<b>2007</b>
Operating revenue	3 806	2 531
Operating expenses	-3 877	-2 569
<b>Operating income</b>	<b>-71</b>	<b>-38</b>

Operating revenue increased by SEK 1,275 million or 50 % compared with 2007 and amounted to SEK 3,806 (2,531) million. Revenues for sold balance power increased by SEK 1,290 million compared with last year, which is mainly due to the higher price of electricity during the year.

Revenues from the companies with balance responsibility for the capacity reserve amounted to SEK 111 (126) million. These revenues are accounted during the winter months. The costs of the capacity reserve arise during the winter months as the

agreements with suppliers are for one year.

Operating income amounted to SEK -71 (-38) million. The inferior result in 2008 is primarily due to higher expenses for primary regulation of SEK 112 million. The operating margin was -1.9 %, which is a deterioration of 0.4 percentage points compared with last year.

The financial result should be assessed as an average over a period of several years. Further information is available in note 8.

### **Renewable electricity certificates**

Sweden introduced an electricity certificates system in 2003 to promote renewable electricity generation. The law 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 and electricity consumers, who are bound to purchase electricity certificates corresponding to a certain proportion of their sales and consumption respectively.

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

Svenska Kraftnät issued 14.9 (13.2) million electricity certificates during 2008. Some 29 million electricity certificates were put into circulation during the year at an average price of about SEK 247 per certificate. Since the introduction of the system some 68 million certificates have been issued.

Wind power is the type of production entitled to certificates that has enjoyed the highest percentage increase during the year. It has gone from a share of 10.8 % in 2007 to 13.3 % in 2008. Electricity generated from biofuels has accounted for 69.3 % of production entitled to certification and hydro power for 17.4 %.

<b>Income statement – Renewable electricity certificates</b>		
<b>MSEK</b>	<b>2008</b>	<b>2007</b>
Operating revenue	10	10
Operating expenses	-5	-3
<b>Operating income</b>	<b>5</b>	<b>7</b>

Operating revenue for 2008 amounted to SEK 10 (10) million. Operating income amounted to SEK 5 (7) million.



The Aristo power system simulator is being continually developed. It is used to both provide training for systems operators and to analyse the power system and different operating situations.

The Government has decided to reduce the fee for 2009.

### Ongoing R&D activities

The aim of Svenska Kraftnät's research and development operation is to make the national grid and system responsibility operations even better with respect to reliability, efficiency and environmental compatibility. Development of knowledge and expertise in collaboration with universities is also a prioritised area.

Research and development is also supported within the area of dam safety, as well as risk and vulnerability issues for the power system. Svenska Kraftnät often undertakes research and development in collaboration with companies in the industry via the jointly owned Elforsk AB.

Svenska Kraftnät is also joint owner of the development company Stri AB in Ludvika. Other co-owners are ABB, Statnett and Vattenfall AB. Research and development projects are often carried out in collaboration with the co-owners. In addition a number of joint projects are underway with the Nordic national grid companies.

Some of the projects that were conducted during 2008 are described below:

- A study was made of methods for non-contact temperature monitoring of isolating switches.
- Further development of power system models for Svenska Kraftnät's power system simulator, Aristo. Besides being used in operator training, the

power system simulator is also used for operational analysis and power system studies.

- Nordic network for knowledge and research on phasor measurement units (PMU). This new technology can deliver better information on the Nordic network's dynamics, and in the longer term provide a means of control for the networks.
- The Nordic project to exchange measurement values in real time using time stamping is continuing. There are a number of interesting applications that will increase operational reliability and facilitate better use of the capacity in our common Nordic power system.
- New techniques for better assessment of status and risk of disturbances due to tall trees in powerline corridors, via two different techniques. The first one uses advanced measuring techniques with lasers. The second method is based on three dimensional photography combined with advanced computerised interpretation. The goal is to introduce the option that is most appropriate for our maintenance operation.
- Support for the universities' Elektra research programme has been provided for many years. The agreement has been extended until 2012.
- Support for Vindforsk has been provided for many years. The agreement has been extended until 2012. The principle focus is on the impact of wind power on the network.

- Dam safety is an important field in the Hydraulic Engineering field of expertise. The safe administration of the country's aging dams requires sound knowledge and expertise within areas such as hydrology, hydraulics and dam construction technology. With objectives including guaranteeing the provision of engineering skills within the area of dam safety, Svenska Kraftnät is supporting activities at the Swedish Hydro Power Centre. In addition support is being provided for a number of R&D projects within the area of dam safety.

During 2008, Svenska Kraftnät utilised SEK 32 (29) million for research and development within grid operations, including dam safety and contingency activities.

### Nordic and European cooperation

During 2008 Svenska Kraftnät has continued actively participating in the development of the Nordic and European energy markets. This has been conducted through the organisations for cooperation between the companies with system responsibility for electricity (ETSO<sup>1</sup>) and gas (GIE<sup>2</sup>) in Europe, but also within the so-called regional initiative for Northern Europe (i.e. the

<sup>1</sup> European Transmission System Operators  
<sup>2</sup> Gas Infrastructure Europe

Nordic countries, the Baltic States, Germany and Poland), which is operated by the supervisory agencies, and within Nordel.

#### *The Commission's third energy package*

Arising from the EU Commission's "Strategic Energy Review" of January 2007 which contains targets for both the environment and the energy markets, a third package for supplementing the internal markets for electricity and gas was proposed on 19 September 2007. This has been a feature of the discussions during 2008 and the EU Commission is proposing:

- that the directives for the electricity and gas markets, along with the attendant Ordinances, are adjusted in order to improve the market and increase security of supply.
- that the national supervisory agencies be strengthened, and also that a new European agency (ACER<sup>3</sup>) is set up to improve their cooperation.
- that the cooperation between transmission system operators (TSOs) must be reinforced through a new European body ENTSO<sup>4</sup>, that will replace the current organisations ETSO, UCTE, Nordel and others. ENTSO will develop commercial and technical guidelines, and also coordinate national grid operations and expansion planning. The work will largely be carried out regionally.
- to effectively separate, (unbundle), production/sales from the national grids, in the first instance by differentiating between the ownership (the TSO model<sup>5</sup>, i.e. ownership, expansion planning and operation of the networks in the same company). Another option that can be accepted is an independent system operator (ISO<sup>6</sup>) for expansion planning and operating networks and markets, and separate companies that own the actual networks.

During the first part of 2008 the discussion, including the initial discussions in the European Parliament, has been dominated by the unbundling issue. Several variants of the ISO solution have been launched. There were also advocates in the Nordic region for a regional ISO solution, however the Nordic energy ministers dismissed the ideas for a Nordic ISO at their meeting in Umeå in September.

During 2008 the EU has prioritised the environmental section of the Strategic En-

ergy Review over the 3<sup>rd</sup> package for energy, but there now seems to be willingness to compromise so that a revised 3<sup>rd</sup> package can be accepted by both the Parliament and the Council before the summer 2009.

#### *Cooperation within ETSO*

During 2008 ETSO has continued to work with the other European organisations for transmission system operators (UCTE, Nordel and others) in order to voluntarily set up ENTSO for electricity (ENTSO-E) and work in the spirit of the third package before it is officially accepted. In Brussels on 19 December 2008, 42 European national grid companies from 34 countries signed the association's regulations and elected a president, board of directors and chairperson in the three committees to work with system development, system operation and electricity market issues.

Otherwise ETSO has continued to work to find an acceptable permanent solution for transit compensation, which can replace the temporary voluntary agreement that applies until the end of 2009.

In conjunction with Europex<sup>7</sup>, ETSO has implemented a joint project on coordinated congestion management in Europe. Their report was presented at this year's Florence forum at the end of November where continued cooperation was launched with ERGEG<sup>8</sup> as chair and, in which EFET<sup>9</sup> and Eurelectric will also participate in addition to ETSO and Europex.

The work of increasing transparency in the electricity market is also continuing. The information platform ETSO Vista ([www.etsovista.org](http://www.etsovista.org)), which was launched in 2007, has been further developed during 2008.

#### *The high level of cooperation among the Nordic countries is continuing*

Cooperation within Nordel has continued during 2008 even though a lot of work has been put into setting up ENTSO-E.

At the start of the year Nordel presented its second system development plan with proposals for investments in connections that are important for the Nordic market. The five projects in Nordel's first system development plan are now in the process of being realised with the commissioning of the Nea-Järpströmmen powerline between Norway and Sweden during 2009 as the first project.

Harmonisation of products and services within the regulation power market has been

decided during the year. This means that trade in system services can be developed and monitoring of the operators' actions on the spot market and regulation power market can be facilitated.

Joint measures to ensure improved frequency control in the Nordic region have been decided during the year. Better frequency control delivers increased operational reliability.

Similar management of capacity reserves in Sweden and Finland has been decided during the year. The changed method is based on Nordel's guidelines from 2007 and entails activating resources in the power reserves, that are to be used during cold winter days, on the spot market instead of within the market for regulating power. The new arrangement delivers increased transparency and minimal impact on the market. The change will be implemented in mid-January 2009.

The harmonisation of balance management within the Nordic region that had previously been decided will be introduced from January 2009. The change is an important step towards a common Nordic end customer market.

#### *Market coupling links together national electricity markets*

Development in Europe towards so-called market coupling has continued during 2008. Market coupling means that the power exchanges and transmission system operators in different countries collaborate to create a more effective common electricity market, by trading in electricity and transmission

<sup>3</sup> Agency for Cooperation of Energy Regulators

<sup>4</sup> The working name for European Network of Transmission System Operators

<sup>5</sup> Transmission System Operator

<sup>6</sup> Independent System Operator

<sup>7</sup> Organisation for the European power exchanges

<sup>8</sup> European Regulators' Group for Electricity and Gas. ERGEG is appointed by the EU Commission as an advisory group of supervisory agencies for energy

<sup>9</sup> European Federation of Electricity Traders

<sup>10</sup> European Market Coupling Company

capacity simultaneously. Previously, market coupling or market division has been applied within Nord Pool's market area and, since November 2006, between France, Belgium and the Netherlands.

A new market coupling project between Germany and Denmark, which started on September 29, 2008 through the company EMCC<sup>10</sup>, had to be suspended after a few days as a result of problems involving price calculations. EMCC is owned by the involved TSOs and power exchanges. It is hoped that it will be possible to start again during the first quarter of 2009. When this market coupling project is working well, there are also plans for the Swedish-German link, Baltic Cable, to join.

A new cable, NorNed, was put into operation in early 2008 between Norway and the Netherlands. For the moment, trading capacity is sold through a conventional auction that takes place before the electricity prices are set, but the intention is to introduce market coupling as soon as possible. However, plans to start on 1 January 2009 in conjunction with EMCC have been delayed.

#### *The Baltic States are a new prioritised focus area in Europe*

Svenska Kraftnät is active within a number of current investigations into how the Baltic Sea region infrastructure and electricity market can be developed. Work started during the year, firstly within a regional group, then within ETSO and finally by the EU Commission. Focus is dependence on Russia for energy, closing of the Ignalina nuclear power station in Lithuania and the need for new connections, among others from the Baltic States to the Nordic region and Poland.

#### **Renewable electricity production**

To facilitate connection of new electricity production, wind power for example, to the national grid, Svenska Kraftnät during the year decided to permit some overbooking of capacity on so-called radial power lines. Existing radial power lines are currently primarily used for transmission of hydroelectric power. Over-subscription in the operating phase will be dealt with by Svenska Kraftnät engaging in counter trading on occasions when the capacity of the powerlines would otherwise be exceeded. In practice it means that Svenska Kraftnät comes to an agreement with hydro-electric power producers to reduce their production on these occasions.

The principle of over-subscription should be an economically beneficial solution for wind power producers as it allows for increased utilization of power lines before reinforcements become necessary.

In its letter of governance for 2008 Svenska Kraftnät was commissioned to illustrate the consequences of a large-scale expansion of wind power for the national grid and the need for regulating power and also to propose measures to enable a large-scale expansion of wind power. In addition the socio-economic and budgetary consequences of the proposed measures were to be set out. A report (ref: 617/2008/AN40) was submitted to the Government on 1 June 2008. The measures proposed in the report would, if realised, facilitate the expansion of renewable electricity production, primarily wind power. Examples of proposals are to develop possibilities for the consumption side to take part in balance regulation and to review the permit process for new powerlines with a view to speeding it up.

#### *Connection of wind power*

An extensive expansion of wind power in Sweden will lead to a gradually increasing number of enquiries regarding connection of new electricity generation facilities to the national grid. To make it easier for developers and network companies, during autumn 2008 Svenska Kraftnät has started to draw up a guide for such connections. The guide is not legally binding, but has the aim of providing different actors with information on how Svenska Kraftnät assesses and deals with enquiries regarding connecting wind power to the national grid. The objective is that the document will be ready during the first quarter of 2009 and published on Svenska Kraftnät's website.

During 2008 Svenska Kraftnät has connected the Bliekevare wind farm to the national grid. Bliekevare is located some 60 km northwest of Dorotea in the south west of Västerbotten. The facility consists of 18 wind turbines with a capacity of 2 MW each. During the year Svenska Kraftnät's 220 kV switchyard in Olden in Jämtland has also been prepared to enable connection of the Storrån wind farm. Storrån's wind power project is located 150 km north west of Östersund, in the municipality of Krokum. The twelve wind turbines of 2.5 MW each will be located in a mountain environment.



In a report submitted to the Government in June 2008 Svenska Kraftnät illustrates the consequences that a large-scale expansion of wind power will have for the national grid. In the report Svenska Kraftnät proposes a number of measures to facilitate the expansion of renewable electricity generation.

#### *External working groups*

During the year Svenska Kraftnät has participated actively in a number of working groups and studies related to wind power. Svenska Kraftnät has been part of Swedenenergy's AG Wind power working group and has also had a place on Vindforsk's board. Vindforsk is a jointly-funded programme for basic and applied research into wind power.

A number of companies with system responsibility in Europe, including Svenska Kraftnät, have jointly taken the initiative for a wind power study under the name of EWIS (European Wind Integration Study). The aim of the study is to assess the consequences that a large-scale expansion of wind power would have on the European power system and also to propose suitable measures to deal with any problems that might arise. A final report will be completed in autumn 2009.

A forum for cooperation and coordination of wind power issues has been initiated by Svenska Kraftnät, the regional network companies E.ON, Vattenfall and Fortum, and Swedenenergy. The working groups will report to the Planning Council that is affiliated to Svenska Kraftnät.

## Telecommunications

Svenska Kraftnät has constructed a nationwide telecommunications network to monitor and control the national grid, extending from Malmö in the south up to the Norwegian border just south of Narvik in the north.

During the last 15 years Svenska Kraftnät has expanded its fibre-optic network in the earth wires of powerlines and at present it consists of some 6,700 km of its own fibre-optic cables and some 2,500 km of fibre-optic cables leased from other network operators.

The fibre-optic network constitutes the platform for Svenska Kraftnät's nationwide telecom network and using modern telecommunications equipment it delivers a high level of operational reliability and transmission capacity. Among other things, the telecom network is an important element in the restoration function necessary after major disturbances in the country's electricity system. To guarantee a high level of reliability the telecom network is equipped, among other things, with a back-up system in the form of batteries and diesel generators. Telecom traffic is being successively shifted from older technologies such as radio link and carrier frequency to the more modern fibre-optic network. This is taking place as the extension of the fibre-optic network progresses, and there are currently only a few older sections left. Together with leased connections and the older technology that remains, Svenska Kraftnät's own fibre-optic network goes by the overall name of the Operational Telecom Network, DTN.

The high capacity in the telecom network enables Svenska Kraftnät to lease network capacity to external customers. Svenska Kraftnät leases out black fibre (optical fibre without physical terminus equipment) to, for example, telecom operators. Furthermore, active connections are leased out in the form of capacity to energy companies for their operational communication.

During 2008 the fibre-optic network has been installed from Långbjörn to the wind farm in Bliekevare and onward up to Stalon in Västerbotten, as well as the Ligga – Seitevare section in Norrbotten and Ritsem alongside Stora Sjöfallet up to Ofoten in North Norway.

Svenska Kraftnät has also decided to introduce wavelength technology (DWDM)



in the Operational Telecom Network in order to meet the requirement for a higher transmission capacity. The new technology will also give Svenska Kraftnät greater flexibility in being able to make changes in the telecom network without disrupting communications for operating and monitoring the national grid.

Operating income consists of revenues from external customers for leasing black fibre and active connections, leasing antenna locations primarily to mobile phone operators, and internal revenues (calculated according to a standard) from the line of business, Transmission on the national grid.

Revenue earned on commercial fibre-optic operations amounted to 61 (62) million and operating income was SEK 40 (35) million. The improved results in comparison with last year are primarily due to a new agreement between Telecommunications and Transmission on the national grid. With a calculated interest of 7 % on employed capi-

tal, the operating income for the financial year was SEK 29 (21) million. Investments within fibre-optic operations for the year amounted to SEK 30 (15) million.

Within the Telecommunications segment, Svenska Kraftnät has additional external revenues amounting to SEK 9 (9) million from leasing of data networks, telephone networks and antenna space.

Total revenue for Telecommunications was SEK 124 (103) million. Included in this is SEK 54 (32) million in internal revenues from the Transmission on the grid business segment. Operating income amounted to SEK 46 (30) million.

Income statement – Telecommunications		
MSEK	2008	2007
Operating revenue	124	103
Operating expenses	-78	-73
<b>Operating income</b>	<b>46</b>	<b>30</b>

## The natural gas market

Svenska Kraftnät has had system responsibility for natural gas in Sweden since 1 July 2005. Among other things, this means that it is Svenska Kraftnät's responsibility that there is a balance between the feed-in and the consumption of natural gas in Sweden. The gas lines are owned by external companies and there are five balance providers.

Operating revenue for 2008 was SEK 54 (41) million. Due to a change in the agreement with the balance providers and

also as a consequence of the network owners' reporting of metered data, trade has increased between Svenska Kraftnät and the balance providers. This has led to increased revenues and expenses compared with 2007. The business segments' expenses amounted to SEK 52 (36) million. Operating income fell somewhat to SEK 2 (5) million.

A new system operation agreement has been concluded with Energinet.dk that regulates gas trading between Sweden and Denmark.



The natural gas network in Sweden. (High pressure pipelines.)

### Income statement – Natural gas

MSEK	2008	2007
Operating revenue	54	41
Operating expenses	-52	-36
<b>Operating income</b>	<b>2</b>	<b>5</b>

## Emergency management ability

Through its ordinary operational activities Svenska Kraftnät is prepared around-the-clock to immediately take necessary measures to maintain the electricity system's reliability and to initiate repair operations if the national grid's facilities have been damaged. This is also the basis for otherwise rapidly commencing effective emergency management inputs with the necessary decision-making authority. A review of emergency management plans and procedures is underway.

In November the authority submitted the following reports (ref: 1299/2008/BE10) to the Government

- Risk- and vulnerability analysis 2008 according to the provisions in paragraph 9, third section of the Ordinance on Emergency Planning and Heightened State of Alert.
- Report as per the letter of governance and Government decision of 18-06-2008 (Fö2008/1937/SSK) of measures implemented and evaluation of capacity to deal with and withstand civil emergencies.
- Report as per the letter of governance detailing measures financed over the grant for the sixth expense area, 7:5 Emergency Management Grant.

Finally, Svenska Kraftnät submitted a separate report on the same occasion (ref



The emergency network operation training exercise "Elövning 2008" – a scenario has to be dealt with. Svenska Kraftnät implemented the exercise in conjunction with several large electricity companies, among others, with the aim of improving the capacity of the participating organisations to lead and make decisions in emergency situations.

801/2008/BE00) to the Emergency Management Authority evaluating the ability of the authority to deal with three different emergency scenarios.

Svenska Kraftnät has access to back-up management locations that have back-up power as well as the necessary communications. The back-up locations will be supplemented with all the support systems required for long-term viability.

Svenska Kraftnät has carried out an emergency network operation training exercise ("Elövning 2008") in conjunction with E.ON, Fortum and Vattenfall, among others. The exercise is based on a scenario where the companies' crisis management organisa-

tion and procedures etc. have been tested in relation to highly extensive disruption. The exercise has improved the companies' management and decision-making capacity.

Susie, the reporting and situation assessment system has been overhauled. The system, which conveys information about electricity failures and the state of damage, has continued to be upgraded and authorities in Nordic neighbouring countries have also been affiliated as observers. The development of a new version of the system has commenced. The measures improve the possibilities of appropriating resources as well as streamlining repair inputs.

Svenska Kraftnät has cooperated with

authorities and organisations involved in the Technical Infrastructure cooperation area. Examples of cooperation with the industry are participation in meetings and the production of a risk analysis tool.

During the year Svenska Kraftnät has taken part in a construction project together with the National Post and Telecom Agency (PTS). The collaboration with PTS has continued in order to develop cooperation between electricity- and telecom operators. Staff from Svenska Kraftnät have also participated in the preparations for

PTS's exercise for telecom operators 2009.

By the end of the year around 300 people from the electricity industry and from Svenska Kraftnät will have completed training in crisis management together with staff from telecom operators. Four power companies will have completed crisis management training internally in the company. Planning of a management training exercise ("Samvete 09") is also underway focusing on emergency communication. The exercises have been implemented with Svenska Kraftnät's assistance within Swedenergy's cooperation structure

between the electricity network companies, named Elsamverksledning (ESL).

Resources from the Swedish Armed Forces can be coordinated and combined according to an agreement between the Armed Forces and Svenska Kraftnät, which is responsible for coordinating the electricity industry's needs and contacts with the Armed Forces.

Svenska Kraftnät has also participated in the Ministry of Defence's consultative group for civil international operations as well as in the NordSecurEl project.

## Operational ability

Operational management staff within Svenska Kraftnät and other companies in the industry have been trained and have conducted exercises in dealing with disturbances in the electricity system. In particular the ability to restore the electricity system's functionality after an extensive power failure has been further developed through training with the support of advanced simulator tools.

The task of ensuring communications for remote control of the power system and operational cooperation between control rooms for the operators in the electricity industry can function during a restoration of operations after a widespread, extended

period without power. Special analyses of technical and logistical chains of dependence have been implemented. The operational telephone network has been maintained and a number of additional control centres have been reinforced in terms of communications.

In conjunction with companies in the industry Svenska Kraftnät has participated in producing an "introduction study" for connection to Raket, the common radio communication system. Acquisition of Raket for Svenska Kraftnät's own organisation will commence during 2009.

Eight mobile command and communication units (MOLOS) have been produced and developing them is in progress. The units have been positioned and administered

by other companies in the industry which act as "hosts" and also administer stored communication equipment.

Additional emergency pylons for the regional network, which can be rapidly erected, along with material and equipment for this has been procured and stored. A mobile back-up facility (distribution switchyard) intended for large urban areas and a back-up power plant have been procured. A computer-based storage system for emergency equipment is operational and stored material and equipment is under management.

Within the framework of participation in NordBER, aspects of Nordic cooperation have continued to be developed with respect to, among other things, mutual resources support in the form of material and personnel. The potential for mutual assistance has been reinforced and practiced (exercise "Elövning 2008") in that equipment and checklists have been produced, contact routes tested and any formal obstructions there might be have been surveyed. A common memorandum of understanding is being compiled with respect to mutual support.

During the first six months 19 conscripts have received basic training in repairing powerlines, 8 in repairing switchyards and 15 as power plant operators. The training has subsequently been phased out.

Staff employed in companies in the industry, contractors and voluntary conscripts have been trained in order to reinforce the ability to carry out repairs at higher voltage levels in the networks.

Voluntary organisations' personnel have been trained as drivers of tracked vehicles,



Svenska Kraftnät has produced eight mobile command and communication units – Molos – that are under continuous development.



command and communication operators and pilots for the electricity supply.

Measures have been taken in a number of 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. The production of simulation data and input into computer simulation equipment has continued. Financial compensation has been paid to guarantee starter motors in the form of gas turbines.

A contribution has been submitted to operating computer support for planning heavy transports.

As reported above, a large number of measures have been put in place to deal with, wholly or partially, with consequences of incidents and also to take action required



Workplace in a mobile command and communication units – Molos.

to remedy and alleviate the effects of incidents. However, additional measures are needed in the form of training, and reviews are underway to verify that extensive disruption caused by storms or other extreme

situations can be dealt with. Until such measures are taken the assessment is that Svenska Kraftnät basically has a satisfactory capacity within this area, but with certain shortcomings.

## Ability to withstand serious disturbances to activities that are important to society

The stability of the local power supply has been reinforced in station facilities that are important in conjunction with restoration after an extensive power failure.

A contribution has been submitted to back-up electricity supply of prioritised metropolitan areas and also to research and development of small-scale production.

Functions in control centres that are of great significance for the structure/function of the electricity system have been increasingly safeguarded, e.g. by equipping important control centres with a redundant back-up control location.

Technical monitoring equipment as well as measures to increase security in plants that are of great importance for production, transmission and distribution have been further developed.

The physical security of Svenska Kraftnät's facilities is improved partly in connection with ongoing refurbishment projects,

partly where a general need has been observed.

The overall assessment is that Svenska Kraftnät basically has satisfactory capacity but with some shortcomings in withstanding serious disturbances. The shortcomings are attributable to the fact that the physical security and the stability of the local power supply in conjunction with an extremely long-term power failure has not yet been upgraded in some facilities.

### Dam safety

In accordance with its instructions, Svenska Kraftnät has submitted a special report to the Government (2008-06-25, ref 387-2007-BE90) regarding the development of dam safety in the country. Among other things, the report is based on the annual reports that the dam owners submit to the county administrative boards in accordance with a procedure that Svenska Kraftnät has developed and implemented.

Trials involving the inspection by international dam safety experts of dams where failure would entail particularly major consequences have been implemented during 2006-2008 for five plants in conjunction

with the power companies concerned. Evaluation of the trials is underway.

Seminars on the supervision of dam safety and preparedness for failure in dams that are classified as dangerous installations have been held in Skellefteå for the county of Västerbotten and in Falun for the counties of Dalarna, Gävleborg and Uppsala.

A new edition of the "Guidelines for determination of design flows for dam facilities" has been prepared jointly by Svenska Kraftnät, Swedenergy and SveMin.

At the request of Svenska Kraftnät, SMHI has in-depth followed-up of the Flow Committee's guidelines.

Projects are in progress in five of the major power generating rivers, Lule älv, Ljungan, Ljusnan, Dalälven and Göta, with the participation of both dam owners, municipalities and county administrative boards, to develop contingency planning for dam failure. Svenska Kraftnät's objective is that coordinated contingency planning should be developed in the ten major power generating rivers.

A development project, financed by Svenska Kraftnät and the power industry through Elforsk AB, is underway with the

aim of producing data for potential guidelines to warn the general public in the event of dam failure or serious problems that can lead to dam failure.

Svenska Kraftnät has been supporting R&D projects within the area of river and dam safety since 1999. The aim of the support is to contribute to the maintenance and development of knowledge, working methods and expertise within the area, and also to make them available and used. A further aim is to stimulate the industry to further reinforce research and development initiatives within the area. An overall view from the perspective of society in relation to the development of dam safety and contingency planning for dam failure is required. During 2008 support was provided for around ten projects.

Besides supporting selected R&D projects, Svenska Kraftnät has also been supporting the Swedish Hydro Power Centre (SVC) since 2005. SVC is a skills centre for training and research within the field of hydro-electric power with the main remit of producing high-quality expertise at selected universities and colleges that is sustainable in the long-term, and establishing close cooperation between industries, universities and authorities within the field of hydro-electric



Svenska Kraftnät has central responsibility as the authority to promote dam safety and submit regular reports to the Government on developments in this field.

power where dam safety comprises an important element.

SVC is a long-term venture that is implemented as a collaboration between the power industry, the mining industry, the Swedish Energy Agency, Svenska Kraftnät and four technical universities/colleges (Royal Institute

of Technology (KTH), Luleå Technical University, Chalmers Technical University and Uppsala University). An evaluation of the first three year period has been implemented during 2008 and a decision on a new four year period has been made.



Svenska Kraftnät is engaged in limiting damage caused by high rivers and is supporting research within the area of river and dam safety.

# Subsidiaries and associated companies

The Svenska Kraftnät Group has four subsidiaries and six associated companies in Sweden and Norway.

## Subsidiaries

### SwePol Link AB

The task of the company is to operate and maintain a DC link between Sweden and Poland. The link consists of a converter station outside Karlshamn in Blekinge and a similar converter station on the Polish side outside Slupsk, along with a main cable and two return cables between these stations.

The link is rated at 600 MW. SwePol Link AB owns the part of the link that is located on Swedish and international territory. SwePol Link Poland Sp.zo.o. is a wholly-owned subsidiary of SwePol Link AB. The company owns that part of the DC link which runs through Polish territory.

Svenska Kraftnät's shareholding in the company is 51 percent, Vattenfall AB owns 16 percent and the Polish national grid company PGE, Polska Grupa Energetyczna SA owns 33 percent.

The Group's turnover during 2008 was SEK 248 (248) million. SwePol Link AB turned over SEK 187 (187) million and the Polish subsidiary SEK 61 (61) million.

### Svenska Kraftnät Gasturbiner AB

The company is wholly-owned by Svenska Kraftnät and its mission is to operate and maintain gas turbine plants. The business was set up in 1999 so that Svenska Kraftnät could secure resources in the long term for

dealing with disturbances in the power system. Today the company has eleven plants in the municipalities of Varberg, Norrköping, Trollhättan, Hallstavik and Göteborg with a combined capacity of 700 MW.

Turnover for the year was SEK 69 (73) million.

### Swedish KraftKom AB

The company is wholly-owned by Svenska Kraftnät. The company's operations have been insignificant since 2003. Turnover during the year amounted to SEK 0 (0) million.

### Åsbro Kursgård AB

The company is 100 % owned by Svenska Kraftnät and was set up during autumn 2008.

The intention was to transfer Åsbro training centre and training operations at Åsbro to a company that would be co-owned by a number of large network companies. However, no expansion of ownership has taken place and the shareholders' agreement was not signed in December 2008 as planned.

## Associated companies

### Nord Pool ASA

Nord Pool ASA is an exchange for financial trading for operators in the Nordic electricity market and is a group with various business segments. The head office is situated in Oslo and there are branch offices in Stockholm, Helsinki and Odense. Nord Pool was previously active on the European market

and until June 2008 owned 17 % of the German electricity exchange EEX. In October 2008 a structural change was implemented to the operation when the company disposed of its subsidiaries for clearing- and consultancy operations to OMX AB.

The Nordic derivatives trade for electricity remains in Nord Pool ASA and Svenska Kraftnät owns 50 % of Nord Pool ASA and the other 50 % is owned by Statnett SF in Norway.

### Nord Pool Spot AS

The physical trading exchange in electricity, the spot market, is conducted via a separate company, Nord Pool Spot AS. The year's physical trade amounted to 297.6 (290.6) TWh.

During 2008, the company turned over NOK 103 (98) million.

TSO	Share holding (%)
Svenska Kraftnät	30
Statnett SF	30
Fingrid Oyj	20
Energinet.dk	20

### Triangelbolaget D4 AB

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

The company is owned in equal shares by Svenska Kraftnät, Vattenfall AB, Fortum Distribution AB and Tele2 AB. During 2008 the business turned over: SEK 23 (29) million.

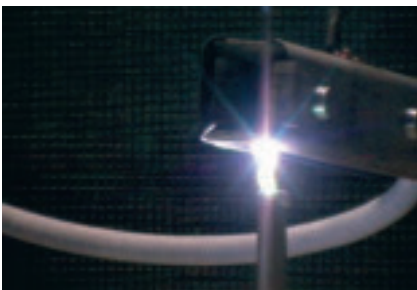


### Kraftdragarna AB

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

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

Svenska Kraftnät owns 50 %, Vattenfall AB 25 % and Vattenfall Regionnät AB 25 % of the company. Invoicing during 2008 amounted to SEK 20 (32) million.



The research company Stri AB is carrying out spark tests on a wireless temperature sensor using RFID technology for monitoring the temperature of isolating switches. The isolating switch is a vital piece of equipment in Svenska Kraftnät's connection stations.

### Stri AB

The company conducts research and development within the field of electrical power transmission, primarily on behalf of its partners. The partners are Svenska Kraftnät with 25 %, ABB AB 50 %, Statnett SF 12.5 % and Vattenfall AB 12.5 % of the company. Turnover for 2008 was SEK 74 (71) million.

### Elforsk AB

Elforsk conducts operations in the field of research and development (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 the development of the electricity market. The most important centres of focus are environmental issues, maintenance and the renewal of plants, as well as the provision of support for postgraduate projects.

Svenska Kraftnät owns 25 % and the trade association Swedenergy 75 % of the company. Turnover during 2008 was SEK 102 (86) million.

## Results

Those associated companies in the Group that have normally had the greatest impact on Svenska Kraftnät's results are Nord Pool ASA, Nord Pool Spot AS and Kraftdragarna AB. Svenska Kraftnät's share of income in the respective companies is included in the consolidated profit. The profit components for 2008 amounted to SEK 1,069 million compared with SEK 69 million for 2007. The large difference in profits compared with 2007 is due to Nord Pool ASA's sale of its clearing- and consultancy operations to OMX AB, which produced a capital gain of SEK 870 million and the sale of shares in the German electricity exchange EEX which produced SEK 194 million.

### Share of income in associated companies

MSEK	2008	2007
Nord Pool ASA	1 074	59
Nord Pool Spot AS	-6	7
Kraftdragarna AB	0	1
Stri AB	1	2
<b>Total</b>	<b>1 069</b>	<b>69</b>

# Environment

Svenska Kraftnät conducts long-term environmental work where goals, procedures and follow-ups lead to continual environmental improvements. In the follow-up that the Swedish National Environmental Protection agency carries out of the authorities' environmental management work every year, in the last two years Svenska Kraftnät has received a high grade.

## Overall environmental goals

Environmental work is focused on five overall environmental goals that are primarily linked to the national environmental quality objectives of a limited impact on climate, a non-toxic environment, a well built environment, a safe radiation environment, and a rich plant and animal life.

Svenska Kraftnät's overall environmental goals are:

- Emissions of greenhouse gases caused by operations shall be continuously decreased.
- Stations and powerlines shall be located and designed in an environmentally compatible manner in order to promote the expansion of renewable energy production in the country.
- Hazardous substances shall be successfully phased out. Those hazardous substances that are used shall be handled so that they do not leak out into the environment.
- The precautionary principle regarding low-frequency electrical and magnetic fields shall be followed through the application of Svenska Kraftnät's magnetic field policy.
- Biological diversity in the powerline corridors shall be benefited and the habitats of endangered species preserved.

Major efforts are being made in both investigatory work and implementation of con-

struction and maintenance to ensure that the goals are achieved. However, in individual cases it can sometimes be hard to balance different environmental aspects. It is not unusual that local and global environmental aspects are in conflict with each other. It is our job to propose the best possible solution when weighing up different aspects.

## Environmental prize went to a wind power researcher

In 2008 Svenska Kraftnät's environmental prize went to the wind power researchers Torbjörn Thiringer and Ola Carlson, both employed at Chalmers Technical University. The researchers have made great efforts to create a productive research environment at Chalmers with the ability to resolve important problems concerning the development of wind farms and integration of wind power into the electricity network. These are important prerequisites for enabling wind power to be utilized on a large scale. It is important that wind power plants function technically well within the electricity system so as not to jeopardize operational reliability with resultant power failures.

## Reducing emissions of greenhouse gases

Svenska Kraftnät's ambition is to be a good example when it comes to reducing emissions of greenhouse gases. Emissions derive from operation of gas turbine plants, use of the greenhouse gas sulphur hexafluoride ( $SF_6$ ), transportation and business travel and also indirectly through the energy losses that take place during transmission of electricity on the national grid.

The gas turbine plants are used solely as back-up power plants in the event of peak loads and disturbances in the electricity network. Svenska Kraftnät Gasturbiner AB



Two researchers from Chalmers University were awarded Svenska Kraftnät's environmental prize in 2008.

purchases emission rights equivalent to the carbon dioxide emissions that take place during operation of the facilities. In terms of the greenhouse gas sulphur hexafluoride ( $SF_6$ ) we work continuously to reduce our emissions.  $SF_6$  is used as an extinguishing medium in modern circuit-breakers and as an insulating gas in enclosed switchyards. For circuit-breakers there is no better alternative to  $SF_6$ . Gas-insulated switchyards are only built if, due to site- or pollution reasons, it is not possible to build an air-insulated switchyard. Svenska Kraftnät's emissions of  $SF_6$  are low, approx. 0.2 % of installed quantity. This is lower than what is required for new equipment according to international standards.

We have procedures for management, inspection and logging to reduce the risk of emissions. Each piece of equipment that contains  $SF_6$  is connected to a monitoring system that provides an alert when gas needs to be refilled. A record of the volume filled is recorded in a database, enabling leaks to be detected. A special type of camera has been purchased to enable detection of smaller leaks that were previously difficult to find.

As last year, carbon dioxide emissions

from business trips decreased compared with the year before. Calculated per employee, the decrease was even greater as the number of employees increased during 2008. Some 15 employees who do a lot of driving on business have been trained in Eco-driving (fuel-efficient driving).

Transmission losses on the national grid are also an important environmental aspect. One of the factors that determines the size of the losses is the technical design of the plants. Work is underway in developing a new function in Svenska Kraftnät's operational monitoring system that will result in lower grid losses. The tool is expected to be operational during 2009.

## Environmental improvements

Greater requirements are increasingly being placed on following-up the environmental work. A system for environmental data and incident reporting has been developed during the year with the aim of improving the capacity to follow up Svenska Kraftnät's environmental performance.

For the last ten years Svenska Kraftnät has been setting environmental requirements in conjunction with all procurement of construction and maintenance contracts. The environmental requirements have been successively developed and in recent years we have also been successful in checking that the requirements are observed. Environmental audits have proven to be an effective tool in the endeavour to move towards even greater consideration of the environment. During 2008 environmental audits have been carried out in relation to seven contracts. The environmental audits have made it possible to implement a large number of environmental improvements in our contracts. The follow-up work has also given us a greater understanding of and interest in environmental issues internally among Svenska Kraftnät's project managers and maintenance engineers.

A new revised version of the environmental requirements makes the environmental requirements more stringent and a number of new requirements, that we deem to be reasonable based on the experience from the audits, have been inserted. A number of environmental audits will also be implemented during 2009.



Power line corridors comprise an important habitat for many species that are dependent on open ground.

Minor environmental improvements are constantly taking place within the maintenance operation, which are together gradually leading to more environmentally compatible facilities. A number of mercury thermometers in control mechanisms have been phased out during the year. An inventory of PCBs in joints in station buildings has been implemented and the results have been sent to the respective municipality. An inventory has been taken of oil collection pits with respect to size and impermeability. Measures are in the pipeline for dealing with the minor shortcomings that have been found. Equipment that has been shown to leak SF<sub>6</sub> has been sealed. Svenska Kraftnät has also purchased a gas treatment truck for SF<sub>6</sub> that stores the gas during maintenance and repair of gas filled equipment and thus reduces the risk of discharge. A number of pylons impregnated with arsenic have been phased out and replaced with pylons with less environmentally harmful impregnation.

There have been a number of minor oil spills onto the ground during the year. It has been possible to rapidly decontaminate most of them. In one case where a voltage transformer exploded, about 50 litres of oil was spread over a large area and it was not possible to clear all of it.

## Biological diversity

A collaborative project with the Jönköping county administrative board has studied the natural values in the national grid's

powerline corridors throughout the country. The aim is to obtain data for targeted management inputs in the power line corridors that have a high level of natural values. Power line corridors comprise an important habitat for many species that are dependent on open ground. Part of the study is a review of which red listed species have been encountered in Svenska Kraftnät's powerline corridors. Important biotopes on which the species are dependent have also been defined, as well as all sections where the national grid's power lines run through natural areas that are protected and of value in other respects.

A course in biological diversity was held in June for around ten maintenance contractors. This is the third time that Svenska Kraftnät has arranged a course such as this. The aim is to enable the contractors to contribute to managing the power line corridors in such a way as to promote biological diversity.

## Energy efficient buildings

Environmental compatibility is a pervasive theme in the work of designing Svenska Kraftnät's new head office. Both the building and the interior must fulfil a high level of environmental requirements. The building has been classified as a "Green building" according to the EU's standard for energy efficient buildings

# Employees

## An attractive employer

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

Svenska Kraftnät ensures satisfactory skills provision through a careful recruitment process, skills planning and planned transfer of expertise from older to younger employees. Svenska Kraftnät has explicit targets for presence and absence due to illness, more even age- and gender distribution and increased ethnic diversity. Svenska Kraftnät collaborates with and supports selected universities in order to bolster the recruitment base and implement targeted inputs in relation to upper secondary schools.

Svenska Kraftnät's values are efficiency, quality, social responsibility, spirit of cooperation and teamwork. The fact that we have agreed upon common values for the workplace, with active responsibility for social development, attracts new employees.

Leadership within Svenska Kraftnät should be target-oriented, clear, transparent and exercised in cooperation with the employees.

## Staff in 2008

During 2008 the increased rate of investment has had a pronounced effect on skills provision. The rate of recruitment has increased substantially as has the requirement for all employees to develop their expertise. Some shortages of resources have arisen during the year.

The number of full-time employees in the Group at year-end was 304 (287), of

whom 214 (202) were men and 90 (85) women. Staff turnover amounted to 8.1 (6.2) % including retirement. Sick leave during the year was 2.2 (2.5) %. The average age within Svenska Kraftnät is 47 (47). Distribution according to age and gender is shown in the table on next page.

A total of 55 employees are due to retire from Svenska Kraftnät within the next five years. It is worth noting the even gender distribution among the younger employees.

## Goals and outcomes for skills provision for 2008

Svenska Kraftnät has focused its skills provision work in four target areas during 2008:

- Skills planning
- Health and fitness
- Gender equality and diversity
- Leadership

An attitude survey was also implemented during the year to measure how well we are living up to our ambition of being an attractive employer. The staff satisfaction index for the survey as a whole was 66 %, which has to be seen as a good result compared with other organisations in the same database.

Various activities have been implemented during 2008 to achieve the below objectives within the respective area.

The goals for skills planning

- 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.

- Staff turnover will remain at a low level.
- Collaboration with selected universities and upper secondary schools will be further developed.
- Age distribution will increase through the recruitment of younger staff.
- The number of employees who change jobs internally (job rotation) will increase to 15.
- Svenska Kraftnät will invest at least SEK 15,000 per employee in skills development.

The goals for health and fitness

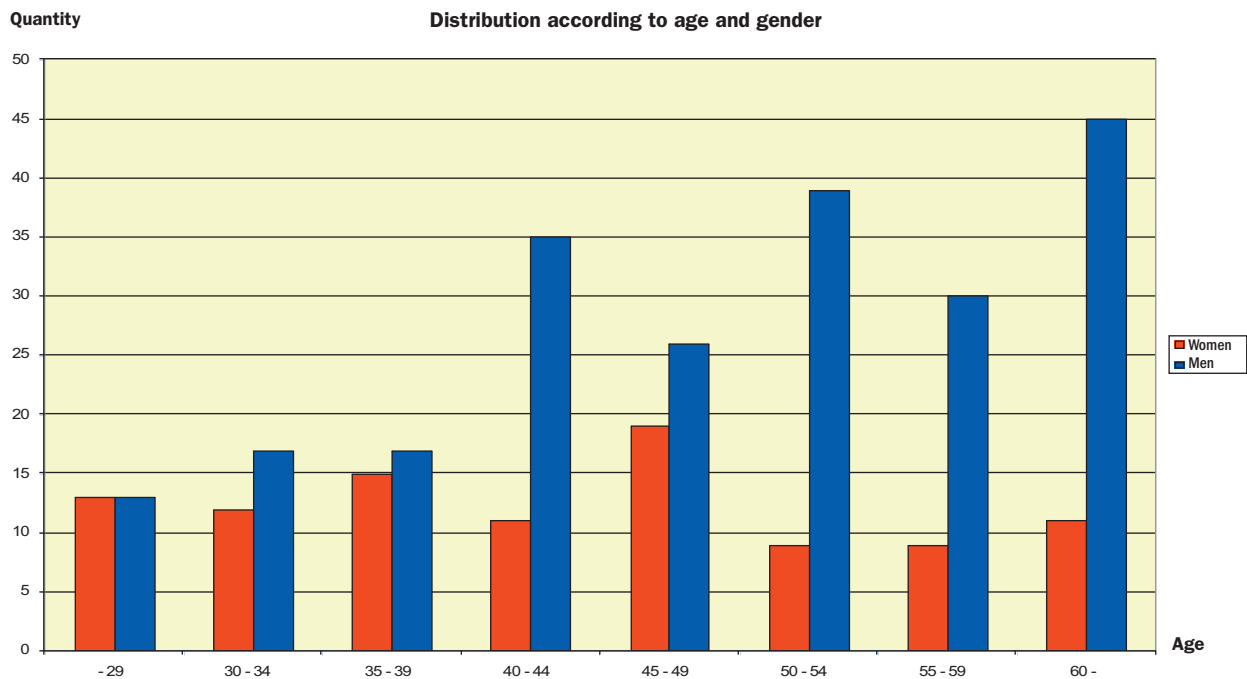
- Sick leave will be reduced to under 2.5 %.
- The proportion of long-term healthy employees will increase to 60 %.
- There shall be no work-related illnesses.
- All long-term sick shall return to work.

The goals for gender equality and diversity

- The proportion of female employees will increase to 30 % and the proportion of female managers to 25 %.
- 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.
- Ethnic and cultural diversity shall be promoted, e.g. through recruitment.

The goals for leadership

- A programme to produce future managers shall be implemented during the year.
- A management programme for new managers shall commence during the year.
- The proportion of female managers within the company must increase.



During 2008 42 employees were recruited with conditional tenure, 19 of whom were women and 23 men. The average age of these new employees is 36 (38). Staff turnover has increased and the number of employees who have left the organisation is 13 (10). 12 (8) employees have ended their employment due to retirement and 17 (11) employees have changed unit or department within the company.

Six trainees – two women and four men, three certified engineers, one environmental scientist, one economist and one systems analyst – have been recruited during the year. The trainee period lasts for one year after which they will take up their permanent positions.

The proportion of female staff remains at the same level as last year, just over 29 (29) %. The proportion of female managers has increased somewhat to 23 (21) % at year end.

Svenska Kraftnät has continued its focus on creating a healthy and safe workplace.

To achieve the above overall goals Svenska Kraftnät is pursuing activities in four sub-areas: working environment, leadership, fitness and rehabilitation. Compared with previous years, absence due to illness is still at a very low level, 2.2 (2.5) %, chiefly due to an effective process of getting the long-term sick back to work.

The proportion of long-term sick leave (longer than 60 days) is low this year too, 1.1 (2.4) %, which has had a significant effect on total sick leave. 60 (51) % of the staff have not had one single day of sick leave during the course of the year. At the end of the year none of Svenska Kraftnät's full-time employees was sick on a long-term basis.

During the course of the year Svenska Kraftnät has invested SEK 15,000 per employee in external development activities. During the year the parent entity started a management programme for new managers as well as a programme for prospective managers. The attitude survey revealed that Svenska Kraftnät's managers are held in good regard.

According to the attitude survey, almost all employees have had at least one performance appraisal during the year, which has also included a record of the need for development. During the year Svenska Kraftnät has implemented an inventory of skills which has identified the need for technical specialists.

An annual analysis is made of the experience and expertise of employees who are due to finish working at Svenska Kraftnät over the next five-year period. This task entails compiling what types of knowledge are of critical importance to the business and which must be transferred to other employees in some form. 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 2008 some fifteen employees have made plans for this type of skills transfer.

The gender equality plan and the work environment plan has been updated during the year and in this year's attitude survey the perception of employees is that work on gender equality and the work environment is positive. They also regard Svenska Kraftnät as a very good employer for parents of young children. During 2007 the Swedish Association of Graduate Engineers designated Svenska Kraftnät as Sweden's most family friendly company,

Sick leave (%)	Up to 29 years old	30-49	Over 50	Total
Women	1.5	4.3	2.1	3.3
Men	0.9	0.8	2.4	1.6
<b>Total</b>	<b>1.2</b>	<b>2.1</b>	<b>2.4</b>	<b>2.2</b>



among companies which employ a lot of engineers.

During the year Svenska Kraftnät has taken part in four careers fairs and also acted as supervisor for four engineers in their degree projects.

## Svenska Kraftnät's goals for skills provision in 2009

Svenska Kraftnät's staff should perceive that their resources are used effectively and that the operation is run with a high level of quality and social responsibility. Svenska Kraftnät will focus its work for 2009 within the following target areas:

- Skills planning
- Work environment and health
- Gender equality and diversity
- Leadership

### Skills planning

During 2009 the increased rate of investment will continue to have a pronounced effect on skills planning. There will be a high rate of recruitment along with a major need for all staff to develop their own skills in line with these changes. Svenska Kraftnät will also have to increase its efforts to stimulate job rotation and generate greater opportunities for planned skills transfer.

Skills planning 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. Svenska Kraftnät must also be active at upper secondary schools and universities in order to secure new generations within the electricity industry.

Goals for 2009:

- 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.
- Staff turnover shall decrease to under 5%.
- Collaboration with selected universities and upper secondary schools will continue.
- Age distribution will increase through the recruitment of younger academics.
- The number of employees who change jobs internally (job rotation) will increase to twenty.



In mid-September 2008 the seventh group of trainees started at Svenska Kraftnät since the outset in 1998.

### Work environment and health

During the year Svenska Kraftnät will continue to focus on creating a healthy and safe workplace. Keep-fit activities will be both preventive and remedial and will lead to a reduction in absence due to ill-health and consequent increase in attendance at work. A clearly articulated goal is that no employees should be sick on a long-term basis. The physical work environment shall maintain a very high standard.

Goals for 2009:

- Sick leave will be reduced to under 2.2%.
- The proportion of long-term healthy employees will increase to 62%.
- There shall be no work-related illnesses.
- All long-term sick shall return to work.

### Gender equality and diversity

Svenska Kraftnät will take active measures to promote both gender equality and diversity. The large number of retirements will facilitate active recruitment of both female staff and employees from other cultures. We shall also be regarded as a good employer for the parents of young children.

Goals for 2009:

- The proportion of female employees will increase to 30% and the proportion of female managers to 25%.
- Svenska Kraftnät shall be regarded both as an organisation that offers equal opportunities and as a very good employer for the parents of young children.
- Ethnic and cultural diversity shall be promoted, e.g. through recruitment.

### Leadership

First-rate, clear leadership is an important prerequisite in creating an attractive company. Svenska Kraftnät must actively develop its managers, but also ensure that it produces a good supply of managers for the future.

Goals for 2009:

- A management programme for all managers shall commence during the year.
- A programme to produce future managers shall be implemented during the year.
- The proportion of female managers will increase to over 25%.



Cooperation in Svenska Kraftnät's Network Control Centre.

### **Well-being, cooperation and good working conditions**

Regular surveys of attitudes provide Svenska Kraftnät with information on how well it is living up to being an attractive employer in which employees feel involved, are content, participate and perform satisfactorily. An attitude survey was implemented in 2008. The next survey is planned for 2010.

### **Goals for skills provision for 2010/2011**

The substantially increased rate of investment and high level of retirements will have a pronounced effect on skills provision in the coming years. Svenska Kraftnät must therefore actively recruit technical specialists.

We will also stimulate the recruitment of younger academics and increase the propor-

tion of women and female managers, primarily in the engineering departments. The need of effective skills planning will increase.

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

Svenska Kraftnät will support selected universities in order to bolster the recruitment base and implement targeted inputs in relation to upper secondary schools.

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

### **The 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, good cost effectiveness and a well-functioning organi-

sation. This will enable Svenska Kraftnät's primary objective to be fulfilled: a reliable and effective national grid.

In 2008 there were also sub-goals for project activities and safety training. 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 one month's salary. The outcome for 2008 was 80% of a monthly salary. The allocation for 2008 is SEK 10.2 (13.3) million, including national insurance expenses.

# Internal control and risk management

Internal control refers to the process of ensuring that there is reasonable certainty that Svenska Kraftnät will fulfil the requirements placed on it for which the authority's management is liable to the Government. The Board of Directors, which is the authority's management, must ensure that the operation is run effectively and according to applicable laws and the undertakings that come with Sweden's membership of the European Union, that it is reported in a reliable manner and also that the authority is economical with the Government's funds.

The process is based on control environments that create discipline and structure for the other four components in the process

- risk assessment
- control structure
- information and communication
- following-up

The framework for the control environment is constituted by the Agencies Ordinance, the instruction for Svenska Kraftnät and the annual letter of governance from the Government, as well as the values that the authority's management and employees have drawn up and ratified and that support Svenska Kraftnät's ambition to be one of the most effective national grid companies in the world.

The first component in Svenska Kraftnät's internal control process is the risk assessment that is carried out in Svenska Kraftnät's risk analysis. It entails identifying and evaluating risks that the operation's goals cannot be fulfilled. A risk and vulnerability analysis has been submitted to the Ministry of Industry, Employment and Communications and the authority KBM, now MSB. A risk analysis in accordance with the new Ordinance (2007:603) on internal governance and control has been drawn up.

The second component is control structures detailing which controls have been chosen to manage the Group's risks. Reporting with respect to investments, economic development, the operational situation for the electricity system and other current issues takes place on a quarterly basis to Svenska Kraftnät's Board of Directors. Decisions can subsequently be taken on how the risks are to be managed and rectified.

The third component is internal and external information and communication. Internal information and communication starts with creating awareness in the public utility's employees about guidelines and policies including authority and responsibility. Important tools for this are Svenska Kraftnät's intranet and regular training of employees. Examples of external communication are reporting to other authorities and external financial reporting.

The aim of the fourth component, following-up, is to ensure the effectiveness of the process through a number of activities such as following-up operations in relation to targets set, audits and other types of monitoring.

## Organisation

The Board of Directors has appointed an audit committee from within its members consisting of Anna-Stina Nordmark-Nilsson and Tomas Bruce. The committee prepares issues relating to risk assessments, internal controls and financial reporting, as well as the Board of Director's annual decision concerning the internal audit plan. In addition to this, the audit committee has responsibility for supporting the regular work of internal auditing, maintaining contact with the Swedish National Audit Office's auditors and when

necessary reporting experiences that have been gained to the Board of Directors.

In accordance with the Ordinance (2006:1228) on internal auditing, an internal auditing department was set up within Svenska Kraftnät in 2008 to work on behalf of the Board of Directors that is positioned directly under the Director General. The internal auditing team work according to an annual plan that is approved by the Board of Directors. The work of reviewing how the internal control is functioning includes risk- and quality assessments.

## Operational risks

Svenska Kraftnät's operations are of central importance for Swedish electricity supply. It must therefore be regarded as being of particular importance to society in both the short and long terms. Operations can be subjected to disturbances 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 the Ordinance (2006:942) on Emergency Planning and Heightened State of Alert.

The everyday work and expertise of its staff means that the organisation has significant ability to assess how risks and vulnerabilities are linked together. The work of further reinforcing this is continually in progress. Within certain areas it may need to be extended through expanded external monitoring or strengthened by means of ex-



Svenska Kraftnät's environmental management system for construction activities is an aid in structuring its environmental work and ensuring that it is performed effectively.

ternal efforts. Different types of cooperation are also conducted in network form in order to gather experience from other areas, for example within the IT security area.

The risk of operational disturbances in the national grid, which would have serious consequences for the customers is quite small. The grid is powerfully structured with ample potential to maintain electricity supply even during disturbed operating conditions. However, the risk of a major power failure can never be totally eliminated. Svenska Kraftnät is taking a series of measures, including an extensive investment programme, to further increase the performance reliability of the national grid.

At present the risk and likelihood of sabotage in relation to Svenska Kraftnät's facilities is slight. However the threat picture can change rapidly. In conjunction with converting or building new facilities, Svenska Kraftnät has therefore substantially increased physical protection through stronger and higher fences. The process of

installing surveillance cameras to monitor the facilities is underway. Important parts of the facilities are fitted with alarms.

The risk of peak power shortages in the Swedish electricity system has been limited since Svenska Kraftnät, as an interim measure, has procured standby capacity in accordance with the Limited Duration Act on Reserve Capacity (2003:436). The Act was due to come to an end after winter 2007/08, but it has been extended by the Government for a further three years.

#### Environmental risks

Svenska Kraftnät works very actively on environmental issues. For a number of years Svenska Kraftnät has had an environmental management system for construction activities as an aid in structuring its environmental work and ensuring that it is performed effectively. Environmental requirements are placed on all construction and maintenance contracts to reduce the environmental risks. To check that the environmental require-

ments are being observed Svenska Kraftnät has implemented approved environmental audits in a number of contracts during 2007 and 2008. The audits have led to measures to produce improvements. More environmental audits will be implemented during forthcoming years.

The fuel tanks at the gas turbine facilities previously constituted an environmental risk for the subsidiary Svenska Kraftnät Gasturbiner AB. Embankments are now in place around the fuel tanks in all plants and the fuel can thereby be collected, substantially reducing the environmental risk.

#### IT-related risks

Svenska Kraftnät's capacity to monitor and control the national grid is based on well functioning IT- and telecommunications systems. To ensure the operation of the IT- and telecommunications systems, these are constructed with a high level of redundancy. One important element in reliability is analysing and rectifying any shortcomings in IT

security, with respect to the technology, rules and procedures, and behaviour. Work on IT security is therefore integrated with the everyday line work on IT and telecommunications systems in terms of aspects including rules, procedures and clear responsibilities.

## Financial risks

The hydrological situation pertaining in the Nordic region, generation in combined heat and power plants and exports have an influence on the utilization of the national grid for electricity. Svenska Kraftnät's income increases in conjunction with large-scale hydro-power generation, which leads to increased transmissions from Northern to Southern and Central Sweden.

Revenues decrease when there is a small supply of hydroelectric power and when there is a high level of imports from the south. The fluctuations in earnings may as a consequence amount to several hundred million SEK. Assessment of Svenska Kraftnät's results must therefore apply to the average conditions over a period of several years.

Restrictions arise in the Nordic electricity market when the demand to transmit electricity on the grid is greater than the transmission capacity. The size of the restrictions vary due to the flow on the grid. The method applied to deal with restricted transmissions over national borders leads to revenues that are based on differing electricity prices in the price areas on different sides of a bottleneck. These revenues go to the Nordic national grid companies in accordance with a distribution quota that they have mutually decided.

Counter trading is sometimes used within Sweden to reduce the transmission of electricity in a section of the grid where there is a limited transmission capacity. Counter trading means that the customers do not notice this congestion. The costs for counter trading are normally low in a properly developed national grid. However, counter trading expenses can amount to tens of millions of kronor in extreme operational situations, e.g. such as occurred in February 2007 when the nuclear power station in Forsmark was out of operation.

Svenska Kraftnät has expenses for primary regulation to maintain the frequency

in the electricity system within permitted limits. The size of the expenses is dependent on water supply in the reservoirs and on the price of electricity. In certain situations these expenses can double compared with normal conditions.

The development of Svenska Kraftnät's fibre-optic network has continued at a slower pace over the past year and has primarily been focused on the needs of the national grid. There are consequently no significant commercial risks.

The ETSO model for transit compensation that is also applied to 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 the flows generally continue through Denmark and neighbouring countries, incurring costs for Svenska Kraftnät. The model that is currently applied normally results in a net expense for national grid companies that, like Svenska Kraftnät, have low grid charges. In 2008 this amounted to a net income of SEK 15 (-19) million.

### 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 % of the turnover. It means that Svenska Kraftnät has a sound distribution of commercial risks.

### Investments

The total investment cost during the next ten-year period for Svenska Kraftnät amounts to almost SEK 20 billion, which will have an impact on the group's financing and interest expenses. Risk exposure lies in the delay to the project, which in its turn represents cost increases. The boom in 2007 and the first half of 2008, which could be observed in higher prices for materials and longer delivery times, has meant that we have been forced to postpone the construction of the new DC link between Sweden and Finland by one year.

The very extensive investments that are planned in the energy sector, both in new production and in increased transmission capacity, may produce substantial cost increases. In many countries the financial crisis has necessitated crisis packages with

extensive new investments in infrastructure. Other factors that could have an impact on the consolidated result are linked with currency exchange rates and electricity prices.

### Currency exposure

Svenska Kraftnät's international operations mean that it is to some 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 normally moderate in size and do not affect the financial result to any great extent.

In January 2009 Svenska Kraftnät hedged its share of the cash flow produced from Nord Pool ASA's NOK 900 million sale of its clearing- and consultancy operation.

### Interest exposure

Interest risks in connection with liquidity- and liability management are low 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. The volatility in the electricity price affects revenues for sold balance power within the division with System responsibility for electricity, however there is a limited effect on the result.

### Credit risks

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

### Improvement measures

A potential need to improve operational planning and document handling systems has been identified in connection with the work of producing Svenska Kraftnät's risk analysis. The work of instituting measures in this respect started during autumn 2008.

# Financial reports

## Income statements – the Group

<b>MSEK</b>	<b>Note</b>	<b>2008</b>	<b>2007</b>
<b>Operating revenue</b>			
Network revenue	1	3 478	3 377
System responsibility revenue – electricity	2	3 806	2 531
Telecommunications revenue		70	71
System responsibility revenue – natural gas		54	41
Renewable electricity certificates		10	10
Government grant for power contingency planning	3	261	264
Activated work for own account	4	38	32
<b>Total operating revenue</b>		<b>7 717</b>	<b>6 326</b>
<b>Operating expenses</b>			
Personnel expenses	5	-259	-251
Purchase of loss power		-871	-762
Purchased balancing power		-3 398	-2 177
Other operating expenses	6	-1 800	-1 751
Depreciation of tangible and intangible fixed assets	13,14	-585	-590
<b>Total operating expenses</b>		<b>-6 913</b>	<b>-5 531</b>
Share of income in associated companies	7	1 069	69
<b>Operating income</b>	<b>8</b>	<b>1 873</b>	<b>864</b>
<b>Result from financial investments</b>			
Result from other securities and receivables that are fixed assets	9	-1	11
Interest income and similar income items	10	7	7
Interest expenses and similar expense items	11	-73	-145
<b>Income after financial items</b>		<b>1 806</b>	<b>737</b>
Tax on income for the year	12	-3	-5
<b>Net income for the year</b>		<b>1 803</b>	<b>732</b>
Income attributable to:			
The state		1 803	733
Minority shares		0	-1

## Comments on Income Statement

### Operating revenue and expenses

The Svenska Kraftnät Group's operating revenue amounted to SEK 7,717 (6,326) million, an increase of SEK 1,391 million.

The Group's network revenue increased by SEK 101 million compared with the previous year. The increase is due to the substantial rises in congestion revenues during the second half of the year that totalled SEK 820 million, an increase of SEK 179 million compared with last year. Energy dependent revenues from transmissions on the national grid also increased somewhat during the year and totalled SEK 1,292 (1,271) million. A temporary decrease in the power fee in November and December reduced revenues by SEK 180 million.

System responsibility revenue for electricity amounted to SEK 3,806 million and increased by SEK 1,275 million. Included in this item is sold balancing power, which increased by SEK 1,290 million as a result of higher electricity prices during the year. The telecommunications operation's external revenue decreased by SEK 1 million during the year and amounted to 70 (71) million. System responsibility revenue for natural gas was SEK 54 (41) million. The increase in revenue is due to the fact that customer contracts have been modified.

Contingency planning has utilised Government funds amounting to 261 (264) million. Of these, SEK 255 (250) million has been financed by appropriations and SEK 5 (12) has been received in the form of grants from the Swedish Emergency Management Agency and SEK 1 (2) million from the National Post and Telecom Agency.

Management of renewable electricity certificates produced revenues of SEK 10 (10) million. The fees for renewable electricity certificates are set by the government and regulated in accordance with the ordinance (2003:120) on renewable electricity certificates.

The Group's operating expenses amounted to SEK 6,913 (5,531) million.

Staff expenses were SEK 259 million, an increase of SEK 8 million compared with last year.

Expenses for purchase of power losses amounted to SEK 871 million, which is an increase of SEK 109 million. The increase in costs is due to the fact that transmission

from northern Sweden increased during the year and transmission losses were 0.3 TWh greater than in 2007.

Expenses for balancing power increased by SEK 1,221 million during the year as a consequence of the generally higher electricity prices.

The Group's other operating expenses increased by SEK 49 million. The expenses for primary regulation increased by SEK 111 million. The principle reason for the increase was the high electricity price during the late summer in particular, which then reached its highest level for the year. At the same time the costs for the winter months' power reserve were SEK 32 million lower.

Depreciation of tangible and intangible fixed assets amounted to SEK 585 (590) million.

### Operating income

Operating income for the Group improved by SEK 1,009 million to SEK 1,873 million. Operating income includes external revenue and expenses in the business segments and the profit/loss from associated companies. The Group's operating income includes depreciation and write-downs.

The predominant business segment in Svenska Kraftnät's operations is Electricity Market, which includes Transmission on the national grid. Operating income for the year for Transmission on the national grid amounted to SEK 822 (791) million. The higher earnings are largely due to increased congestion revenues during the year. Some items concern both the lines of business Transmission on the national grid and System responsibility for electricity. It has not been possible to attribute some activities to a single line of business. The costs for such activities have been allocated on a standard basis between the two lines of business.

The line of business System responsibility for electricity, generated a profit of SEK -71 (-38) million. This is SEK 33 million lower than last year and is explained by higher expenses for primary regulation on account of the higher price of electricity.

There was a decrease in operating income from the renewable electricity certificate operation of SEK 2 million to SEK 5 million.

Operating income from telecom operations amounted to SEK 46 million, which is an improvement of SEK 16 million compared with last year. The main explanation

is increased income during 2008.

System responsibility for natural gas showed a positive operating income of SEK 2 (5) million.

There are six associated companies in the group and Svenska Kraftnät only includes its own share of the profit/ loss in the results of the respective company in its accounts. The profit components for 2008 amounted to SEK 1,069 (69) million and this is the main reason for the improvement in operating income since Nord Pool ASA has sold its clearing- and consultancy operation during the year to OMX AB and disposed of its shares in the German electricity exchange EEX.

The operating margin for the Group amounted to 24.3 (13.7) %, which is 10.6 percentage points higher than the previous year.

### Net financing

The Group's net financial income/expense amounted to SEK -67 (-127) million. This is an improvement of SEK 60 million compared with 2007.

The result from other securities and receivables that are fixed assets amounted to SEK -1 (11) million. It has been negatively affected during the year as a result of exchange rate differences of SEK 9 million compared with 2007.

The Group's interest income was SEK 7 million, which is the same as last year.

The Group's interest expenses and similar items amounted to SEK 73, a decrease of SEK 72 million. The fall in interest expenses is primarily due to the fact that the parent entity allocated a provision for indexation of the utility's pension liability in accordance with the new security grounds that the National Government Employee Pensions Board adopted for public utilities. Svenska Kraftnät elected to apply this from 31 December 2007. Interest expenses thus increased by SEK 66 million. Group interest expenses have generally decreased on account of lower levels of interest-bearing liabilities.

The interest coverage ratio rose to 25.7 (6.1) as a consequence of this.

### Net income for the year

Consolidated net income for 2008 amounted to SEK 1,803 million, which is SEK 1,071 million higher than in 2007. The result means a return of 19.8 (8.9) % on adjusted equity. The net profit margin with a deduction for standard tax was 16.8 (8.3) %.

## Balance sheet – the Group

MSEK	Note	2008-12-31	2007-12-31
<b>ASSETS</b>			
Fixed assets			
Intangible fixed assets	13	259	226
Tangible fixed assets	14	8 893	8 549
Shares and participations in associated companies	16	1 466	403
Long-term receivables		55	59
Income taxes recoverable		7	5
<b>Total fixed assets</b>		<b>10 680</b>	<b>9 242</b>
<b>Current assets</b>			
Inventories		89	93
Current receivables	17	338	418
Prepaid expenses and accrued income	19	504	577
Liquid funds		104	51
<b>Total current assets</b>		<b>1 035</b>	<b>1 139</b>
<b>Total assets</b>		<b>11 715</b>	<b>10 381</b>
<b>EQUITY AND LIABILITIES</b>			
<b>Equity referable to owners</b>			
Government capital		600	600
Other paid-up capital		3 314	3 314
Retained earnings incl. net income for the year		4 200	2 873
<b>The Government's capital</b>		<b>8 114</b>	<b>6 787</b>
<b>Minority interests</b>		<b>45</b>	<b>45</b>
<b>Total equity</b>		<b>8 159</b>	<b>6 832</b>
<b>Long-term liabilities</b>			
Interest-bearing liabilities	20	1 621	1 616
Non-interest-bearing liabilities		299	327
Advance payments from customers		94	93
Deferred tax		28	24
Provisions for pensions	21	392	361
<b>Total long-term liabilities</b>		<b>2 434</b>	<b>2 421</b>
<b>Current liabilities</b>			
Interest-bearing liabilities	22	98	98
Accounts payable		447	400
Other liabilities		53	57
Accrued expenses and prepaid income	23	524	573
<b>Total current liabilities</b>		<b>1 122</b>	<b>1 128</b>
<b>Total equity and liabilities</b>		<b>11 715</b>	<b>10 381</b>
<b>Pledged securities</b>		<b>None</b>	<b>None</b>
<b>Contingent liabilities</b>	24, 25	<b>20</b>	<b>20</b>



## Comments on Balance Sheet

### Balance sheet total

The consolidated balance sheet total amounted to SEK 11,715 (10,381) million, which is an increase of SEK 1,334 million.

### Fixed assets

Svenska Kraftnät's intangible fixed assets consist of land rights, rights of use for fibre-optic cables, licences and capitalized expenditure for computer programs. The book value of these is SEK 259 (226) million. The increase is due to the fact that investments in computer programs of SEK 43 (35) million, including a new settlement system, are greater than depreciation for the year.

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 8,893 (8,545) million, which is an increase of SEK 344 million. Net investments during the year have been SEK 378 million higher than depreciation.

The other fixed assets consist of participations in associated companies, long-term receivables from associated companies and income taxes recoverable. Participations in associated companies amounted to SEK 1,466 (403) million. Profit participation in the financial statements is SEK 1,069 million, which increased Svenska Kraftnät's participations in associated companies. During the year, the parent entity received a dividend of SEK 42 (23) million from Nord Pool ASA.

### Current assets

Current assets amounted to SEK 1,035 (1,139) million. The decrease mainly relates to a lower level of accounts receivable due to the temporary decrease in the power fee for November and December. Liquid funds amounted to SEK 104 (51) million at year end, an increase of SEK 53 million.



Common rock-rose is a plant that is thriving in the open environment of the powerline corridor.

### Equity

Equity at year-end was SEK 8,159 (6,832) million, of which SEK 4,200 (2,873) million consisted of retained earnings. During the course of the year, SEK 476 (439) million has been distributed to the owners. Net Group profit for the year amounted to SEK 1,803 (732) million.

### Long-term liabilities

The Group's long-term interest-bearing liabilities consist of the parent entity's loans with the National Debt Office of SEK 573 (471) million and SwePol Link's bank loans of SEK 1,048 (1,145) million. The interest-bearing borrowing requirements in

the Group increased during 2008 by SEK 5 million. The average interest on the loans for the Group has been 4.2 (3.9) %.

Advance payments from customers within fibre-optic operations amounted to SEK 94 (93) 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 17 million and amounted to SEK 2,007 (2,024) million. The decrease is primarily due to the fact that SwePol Link has reduced its loan by SEK 97 million. This had an impact on the debt/equity ratio, which increased during the year to 28 (33) %.

## Cash flow statements – the Group

<b>MSEK</b>	<b>2008</b>	<b>2007</b>
<b>The year's operations</b>		
Operating income	1 873	864
Adjustment for items not included in cash flow		
Depreciation	585	590
Other items	-1 033	-25
Interest paid	-78	-79
<b>Cash flow from operations before changes in working capital</b>	<b>1 347</b>	<b>1 350</b>
<b>Changes in working capital</b>		
Change in inventories	4	-4
Change in current receivables	151	-277
Change in current liabilities	-6	306
<b>Cash flow from the year's operations</b>	<b>1 496</b>	<b>1 375</b>
<b>Investment activities</b>		
Investments in tangible and intangible fixed assets	-963	-596
Change in long-term receivables	0	0
Sale of fixed assets	0	0
<b>Cash flow from investment activities</b>	<b>-963</b>	<b>-596</b>
<b>Financing activities</b>		
Dividend received	6	23
Change in interest-bearing liabilities	5	-344
Change in other long-term liabilities	-28	-29
Advance payments from customers	13	2
Dividend paid	-476	-439
<b>Cash flow from financing activities</b>	<b>-480</b>	<b>-787</b>
<b>Cash flow for the year</b>	<b>53</b>	<b>-8</b>
Liquid assets at the beginning of the year	51	59
Liquid assets at year-end	104	51

### Comments 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

Cash flow from the year's operations before changes in operating capital increased by

SEK 3 million compared with the previous year and amounted to SEK 1,347 million. Cash flow from the year's operations amounted to SEK 1,496 (1,375) million. The improvement is primarily a result of the higher level of operating income.

#### Investment activities

Investments made by the Group increased during the year and amounted to SEK 963 (596) million. Investments in the parent entity amounted to SEK 929 (557) million, SEK 2 (3) million in the subgroup SwePol Link and SEK 32 (36) million in Svenska Kraftnät Gasturbiner AB.

#### Financing activities

The Group's interest-bearing liabilities increased during the year by SEK 5 million, whereas they decreased by SEK 344 million in 2007. Interest-bearing liabilities in the parent entity increased by SEK 102 million and in the sub-group SwePol Link external interest-bearing liabilities decreased by SEK 97 million. Svenska Kraftnät Gasturbiner AB's in-Group interest-bearing liability was unchanged at SEK 157 million. SEK 476 (439) million has been paid to the Government.

Cash flow for the year amounted to SEK 53 million compared with SEK -8 million in 2007.

## Change in equity – the Group

	Referable to the Government			Total	Referable to minority interests	Total equity
	Government capital	Other paid-up capital	Profit brought forward incl. net income for the year			
<b>MSEK</b>						
<b>Opening balance 2007</b>	<b>600</b>	<b>3 314</b>	<b>2 579</b>	<b>6 493</b>	<b>46</b>	<b>6 539</b>
Dividend	—	—	-439	<b>-439</b>	—	<b>-439</b>
Net income for the year	—	—	733	<b>733</b>	-1	<b>732</b>
<b>Closing balance 2007</b>	<b>600</b>	<b>3 314</b>	<b>2 873</b>	<b>6 787</b>	<b>45</b>	<b>6 832</b>
<b>Opening balance 2008</b>	<b>600</b>	<b>3 314</b>	<b>2 873</b>	<b>6 787</b>	<b>45</b>	<b>6 832</b>
Dividend	—	—	-476	<b>-476</b>	—	<b>-476</b>
Net income for the year	—	—	1 803	<b>1 803</b>	0	<b>1 803</b>
<b>Closing balance 2008</b>	<b>600</b>	<b>3 314</b>	<b>4 200</b>	<b>8 114</b>	<b>45</b>	<b>8 159</b>

### Profit brought forward including net income for the year

Profit brought forward including net income for the year is constituted by profit accrued in the parent entity, in subsidiaries as well as Svenska Kraftnät's share of profits from associated companies. Previous provi-

sions to restricted reserves are included in this capital item.

The above statement is compiled as if Svenska Kraftnät were an independent group with formal ownership. Svenska Kraftnät is

a public utility and is a part of the Swedish Government.

The allocation of profit proposed in the annual report for 2007 of SEK 476 million was adopted by the Government.



Spreading bellflower in powerline corridor.

## Income statements – Parent Entity

<b>MSEK</b>	<b>Note</b>	<b>2008</b>	<b>2007</b>
<b>Operating revenue</b>			
Network revenue	1	3 255	3 162
System responsibility revenue – electricity	2	3 806	2 532
Telecommunications revenue		70	71
System responsibility revenue – natural gas		54	41
Renewable electricity certificates		10	10
Government grant for power contingency planning	3	261	264
Activated work for own account	4	38	32
<b>Total operating revenue</b>		<b>7 494</b>	<b>6 112</b>
<b>Operating expenses</b>			
Personnel expenses	5	-258	-250
Purchase of loss power		-871	-762
Purchased balancing power		-3 398	-2 191
Other operating expenses	6	-1 807	-1 748
Depreciation of tangible and intangible fixed assets	13,14	-439	-446
<b>Total operating expenses</b>		<b>-6 773</b>	<b>-5 397</b>
<b>Operating income</b>		<b>721</b>	<b>715</b>
<b>Result from financial investments</b>			
Result from other securities and receivables that are fixed assets	9	56	41
Interest income and similar income items	10	4	7
Interest expenses and similar expense items	11	-7	-89
<b>Income after financial items</b>		<b>774</b>	<b>674</b>

## Balance sheets – Parent Entity

MSEK	Note	2008-12-31	2007-12-31
<b>ASSETS</b>			
<b>Fixed assets</b>			
<b>Intangible fixed assets</b>			
	13		
Capitalized expenditure for computer programmes		47	21
Land rights		60	64
Rights of use		44	46
Construction work in progress		108	95
<b>Total intangible fixed assets</b>		<b>259</b>	<b>226</b>
<b>Tangible fixed assets</b>			
	14		
Buildings and land		200	223
Machinery and equipment		5 593	5 832
Construction work in progress		1 381	662
<b>Total tangible fixed assets</b>		<b>7 174</b>	<b>6 717</b>
<b>Financial fixed assets</b>			
Shares and participations in Group companies	15	12	12
Receivables from Group companies		145	145
Shares and participations in associated companies	16	219	177
Receivables from associated companies		55	59
<b>Total financial fixed assets</b>		<b>431</b>	<b>393</b>
<b>Total fixed assets</b>		<b>7 864</b>	<b>7 336</b>
<b>Current assets</b>			
<b>Inventories</b>			
		<b>4</b>	<b>6</b>
<b>Current receivables</b>			
Accounts receivable		204	314
Receivables from Group companies		34	29
Receivables from associated companies		3	3
Other receivables		78	48
Receivables from the public utility's cheque account	18	34	28
Prepaid expenses and accrued income	19	501	574
<b>Total current receivables</b>		<b>854</b>	<b>996</b>
<b>Cash and bank balances</b>		<b>77</b>	<b>28</b>
<b>Total current assets</b>		<b>935</b>	<b>1 030</b>
<b>Total assets</b>		<b>8 799</b>	<b>8 366</b>

## Balance sheets – Parent Entity

MSEK	Note	2008-12-31	2007-12-31
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>			
<b>Restricted equity</b>			
Government capital		600	600
Restricted reserves		3 314	3 314
<b>Total restricted equity</b>		<b>3 914</b>	<b>3 914</b>
Retained earnings incl. net income for the year		2 073	1 875
Net income for the year		774	674
<b>Total unrestricted equity</b>		<b>2 847</b>	<b>2 549</b>
<b>Total equity</b>		<b>6 761</b>	<b>6 463</b>
<b>Interest-bearing provisions</b>			
Provisions for pensions	21	392	361
<b>Interest-bearing long-term liabilities</b>	20	<b>573</b>	<b>471</b>
<b>Non-interest-bearing long-term liabilities</b>			
Non-interest-bearing liabilities		0	0
Advance payments from customers		94	93
<b>Total non-interest-bearing long-term liabilities</b>		<b>94</b>	<b>93</b>
<b>Non-interest-bearing current liabilities</b>			
Accounts payable		435	388
Other liabilities		21	19
Accrued expenses and prepaid income	23	523	571
<b>Total non-interest-bearing current liabilities</b>		<b>979</b>	<b>978</b>
<b>Total equity and liabilities</b>		<b>8 799</b>	<b>8 366</b>
<b>Pledged securities</b>		<b>None</b>	<b>None</b>
<b>Contingent liabilities</b>	24, 25	<b>20</b>	<b>20</b>

## Cash flow statements – Parent Entity

<b>MSEK</b>	<b>2008</b>	<b>2007</b>
The year's operations		
Operating income	721	715
Adjustment for items not included in cash flow		
Depreciation	439	446
Other items	42	54
Interest paid	-14	-26
<b>Cash flow from operations before changes in working capital</b>	<b>1 188</b>	<b>1 189</b>
<b>Changes in working capital</b>		
Change in inventories	2	-4
Change in current receivables	142	-279
Change in current liabilities	1	321
<b>Cash flow from the year's operations</b>	<b>1 333</b>	<b>1 227</b>
<b>Investment activities</b>		
Investments in tangible and intangible fixed assets	-929	-557
Change in long-term receivables	0	0
Sale of fixed assets	0	0
<b>Cash flow from investment activities</b>	<b>-929</b>	<b>-557</b>
<b>Financing activities</b>		
Dividend received	6	23
Change in interest-bearing liabilities	102	-238
Change in other long-term liabilities	0	-1
Advance payments from customers	13	2
Dividend paid	-476	-439
<b>Cash flow from financing activities</b>	<b>-355</b>	<b>-653</b>
<b>Cash flow for the year</b>	<b>49</b>	<b>17</b>
Liquid assets at the beginning of the year	28	11
Liquid assets at year-end	77	28

## Change in equity – Parent Entity

<b>MSEK</b>	<b>Government capital</b>	<b>Other paid-up capital</b>	<b>Profit brought forward incl. net income for the year</b>	<b>Total</b>
<b>Opening balance 2007</b>	<b>600</b>	<b>3 314</b>	<b>2 314</b>	<b>6 228</b>
Dividend	—	—	-439	-439
Net income for the year	—	—	674	674
<b>Closing balance 2007</b>	<b>600</b>	<b>3 314</b>	<b>2 549</b>	<b>6 463</b>
<b>Opening balance 2008</b>	<b>600</b>	<b>3 314</b>	<b>2 549</b>	<b>6 463</b>
Dividend	—	—	-476	-476
Net income for the year	—	—	774	774
<b>Closing balance 2008</b>	<b>600</b>	<b>3 314</b>	<b>2 847</b>	<b>6 761</b>



## Seven year review for the Group

<b>MSEK</b>		<b>2008</b>	<b>2007</b>	<b>2006</b>	<b>2005</b>	<b>2004</b>	<b>2003</b>	<b>2002</b>
Operating revenue		7 717	6 326	6 838	5 885	5 335	5 633	5 096
Operating revenue excluding depreciation		-6 328	-4 941	-5 581	-4 445	-4 201	-4 717	-3 967
Depreciation		-585	-590	-569	-558	-537	-527	-512
Share of income in associated companies		1 069	69	48	30	23	19	40
<b>Operating income</b>		<b>1 873</b>	<b>864</b>	<b>736</b>	<b>912</b>	<b>620</b>	<b>408</b>	<b>657</b>
Financial items		-67	-127	-55	-29	-67	-118	-109
<b>Income after financial items</b>		<b>1 806</b>	<b>737</b>	<b>681</b>	<b>883</b>	<b>553</b>	<b>290</b>	<b>548</b>
Tax on income for the year		-3	-5	-5	-3	-15	1	-5
<b>Net income for the year</b>		<b>1 803</b>	<b>732</b>	<b>676</b>	<b>880</b>	<b>538</b>	<b>291</b>	<b>543</b>
<b>Balance sheet, MSEK</b>								
Intangible fixed assets		259	226	224	207	171	132	110
Tangible fixed assets		8 893	8 549	8 545	8 655	8 916	9 081	9 240
Financial fixed assets		1 528	467	416	391	372	364	372
Inventories		89	93	89	73	69	71	59
Current receivables		842	995	718	776	681	677	835
Liquid funds		104	51	59	264	120	99	165
<b>Total assets</b>		<b>11 715</b>	<b>10 381</b>	<b>10 051</b>	<b>10 366</b>	<b>10 329</b>	<b>10 424</b>	<b>10 781</b>
Equity		8 159	6 832	6 539	7 435	6 892	6 664	6 729
<b>Long-term liabilities</b>								
Interest-bearing		1 621	1 616	1 960	1 333	2 423	2 667	2 813
Non-interest-bearing		421	444	477	505	111	112	104
Provisions		392	361	253	240	220	195	190
<b>Current liabilities</b>								
Interest-bearing		98	98	98	98	128	127	138
Non-interest-bearing		1 024	1 030	724	755	555	659	807
<b>Total equity and liabilities</b>		<b>11 715</b>	<b>10 381</b>	<b>10 051</b>	<b>10 366</b>	<b>10 329</b>	<b>10 424</b>	<b>10 781</b>
<b>Key business ratios</b>								
Return on adjusted equity after tax	%	19.8	8.9	7.9	10.1	6.2	3.5	6.6
Return on total capital	%	17.0	8.6	7.3	8.9	5.8	3.9	8.3
Return on capital employed	%	21.6	10.7	9.0	10.8	6.7	4.6	8.4
Equity/assets ratio	%	60.9	58.8	58.5	62.8	59.2	57	55.5
Operating margin	%	24.3	13.7	10.8	15.5	11.6	7.2	12.9
Net profit margin after tax	%	16.8	8.3	7.1	10.8	7.0	3.7	7.6
Capital turnover ratio	%	69.8	61.9	67.0	56.9	51.4	53.1	48.1
Debt/equity ratio	%	28	33	38	22	43	49	50
Self-financing level	times	1.6	2.1	2.8	4.4	2.6	2.0	2.3
Interest coverage ratio	times	25.7	6.1	12.4	21.5	7.6	3.3	4.6
<b>Other</b>								
Internally allocated funds	MSEK	1 347	1 373	1 225	1 417	1 089	844	989
Net liability	MSEK	2 007	2 024	2 252	1 407	2 651	2 897	2 982
Investments	MSEK	963	596	478	338	410	411	460
Average no. of employees		295	289	282	277	269	261	249
Energy supplied to the national grid	TWh	115.0	120.5	119.8	127.7	123.5	117.7	125.2
Energy extracted from the national grid	TWh	112.1	117.7	117.3	124.5	120.7	115.2	122.5
Energy losses	TWh	2.9	2.8	2.5	3.2	2.7	2.5	2.7

# Additional information and notes

## Accounting and valuation principles

### Basis for drawing up the reports

Svenska Kraftnät's accounts comply 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 corresponds 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 has made departures from the above ordinance when preparing the Group's income statements and balance sheets, cash flow statements and changes in equity. This is in order to provide a more true and fair picture of the Group's financial status and better comparability with Swedish groups quoted on the stock exchange.

### Preconditions for the drafting of the Group's financial reports

The parent company's functional currency for reporting is Swedish kronor for both the parent company and the Group. All amounts that are given are rounded off to the nearest million kronor (MSEK) unless otherwise indicated. Items related to income statements refer to the period 1 January –31 December. Items related to balance sheets refer to 31 December. Figures within brackets apply to the previous year's values.

## Consolidated accounting principles

### The extent of the group

Svenska Kraftnät comprises the parent entity, the Svenska Kraftnät public utility, along with four subsidiaries and six associated companies. The parent entity is a Swedish state-owned public utility that has its head office in Stockholm. The Group is under the controlling influence of the Swedish government.

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.

### Consolidation principles

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 recommendations of the Swedish Financial Accounting Standards Council concerning consolidated accounts are 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 within the Group are eliminated in their entirety.

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. Svenska Kraftnät's share of the associated companies' result is thereby included in the Group's result and dividend distributed. The share is included in the profit brought forward.

### Untaxed reserves/appropriations

When drawing up the consolidated accounts, untaxed reserves and appropriations reported in the individual companies have been divided up into deferred tax and restricted equity. The deferred tax liability has been calculated at the current tax rate.

### Translation of foreign subsidiaries and associated companies

For all companies within the Group local currency corresponds to the functional currency for the company. Swedish kronor, which is the parent company's functional and reporting currency, is used in the consolidated accounts. Assets and liabilities are translated to the exchange rate on the balance sheet date. Unrealised exchange rate gains and exchange rate losses are included in the result.

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.

### Revenue accounting

Revenues are reported to the extent to which it is likely that the financial advantages will be to the benefit of the Group and that the revenues can be calculated in a reliable way. Revenues are reported net of VAT. Intra-group sales are eliminated in the consolidated accounts.

#### *Network revenue*

Network revenue consists of both power charges and energy dependent fees. Power

charges are fixed annual fees for subscriptions that are reported as income linearly throughout the period 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.

**System responsibility revenue for electricity**  
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. From 1 January 2005 the Group reports its revenue and expenses gross for system responsibility per hour instead of as previously per fourteen day period. If the customer has overall purchased power during the period, this is shown as balancing power income for Svenska Kraftnät whereas if the customer has instead overall sold power, it is reported as a balancing power cost.

**System responsibility revenue for natural gas**  
Revenue 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.

### Accounting of business segments

The Group's operations are divided into six business segments. A business segment is a unit identifiable within Svenska Kraftnät's accounts that is distinguished from other business segments on the basis of the risks and opportunities involved in each assignment.

### Interest income

Interest income is reported concurrently as it is accrued, i.e. it is accounted in the income statement in the period in which it arises.

### Interest expenses

Interest expenses consist of interest and other expenses that arise when borrowing capital. Interest expenses are reported in the period they relate to. Interest expenses during the construction period are activated

with the construction of capital assets in excess of SEK 50 million.

### Receivables and liabilities

Assets and liabilities have been valued at the acquisition value if not otherwise specified. Doubtful debts are entered at the amount that is estimated will be paid after individual assessment.

### Receivables and liabilities in foreign currency

Receivables and liabilities in foreign currency are valued at the exchange rate on the balance sheet date. The difference between the value on the date of acquisition and the balance sheet date has been added to the result.

### Inventories

The inventory consists of natural gas and fuel for operating gas turbines. The stock has been valued at the lowest of the acquisition value and the real value.

### Liquid funds

Liquid funds comprise cash and bank balances.

### Reporting of leasing agreements

All leasing agreements are reported as operational leases and written-off linearly. There are no financial leasing agreements.

### Tangible fixed assets

Tangible fixed assets are reported at their acquisition value with a deduction made for accumulated depreciation and write-downs. Investments are regarded as being new construction as well as conversions and

extensions that in the long term increase standard, quality or performance.

Expenditure for repairs and maintenance are reported as an expense in the period in which they occur. Included during 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.

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

### Intangible fixed assets

Expenditure for land rights, rights of use in fibre-optic connections, licences, construction in progress and development expenses for computer programs are carried forward and written off linearly over the duration of use. All intangible fixed assets have a limited period of use. Since 2002 land rights are written off according to the assessed period of use, which for a cable concession is usually 40 years.

Rights of use are for fibre-optic cables and are written off over a period of between 15 and 25 years in accordance with the length of the contract period.

### Depreciation

Depreciation according to plan is based on the acquisition value of the assets and the estimated period of use. Linear depreciation is used for all fixed assets.

Annual depreciation rates are as follows:

The residual value and duration of use of assets is regularly checked and adjusted when necessary.

#### Annual depreciation rates

Transmission lines, excluding submarine cables and associated lines	2.5%
Submarine 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%

### Provisions

A provision is reported in the balance sheet when there is a legal or informal undertaking as a consequence of an event that has occurred, and it is likely that an outflow of resources is required to settle the undertaking and that the amount can be estimated in a reliable way.

### Taxes

Svenska Kraftnät's subsidiaries are obliged to pay income tax for limited liability companies, whereas Svenska Kraftnät as a state utility and part of the Swedish state is free from income tax, i.e. is not a tax subject. Deferred tax for differences between the reported and fiscal result is not reported by the parent entity and the Svenska Kraftnät 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.

### Pension commitments

Since 2003 a new pension agreement, PA-03, applies for state employees born in 1943 or later. For employees born in 1942 or earlier PA-91 still applies. The size of the pension provision is calculated by the National Government Employee Pensions Board (SPV). PA-03 includes old-age pension, survivors' pension and disability pension.

PA-03 includes the following old-age pensions:

- Contribution pensions – individual old-age pension and supplementary old-age pension, Kåpan. Premiums are paid for these
- Defined-benefit pensions – old-age pension on incomes over 7.5 basic income and old-age pension in accordance with transitional rules for employees born between 1943 and 1972.

These commitments are reported under the item, Provision for pensions.

The year's pension provisions have been written off together with premiums paid. The interest component in the year's pension expenses is reported as an interest expense. In addition to the 2.5 % interest rate, the interest component also includes index-linking of certain benefits.

Some 7 % of the employees were not updated, which means that their pension provision has been calculated at a standard rate. Updating means that SPV carries out an overall review of all the positions a state employee has held, in both the public and private sectors. If there are gaps in the period of employment the pension provision is entered at a standard rate. Among other things, this means that SPV assumes that the employee has been in state employment from the age of 28, and that the provision is calculated with a factor of 0.95. This means that the actual provision might be less or more. Svenska Kraftnät considers that the pension provision is not too low and has chosen to report the pension provision calculated by SPV.

The pension liability reported is constituted by the technically calculated assumptions that Svenska Kraftnät is responsible for according to the PA-91 and PA-03 pension agreements. The pension provision is calculated in accordance with the basis that the board of SPV has laid down. The pension provision includes commitments with respect to both active personnel and pensioners.

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 at the end of the year.

### Government support

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

### Research and development expenses

Development work is an integrated aspect of the operation and refers to measures for long-term improvements that are written off continuously during the year. Svenska Kraftnät conducts research and development work with the aim of increasing reliability performance, effectiveness and environmental adaptation of the network and system operations. No expenses are therefore activated for development.

### Cash flow statement

The cash flow statement is drawn up in accordance with the indirect method. The reported cash flow comprises transactions that entail receipts and payments. This means that discrepancies can occur compared with changes in individual items in the balance sheet.

### Borrowing

Borrowing is reported at a nominal amount.

### Shares and participations in Group companies

Shares and participations in group companies are reported at acquisition value with deductions for any write-downs. Dividends received are reported when the right to a dividend is deemed to be secure.

### Supervisory Authority

The supervisory authority for network operations is the Energy Market Inspectorate, which is an independent authority from 1 January 2008.

# Notes

## Note 1 Network revenue

MSEK	Group		Parent entity	
	2008	2007	2008	2007
Power revenue	894	1 061	923	1 096
Energy-dependent revenue	1 292	1 271	1 292	1 271
Congestion revenue	820	641	820	641
Transit revenue	168	112	168	112
Swe Pol Link	248	246	-	-
Other revenue	56	46	52	42
<b>Total</b>	<b>3 478</b>	<b>3 377</b>	<b>3 255</b>	<b>3 162</b>

## Note 2 System responsibility revenue – electricity

MSEK	Group		Parent entity	
	2008	2007	2008	2007
Sold balancing power	3 134	1 994	3 134	1 995
Sold final power	51	121	51	121
Sold supportive power	85	72	85	72
Sold regulation power	419	212	419	212
Total regulation power	3 689	2 399	3 689	2 400
Peak-power reserve	111	126	111	126
Ediel	6	6	6	6
<b>Total</b>	<b>3 806</b>	<b>2 531</b>	<b>3 806</b>	<b>2 532</b>

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

## Note 3 Government grant for power contingency planning

Grants accounts for the parent entity:						
Expense area 06, Defence and contingency planning against vulnerability (tsk)	Opening transmission amount	Allocation for the year as per letter of governance	Withdrawal 3 %-rule	Total available funds	Expenses	Closing amount
<b>7:5 Emergency preparedness</b>						
– Appropriation item 3, Electricity emergency measures	7 505	250 000	- 5	257 500	- 255 704	1 796

In addition to appropriations, grants have also been received from the Emergency Management Authority and the National Post and Telecom Agency for an amount of 7 (14).

The grants consumed during the course of the year amounting to SEK 262 (264) million have been used as a contribution to condenser installations in combined heat and power plants, training of linemen during civil service, the emergency reserve, the emergency network operation training “Elövning 2008”, back-up fuel systems in combined heat and power plants and reinforcing cable networks in metropolitan areas.

For this appropriation, there is also a framework for authorisation, that according to civil law is a binding undertaking that entails future expenses. They are set out in the table below.

Allocated framework for outstanding undertakings, TSEK	Constituent undertakings	Outstanding commitments	Forecast 2009	2010	2011
465 000	333 959	232 100	78 494	60 666	92 940

## Note 4 Activated work for own account

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

Group and Parent entity				
MSEK	2008		2007	
Construction work in progress	31		27	
Activated development of computer programs	7		5	
<b>Total</b>	<b>38</b>		<b>32</b>	

## Note 5 Staff

The average number of employees during 2008 in the group was 295 (289), 293 (287) of whom were in the parent entity and 2 (2) in Poland in the SwePol Link Group.

The distribution between men and women at year-end can be seen from the table below. There is one man and one woman employed in Poland.

The Group's staff expenses amounted to SEK 259 (251) million, of which the payroll costs were SEK 152 (142) million. To this shall be added pension expenses of SEK 34 (26) million and also social expenses of SEK 58 (71) million.

Employees (Number)	Group		Parent entity	
	2008	2007	2008	2007
Women	90	84	89	83
Men	215	203	214	202
<b>Total</b>	<b>305</b>	<b>287</b>	<b>303</b>	<b>285</b>

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 salary of the Director General who entered on his duties on March 1 amounted to SEK 1.0 million and pension expenses to SEK 0.3 million according to calculations from the National Government Employee Pensions Board. The Deputy Director-General's salary for the year as a whole amounted to SEK 1.0 (1.0) million and pension expenses amounted to SEK 0.8 million.

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

The Board				
(Number, Staff repr. excl.)	2008		2007	
Women	3		3	
Men	5		5	
<b>Total</b>	<b>8</b>		<b>8</b>	

## Note 6 Other operating expenses

MSEK	Group		Parent entity	
	2008	2007	2008	2007
Energy crediting	305	334	305	334
Operation & maintenance	303	276	268	239
Leases on fixed assets	44	46	44	46
Transit expenses	153	131	153	131
Countertrade national grid	113	213	113	212
Primarily regulation	293	182	293	182
Disturbance reserve	63	63	93	91
Peak-power reserve	97	129	107	142
Research and development	27	27	27	27
Contingency planning expenses	193	198	208	212
Other	209	152	196	132
<b>Total</b>	<b>1 800</b>	<b>1 751</b>	<b>1 807</b>	<b>1 748</b>

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

Fees and expenses MSEK	Group		Parent entity	
	2008	2007	2008	2007
Swedish National Audit Office	0.7	0.7	0.7	0.7
Other auditors	0.5	0.4	-	-
<b>Auditing expenses</b>	<b>1.2</b>	<b>1.1</b>	<b>0.7</b>	<b>0.7</b>
Consultation. Deloitte	0.1	-	0.1	-
Consultation. Ernst & Young	0.5	0.3	0.1	0.2
<b>Total</b>	<b>1.8</b>	<b>1.4</b>	<b>0.9</b>	<b>0.9</b>

## Note 7 Share of income in associated companies

MSEK	Group	
	2008	2007
Nord Pool ASA	1 073	59
Nord Pool Spot AS	-6	7
STRI	2	2
Kraftdragarna AB	-	1
<b>Total</b>	<b>1 069</b>	<b>69</b>

## Note 8 Business Segments and Lines of business

MSEK	Group			
	Operating revenue		Operating income	
	2008	2007	2008	2007
Transmission on the national grid	3 516	3 409	822	791
System responsibility – electricity	3 806	2 531	-71	-38
Telecommunications – external	70	71	30	34
Telecommunications – internal	54	32	16	-4
System responsibility – natural gas	54	41	2	5
Renewable electricity certificates	10	10	5	7
Associated companies	-	-	1 069	69
Contingency	261	264	0	0
Segment elimination	-54	-32	-	-
<b>Total</b>	<b>7 717</b>	<b>6 326</b>	<b>1 873</b>	<b>864</b>

The predominant lines of business within the Group are Transmission on the national grid and System responsibility for electricity.

Included in the operating income are the lines of business external revenue and expenses. Activated own work is included in Transmission on the national grid, see note 4.

Some items concern both the lines of business Transmission on the national grid and System responsibility for electricity. When it has not been possible to link these activities to a line of business, the costs have been distributed on a standard basis.

The business segment Telecommunications has performed services for Transmission on the national grid to a value of SEK 54 (32) million, which is reported as operating income for Telecommunications and a corresponding increase in operating expense for

MSEK	Parent entity	
	2008	2007
<b>Operating revenue</b>		
Balancing power revenue	3 645	2 382
Peak-power reserve	111	127
Ediel	6	6
Other system revenue	44	17
<b>Total operating revenue</b>	<b>3 806</b>	<b>2 532</b>
<b>Operating expenses</b>		
Balancing power expenses	-3 404	-2 187
System operation, primary regulation	-293	-181
Disturbance reserve	-46	-45
Peak-power reserve	-107	-142
Ediel	-6	-4
Other expenses	-16	-16
Depreciation	0	-1
<b>Total operating expenses</b>	<b>-3 872</b>	<b>-2 576</b>
<b>Operating income</b>	<b>-66</b>	<b>-44</b>

Transmission on the national grid. Activated own work is included in the line of business Transmission on the national grid's revenues at an amount of SEK 38 (32) million.

Within the line of business System responsibility for electricity, the balance providers have agreements with the parent entity on balance regulation and settlement of their imbalances. Profit trends are shown below for the years 2008 and 2007 in the parent entity.

Return on capital employed for the group is 21.1 (10.7) %. The predominant proportion of the capital employed belongs to the Transmission on the national grid business segment.

Note 9 Result from securities and receivables that are fixed assets

MSEK	Group		Parent entity	
	2008	2007	2008	2007
Dividend on shares and participations in associated companies	-	-	48	23
Interest income on long-term receivables in subsidiaries	-	-	8	7
Interest income on long-term receivables in associated companies	4	4	4	4
Other interest income	-	2	-	2
Exchange rate differences	-5	5	-4	5
<b>Total</b>	<b>-1</b>	<b>11</b>	<b>56</b>	<b>41</b>

Note 11 Interest expenses and similar expense items

MSEK	Group		Parent entity	
	2008	2007	2008	2007
Interest expenses, Pension debt	6	71	6	71
Interest expenses, long-term credit	64	52	-	-
Interest expenses, National Debt Office loan	11	23	11	23
Interest expenses, current liabilities	3	3	3	3
Capitalised interest for new construction	-13	-9	-13	-9
Exchange rate differences	1	2	-	-
Other financial expenses	1	3	0	1
<b>Total</b>	<b>73</b>	<b>145</b>	<b>7</b>	<b>89</b>

Note 10 Interest income and similar income items

MSEK	Group		Parent entity	
	2008	2007	2008	2007
Interest income from bank balances	5	2	2	2
Other interest income	2	5	2	5
<b>Total</b>	<b>7</b>	<b>7</b>	<b>4</b>	<b>7</b>

Note 12 Tax on income for the year

MSEK	Group	
	2008	2007
Current tax	-2	-3
Deferred tax	-1	-2
<b>Total</b>	<b>-3</b>	<b>-5</b>

Shares in the profit of associated companies are presented in a separate note. Dividends and profits in conjunction with sales of shares/participations in associated companies are presented under note 9.

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.

Note 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 data program	Land rights	Rights of use rights for fibre-optic cables	Construction in progress	Total
<b>MSEK</b>					
Opening acquisition value	59	170	67	95	391
Acquisitions				43	43
Sales/disposal					0
Reclassifications	40		4	-32	12
<b>Closing accumulated acquisition value</b>	<b>99</b>	<b>170</b>	<b>71</b>	<b>106</b>	<b>446</b>
Depreciation brought forward	38	106	21	0	165
Sales/disposal					
Depreciation for the year	14	3	5		22
<b>Accumulated depreciation carried forward</b>	<b>52</b>	<b>109</b>	<b>26</b>	<b>0</b>	<b>187</b>
<b>PLANNED REMAINING VALUED CARRIED FORWARD</b>	<b>47</b>	<b>61</b>	<b>45</b>	<b>106</b>	<b>259</b>
Depreciation previous fiscal year	10	3	5	-	18



## Note 14 Tangible fixed assets

<b>Group</b>	<b>Buildings and land</b>	<b>Machinery and other technical facilities</b>	<b>Construction in progress</b>	<b>Total</b>
<b>MSEK</b>				
Opening acquisition value	956	16 301	688	17 945
Acquisitions	1	28	891	920
Sales/disposal	-1	-21	-1	-23
Depreciation in connection with disposal	0	-2	0	-2
Reclassifications	8	144	-166	-14
<b>Closing accumulated acquisition value carried forward</b>	<b>964</b>	<b>16 450</b>	<b>1 412</b>	<b>18 827</b>
Depreciation brought forward	425	8 970		9 395
Sales/disposal	-2	-21	0	-23
Depreciation for the year	55	506	0	561
<b>Accumulated depreciation carried forward</b>	<b>478</b>	<b>9 455</b>	<b>0</b>	<b>9 933</b>
<b>PLANNED REMAINING VALUED CARRIED FORWARD</b>	<b>487</b>	<b>6 995</b>	<b>1 412</b>	<b>8 893</b>
Depreciation previous fiscal year	36	511	-	547
<b>Parent entity</b>				
<b>MSEK</b>				
Opening acquisition value	480	13 939	662	15 081
Acquisitions		1	885	886
Sales/disposal	-1	-22		-23
Depreciation in connection with disposal		-2		-2
Reclassifications	8	144	-166	-14
<b>Closing accumulated acquisition value</b>	<b>487</b>	<b>14 060</b>	<b>1 381</b>	<b>15 928</b>
Depreciation brought forward	257	8 107		8 364
Sales/disposal	-1	-23		-24
Depreciation for the year	31	383		414
<b>Accumulated depreciation carried forward</b>	<b>287</b>	<b>8 467</b>	<b>0</b>	<b>8 754</b>
<b>PLANNED REMAINING VALUED CARRIED FORWARD</b>	<b>200</b>	<b>5 593</b>	<b>1 381</b>	<b>7 174</b>
Depreciation previous fiscal year	13	392	-	405

The item Machinery and other technical facilities includes in particular switchyard equipment, power cables, submarine 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. Appropriation funds of SEK 0(12) million have been received for investment in gas turbines.

## Note 15 Shares and participations in Group companies

<b>Company</b>	<b>Corporate number</b>	<b>Domicile</b>	<b>Share %</b>	<b>Quantity</b>	<b>Nominal value, MSEK</b>	<b>Book value, MSEK</b>
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
Åsbro Kursgård AB	556764-0908	Askersund	100	1 000	0	0
<b>Total</b>					<b>12</b>	<b>12</b>

## Note 16 Shares and participations in associated companies

Company	Corporate number	Domicile	Share %	Quantity	Book value, MSEK	
					Group	Parent entity
Nord Pool ASA	NO 965662952	Lysaker	50	100 000	1 399	172
Nord Pool Spot AS	NO 984058098	Lysaker	30	4 320	49	42
Stri AB	556314-8211	Ludvika	25	375	11	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
<b>Total</b>					<b>1 466</b>	<b>219</b>

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

## Note 17 Current receivables

MSEK	Group	
	2008	2007
Accounts receivable	219	336
Receivables from associated companies	3	3
Other receivables	82	51
Receivable from the public utility's overdraft facility	34	28
<b>Total</b>	<b>338</b>	<b>418</b>

## Note 18 Receivable from the public utility's overdraft facility

The receivable carried forward of SEK 34 (28) 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: From 2008 the Swedish Government Offices are responsible for reporting the income title with respect to the dividend that Svenska Kraftnät deposits.

Group and Parent entity (TSEK)	2008	2007
<b>Opening balance (receivable +, liability -)</b>	<b>28 312</b>	<b>48 363</b>
Settled against Government budget:		
Appropriation	255 704	249 949
Income titles, dividend and small-scale energy	-	-439 000
Settled against public utility's overdraft facility:		
Appropriation funds withdrawn	-250 002	-270 000
Dividend paid in	-	439 000
<b>Balance carried forward</b>	<b>34 014</b>	<b>28 312</b>

## Note 19 Prepaid expenses and accrued income

MSEK	Group		Parent entity	
	2008	2007	2008	2007
Prepaid expenses,				
Telecommunications	0	1	0	1
Other	16	16	14	13
Intangible investment	3	0	3	0
Accrued income				
Network	194	233	194	233
System responsibility	283	317	283	317
Renewable electricity certificates	2	3	2	3
Natural gas	3	6	3	6
Other	3	1	2	1
<b>Total</b>	<b>504</b>	<b>577</b>	<b>501</b>	<b>574</b>

## Note 20 Long-term interest-bearing liabilities

MSEK	Group		Parent entity	
	2008	2007	2008	2007
The National Debt Office	573	471	573	471
Credit institutions	1 048	1 145	0	0
<b>Total</b>	<b>1 621</b>	<b>1 616</b>	<b>573</b>	<b>471</b>

The liability to the National Debt Office is for the current bank overdraft. Of the other external loans, a total of SEK 752 (849) million falls due for payment after five years in the case of the Group and SEK 0 (0) million for the parent entity.

## Note 21 Provisions for pensions

<b>MSEK</b>	<b>Group and Parent entity</b>	
	<b>2008</b>	<b>2007</b>
Opening balance	361	253
Pensions paid	-6	-5
Annual indexation of pension liability	30	20
Annual allocation for payroll tax	7	5
Indexation of pension liability and payroll tax due to method of calculation	-	88
<b>Balance carried forward</b>	<b>392</b>	<b>361</b>

## Note 22 Current interest-bearing liabilities

<b>MSEK</b>	<b>Group</b>		<b>Parent entity</b>	
	<b>2008</b>	<b>2007</b>	<b>2008</b>	<b>2007</b>
Short-term part of long-term loans				
Credit institutions	98	98	0	0
<b>Total</b>	<b>98</b>	<b>98</b>	<b>0</b>	<b>0</b>

## Note 23 Accrued expenses and prepaid income

<b>MSEK</b>	<b>Group</b>		<b>Parent entity</b>	
	<b>2008</b>	<b>2007</b>	<b>2008</b>	<b>2007</b>
Accrued expense, balancing power	227	259	227	259
Accrued expense, primary regulation	1	10	1	10
Accrued expenses, power reserve	10	8	10	8
Accrued expense, energy compensation	32	40	32	40
Accrued expense, transmission losses	104	73	104	73
Accrued expense, disturbance	5	0	5	0
Transit compensation	34	54	34	54
Accrued staff expenses	33	32	33	32
Accrued leases on fixed assets	12	11	12	11
Accrued maintenance expenses	35	17	35	16
Accrued contingency expenses	10	41	10	41
Accrued expenses, natural gas	4	9	4	9
Accrued expenses, other	6	7	5	6
Prepaid Telecommunications revenue	11	11	11	11
Prepaid income, other	0	1	0	1
<b>Total</b>	<b>524</b>	<b>573</b>	<b>523</b>	<b>571</b>

## Note 24 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.

## Note 25 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.

Future leasing commitments MSEK	Group		Parent entity	
	2008	2007	2008	2007
Within one year	182	198	227	246
Later than one year but within five years	218	286	384	452
Later than five years	174	194	215	277
<b>Total</b>	<b>574</b>	<b>678</b>	<b>826</b>	<b>975</b>



# Proposed disposition of earnings etc.

The Group's non-restricted equity amounts to SEK 4,154 million, of which the profit for the year amounts to SEK 1,803 million.

Of the parent entity's non-restricted equity of SEK 2,849 million, of which the result for the year amounts to SEK 776 million, it is proposed that SEK 1,172 million is allocated for dividend in accordance with the dividend policy and that the sur-

plus 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 are adopted for 2008.

We certify that the annual report provides a correct picture of the results of the business and also of expenses, revenues and the authority's and the Group's financial position.

A potential need for improvements to operational planning and systems for document handling has been identified in the section in the Report of the Board of Directors' dealing with Internal Control and Risk Management. All in all, however, our assessment is that internal governance and control in the authority is satisfactory.

Stockholm 19 February 2009

Sven Hulterström  
*Chairperson*

Anna-Stina Nordmark-Nilsson  
*Deputy Chairperson*

Mikael Odenberg  
*Director General*

Tomas Bruce

Ann-Sofie Danielsson

Bo Diczfalusy

Christer Samuelsson

Karin Stierna

Agata Persson  
*Staff representative*

Sture Törnstam  
*Staff representative*

## Auditor's report for the Svenska Kraftnät public utility

The Swedish National Audit Office has audited the public utility Svenska Kraftnät's annual accounts and consolidated accounts agreed on 19-02-2009, for the financial year 2008.

The management of the Svenska Kraftnät public utility 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's annual accounts. The purpose of the inspection is to judge 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 National Audit office deems that the audit carried out has provided reason-

able 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.

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

Göran Selander is the responsible auditor and he made the decision in this matter. Anne Bryne, who was in charge of the assignment, contributed with the decision.

The Auditor's Report of the National Swedish Audit Office was submitted on 20 February 2009

Göran Selander

Anne Bryne

# The Board of Directors



**Sven Hulterström,  
Chairman**

born 1938, appointed 2003.

*Other directorships:* Chairman of Göteborgs Hamn AB. Deputy Chairman of AB Stokab.



**Anna-Stina Nordmark-Nilsson,  
Deputy Chairman**

born 1956, appointed 2004. MD, Swedish Federations of Business Owners.

*Other directorships:* Board member of Diös Fastigheter AB, Svea Skog AB.



**Tomas Bruce**

born 1944, appointed 2004. Managing Director, Swedish Coal Institute.

*Other directorships:* Chairman of Capital Cooling Europe AB, Swedish Orienteering Federation. Board member of AB Borlänge Energi.



**Ann-Sofie Danielsson**

born 1959, appointed 2007. Accounts and finance director, NCC AB.



**Bo Diczfalusy**

born 1952, appointed 2005. Director, The Ministry for Industry, Employment and Communications.

*Other directorships:* IEA (International Energy Agency)



**Christer Samuelsson**

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



**Karin Stierna**

born 1970, appointed 2007. Municipal commissioner, Strömsund municipality.



**Mikael Odenberg,  
Director General**

born 1953, appointed 1 March 2008. *Other directorships:* Deputy Chairman of Nord Pool ASA. Board member of the government's Emergency Management Committee.



**Sture Larsson**

born 1947, acting Director General from April 2007 to February 2008. Technical Director of Svenska Kraftnät.



**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.

# Addresses



## **Svenska Kraftnät, Head Office\***

Box 526  
SE-162 15 Vällingby  
Visitors: Jämtlandsgatan 99  
Tel: +46 8 739 78 00  
Fax: +46 8 37 84 05  
Website: [www.svk.se](http://www.svk.se)  
e-mail: [info@svk.se](mailto:info@svk.se)

Invoice address:  
Svenska Kraftnät  
Box 306  
SE-830 23 Hackås

## **Svenska Kraftnät, Halmstad**

Box 819  
SE-301 18 Halmstad  
Visitors: Kristian IV:s väg 3  
Tel: +46 35 18 22 40, +46 35 18 22 30  
Fax: +46 35 18 22 41, +46 35 18 22 39

## **Svenska Kraftnät, Sollefteå**

Nipan 51  
SE-881 52 Sollefteå  
Tel: +46 620 78 76 10  
Fax: +46 620 121 46

## **Svenska Kraftnät, Sundsvall**

Box 138  
SE-851 03 Sundsvall  
Visitors: Erstagatan 2  
Tel: +46 60 19 57 00  
Fax: +46 60 19 57 09

## **Åsbro Kursgård AB**

SE-690 45 Åsbro  
Tel: +46 582 838 00  
Fax: +46 582 512 10

## **Elforsk AB**

SE-101 53 Stockholm  
Tel: +46 8 677 25 30  
Fax: +46 8 677 25 35  
Website: [www.elforsk.se](http://www.elforsk.se)

## **Kraftdragarna AB**

Seglartgatan 15  
SE-721 32 Västerås  
Tel: +46 21 17 04 80  
Fax: +46 21 17 04 85  
Website: [www.kraftdragarna.se](http://www.kraftdragarna.se)

## **Nord Pool ASA**

Pb. 373  
NO-1326 Lysaker, Norge  
Tel: +47 67 52 80 00  
Fax: +47 67 52 80 01  
Website: [www.nordpool.com](http://www.nordpool.com)

## **Nord Pool Spot AS**

Pb. 373  
NO-1326 Lysaker, Norge  
Tel: (+47) 67 52 80 10  
Fax: (+47) 67 52 80 01  
Website: [www.nordpoolspot.com](http://www.nordpoolspot.com)

## **STRI AB**

Box 707  
SE-771 80 Ludvika  
Tel: +46 240 795 00  
Fax: +46 240 150 29  
Website: [www.stri.se](http://www.stri.se)

## **Svenska Kraftnät Gasturbiner AB**

Box 526  
SE-162 15 Vällingby  
Visitors: Jämtlandsgatan 99  
Tel: +46 8 739 78 00  
Fax: +46 8 37 84 05

## **SwePol Link AB**

Box 526  
SE-162 15 Vällingby  
Visitors: Jämtlandsgatan 99  
Tel: +46 8 739 78 46  
Fax: +46 8 37 50 39  
Website: [www.swepollink.se](http://www.swepollink.se)

## **Triangelbolaget D4 AB**

Box 26  
SE-237 21 Bjärred  
Tel: +46 705 29 28 11  
Fax: +46 46 29 28 11  
Website: [www.triangelbolaget.se](http://www.triangelbolaget.se)

\* Svenska Kraftnät's headoffice will move to Sundbyberg in June 2009.

Editor: Johnny Norling

Design & production of printed matter: Wikströms Tryckeri, Uppsala

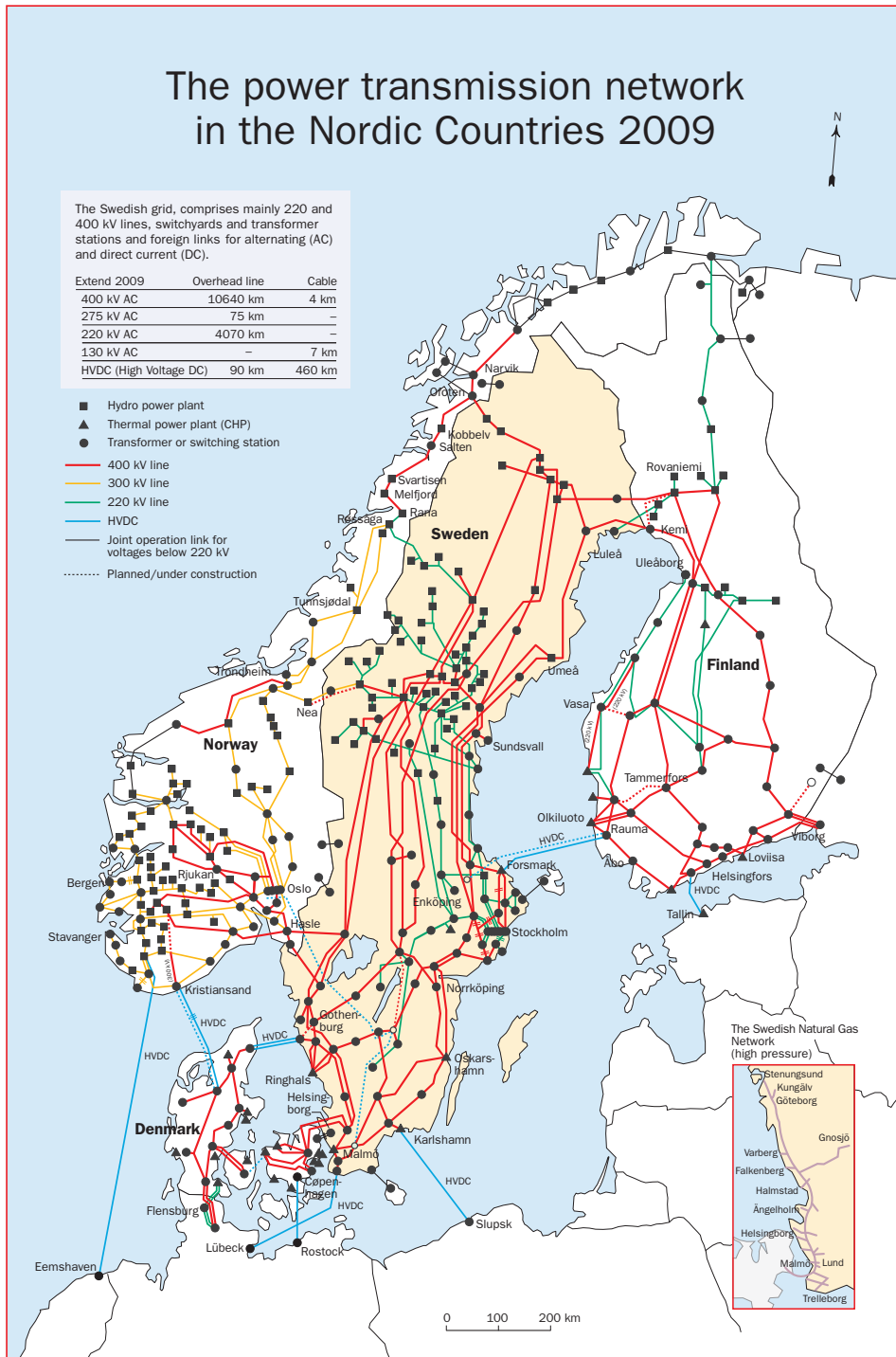
Photo: Johnny Norling (page 3, 19, 26, 29, 34). Håkan Flank (page 14, 18, 62). Eva Grusell (page 30, 41, 44). Peter Knutson (page 4, 62). Towe Lindqwister (page 23). Magnus Mikaelsson (page 15). Christer Olsson (page 10). Erling Petersson (page 28). Mikael Zetterström (page 33). Fortum (page 26). Svenska Kraftnät (page 9, 21, 24, 25, 28, 60, 63).

# The power transmission network in the Nordic Countries 2009

The Swedish grid, comprises mainly 220 and 400 kV lines, switchyards and transformer stations and foreign links for alternating (AC) and direct current (DC).

Extend 2009	Overhead line	Cable
400 kV AC	10640 km	4 km
275 kV AC	75 km	-
220 kV AC	4070 km	-
130 kV AC	-	7 km
HVDC (High Voltage DC)	90 km	460 km

- Hydro power plant
- ▲ Thermal power plant (CHP)
- Transformer or switching station
- 400 kV line
- 300 kV line
- 220 kV line
- HVDC
- Joint operation link for voltages below 220 kV
- ..... Planned/under construction



The Swedish Natural Gas Network (high pressure)

Stenungsund  
Kungälv  
Göteborg  
Gnosjö  
Varberg  
Falkenberg  
Halmstad  
Ängelholm  
Helsingborg  
Malmö  
Lund  
Trelleborg

Tekniskredieterna AB 2009

