



# ***Nature at Work***

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The 1900s have been referred to as the hydro power century in Norwegian history. To mark this, Statkraft has chosen to illustrate this annual report, as we enter into a new century, with Norwegian rivers and waterfalls, as seen through the eyes of Norwegian painters. Dorteia Hysing, an art historian, has selected the paintings and commented on them.



Nikolai Astrup (1880-1928)  
 Kvinnagong, (Going to the Mill), undated. Hand-coloured woodcut. 40.5 x 51.5 cm. In private ownership.  
 Photo: O. Væring eff. AS.

In many ways Astrup's paintings depict the quintessence of what is Norwegian. He gives a picture of hardship and frugality, enterprise and the art of engineering, beauty of scenery and mysticism. It is the human aspects in the picture that made Astrup a popular artist. The basis for this woodcut is a painting from 1902. Astrup worked on this motif for many years and repeated it a number of times. It is almost impossible to translate the title – it might mean that the mill is turning or in use or that one, in this case father and son, is on one's way to the mill. Maybe Astrup liked this double entendre. At the heart of the picture is the cascading water. This is a good symbol for Statkraft – a representative of hydro power.

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# Major market changes

by President and Chief Executive Officer Lars U. Thulin

Between important countries in Europe and the Nordic region there is now an unrestricted flow of energy across borders, with access to the national grids. A shift toward free competition through to end-users in the EU states is reaching full steam. The Skagerrak cables are now available for transmission of energy for all those who engage in power trading. The whole of Denmark has become part of the Nord Pool power exchange system that now embraces all of the Nordic countries. New exchanges are also being developed in other EU countries. These are unalterable signs that competition is getting tougher and that the majority of European countries will soon belong to one large power market.

Statkraft is part of this pulsating energy world. We have strengthened our position in the Norwegian and Nordic energy market during the last year. When electricity flows freely over national borders and buyers select suppliers in an open market, those who are effective, efficient and innovative will be the winners. Statkraft intends to be one of them! We are therefore active in Norway – looking for growth through acquisitions in energy companies

Our main obstacles lie in getting capital and acting quickly. In December 1999 the Storting (Parliament), in its Budget proposal, indicated quite clearly that it wanted a long-term dividend policy for Statkraft. This was a step in the right direction. The increased competition makes it absolutely essential that capital is available and that decisions can be made without too much delaying red tape. In a report produced for account of the Ministry of Petroleum and Energy, the consultancy firm Ernst & Young underlined that competition with heavy energy players in the Nordic region and in Europe make it difficult to foresee investment opportunities. It therefore recommends that Statkraft

be given "ample" owner's capital and flexibility to acquire fresh capital through higher loans and guarantee limits, and a system which ensures that the authorities quickly process applications for amendments to the financial framework.

If we are to play the central role we have been given by the authorities, as a leading energy company in Northern Europe, words must be followed by actions. The Minister of Trade and Commerce wrote a short while ago that rapid change in global business calls for owners who engage more actively than before. Government ownership must not be a hindrance for companies that are engaged in markets exposed to competition. Among other things she admits that the decision-making structure is extremely demanding and at times makes it impossible for the Government to make quick decisions. In the future, it is essential for Statkraft that the Government, as owner, adapts its systems to market demands.

Statkraft returned a reasonable result in 2000. Ample precipitation resulted in a record-high production level, namely 40.2 TWh. But it also resulted in low prices. The Government, as owner, took NOK 631 million of our net income of NOK 847 million. If we are to play a significant role on the European energy scene the company must retain a larger part of the profit or be supplied with adequate equity. The restructuring has only just started. Sufficient capital, a high level of competence and equitable regulatory frameworks are decisive factors. The Government's proposal to limit dividends to 50 per cent in the years to come is a step in the right direction, even if this still implies a high payout ratio compared to other companies. I am very pleased to note that work on health, safety and the environment is generating positive results, for the company's employees and in areas where we are operating.

The past year has been characterised by substantial changes in the Norwegian and European energy industry. Among other things, large energy companies have pooled their resources and become even more powerful players. One of the newly merged companies in Germany, for example, has at its disposal more production capacity than all Norwegian power plants together and has 12 million customers.

Statkraft SF was established on 1 January 1992 following a resolution adopted by the Storting (Parliament). The company is managed in accordance with the Act governing State Enterprises, and the Minister of Petroleum and Energy is Statkraft's corporate meeting. It operates on commercial principles. The company's vision is to be one of the leading Northern European energy companies with cutting edge competence in the field of hydro power. It is to own, build and operate power plants, engage in power trading and in other naturally related activities.

# Introducing Statkraft

Statkraft Group recorded gross operating revenues of NOK 5,285 million in 2000. Pre-tax income was NOK 1,765 million. The capital ratio, 39.1 per cent, shows that the company is financially sound. Statkraft is Norway's largest land-based taxpayer.

The company has a staff of about 1,200. Statkraft's employees are among the most competent in the world in a range of areas relating to the development and operation of hydro power plants, as well as in trading in electrical power in markets exposed to competition.

Statkraft owns directly an aggregate production capacity of 34.3 TWh, which accounts for about 30 per cent of the country's hydro power production. This makes Statkraft Norway's largest producer of electric power and the second largest producer of hydro power in the Nordic region, after Vattenfall. Production takes place at 93 power stations that the company owns wholly

or partly. Statkraft is responsible for operating 57 of these, while others operate 36. Statkraft owns wholly or partly a total of 113 water reservoirs corresponding to a good 40 per cent of the nation's water reservoir capacity.

Statkraft also has ownership interests in other energy companies, some wholly owned and some partly owned. These companies are mainly engaged in the development and operation of power plants, power distribution, power trading and engineering, both in Norway and internationally. In the year 2000, Statkraft acquired 34 per cent of the shares in Skiensfjordens kommunale kraftselskap AS (SKK) and in Vestfold Kraft AS (VK) as well as a 33.3 per cent interest in Hedmark Energi AS (HEAS). This reflects Statkraft's ambition to be a substantial participant in the Northern European energy market by increasing its stakes in production capacity. Figure 2 shows the ownership interests and how these are linked to Statkraft's organisation.

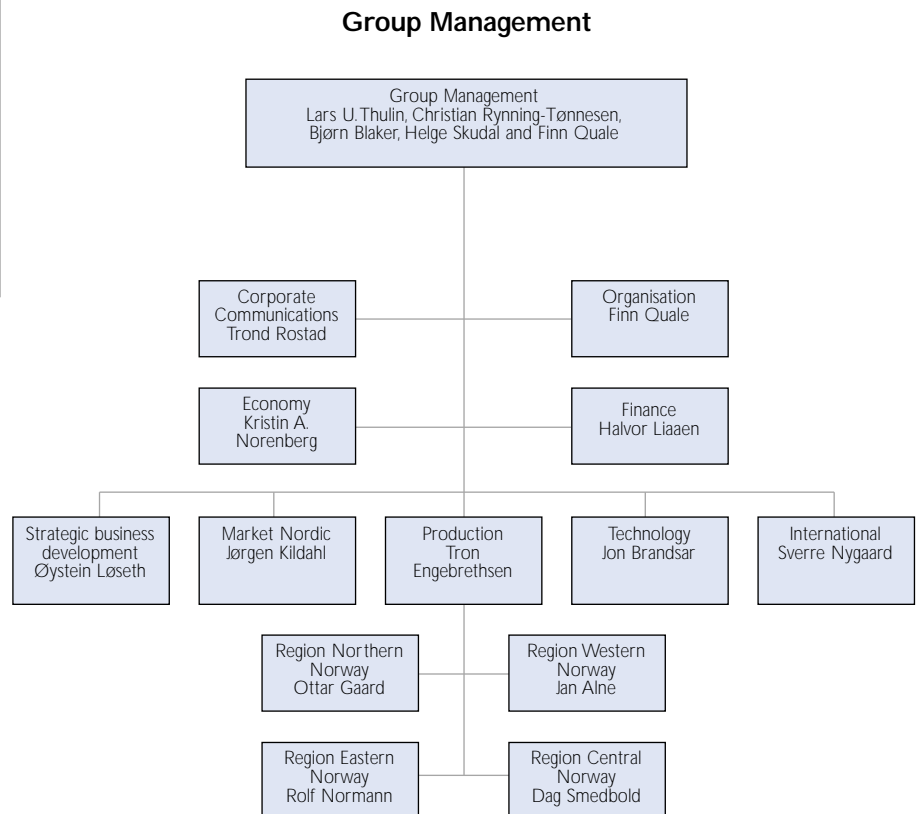


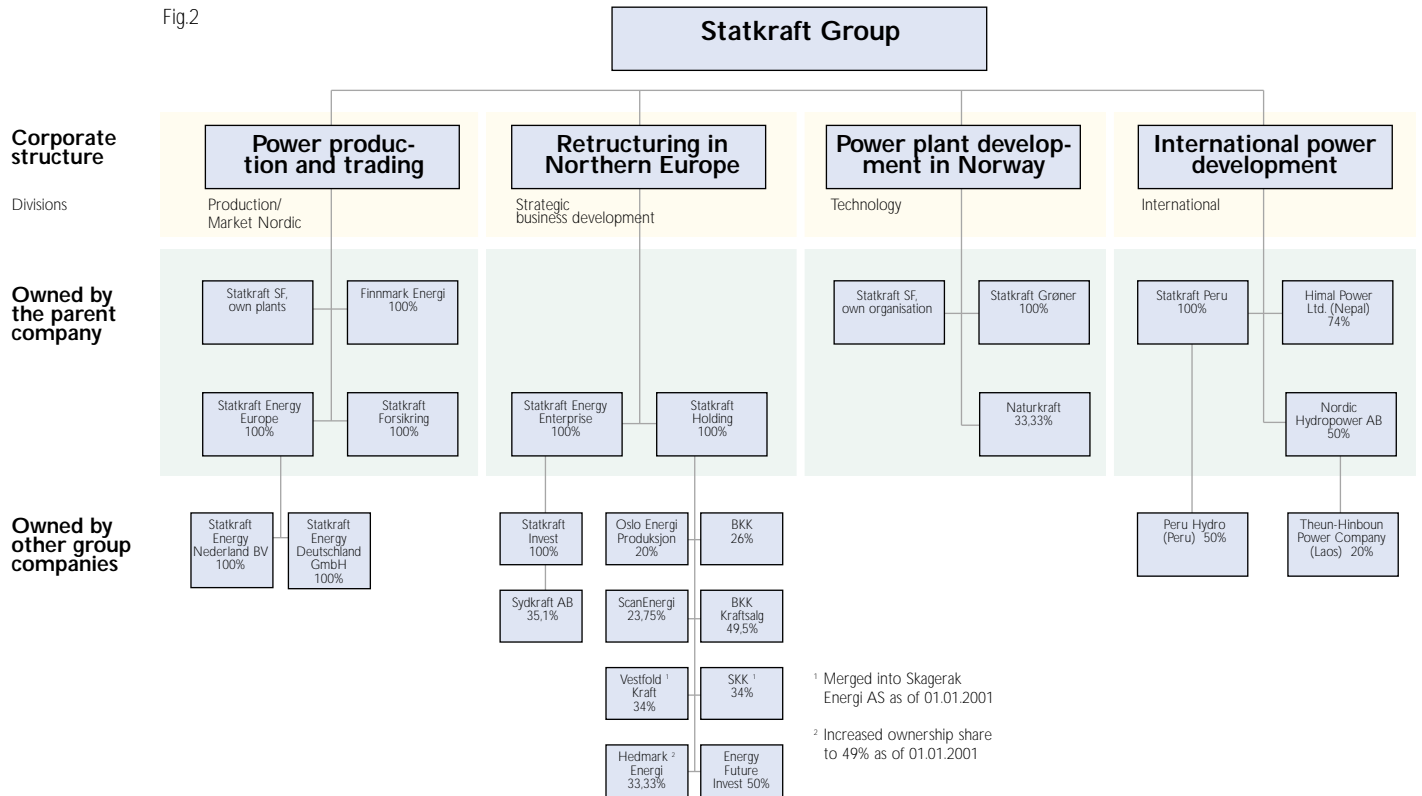
Fig.1

Key figures	The Group	Statkraft SF	Finmark Energiverk	Statkraft Energy Europe	Statkraft Energy Enterprise	Statkraft Holding	Statkraft Grøner	Statkraft Forsikring	Himal Power	Eliminations
NOK Million										
<b>Income Statement 2000</b>										
Gross operating revenues	5 285	5 043	70	19	-	-	230	26	89	-192
Net operating revenues	4 671	4 432	70	19	-	-	230	26	89	-195
Operating income	2 178	2 140	36	-15	-1	0	4	-6	58	-37
Result from associated companies	729	-	-	-	559	170	-	-	-	-
Net financial items	-1 142	-630	-7	3	-309	-153	-1	6	-36	-15
Pre-tax income	1 765	1 510	29	-13	250	16	3	-	22	-53
<b>Net income after tax</b>	<b>847</b>	<b>714</b>	<b>18</b>	<b>-3</b>	<b>113</b>	<b>59</b>	<b>2</b>	<b>-</b>	<b>22</b>	<b>-78</b>
Of which minority interests	6	-	-	-	-	-	-	-	6	-
<b>Net income after tax 1999</b>	<b>947</b>	<b>686</b>	<b>23</b>	<b>-22</b>	<b>177</b>	<b>127</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-44</b>
<b>Balance Sheet 31.12.2000</b>										
Cash and cash equivalents	2 514	1 062	3	72	931	357	25	3	61	0
Equity	21 742	20 778	342	70	3 385	5 035	47	30	305	-8 250
Total assets	55 616	54 080	494	145	12 674	11 111	169	159	1 276	-24 492
<b>Equity ratio</b>	<b>39 %</b>	<b>38 %</b>	<b>69 %</b>	<b>48 %</b>	<b>27 %</b>	<b>45 %</b>	<b>28 %</b>	<b>19 %</b>	<b>24 %</b>	<b>-</b>



**Hans Gude (1825–1903):**  
*Labrofossen (The Labro Falls), 1862. Oil on canvas pasted on cardboard. 45,5 x 67 cm. National Gallery's collection. Photo: J. Lathion ©Nasjonalgalleriet 1999.*  
 Gude does not use the dramatic elements we find in works by Cappelen and Fearnley. He paints nature with a great degree of realism and some sobriety, but nevertheless he does not hide the spectacular element in the foaming water masses.

Fig.2



Statkraft has defined the following areas of concentration:

**• Strategic business development**

This division follows up, analyses and proposes new business areas in Norway, the Nordic region and Northern Europe. Framework conditions and market development are important areas of focus. This work shall provide a sound basis for decisions relating to Statkraft's development in the years to come.

**• Market**

By analysing, among other things, markets, prices and position-taking in the market, this division seeks to maximise earnings in the short and long term by optimal exploitation of own water resources and buying and selling energy.

**• Production**

This division is primarily responsible for all technical activities related to the operation, upgrading and maintenance of the company's power production facilities so that Statkraft's added value over time is as high as possible.

**• Technology**

This division is responsible for planning and realising Statkraft's new power production capacity. In addition it follows up projects where Statkraft has a stake or interest and is responsible for research and development activities in the company.

**• International**

Statkraft is to be an energy company with an international image in its core areas. This division is responsible for developing, owning and operating energy projects in countries outside of Northern Europe.



**Associated companies**

**Key figures 2000**

	<b>OEP</b>	<b>Sydkraft</b>	<b>BKK</b>	<b>SKK</b>	<b>VK</b>	<b>HEAS</b>
Statkraft's ownership interest	20 %	35.1 % <sup>1)</sup>	26 %	34 %	34 %	33.3 % <sup>2)</sup>
Key figures 100%:						
Annual production electrical energy	7.5 TWh	27 TWh	6.9 TWh	3.7 TWh	2.7 TWh	1.4 TWh
Installed capacity	2 060 MW	5 900 MW	1 580 MW	650 MW	530 MW	340 MW
Transmission network	0	75 000 km	16 800 km	5 000 km	500 km	8 900 km
No. of customers	0	850 000	221 000 <sup>3)</sup>	69 000	103 000	55 000
No. of employees	190	7 000	1 100	340	530	320
Gross operating revenues	1 323 MNOK	14 327 MSEK	2 723 MNOK	896 MNOK <sup>4)</sup>	1 038 MNOK <sup>4)</sup>	742 MNOK <sup>4)</sup>
Net income for the year	394 MNOK	2 159 MSEK	346 MNOK	165 MNOK <sup>4)</sup>	49 MNOK <sup>4)</sup>	124 MNOK <sup>4)</sup>

1) 28.9 per cent share of the voting rights

2) Agreement reached to purchase further 16 per cent

3) BKK Kraftsalg, Statkraft ownership interest 49.5 per cent

4) Preliminary



**J.C. Dahl (1788–1857):**  
*Labrofossens øvre fall, (The Upper Falls of the Labrofoss), 1855-56. Oil on canvas. 164 x 141 cm. National Gallery's collection. Photo: J. Lathion © Nasjonalgalleriet. Dahl visited Labrofossen in 1826 and the sketches he made then was the basis of several pictures of the waterfall. The fact that he returns to the same motif almost 30 years later tells us something about the impression the waterfall made on him. The goats were probably not as close to the fall as they are in the painting, but it does tell us just how breathtaking the landscape is.*





# The year 2000 at a glance

## January

The subsidiary Statkraft Anlegg is sold to NCC with effect from 1 January.

## February

Statkraft submits applications for licences for wind power plants (wind parks) at Stadlandet (Selje municipality), Smøla and Hitra.

## March

Statkraft's Board of Directors resolves to develop Beiarn Power Plant in Nordland County with a proviso that the application for amendments to the plan is approved. Annual production is estimated at 198 GWh.

## April

By Royal Decree, Statkraft is granted a licence to develop the new Bjølvo Power Plant. Annual mean production is estimated at 387 GWh and it will take about 3 years to construct.



The extraordinary general meeting in Hedmark Energi AS (HEAS) resolves a private placement for Statkraft which thus becomes the owner of one-third of the company's shares.

## May

Statkraft's trading office in Dusseldorf – Statkraft Energy Deutschland GmbH – is officially opened. Operations started in 1999 and the office is engaged in trading in the German power market.

The Council of State approves the amendments in the Beiarn development plan.

## June

Statkraft acquires 34 per cent of the shares in Skiensfjordens kommunale kraftselskap AS (SKK) and Vestfold Kraft AS (VK) through private placements.

Expo2000, the World Exhibition in Hannover is opened. Statkraft is one of the shareholders in the Norwegian Pavilion, which has a 15 metre high waterfall as an eye catcher. Statkraft arranges a range of professional seminars for decision-makers in the Norwegian energy industry during the months that Expo2000 is open.

Terje Vareberg is appointed Chairman of the Board of Statkraft in succession to Hans O. Bjøntegård. And two new members are appointed to the Board, namely Ingvild Ragna Myhre and Jan Stenersen.

The Board resolves that the new Bjølvo Power Plant is to be built.

## July

In the first half of the year, Statkraft Engineering buys the remaining shares in and merges with Grøner Holding on 1 July.



### August

Work on Beirn starts.

### September

Opponents of the Beirn development block the highway and Statkraft opts to avoid open confrontation.

At an extraordinary corporate meeting, Minister of Petroleum and Energy Akselsen instructs Statkraft to postpone construction work at Beirn.

In association with Hedmark Energi AS, Statkraft Energy Future Invest (EFI) is established on a 50/50 basis. EFI is a development and investment company that will look at future challenges and opportunities in the energy sector.

Construction starts on Statkraft's new head office at Lilleaker, Oslo. The new offices will be on the banks of the Lysaker River and the company plans to take possession in the summer of 2002.

The Ministry of Petroleum and Energy publishes the valuations of Statkraft SF carried out by Ernst & Young and Dresdner Kleinwort Benson respectively. Depending on the assumption made the value is between NOK 27 billion and NOK 50 billion.

### October

In co-operation with Norsk Hydro and Statoil, Statkraft arranges an international conference - "Energy and Environment. Challenges and Objectives for a New Millennium" in Hannover, in conjunction with Expo2000.

Construction begins on the new Bjølvo Power Plant.

### November

His Majesty the King of Nepal officially opens the Khimti I Power Plant. This is the first privately financed power project in Nepal and increases the nation's power production by 25 per cent. Khimti I Power Plant's installed effect is 60 MW and the annual production is about 350 GWh.

### December

Agreement is reached with Elkem and Tyssefaldene for extended leases for Sauda I-IV, Svelgen I-II and Tysso II on terms that reflect the anticipated development in the market.

The Norwegian Water Resources and Energy Directorate (NVE) issues licences to Statkraft for the building of wind parks at Stadlandet, Smøla and Hitra. The Smøla permit is for 72 windmills with a total effect of 150 MW. At Stadlandet Statkraft's licence is for 35 mills with a total effect of 70 MW while at Hitra the licence covers 28 windmills with a total effect of 56 MW.

Skienfjordens kommunale kraftselskap AS (SKK) and Vestfold Kraft AS (VK) merge and become Skagerak Energi AS with effect from 1 January 2001. Statkraft's stake is 34 per cent.

In the course of 2000, Statkraft has bought and sold shares in Sydkraft AB. At year-end Statkraft owns 35.1 per cent of the capital and has 28.9 per cent of the votes in Sydkraft.



### Key figures

	Unit	2000	1999	1998	1997	1996
Gross operating revenues	NOK mill.	5 285	5 601	5 314	5 353	5 562
Operating income	NOK mill.	2 178	2 174	2 198	1 998	2 354
Net income for the year	NOK mill.	847	947	890	1 238	455
Total assets	NOK mill.	55 616	47 067	42 430	40 075	39 089
Equity ratio	%	39.1	45.7	40.8	41.6	37.0
Net cash flow provided by operations	NOK mill.	1 772	1 849	1 256	1 427	1 814
Production after pumping and loss	TWh	40.2	32.5	32.4	27.5	32.2

Despite constantly low power prices, Statkraft achieved income before tax of NOK 1,765 million in the year 2000. This is NOK 74 million or 4 per cent more than in 1999. Net income amounted to NOK 847 million compared to NOK 947 million in the preceding year. The Group has shown sturdiness in a difficult energy market but earnings are nevertheless not sufficient to give a reasonable return on capital. In 2000 the return on equity was 3.9 per cent compared to 4.9 per cent in 1999.

# Annual Report 2000

## The Nordic energy market

Weather-wise, the year 2000 was an abnormal year and the fourth consecutive wet-year.

Exploitable inflow was a record high 140.2 TWh in Norway and 81.6 TWh in Sweden, a total of 221.8 TWh. This is the second wettest year since 1930 with an inflow above the mean of about 43 TWh or almost 25 per cent.

Geographically, there were considerable differences with precipitation records in the south-east of the country, while other parts of the country were dryer than usual.

Furthermore, the year was extremely mild with temperatures in Norway and Sweden that were 1.5°C and 1.9 °C higher than the norm. It was the warmest year in Norway in 130 years.

Following three successive wet-years, reservoir levels at the beginning of 2000 were as high as 79 per cent of the maximum capacity in Norway and 62 per cent in Sweden. This is considerably higher than the average level. At year-end reservoir levels were unchanged in Norway, while reservoir levels in Sweden had increased to 76 per cent of normal levels.

Domestic power consumption in Norway was 120.9 TWh or 1.9 TWh (1.6 per cent) higher than in the preceding year. The power-intensive industries increased their consumption by 1.5 per cent to 32.8 TWh. Disconnectable electric boilers rose by 20.2 per cent to 5.1 TWh as a result of high oil prices. General supply consumption rose modestly because of the mild weather and, at 83 TWh, was 0.5 per cent higher than in 1999. The mild weather in 2000 led to lower consumption compared to a normal year. The temperature-adjusted

growth rate is still high, probably 2-3 per cent a year and shows no signs of levelling off.

Climatic conditions put pressure on power prices and for the year as a whole the average spot price was NOK 0.103 /kWh. This is NOK 0.009/kWh lower than in 1999 and the lowest power price since 1993.

The high inflow resulted in record high power production. In 2000 Norway produced, for the first time, more electricity than Sweden. Norwegian power production was as high as 141.4 TWh, while in Sweden it was 140.8 TWh. Despite high production, it was not sufficient to avoid substantial water losses.

Exports from Norway were high through much of the year. Net exports to Sweden and Denmark reached 20.5 TWh, which is an all-time high. Capacity to Sweden and Denmark - approximately 4,000 MW - was at times fully utilised.

As a result of the limited new power development, the underlying deficit in the Norwegian power balance is growing. This is also the case in Sweden.

Even though price determination in the Nordic Power Exchange region is now subject to common guidelines, with a common price system, no corresponding harmonisation has taken place among the Nordic system operators for the transmission network. Svenska Kraftnät limits the capacity of the international connections in order to deal with internal bottlenecks in Sweden. This results in increasing dissatisfaction among market participants regarding price determination in the spot market. A common



Nordic system operator and harmonisation of transmission tariffs within the Nordic region will allow for better socio-economic exploitation of the power system, and result in investments that will increase utilisation of the Nordic distribution network.

## Statkraft's power production and trading

A wet year combined with high reservoir levels at the beginning of the year gave Statkraft a new production record of 40.2 TWh in 2000, as much as 7.0 TWh or 21 per cent higher than the mean production of 33.2 TWh. This helped maintain income from power sales for the year despite low market prices.

About half of Statkraft's production volume is sold to the power-intensive industries at politically determined prices. In 1999 the Storting

(Parliament) adopted a future industrial power regime to replace the former publicly decided contracts when it debated Proposition to the Storting No. 52. EFTA's surveillance agency (ESA) has later voiced objections to some elements in the adopted scheme. Against this background, certain amendments were presented to the Storting in Proposition to the Storting No. 78, which was debated in May 2000. Price-wise the offer in the new contracts is the same as before, but the old contracts must expire before the new contracts come into effect. Of the 17 companies that were offered new industrial contracts only one has accepted. This means that from 2011 to 2021 Statkraft has one power contract that is politically priced. Furthermore, the authorities have extended the leases for power plants in three watercourses. These are Sauda, Tyssø II and Svelgen I and II. The leases expire in 2031.

### **Chr. Aug. Lorentzen (1746-1828):**

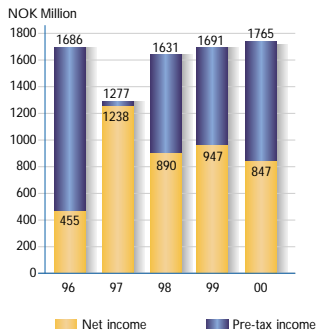
*Sarpsfossen (Sarpsfossen Waterfall), 1795. 125 x 157 cm. National Gallery's collection. Photo: J. Lathion ©Nasjonalgalleriet.*

*Maybe the most stirring in this painting is the light. But it may also be the obvious fascination and interest in the waterfall being shown by the small group in the foreground. They have scrambled to edge of the rocky ledge and lift their arms in the air in pure enthusiasm. This portrays a pure love of nature in the spirit of Jean-Jacques Rousseau.*

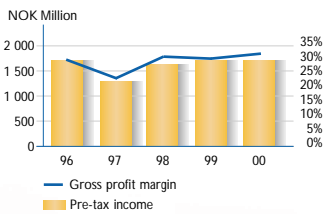




**Income**



**Pre-tax income**



In the autumn of 2000 Statnett introduced a market for backup effect. Producers can now be paid for having stand-by production capacity and correspondingly industry can be paid for being able to disconnect consumption at short notice. The backup will be reported in the regulatory energy market. Statnett reserved 1,745 MW for the period November 2000 to January 2001. Statkraft places substantial production capacity at the disposal of this market. This arrangement represents a significant step forward and in the long term will give participants more correct price signals.

In the year 2000, 0.1 TWh was imported and 4.6 TWh was exported over the Skagerrak connection. The power exchange agreement with Elsam and the transit agreement with E.On (formerly PreussenElektra) were renegotiated in 2000 to financial agreements. This implies that the disposal of the Skagerrak connection is in the hands of the system operators Statnett and Eltra, and that it was opened for energy transfers on market terms from 1 January 2001. No amendments have been made to the agreements relating to the planned Viking Cable to Germany or the NorNed cable to the Netherlands. The agreements have been sent to the EU for notification.

Statkraft has already established the power trading companies Statkraft Energy Nederland in Amsterdam and Statkraft Energy Deutschland in Dusseldorf. These companies trade in standard contracts on the local power exchanges or via brokers, and they also enter into bilateral contracts. The Northern

European market and the Nordic market are gradually being knitted closer together because of better transmission capacity and lower cross-border tariffs and Statkraft's trading companies will, in light of this, be integrated into Statkraft's Nordic market operations with effect from 1 January 2001.

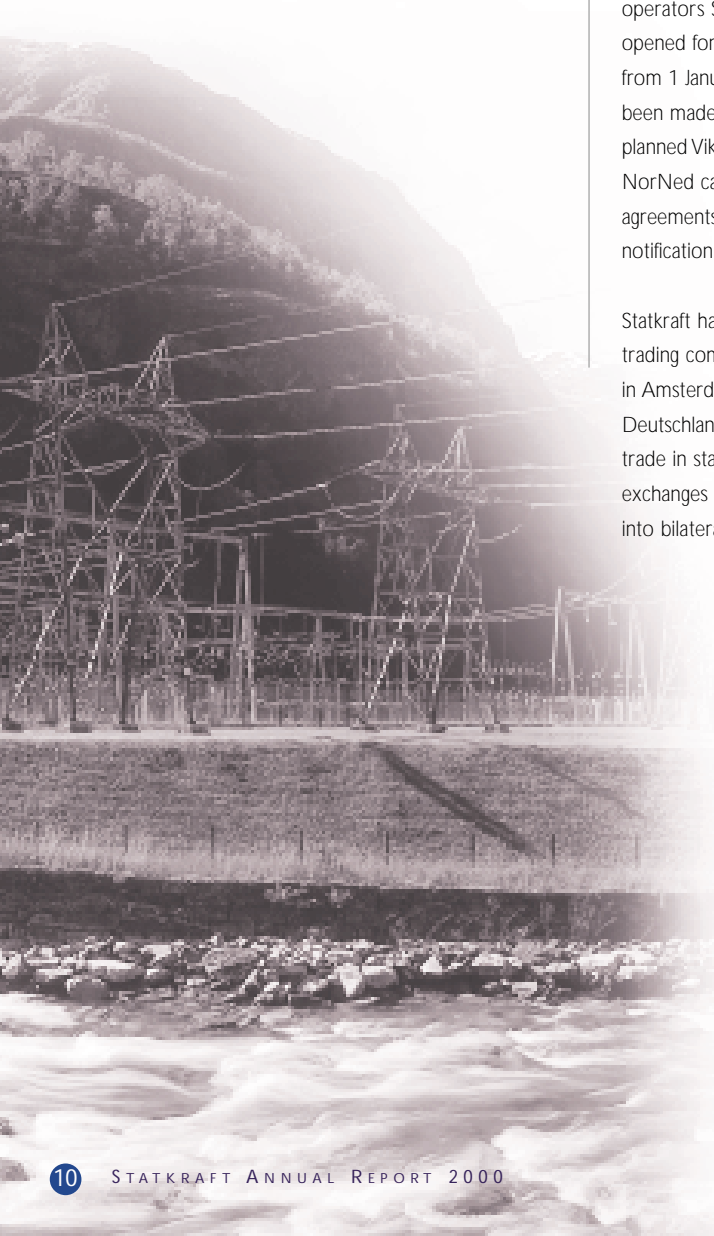
**Power plant operations**

The basis for operating Statkraft's power plants is that the plants should be able to produce as efficiently in the future as they do today. High availability is a goal, and each plant should function in accordance to production plans. Statkraft's fundamental principle for technical maintenance is that it shall be production steered. This means that current power production weighs heavily when planning and carrying out maintenance work. In addition, maintenance is based on a technical status analysis, co-ordinated and long-term planning and the most effective implementation possible in terms of time and costs. Production steered maintenance also means that maintenance is carried out as far as possible at times when low market prices for energy are expected.

Availability at the company's production plants was somewhat lower in 2000 than in the last few years, namely 95.4 per cent, compared to 98.7 per cent in 1999. The most important reason for this decline was generator breakdowns in Kvilldal and Saurdal in April/May. These did not place any significant limitations on Statkraft's exploitation of its energy resources.

Statkraft's dam rehabilitation continues, based on the improvement plan from 1994. With the exception of some minor tidying up, both Kvillesteinsdams, Røssvassdam, Bleikvasslidam and Altevannsdam were completed in 2000. The plan is for the rehabilitation programme to be completed before the end of 2006.

The modernisation of the power plants at Vikfalli is for the most part completed. These works include among other things the rebuilding of the turbine at Refsdal II and the closure



of Refsdal I, the rehabilitation of the waterway Hove-Refsdal, and new control facilities for the generators at Hove, Refsdal and Målset.

### Involvement in Northern European power markets

European power markets have entered a phase where changes are rapid and comprehensive. Deregulation of the European power market has increased competition. The industry is characterised by restructuring and consolidation. Statkraft is taking an active part in this restructuring.

In the year 2000 Statkraft has bought and sold shares in Sydkraft AB. 10.8 million shares were purchased (net). At year-end Statkraft owned 35.1 per cent of the company's capital and 28.9 per cent of the votes. Sydkraft is the second largest energy company in Sweden after Vattenfall. The company's mean annual production is about 27 TWh, mainly nuclear power and hydro power. Germany's E.On has made an offer for all of the shares. This is because E.On, the largest shareholder in Sydkraft, has increased its stake to more than 40 per cent of the voting rights. This triggers, under Swedish law, an obligation to make such an offer. The offer is for SEK 240 for A-shares (voting shares) and SEK 200 for C shares. The Board will consider the offer within the deadline for acceptance.

In 2000 Statkraft has been active in the restructuring of the energy sector in Norway. Statkraft acquired 34 per cent of the shares in Skiensjordens kommunale kraftselskap AS (SKK) and 34 per cent of the shares in Vestfold Kraft AS (VK). With effect from 1 January 2001 these have merged into a company named Skagerak Energi AS. Furthermore, 33.33 of the shares in Hedmark Energi AS (HEAS) were acquired in 2000. An agreement has been reached which implies that Statkraft's ownership interest in HEAS will rise to 49 per cent in the course of 2001. Furthermore, the other owners of VK have an option to sell further shares in the company to Statkraft. Should the option be exercised in full Statkraft's stake in

VK will rise to 66.6 per cent in the course of the year. BKK and Skagerak Energi have agreed to merge all end-user activities into a joint owned company.

### Power plant development projects in Norway

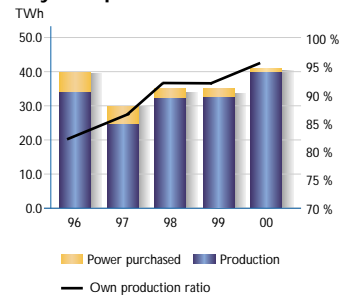
The Norwegian power balance shows a considerable deficit. Electricity consumption continues to rise, and is rising at a faster rate than new power production. The deficit in the Norwegian market will therefore continue to grow.

Statkraft considers contributing to new power being available in the Norwegian important. Statkraft's main focus area has been, and is, new hydro power projects. In addition comes engagement in other renewable energy, where wind power is the energy form of most immediate interest. Statkraft also owns one-third of Naturkraft AS, which develops gas-fired power plant projects in Norway based on the best technology commercially available.

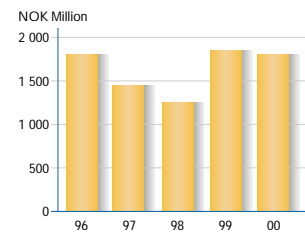
The regulatory framework conditions for the development of new hydro power projects in Norway changed during the year. The Prime Minister's New Year's speech to the nation signalled a general tightening, implying that more stringent terms will be set if Norwegian hydro power is to be developed in the future. This may limit the number of new projects. Upgrading existing power plants and developing smaller and more cautious projects represent some new hydro power potential.

Specifically, the new framework conditions resulted in the Minister of Petroleum and Energy instructing Statkraft, at the Corporate Meeting, to stop all work on the Beiarn, Bjellåga and Melfjord development projects. Beiarn was halted at a time when all permits had been granted and construction work had started. If the Storting's (Parliament) debate on these issues results in the Beiarn, Bjellåga and Melfjord projects not being implemented, this means that new capacity of about 1 TWh will

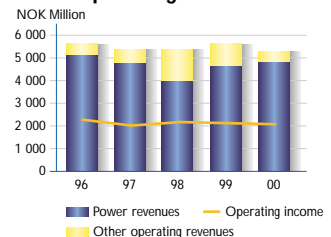
### Physical power balance



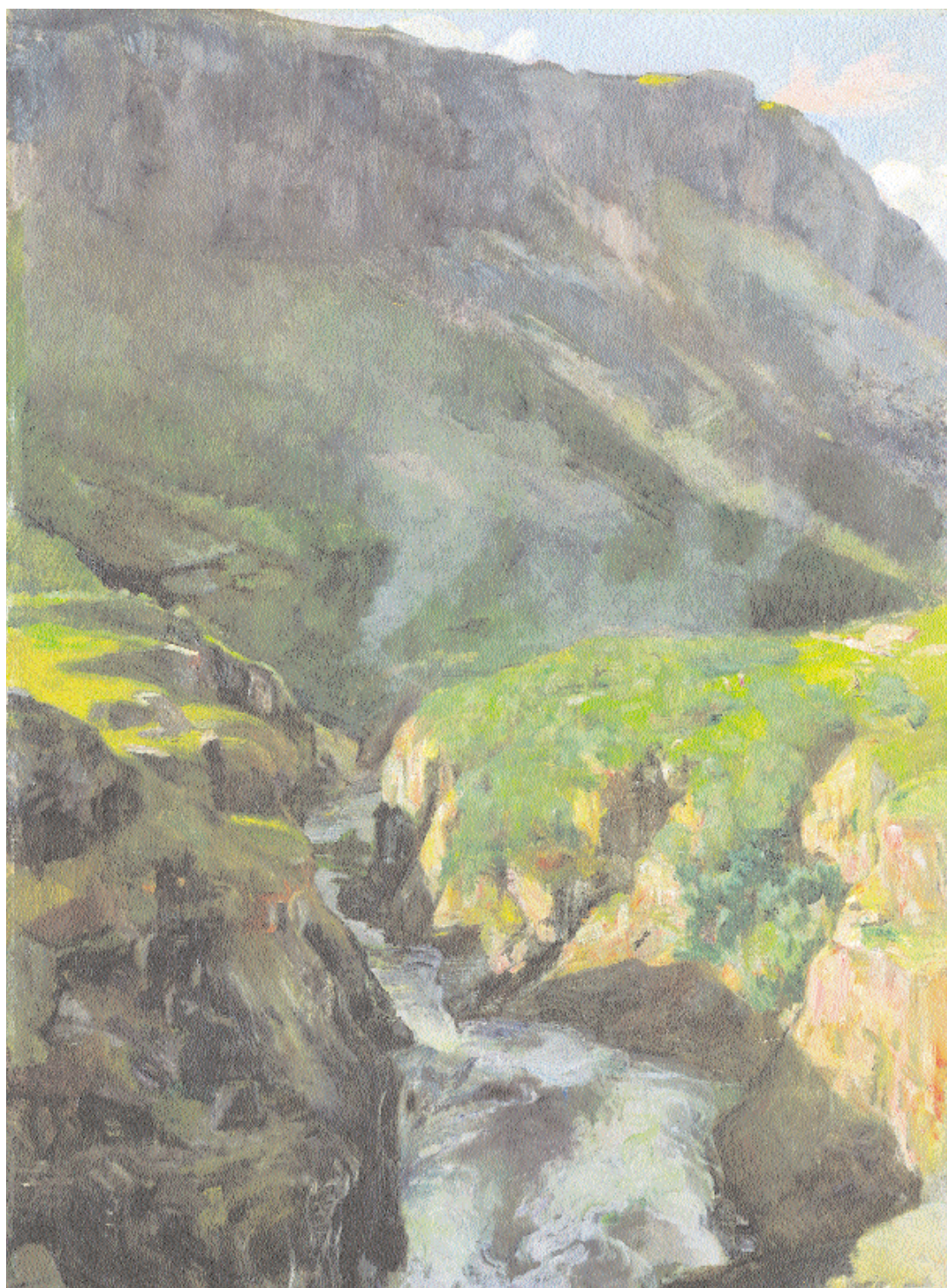
### Cash flow provided by the year's operations



### Gross operating revenues







**Gerhard Munthe  
(1849–1929):**

*Driva (The River Driva),  
1895. Oil on canvas 97 x  
66 cm. National Gallery's  
collection. Photo: J. Lathion  
©Nasjonalgalleriet.*

*Probably without any ulterior  
motive regarding the power  
of the waterfall, Munthe  
succeeded in making a  
fantastic point of how time  
and water bring about major  
changes together. That is also  
a way of showing the forces  
of water.*

not be developed. Statkraft's Board of Directors presumes that Statkraft will be compensated for all three projects.

In April 2000, Statkraft received permission to renew Bjølvo Power Plant. Statkraft's Board approved the investment in June and construction work started in October.

Statkraft has been working for some time on specific wind power projects. In December, the company was granted a licence to build windmill parks at Smøla, Hitra and Stadlandet, a development representing annual mean production of 768 GWh. The resolution has been appealed and processing the appeal is expected to take up to 6 months. The development of these windmill projects requires that framework conditions allow for the projects to be profitable, among other things through the granting of investment support.

In the spring of 2000, Naturkraft AS received new emission permits for the Kårstø and Kollsnes plants. These plants represent about 5.6 TWh in new production capacity. The emission requirements for CO<sub>2</sub> were eased in the new permits, but the stringent emission requirements for NO<sub>x</sub> were upheld. However, it opened up for Naturkraft being credited, on certain conditions, with NO<sub>x</sub> reducing measures at other emission sources, so-called "flexible NO<sub>x</sub> measures". At present, an assessment is being made as to whether the projects are commercially viable under the given framework conditions.

## Research and development

R&D is an important tool with which to reach Statkraft's long-term goals. The company expects the importance of technology and innovation to rise in the industry in the future and will actively participate in the development work related to production of new energy and investigate the feasibility of new energy carriers.

One of the greatest challenges is to ensure the long-term profitability of existing and new hydro power projects. This can be achieved, for

example, by applying new technical solutions and new production methods.

The development of alternatives to traditional hydro power is important since the unexploited hydro power potential in Norway is limited. Statkraft has a long-term perspective on this development and emphasises the effort to find environmentally sound solutions

Participation in R&D projects under the auspices of EU programmes is one of the R&D ambitions for the future. The EU will support projects where emphasis is on making the distance between research and industry as short as possible.

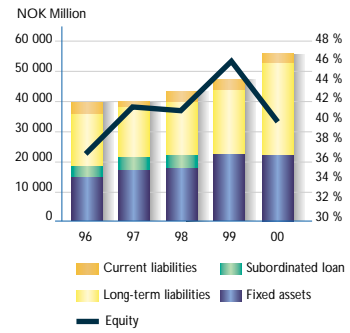
Statkraft's work on wind power has resulted in a considerable increase in the level of competence and given good insight into wind power technology. Participation in an R&D project under the auspices of the Norwegian Research Council on large-scale integration of wind power has provided greater understanding of component development, local wind conditions and problems linked to the transmission grid.

The projects looking at the possibility of producing electricity with the help of salt gradients and large-scale production of hydrogen continued in 2000. A more detailed description of the projects is given in the article "Power plant development projects in Norway".

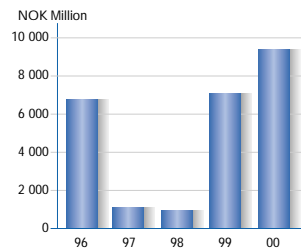
## International development projects

In order to exploit Statkraft's competence in developing and operating hydro power plants, the company has engaged in hydro power

### Balance sheet structure

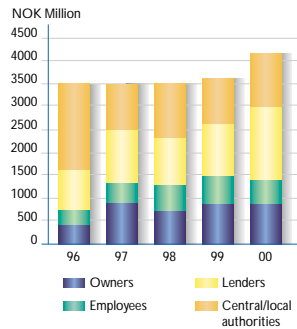


### Investments

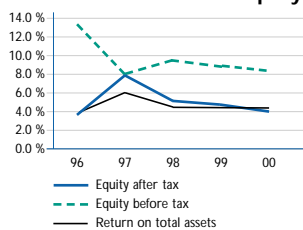




**Social audit – distribution of value added**



**Return on assets and equity**



development in certain markets outside of Europe. This provides the companies with opportunities that are profitable. Statkraft is not involved in politically disputed areas or projects considered environmentally controversial.

The Theun Hinboun Power Plant (210 MW) in Laos has been in operation since 1998, with satisfactory production and earnings. 95 per cent of the electricity produced is sold to Thailand on a long-term power agreement with the state owned energy company EGAT. Statkraft owns 10 per cent of Theun Hinboun.

The 60 MW run-of-the-river power plant in Nepal, Khimti I, started commercial production in July 2000, after a construction period of 4 years. Since start-up the power plant has achieved satisfactory production and earnings. The entire production volume is sold to the state owned energy company NEA on a long-term USD-based sales agreement running for 20 years. Statkraft owns 74 per cent of the shares in Himal Power Limited which was established to build and operate Khimti Power Plant. In November 1999 Statkraft signed an agreement with BKK for the transfer of 23 per cent of the shares in Himal Power Limited. The necessary approvals from the Nepalese authorities and the company's lenders have recently been given and the parties signed the agreements regarding the change in ownership on 15 February 2001. The actual transfer of shares is expected to take place in the first half of 2001.

**Engineering and construction**

In the first half of 2000, Statkraft Engineering acquired the remaining shares in Grøner Holding AS thus becoming the company's sole shareholder. The companies merged to become Statkraft Grøner on 1 July 2000. Subsequent to the merger, Statkraft Grøner restructured the organisation in order to be

better equipped to meet a market undergoing change. The company's operations in 2000 were characterised by difficult market conditions in some of its business areas. This was particularly so in the Energy business area as a result of delays and stoppages of development projects at Saltfjellet. This increases the need to shift focus and competence. Revenue and net income were lower than expected at NOK 230 million and NOK 2 million respectively. The company expects the restructuring to have a positive impact on the result for 2001.

The subsidiary Statkraft Anlegg was sold to NCC with effect from 1 January 2000. The sale reduces the Group's operating revenues and operating costs by a good NOK 300 million on an annual basis.

**Income statement**

Statkraft's accounts for 2000 are prepared on a going concern assumption.

**Revenues.** Statkraft's combined revenues in 2000 amounted to NOK 5,285 million, which is a net decline of NOK 316 million compared to the preceding year. The most important reason for this fall was a loss of revenue caused by the sale of Statkraft Anlegg at the beginning of the year.

Transmission costs fell from 1999 to 2000 by NOK 75 million. This was due to the reversal of a provision made for a dispute, where, during the year, a ruling was given in Statkraft's favour. Net operating revenues after covering transmission costs totalled NOK 4,671 million compared to NOK 4,912 million in 1999.

The contribution to revenues from net power sales rose by about NOK 200 million when adjusted for extraordinary items related to provisions. This increase is mainly a result of very high power production volumes that

more than compensated for the low power prices.

**Costs.** Operating costs fell by NOK 245 million, from NOK 2,738 million in 1999 to NOK 2,493 million in 2000. This reduction was mainly a result of the exclusion of operating costs for Statkraft Anlegg following the sale. Costs of operating and maintaining power production and trading rose insignificantly. A provision of NOK 80 million has been made for restructuring and workforce reductions at Statkraft SF.

Net financial costs rose by NOK 217 million, from NOK 925 million in 1999 to NOK 1,142 million in 2000. This was mainly higher costs due to higher borrowing, inter alia in connection with the acquisition of interests in other companies. Total borrowings rose by about NOK 8 billion during the year.

**Taxes and duties.** Taxes were charged against income in the amount of NOK 918 million in 2000 compared to NOK 744 million in 1999. Taxes payable were NOK 267 million higher in 2000 than in 1999.

Including licence-related duties and compensation, the total tax and duty burden was NOK 1,170 million in 2000, corresponding to almost 58 per cent of net income before taxes and duties.

There are considerable differences in the level of taxes and duties on power production in the different countries in the Northern European power market, and Norwegian power producers have a considerably heavier tax and duties burden than producers in other countries. Similarly, tariff systems for distributing transmission costs between producers and receivers of power are a relatively heavier burden on Norwegian producers than on producers in other countries.



**August Cappelen (1827–1852):**

*Foss i nedre Telemark (Waterfall in Lower Telemark), ca. 1852. 77 x 102.5 cm. National Gallery's collection.*

*Photo: J. Lathion © Nasjonalgalleriet.*

*Contrary to most of his generation, Cappelen paints Norwegian nature with the insight of someone who knows the landscape. These are the forests of his childhood and he masters the task of depicting dramatic atmospheres. A lonely river driver battles the forces of water. His job is to save the valuable logs that are wedged and stuck while the artist has chosen to view the scene from a mountain shelf, safely elevated above all danger.*

Statkraft is pleased that there has been some advance in 2000 to harmonise these framework conditions, but these efforts should continue so that the Norwegian producers are offered the same terms as the competition.

**Results.** Operating income in 2000 amounted to NOK 2,178 million compared to NOK 2,174 million in 1999.

In 2000, the company's share of the results of the associated companies Sydkraft AB, Oslo Energi Produksjon, BKK, SKK/VK and HEAS have been included in the aggregate amount of NOK 729 million, compared to NOK 442 million in the preceding year. This increase is mainly a result of acquiring ownership interests in SKK/VK and HEAS in 2000 and a higher ownership interest in Sydkraft.

Income before taxes amounted to NOK 1,765 million, compared to NOK 1,691 million in 1999. After taxes, net income for the year amounted to NOK 847 million compared to NOK 947 million in 1999.

The Board thanks its employees and management for their contribution to the achievements made in 2000.

### Balance sheet, investments and liquidity

Statkraft invested a total of NOK 9,411 million in 2000.

NOK 394 million was invested in Statkraft's own facilities in Norway, covering a range of rehabilitation projects on power plants and dams. NOK 236 million refers to investments in plants etc. in subsidiaries, including the Khimti development project in Nepal.

NOK 8,781 million was spent on purchasing ownership interests in other companies. This refers first and foremost to the purchase of a 33.33 per cent interest in HEAS, 34 per cent of the shares in SKK and VK and the purchase of further shares in Sydkraft.

The year's operations generated a net cash flow of NOK 1,340 million.

**Thomas Fearnley (1802–1842):**

*Labrofossen near Kongsberg (The Labro falls at Kongsberg), 1837.*

*Oil on canvas 150 x 224 cm.*

*National Gallery's collection. Photo: J. Lathion © Nasjonalgalleriet 1998.*

*Labrofossen has been a favoured motif for many painters, but this version is one of the most dramatic and impressive. Water comes roaring down from way up in the valley and butts against the wood logs. The majestic eagle holds a watchful eye over it all, underlining the wild and inhospitable nature.*



Statkraft took up loans at home and abroad in 2000. New long-term loans aggregating NOK 10.3 billion were raised, of which NOK 2.5 billion in Statkraft's first Euro bond issue, NOK 2.9 billion in the Swiss bond market, NOK 1.7 billion through public placements and NOK 3.2 billion in the Norwegian bond market. Repayments of long-term liabilities totalled NOK 1.2 billion. The average remaining term of the company's long-term liabilities at year-end was 4.8 years. Statkraft SF's total loan and guarantee obligations amounted to NOK 32.5 billion at the end of the year. Hence, the company can increase its loan and guarantee obligations by up to NOK 10 billion before reaching the limit of NOK 42.5 billion that has been set by the Storting (Parliament). Some of this has been used in 2001 so that the real remaining amount is about NOK 5 billion. Moody's continues its stable Aaa long-term rating of Statkraft and Standard & Poor's maintains its rating of the company at AA+. In the light of Statkraft's plans to grow by acquiring interests in other energy companies it is engaged in a dialogue with its owner on an increase in owner's capital and in the limit for loan and guarantee obligations.

Statkraft's liquidity was satisfactory throughout the year and at year-end the Group's net cash and cash equivalents amounted to NOK 2.5 billion. Furthermore, unutilised drawing rights totalled NOK 2.7 billion. By way of comparison, short-term liabilities accounted for NOK 0.1 billion and the current portion of long-term liabilities totalled NOK 3.7 billion.

At the end of 1999, Statkraft's equity totalled NOK 21,742 billion. The equity ratio stood at 39.1 per cent.

As part of the Ministry of Petroleum and Energy's supervision of Statkraft, an international investment bank and a Norwegian-based consultancy and auditing company have been

engaged in an external valuation of the company. The companies estimate that Statkraft's market value is between NOK 27 billion and NOK 50 billion, depending on the assumptions made. This is nevertheless considerably higher than the company's equity.

### The working environment

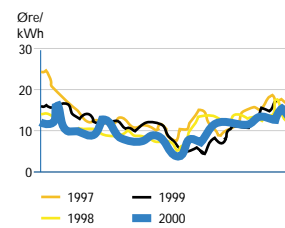
In 2000 Statkraft worked on arranging activity-based management development. Measures started in the autumn of 2000 and will be continued in the years to come.

Furthermore, Statkraft has started a one-year programme for developing management capacity, with 12 participants from Statkraft and 6 from partner companies. The programme content builds on studies at the Norwegian School of Management (BI)/Henly, practical training with wide use of management simulation, mentors' guidance and discussion, as well as project assignments.

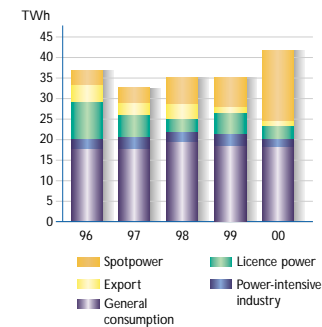
In the year 2000 a great deal of focus has been put on safety and the working environment at all levels in Statkraft. Multi-year enhancement programmes have been initiated to ensure local involvement and management follow-up of HSE (Health, Safety and the Environment). Focus has also been on surveying risks and on safety planning during the implementation of projects. This has already resulted in a sharp rise in the number of reports on dangerous situations, giving us a good basis for evaluating risk and implementing improvement measures.

HES figures rose from 1998 to 1999. As a result of intensified efforts in 2000 the negative trend is about to turn and the figures are now flattening out or in part falling. In 2000 Statkraft Group recorded 25 injuries resulting in lost time, compared to 24 in the preceding year. The injury frequency (H1 factor) was 6.1 in 2000 compared to 11 in 1999. The injury frequency based on total injuries, with and

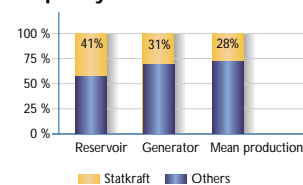
### Spotprices



### Energy volume sold, by market segment



### Share of Norway's production, installed generator and reservoir capacity



**Definitions:**

H1 factor: lost-time injuries x 1 million/total number of hours worked.

H2 factor: injuries with or without lost time x 1 million/total number of hours worked.

F factor: no. of lost-time days from injuries x 1 million/total number of hours worked.



without sick leave (H2 factor), was 13.9 compared to 20.1 in 1999.

Injury absence figures or the injury seriousness factor (F factor) was 57 compared to 110 one year earlier.

Sick leave stood at 4.2 per cent in 2000, the same as in 1999.

### The external environment

Hydro power is a clean and renewable energy source that is environmentally friendly seen in comparison to other dominant energy carriers and does not result in any significant emissions or discharges. However, the development and operation of hydro power plants does result in encroachment on nature and has an impact on the environment. Statkraft emphasises following up environmental aspects.

In 2000, Statkraft carried out a number of measures to increase its knowledge of local environmental impacts of hydro power. Work on life cycle analyses continued and Statkraft has participated actively in making environment cost evaluations of Norwegian hydro power and finances a series of research activities linked to the environmental aspects of hydro power and alternative energy. Statkraft seeks to further develop the constructive co-operation with local authorities and landowners and other interested parties as regards planning measures in and around watercourses.

"Environmental Survey 98", a report that looked at tips, waste deposit sites and other areas that are potentially polluting has been completed and relevant action will be taken where this is necessary.

Compensatory environmental measures in the form of maintenance of thresholds, fish ladders and other bio-tope adjustment measures are part of the day-to-day operations and are continual. In 2000 about 450,000 smolt, young fish and fry of salmon and trout were released. Statkraft owns and operates 5 fish hatcheries.

In 2000, Statkraft registered certain minor breaches of requirements regarding minimum water flow. Work on improving equipment, reporting routines and follow-up has been intensified. Furthermore, some minor oil spillages were recorded. These were quickly dealt with and they caused no traceable damage.

Statkraft is participating in a Nordic co-operation aiming at improving the certified environmental product description for hydro power. This might increase demand for environmentally friendly energy.

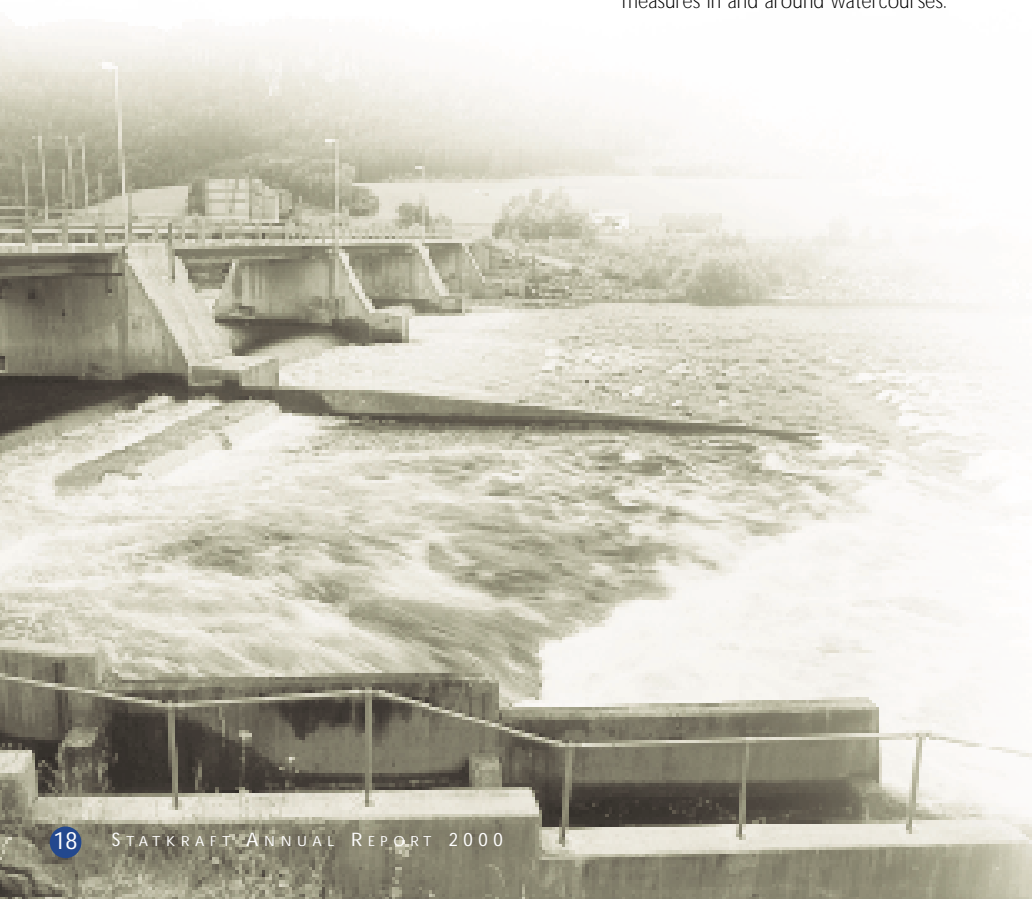
Statkraft has started work on environmental certification in accordance with the rules in the international environmental standard ISO-14001 and in this connection it has systemised and improved environmental reporting routines. A separate environmental report will be published for the year 2000.

Reference is also made to a separate section of the annual report that takes an in-depth look at environmental challenges relating to hydro power.

### Legal disputes

The new taxation system for power plants was introduced from 1997. There are currently two cases outstanding regarding Statkraft's tax assessment under the new system. Both refer to the possibility of deduction when calculating resource rent income.

Some assessment proceedings have been



brought against Statkraft but their scope is limited.

Provisions have been made in the accounts based on a conservative assessment of the obligations relating to the disputes.

## Prospects

The regulatory framework for the Norwegian and European energy industry is changing greatly. In Europe, development is toward more market opening and deregulation. In Norway municipal authorities and county authorities are starting to sell their ownership interests in energy companies and this is changing structure in the energy sector. Statkraft will continue to develop its existing core activities – power production and trading. This implies, inter alia, active participation in the restructuring of the Norwegian energy sector and increased power trading activity in the Nordic region and on the Continent in order to exploit the company's competence and realise economies of scale. This will call for substantial investments in the years to come, in acquisitions in Norway and in connection with the development of new power projects. Statkraft will continue to develop Norwegian power potential on a commercial basis within the framework conditions that are given. This applies both to the remaining hydro power possibilities and the development of other renewable energy, including wind power.

The more stringent evaluation of new hydro power development that political signals point to will limit the possibilities of strengthening the Norwegian power balance.

Important preconditions for realising Statkraft's strategy are adequate access to capital and a regulatory framework for the business that provide the same terms as the competition with regard to taxes, duties and tariff systems. In a longer perspective, Statkraft has enjoyed a significant improvement in its financial results

and has had stable earnings in a difficult power market. Nevertheless, the possibilities it has of financing the substantial investments needed to participate in the restructuring from operations are limited. Carrying out Statkraft's investment plans assumes an equity injection and an increase in the loan and guarantee limit, and the company has applied to the Ministry of Petroleum and Energy for these.

In the short term, Statkraft enters 2001 with fuller water reservoirs than is normal. Assuming that inflow and market conditions in 2001 are more normal than in 2000, the result of the company's power production and trading should improve in 2001. However, the power market is volatile and there is therefore some uncertainty surrounding the development in the financial results.

## Allocation of the net income for the year

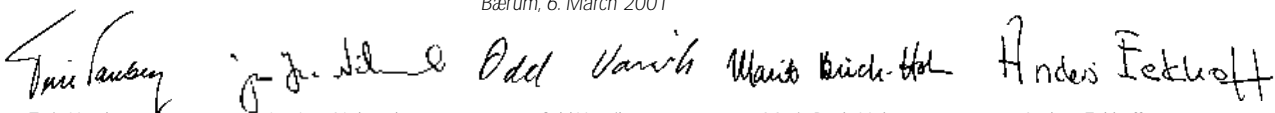
Previously, no long-term dividend policy has been adopted for Statkraft, and the dividend for 1998 and 1999 accounted for 43 per cent and 63 per cent respectively of the Group's net income after tax. The Board has proposed a dividend policy where 30 per cent of the Group's net income after tax is distributed. The background for this proposal is that the dividend policy should ensure that Statkraft has the financial strength needed to realise its strategies.

In the State Budget for 2001 Statkraft's dividend distribution for 2000 is set at 75 per cent of the Group's net income after tax, limited upwards to NOK 750 million. For the period 2001 to 2003 the dividend is indicated at 50 per cent of the Group's net income. The Board makes due note of this and proposes the following allocation of the net income for 2000:

(Amounts in NOK million)	Statkraft SF
Dividend	631
Transferred to other equity	83
Net income for the year	714

The Board of Directors of Statkraft SF

Bærum, 6. March 2001



Terje Vareberg  
Chairman  
 Jon Ivar Nåsund  
 Odd Vanvik  
 Marit Büch-Holm  
 Anders Eckhoff  
 Tom Andersen  
 Jan Stenersen  
 Toril Mølmshaug  
 Ingvild Ragna Myhre  
 Lars Uno Thulin  
President and C.E.O.

# Statkraft's business areas

## POWER PRODUCTION AND SALES

Statkraft has a mean annual production of 33.2 TWh at its wholly and partly owned plants. The value of the power production varies as a function of water inflow to the power plants, the price of power in the market and the prices achieved on power contracts entered into at earlier points in time. Statkraft strives to manage power production so that earnings are maximised. For this purpose, Statkraft has a considerable operative section that monitors market development as well as advanced models that provide decision support for power dispositions.

Power production also includes operations, maintenance, renewals and development.

Improvements in profitability are related to a number of primary conditions:

### Availability

A high level of availability of production facilities (power stations, water reservoirs etc.) is costly but provides flexibility. Some of Statkraft's plants produce only in the winter, spring and autumn, and maintenance is scheduled accordingly.

In the autumn of 2000 Statnett introduced a scheme for purchasing backup effect between 6 a.m. and 10 p.m. on weekdays. The producers are rewarded for offering production in reserve, and major consumers are rewarded

for the consent and ability to disconnect consumption at short notice. In this way Statnett ensures adequate regulation ability in the grid in critical situations, gives incentives for further development of new effect and ensures better flexibility in the power-intensive industries. Statkraft has actively supported the establishment of this arrangement in the market and has sold considerable backup effect to Statnett. This has made it profitable to rehabilitate generators which, without payment for effect, would have been considered closed down.

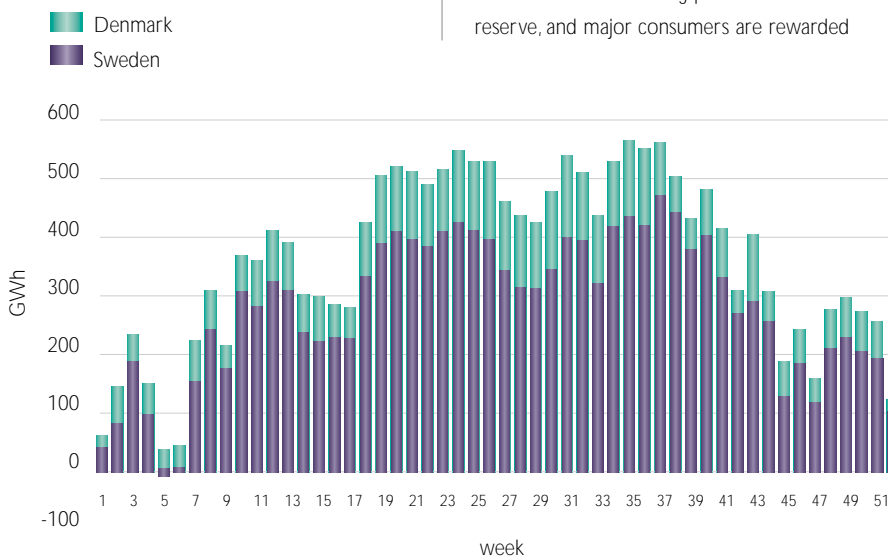
### Inflow and price prognoses

Statkraft regularly prepares and updates power price prognoses for different time horizons and different geographical areas. Statkraft has extensive experience in modelling the physical power systems of the Nordic region and Northern Europe, and operations are based on the results. The models are constantly being improved on the basis of systematic follow-up analysis.

Historical data from 1931-90 are the basis for these models. In a hydro power dominated system such as the Norwegian one, the amount of precipitation and its distribution through the year is very important. The Norwegian power industry regards the years 1931-90 as the norm for precipitation and temperature. 1996 was a very dry year, while precipitation in the years 1997-2000 was well above the norm (See Figure 2). Since the IPCC (UN's climatic council) has ascertained that a change in climate induced by mankind is taking place, Statkraft is reconsidering, in association with recognised research institutes, the relevant reference period to use in years to come.

A consequence of increased water inflow is lower prices, but because of the very good exchange capacity with surrounding thermal power systems, prices appear to decline less than volumes rise. The impact of more precipitation does not appear to be negative for Statkraft from a commercial point of view.

Fig. 1  
Export (+) and import (-) between  
Norway and Sweden/Denmark in 2000





One important reason for the price decline being relatively moderate, taking into consideration the extreme precipitation, is that Swedish nuclear power producers are increasingly inclined to reduce nuclear power production at low and to some extent moderate prices.

### Power sales

In addition to active management of its own power production, Statkraft is also engaged in trading with a view to generating profits from short-term price fluctuations. This operation is subject to stringent risk management and gives a good indication of Statkraft's understanding of the market. Statkraft also issues options as part of a strategy aimed at developing a leading environment for physical and financial power trading in Northern Europe within Statkraft, inter alia through Nord Pool (the Nordic Power Exchange).

Nord Pool is growing substantially. In 2000 physical trading in the spot market rose to 97 TWh or 28 per cent more than the preceding year. Financial trading rose by 66 per cent to 359 TWh. The volume of contracts cleared rose by 72.5 per cent to 1,180 TWh. The aggregate contract value of the more than 1,600 TWh traded was NOK 177 billion.

Through much of the year exports from Norway were high. Net exports to Sweden and Denmark amounted to a good 20 TWh, which is a new export record, despite some import from Finland and Russia. Periodically, the capacity to Sweden and Denmark of about 4,000 MW was fully exploited.

### Technical operations and maintenance

The power market indirectly steers maintenance of facilities to periods when demand for power and market prices are expected to be low. The varying demand for power, combined with an analysis of the plants' technical status thus decide when scheduled maintenance is carried out.

The expressed goal is to minimise total maintenance. It is simultaneously a goal to

### Statkraft's power production capacity

	No. of plants	Installed generator output in MW	Production media year in GWh <sup>2)</sup>
<b>Plants operated by Statkraft <sup>1)</sup></b>	<b>57</b>	<b>9,147</b>	<b>34,941</b>
- Others' rights in 18 of these	-	-1,385	-4,880
+ Statkraft's share of plants operated by others	30	868	3,102
<b>Total at Statkraft's disposal</b>	<b>87</b>	<b>8,630</b>	<b>33,163</b>
+ Power plants leased to others	6	185	1,110
<b>Statkraft total <sup>3)</sup></b>	<b>93</b>	<b>8,815</b>	<b>34,273</b>

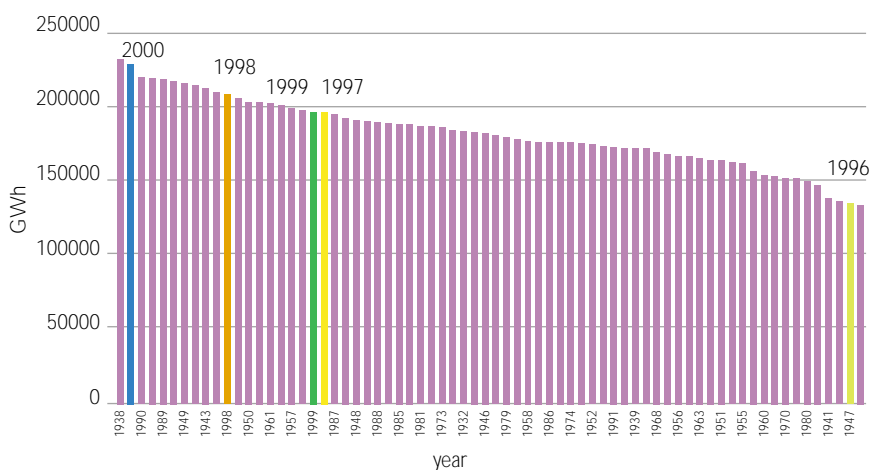
1) Including Finnmark Energi AS.  
 2) Estimated loss and consumption for pumping has been deducted  
 3) In addition to which is the production related to the ownership interests in OEP BKK, HEAS, SKK and VK in Norway and Sydkraft in Sweden.

maintain the highest degree of availability possible, particularly for those plants that have high costs when they are not available, as well as having a high degree of availability at times when market prices are high. The power plants are generally characterised by regular and good maintenance.

In all, technical maintenance shall ensure that production facilities are flexible enough to exploit financial opportunities presented by the current variations in market prices, thus contributing to an optimal financial result for Statkraft as a whole.

Over the last few years Statkraft has rehabilitated a number of dams, focusing on safety, based on a plan from 1994. Most of the projects in the original plan have now been completed, but power plants reverted to the state and transferred to Statkraft, general ageing, and new public safety requirements have resulted in the scope of the plan being expanded. It is now planned that the programme will be completed by the end of 2006.

Fig. 2  
Exploitable inflow in Norway and Sweden



## RESTRUCTURING OF THE ENERGY INDUSTRY

### Major changes in the European market

The energy markets in Europe are currently experiencing rapid and wide-reaching changes. The Directive for liberalisation of the electricity market was implemented in 1999 and deregulation of the European power market has resulted in increased competition. Combined with excess power capacity on the Continent, the result is falling wholesale prices.

Falling wholesale prices have resulted in declining profit margins and increased focus on profit enhancing measures. This, combined with economies of scale, has brought about restructuring of the business and consolidation of power companies. New and bigger companies are being established. At the same time some companies are being split up into smaller units that focus on core areas.

The EU-directive on liberalisation of the gas market was introduced in 2000. The clear goal of the directive is to ensure an open gas market, similarly to the electricity directive, with a requirement that at least 30 per cent of the market shall be able to select a supplier from August 2000.

Gas is much more widely used as an energy source on the Continent than in Norway. Increased integration between gas and electric power is expected in the future, due to an increase in the consumption of gas for electricity production and because many consumer groups require supplies of both electricity and gas.

Trading in power and gas is expected to increase in the time to come and will shift from physical to financial trading. This is confirmed by the establishment of several power exchanges on the Continent in 2000, including those at Leipzig (LPX) and Frankfurt (EEX). But physical trading is still important,

and a functioning market for financial trade is not expected for another year or two. And a well functioning gas market is not expected for a few more years.

In European terms, the Nordic region has come far in liberalising and opening the power market. The same applies to the scope of financial trading. Greater competition in power production and the end-user market causes pressure on margins on power sales. As a result, one has seen a great deal of restructuring, among other things through major changes in the ownership structures. This is particularly the case in Sweden and Finland where a few players control relatively high market shares. In Norway, on the other hand, this tendency has not been so strong. It is expected that the Nordic power industry will see more mergers and the growth of a few dominant energy companies in the years to come. There is also considerable interest among European companies to establish themselves in Norway.

The development in the energy sector is also in the direction of greater focus on environmental issues. EU is currently preparing a directive that promotes production of renewable energy. The EU has great ambitions in this respect and has proposed an increase in renewable energy from 13.9 per cent of total electricity production in 1997 to 22.1 per cent in 2010. Renewable energy today is for the most part based on hydro power, where the potential for increase is limited. Statkraft has been working to have electricity from large-scale hydro power being treated, in principle, like electricity from windmills, bio-energy and solar energy. Optimal utilisation of hydro power resources will be important if the EU is to achieve its goals.

### Statkraft's strategy

Statkraft's goal is to expand production capacity, inter alia by way of acquisitions. In Norway the objective is to strengthen its position by acquiring regional companies, and through them being better suited to face increasing



international competition in the future. Expansion will also help the company realise economies of scale in power plant operation and market analysis. Statkraft's ambitions also include further growth in production and trading on the Nordic market, and the company wants to be an active driving force in the restructuring of the Nordic end-user market.

Statkraft views the development of trading activities in Norway and Northern Europe as a joint operation and has established trading operations on the Continent. Statkraft will pursue possibilities of strategic investments in continental production capacity.

Against the background of increasing integration between the gas and the power markets, Statkraft will carefully follow trends in the European gas market.

### Activities in 2000

In the course of 2000 Statkraft bought 10.8 million shares in the Swedish company Sydkraft. At year-end Statkraft owned 35.1 per cent of

the company's capital and 28.9 per cent of the voting rights. The company has a mean production of 27 TWh, mainly in the form of nuclear power and hydro power. In addition, Sydkraft has considerable activity in the field of distribution network operations, consultancy services, gas distribution and thermal energy production as well a great deal of competence in the field of alternative energy.

During 2000, Statkraft acquired 34 per cent of the shares in Skiensfjordens kommunale kraftselskap AS (SKK) and 34 per cent of the shares in Vestfold Kraft AS (VK). With effect from 1 January 2001 these two companies merged under the name Skagerak Energi AS. The merger results in a significant concentration of energy-related activities in the counties of Vestfold and Telemark.

In 2000 Statkraft acquired 33.33 per cent of the shares in Hedmark Energi AS (HEAS).

Agreements have been signed under which Statkraft's stake in HEAS will rise to 49 per cent in the course of 2001.

### **Jacob Calmeyer (1802–1883):**

*Lysakerfossen, (The waterfall at Lysaker), undated. Oil on canvas.*

*34 x 49 cm. National Gallery's collection. Photo: J. Lathion*

*©Nasjonalgalleriet 1999.*

*Whilst most painters sought out dramatic waterfalls in the mountains or deep forests, Calmeyer concentrated on a landscape much closer to civilisation. He depicts the unspoilt and untouched countryside, underlined by the absence of buildings and people.*



## POWER PLANT DEVELOPMENT IN NORWAY

When exploring new production capacity, Statkraft focuses on hydro power, other renewable energy and gas-generated power, all of which are energy sources with little or no greenhouse gas emissions.

Statkraft has currently identified profitable hydro power and new renewable energy projects in Norway corresponding to about 6-7 TWh in a ten-year perspective. Developing this potential in the light of both environmental issues and other social interests, while at the same time giving consideration to technical and financial issues, represents a major challenge.

### Hydro power

The hydro power potential includes both new watercourses and improvement of existing production facilities.

In April 2000 Statkraft received approval for its application to build the new Bjølvo Power Plant, in part because of the poor technical state of the present plant. Construction work started in October. Total production will be about 387 GWh per year, of which 65 GWh will be new capacity.

Work on the Beiarn, Bjellåga and Melfjord projects continued in 2000. In May, Statkraft's application for approval of amendments to the Beiarn development plan was approved. This meant that Statkraft could commence work at Beiarn in August. However, one month later the work was temporarily stopped by the Minister of Petroleum and Energy following great pressure from a large part of the Storting (Parliament) and the environmental organisations, based on a demand that further impact assessments should be made.

In October and November, the Norwegian Water Resources and Energy Directorate (NVE) presented its recommendation in respect to the applications for amendments to the plans for the development of Bjellåga and Melfjord. These had been submitted to NVE as early as 1998 and 1999. The recommendations were in line with the latest development solutions proposed by Statkraft. However, the Prime Minister made it clear in his New Year's speech to the nation that the Government was in favour of stopping the Beiarn, Bjellåga and Melfjord projects and at the corporate meeting in January 2001 Statkraft was instructed to stop all work on these projects.

Statkraft has also worked on developing the remaining hydro power projects in its portfolio.

### New renewable energy

Statkraft currently produces energy from pure renewable hydro power. If the growth in electricity consumption continues, the remaining unexploited hydro power potential will not be sufficient to satisfy future market demands. Other renewable energy sources will therefore probably play an important role in the future. For this reason, Statkraft will continue to increase its focus on such energy sources.

In the short term Statkraft will focus, among other things, on developing wind power and on opportunities of using hydrogen as the energy carrier for such applications as fuel cells, in addition to developing electricity with the help of salt gradients.

### Wind power

In December 2000, NVE granted Statkraft licences to build windmill parks at Smøla, Hitra and Stadlandet. Estimated production is 768 GWh, which means sufficient electricity for all inhabitants of a town the size of Bodø. The licences are appealed and it is expected that the appeal process can take up to six months. When the applications for licences and for financial support are finally approved, Statkraft will be able to start work on the first windmill park in 2001.







**Johan Gørbitz  
(1782–1853)**

*Landskapsstudie med vannrenne, (Landscape study with water pipe), undated. Oil on paper pasted on canvas. 30.5 x 39.5 cm. National Gallery's collection. Photo: K.Ø. Nerdrum ©Nasjonalgalleriet 2000.*

*The need to tame nature is a cornerstone in the building of all civilisations. This simple water pipe is a unambiguous symbol of how a small device can ease day-to-day life and rationalise work for many a busy hand.*

Statkraft's ambition is to develop 2 TWh wind power by 2010. The company is therefore considering several other potential locations along the Norwegian coast as part of its commitment to wind power. In 2000 wind conditions were monitored at seven new coastal sites.

Statkraft's commitment to wind power has been a major contributor in raising the level of competence in and insight into wind power technology. Participation in an R&D project under the auspices of the Norwegian Research Council on large-scale integration of wind power has provided a greater understanding of component development, local wind conditions and problems relating to the grid.

**Hydrogen**

In association with Sydkraft, Statkraft is undertaking a project that is looking at hydrogen as an energy carrier in the energy system of the future. This project has generated

considerable insight into production, storage, transportation and application of hydrogen, including ancillary technologies' potential.

**Salt gradients**

Statkraft's work on the possibility of using salt gradients in electricity production continued in 2000. This technology is based on exploiting pressure differences that arise in an osmosis process when salt water and fresh water are kept apart by way of a membrane. In theory, this pressure is the equivalent of a 270 metre waterfall that can be used for power production. A two-year study has verified the theoretical potential. Furthermore, in association with the Foundation for Scientific and Industrial Research (SINTEF) Statkraft has considered how realistic the exploitation of salt gradients for the purpose of producing energy is. It is believed that there is a considerable exploitable potential in Norway, but there is still much work to be done before this can technically and commercially be a supplement

to our existing electricity production. It will probably take many years before the quality of the membranes is adequate and have the other qualities necessary.

#### **Gas-fired power plants**

Norsk Hydro, Statoil and Statkraft each own one third of Naturkraft.

In 2000, the company had its emission permit for the new plants at Kårstø and Kollsnes changed. The emission requirements for CO<sub>2</sub> were eased, but the stringent emission requirements for NO<sub>x</sub> were upheld. However, it opened up for Naturkraft being credited, on certain conditions, with NO<sub>x</sub> reducing measures at other emission sources, so-called "flexible NO<sub>x</sub> measures".

As yet, no final decision to build gas-powered plants has been made.

## **INTERNATIONAL POWER DEVELOPMENT**

An increase in energy demand, market liberalisation and the privatisation of energy markets also outside of Europe present profitable business opportunities for companies with hydro power competence. Statkraft therefore wants to be an energy company that develops and operates electricity production facilities in selected geographic markets outside of Europe that have a considerable potential for new hydro power development. Statkraft does not involve itself in projects that are considered to be controversial from an environmental point of view.

Currently, Statkraft has ownership interests in two international hydro power companies, one in Laos and one in Nepal.

## **Laos**

Theun Hinboun Power Company has constructed, owns and operates a 210 MW run-of-the-river power plant in Laos. Statkraft has an indirect 10 per cent interest in the Laotian company through its 50 per cent stake in Nordic Hydropower AB (NH). Vattenfall owns the other 50 per cent of NH, which controls a total of 20 per cent of Theun Hinboun.

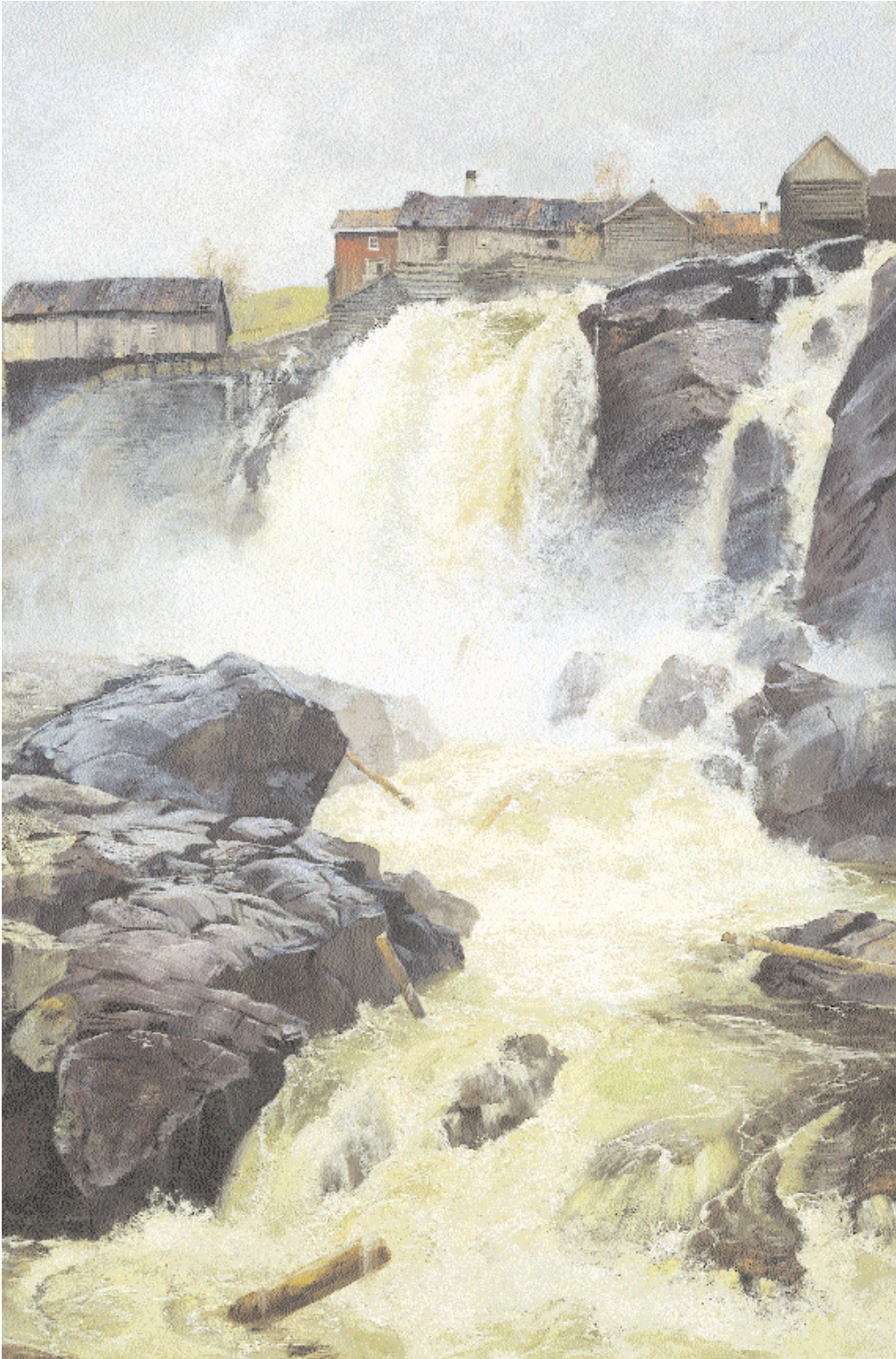
The power plant has been in operation since April 1998. In 2000, about 1.5 TWh was produced and the company achieved sales of USD 59.1 million. Virtually all of the power is sold to Thailand under a 25-year power sales agreement with EGAT, the state owned energy company. The power agreement is based 50 per cent on US Dollars and 50 per cent on Thai Baht. Statkraft received USD 3.2 million as its return on the investment in Theun Hinboun in 2000. Since 1998 the company has received USD 6.8 million in dividends. Statkraft has invested USD 11 million in Theun Hinboun.

## **Nepal**

Statkraft owns 74 per cent of the Nepalese company Himal Power Limited which has built, owns and operates a 60 MW run-of-the-river power plant, Khimti I, in Nepal. The power plant commenced commercial operations on 11 July 2000 and is the first privately financed project of its type in Nepal. The project was completed in accordance with the budget and on time. Khimti I Power Plant increases Nepal's power production by 25 per cent and generated sales of USD 12 million in 2000. This is in line with the budget. The entire electricity production is sold to the state owned energy company NEA on a 20-year USD-based power sales agreement.

In November 1999 the sale of a 23 per cent shareholding in Himal Power Limited to BKK AS was negotiated as part of a long planned reduction in Statkraft's holding. The Nepalese





**Frits Thaulow (1847–1906):**  
*Haugsfossen ved Modum, (The waterfall Haugsfossen at Modum), 1883. Oil on canvas. 152 x 100.5 cm. National Gallery's collection. Photo: J. Lathion ©Nasjonalgalleriet 1995.*

*In many ways, this roaring waterfall, which mankind has learned to exploit, is a good symbol of hydro power. By painting the waterfall from a viewpoint directly above the water, we are invited to see all of the fascinating performance that nature has put on display.*



**J.C. Dahl (1788–1857):**

*Labrofossens øvre fall, (The Upper Falls of the Labrofoss), 1855-56. Oil on canvas. 164 x 141 cm. National Gallery's collection.*

*Photo: J. Lathion ©Nasjonalgalleriet. Dahl visited Labrofossen in 1826 and the sketches he made then was the basis of several pictures of the waterfall. The fact that he returns to the same motif almost 30 years later tells us something about the impression the waterfall made on him. The goats were probably not as close to the fall as they are in the painting, but it does tell us just how breathtaking the landscape is.*

government has now issued the necessary approval and the agreement was formally signed in February 2001.

In December 2000 Statkraft received a licence to consider developing the 27 MW Khimti II, which is upstream of Khimti I. Further studies will show whether the project can successfully be developed.

**Peru**

For some years, Statkraft has been studying several projects in Peru, but after the authorities opted for development of the Camisea gas field in 1999, no licences have been issued for hydro power projects. Elections

will be held in the spring of 2001 and it is expected that a new president will reconsider the situation in the energy market and that hydro power development will again be put on the agenda. Statkraft's project, Cheves (525 MW), was refused a licence in 1999 but the decision has been appealed. The authorities are still processing the appeal.

**Prospects**

Statkraft's ambition is to engage in hydro power projects in prioritised geographic markets outside of Europe. Through the developments in Nepal and Laos the company has documented that it has the essential competence necessary to undertake such projects.





# Regulatory framework and harmonisation

The open electricity market was introduced in Norway with the Energy Act of 1991. Simultaneously, distribution network activities were subjected to strict monopoly control. The objective was to ensure that the nation's energy resources should be produced, sold and consumed in an efficient manner and that market prices should reflect the scarcity and thus the optimal value of the electricity. Since then competition has become fiercer with an increasing number of countries being linked into one competitive market. Today, this is particularly the case for the Nordic countries. Through its Electricity Directive, which ensures access to the transmission networks, and other competition measures, the EU aims to accelerate the pace of liberalisation in Europe.

## Competition calls for harmonisation

Each country has its regulatory framework for the production and sale of electric power. When several nations are linked in a large energy market, competition cannot be conducted on equal terms unless the conditions set by way of legislation, rules, taxes and duties by the authorities have a neutral impact on producers and sellers, irrespective of which country the activity takes place in. Nor will power be produced in an efficient manner, and this will be a loss to society, be it in Norway or in the Nordic region.

Competitive conditions within the Nordic countries are not equitable as regards electricity production and sales. Economic theory says that fiscal taxes should be levied at consumer level in order to avoid distortion of competition between types of energy (nuclear power, hydro power, bio-power etc.) and between countries. And environmental duties should be objective and charged exactly to achieve the effect the

authorities want, e.g. to have an impact on CO<sub>2</sub> emissions from various types of fossil energy carriers (coal, oil, gas) and thus aimed at production or the means of production.

If the taxes are distorting, the most efficient producer will not reach the market with the right volume of his production. The producers will receive incorrect signals through the tax system and can therefore be motivated to increase non-optimal production. This can result in the "wrong" producers enjoying capital accumulation and growth.

## Framework conditions in the Nordic region

Norway, Sweden, Finland and Denmark are now connected to Nord Pool (The Nordic Power Exchange) and trade power across national borders under common exchange regulations. Simultaneously the governments' terms and conditions for power production are quite different between the countries. Figure 1 shows the tax and duty system in each country. In figure 2 one can see that Norway and Sweden, in the basic case, have more or less the same tax burden from electricity-related taxes, but that the Norwegian producers are adversely affected as prices rise. In this comparison it should be pointed out that Sweden has a high nuclear power tax. The resource rent tax that is specific to Norway is important, and its affect is quite substantial as power prices rise. At the same time figure 2 illustrates the importance of the distinctly Norwegian licence power supplies which, in the case of rising prices, results in the producers losing more and more revenue. This relinquishment of electricity is linked to the licences that the authorities issue, which might include a clause stating that up to 10 per cent of the volume produced shall be transferred to

Fig. 1. Power sector taxes and levies in the Nordic countries

	Norway	Sweden	Finland	Denmark
Income tax	●	●	●	●
Resource rent tax	●			
Property tax	●	●	●	●
Natural resource tax	● <sup>1)</sup>			
Nuclear power tax		●		
Licence fees	●	● <sup>2)</sup>		
Consumption tax	●	●	●	●
Environmental tax		●		●

1) Natural resource tax is co-ordinated with income tax.

2) The Rural district and fish levy in Sweden might be regarded as a licence fee

Source: ECON

Fig. 2. Simulated changes in electricity taxes as a result of higher prices



Source: ECON

Fig. 3. Taxation of identical hydropower projects in Sweden, Finland and Norway. Present value per kWh in NOK.

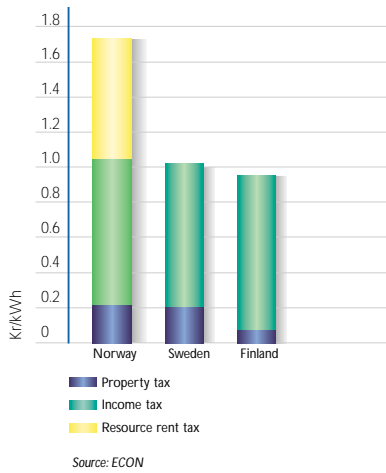
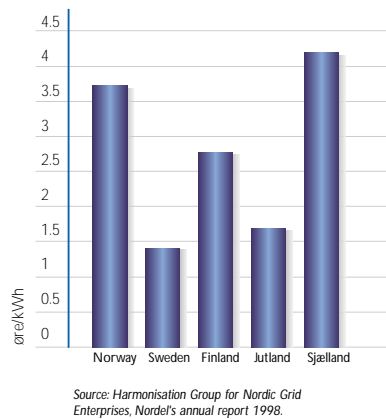


Fig. 4. Average transmission tariff in main grids 1999



involved municipal authorities at a price determined by the Ministry of Petroleum and Energy. If the market price exceeds the price determined by the Ministry, the producers lose the difference between the market price and the governmentally determined price.

Norwegian electricity production is almost 100 per cent hydro power based. It is therefore interesting to look more closely at how hydro power-related taxation is practised in the other Nordic countries. Denmark's hydro power production is quite marginal and therefore not discussed, while the other three countries have significant production. This is shown in Figure 3. Again we see that the resource rent tax is a heavy tax element in Norwegian hydro power production.

In addition, the transmission of electricity over the grids must be paid for. If we consider the duties that the producers must pay to feed into or use the central grid, Norway has much higher prices than the other Nordic countries. This again is in Norwegian producers' disfavour vis-à-vis producers in the neighbouring countries. See Figure 4.

In Norway the electricity-specific taxes rise with rising prices. In our neighbouring countries and other countries with whom we compete, taxes are production-dependent or they are calculated on the basis of an assessment of value, e.g. property tax, which is not affected by the price of power.

In addition to the direct financial consequences of the Norwegian regulatory framework already mentioned, licensing laws make it difficult to sell interests in Norwegian energy companies and therefore hinders the restructuring.

### The consequences for hydro power producers in Norway

Several framework conditions related to hydro power production put Norwegian companies in a weak position, competitively speaking,

compared to companies in the other Nordic countries:

- Licensing laws make reorganisation that arises from mergers or acquisition of power plants difficult. They impair Norwegian competitiveness compared to similar companies in the Nordic region and in Europe.
- The Norwegian tax system is more stringent and takes a larger share of the profit. This weakens future investment capacity and thus the ability to restructure. It also reduces the value of the companies. Calculations indicate that Norwegian power production facilities would be worth NOK 70 billion more had tax rules applicable in Sweden or Finland been applied in Norway. Norwegian producers are particularly burdened by the resource rent tax.
- The distribution of tariffs for transmitting electricity in the central grid between producers and consumers levies a heavier financial burden on Norwegian producers than on producers in neighbouring countries, hence reducing the value of the Norwegian companies.

In addition to the elements mentioned above, property tax also distorts competition.

Over the last few years Statkraft, in addition to ordinary tax on profits, has had its profits reduced because the Government, as owners, has taken out an especially high dividend. Seen in isolation this reduces the company's future financial muscle that could have been used in the restructuring process.

If Norwegian environmentally friendly hydro power is to be able to compete on equal terms with power production in other countries, and if the energy companies are to be able to obtain sufficient financial strength to grow and be important players in the future European market, the authorities must harmonise legislation and taxes with other countries.

# The energy sector 20 years hence

In 1990 the Storting (Norwegian Parliament) passed the Energy Act. This represented something new in a global sense and has since been used as an example by other countries that have liberalised their markets. For Norway the Act marked the beginning of a restructured power industry. We are still in the midst of this development. What will the energy picture look like in 20 years? In the following we will try to find some answers based on recent surveys and what we believe the future has in store for us.

Energy consumption is closely linked to the development of our welfare. Rise in energy consumption is closely linked to rise in GNP. At the same time, new technology and changes in attitudes result in energy being used more efficiently. In Norway, about 70 per cent of the stationary energy requirement (excluding the

transport sector) has been covered by electricity. Because the country's production system and distribution grid for electricity are well developed, and a very large share of appliances in households, businesses and industry are electricity-dependent, electricity will continue to play an important role in the future as well.

While stationary energy consumption of petroleum products has fallen and the use of solid fuel (wood and the like) has been fairly constant over the last 25 years, consumption of electricity has risen sharply. Whilst electricity consumption was 66 TWh in 1976, it had risen to 124 TWh (temperature adjusted) in 2000. What will decide future developments? Climatic conditions are uncertain and play an important role. The Norwegian population will not grow significantly. On the other hand, the

**J.C. Dahl (1788–1857):**

*Hellefossen ved Hokksund, (The waterfall Helle near Hokksund), 1838. Oil on canvas 98 x 155 cm. National Gallery's collection. Photo: J. Lathion © Nasjonalgalleriet 1996. This painting is an interesting documentation of salmon fishing in the south-east part of Norway. Because we see how the water gets hold of the fish baskets, we may understand the power of this spectacular waterfall. Dahl was so pleased with this picture that he suggested himself that the Government should buy it and donate it to the new palace in Christiania.*



**Thomas Fearnley  
(1802–1842):**

*Labrofossen, (The Labro Falls), 1838. Oil on canvas. 36.5 x 51.5 cm. National Gallery's collection. Photo: J. Lathion © Nasjonalgalleriet 1999.*

*This is a relatively small painting and the fall is shown from a different angle than in the large version he painted a year earlier. The dramatic elements are white foaming water and tangled logs. At the same time, the fisherman and his group show that the waterfall is not only overwhelming and threatening, it is also a place where fishermen and hunters reap nature's resources.*



number of households is rising, among other things as a result of young people seeking to establish their own homes, a rise in the number of divorces and a rise in the number of single-person households. Energy consumption per person rises when the size of the household falls. The rise in the amount of floor space per home will also result in increased electricity consumption. In addition, we are employing more equipment that uses electricity. NOU (Norwegian Official Report) 1998:11, which describes the energy and power balance toward 2020, states that households and service providers have had the biggest increase in electricity consumption over the last few years. This trend is expected to continue in the future as well. In addition, estimates indicate that the information, communication and technology sector will be constantly increasing its electricity consumption. PCs, servers, the Internet and guidance systems all consume an increasing amount of electricity. The increased energy efficiency does not fully compensate for

this growth. It is estimated that 1 million PCs need 500-600 MW effect, corresponding to the closed down Barsebäck nuclear plant. Norway's TVs and video players in stand-by mode use electricity equivalent to two Alta power plants. If Norway's electricity consumption follows the "Straight Ahead" scenario in NOU 1998:11 it will be about 140 TWh in 2020. Other scenarios show the same development. See Figure 1.

The energy system of the future will contain some assumptions:

- A free electricity market in Europe is essential for efficient electricity consumption
- Environmental regulations will be more stringent
- The principle "look before you leap" linked with sustainability will be accepted an integrated part of all energy-related decisions.

This will require a sharp increase in research and development in energy fields. If, for



example, solar cells are to be a success, an improvement in capacity is required. In addition a new storage medium for electricity that is compact, preferably transportable and that can store large amounts of electricity must be developed. Fuel cells at acceptable prices that can operate without any polluting emissions also call for a great deal of research. In the energy system of the future renewable energy carriers with sizeable capacity and a minimum of waste will play a major role in power supplies. Therefore, hydro power will still be an important energy form and the main energy source in the Norwegian system in the next 20 years.

Research will probably result in declining production costs for different energy carriers. Figure 2 illustrates how the energy production costs of different energy carriers are expected to decline over the next decades. This will increase flexibility and make renewable energy forms more attractive. Simultaneously, technology will make decentralised energy production simpler. This is also the case for electricity. Efficient bio-facilities, solar cells, catchers of solar heat, fuel cells, wind power plants, small hydro power plants, geothermal/earth heat and heat pumps by water and air will contribute both to direct heat use and to local electricity production. Simultaneously, gas, hydro power, large wind power plants and, further into the future, possibly large fuel cell plants based on hydrogen and salt power plants will contribute to centralised electricity production. In addition, district heating will replace electricity and oil in connection with urban areas and large industrial plants. Statkraft is already engaged in the development of gas-based power and wind power. It also supports research on salt power plant technology and the use of hydrogen/fuel cells.

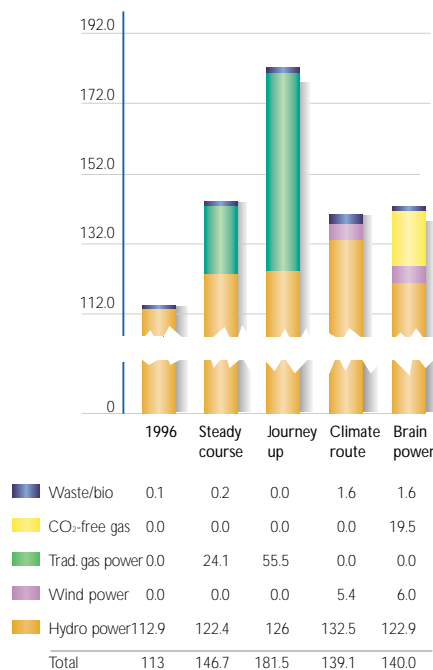
In the scenarios discussed in NOU 1998:11, it is assumed that relatively small amounts of bio-power will contribute to the power supply,

even though the estimates vary from scenario to scenario. Correspondingly these scenarios also rely on some wind power. In all the scenarios, with the exception of what is referred to as the Climate Track, a good portion of electricity produced from gas is included.

But all the scenarios also include an estimated increase in hydro power from about 10 TWh to 20 TWh. The realisation of such an increase by way of new development and modernisation of plants will present a challenge, especially in the light of the current political mood. With the sharp rise we have seen in electricity consumption over the last few years and the presented estimates for the future, Norway must import more power, allow hydro power development, or build gas-fired power plants. Only such measures can generate the amount of electricity we are talking about. The scope is far beyond 2020 before other energy carriers can play a major role. It will also take a long time before we can fully exploit the estimated potential for energy conservation and improved energy efficiency of about 5-15 TWh. This also depends on price trends, technological improvements, public regulations, and not least of all on a change in consumer behaviour.

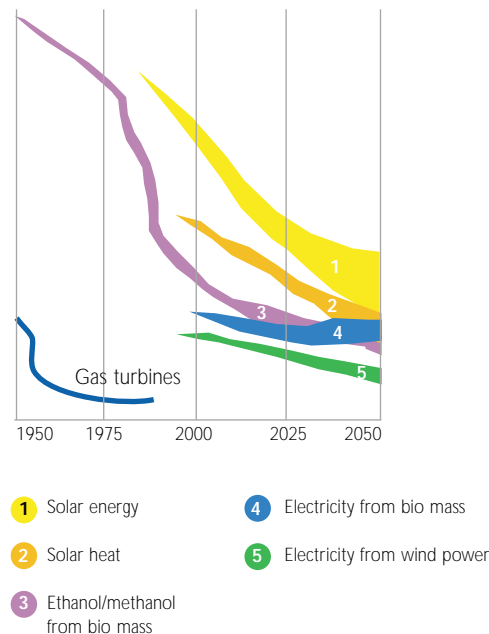
In the 10 years to come, the energy industry will be characterised by restructuring, fiercer competition, new players in power trading, stronger internationalisation of all activities and sharper focus on the environment. In addition many companies will integrate new activities that lie close to the primary operations, for example supplying equipment or operating equipment that is very energy-intensive, as well as offering telecommunication services or "smart-house" solution over the electricity supply network. The Norwegian power industry will be part of this European development and the pace of restructuring will increase in the years to come as a result of the many small companies in Norway today.

Fig. 1 Distribution of mean power production 2020



Source: NOU 1998:11

Fig. 2 Relative cost development of various forms of energy



Source: Sydkraft

# Statkraft SF and the creation of value

By Arvid Gusland, Ernst & Young Corporate Finance

Almost 10 years have passed since it was decided to establish Statkraft SF as a state owned enterprise with hydro power production as its core activity. It is natural to ask what type of added value has been generated under the auspices of Statkraft SF since the establishment.

One starting point for assessing value added is often the accounting results the enterprise has achieved. The return on capital employed (equity and interest-bearing debt) rose the first years after establishment (see figure). Since 1996 the return on capital employed has been fairly stable at about six per cent.

However, the annual accounts do not give a precise measurement of value added and return on investment. Annual accounts are based on history, while the value of a company lies in its future earnings. The activity that takes place in a given period of time lays the foundation for values that can be reaped today and in the future. Thus, value added in a commercial context corresponds to the change in the value of the company in addition to the annual profit or the cash flow for the year.

Statkraft SF's activities have a time perspective that exceeds what is normal in most other industries. Value-based considerations are therefore important in assessing the return that Statkraft has achieved. This was also pointed out in connection with the establishment of Statkraft SF. In Proposition to the Storting (Parliament) no. 100 (1990-91) on the establishment of Statkraft SF, the Ministry of Petroleum and Energy stated that: *"accounts in accordance with the Accounting Act will not be an adequate basis for gauging results"*.

Statkraft SF was established with total assets of NOK 31 billion, of which NOK 12.4 billion was equity (40 per cent) and NOK 9.3 billion (30 per cent) was a subordinated loan from the Government. Interest on the loan was linked to the enterprise's net income.

The value of the opening balance corresponded to what was considered to be the fair value of Statkraft's activities and was based on an assessment of expected future cash flows (cf. Proposition to the Storting no. 100).

In August 2000, at the request of the Ministry of Petroleum and Energy, Ernst & Young Corporate Finance carried out a valuation of Statkraft SF, nine years after the opening balance was fixed. The analysis brings to light substantial deviations between different valuation methods and investor assumptions. This is not unnatural inasmuch as the European power industry is in the middle of a restructuring process. The analysis shows that the value of Statkraft SF is considerably higher seen from a strategic investor's vantage point than what a financial investor (stock market investor) would assume. This is consistent with a general observation of considerable differences between how energy companies in Europe are valued on stock exchanges by financially oriented investors and outside of stock exchanges by strategic and industrial investors.

The valuation of Statkraft SF in 1991 was based on a strategic and industrial approach. The ownership structure today is the same as in 1991 and Ernst & Young Corporate Finance's valuation from 2000 also has a strategic and industrial approach. Emphasis was

placed on the value of expected future cash flows, real options and comparisons with observed transaction values for power plants. With this basis, the value of Statkraft SF's equity was estimated at between NOK 45 and NOK 50 billion.

In other words, the valuation by Ernst & Young has much the same foundation as the valuation on which Statkraft's opening balance was based. One has, therefore, a value-based starting point for calculating return and value added in the enterprise in the period since it was established.

Based on the opening balance sheet values and the valuation from 2000, the enterprise's value-adjusted return on equity from 1992 to the present date can be calculated at an average of between 13 and 14 per cent. However, it is correct to include the subordinated loan as equity because interest on this loan was linked to net income. The whole of the subordinated loan has now been repaid or converted to owner's capital. The average annual value-adjusted return on equity and subordinated loan was between 10 and 11 per cent based on the opening balance sheet and the valuation in 2000.

Much has changed since Statkraft SF's opening balance was determined. For the value of Statkraft, the most important element is that power price expectations (contract prices) have fallen considerably, and this points toward a fall in the value during the period.

The fact that Statkraft SF's value has nevertheless risen is due to a number of factors. One important factor is the Statkraft SF's contract situation. A large part of Statkraft SF's power supplies have been bound to long-term contracts to the power-intensive industry, and this reduces Statkraft SF's dependence on current market prices. Furthermore, Statkraft SF has entered into long-term power exchange agreements with market players on the Continent. These

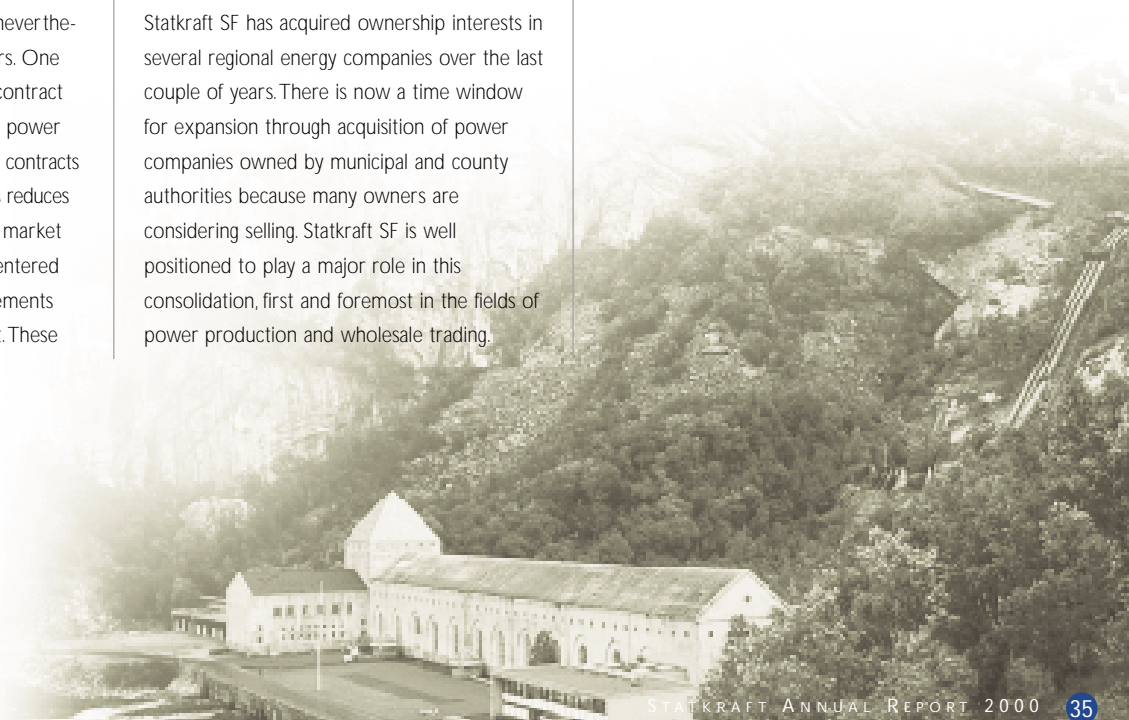
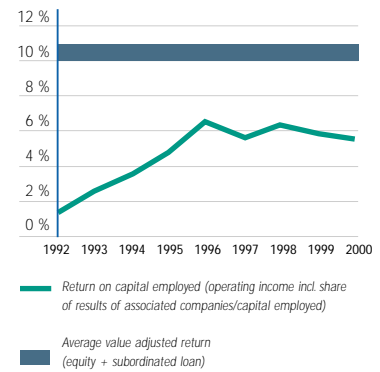
agreements were entered into during the first half of the 1990s when the market situation was different from what we have today and the alternative cost linked to peak power production on the Continent was assessed differently to what it is today. The agreements further reduced Statkraft SF's dependence on current market prices. At the same time the agreements provide an earnings potential that exceeds the current contract markets in both the Nordic region and on the Continent.

Another important factor is Statkraft's distinctive characteristic with a production structure that separates it from the other major companies in the Nordic region and Europe. Statkraft SF's hydro power production has a high effect and manoeuvring capacity. This gives added value in an effect situation where the market in general tightens up. This is about to happen in the Nordic region.

Other important elements in the valuation of Statkraft SF are costs related to both operations and development/reinvestment. Today, Statkraft SF is operating at a lower cost level than at the time it was established in 1992. Furthermore, Statkraft SF has not implemented or started any major and costly development with the exception of Svar tisen (which was resolved developed before Statkraft SF was established as a state owned enterprise). With the developments seen in the power market during the last decade this has proven to be sensible.

Statkraft SF has acquired ownership interests in several regional energy companies over the last couple of years. There is now a time window for expansion through acquisition of power companies owned by municipal and county authorities because many owners are considering selling. Statkraft SF is well positioned to play a major role in this consolidation, first and foremost in the fields of power production and wholesale trading.

Statkraft SF – creation of value.



## Income statement

The Group

Statkraft SF

2000	1999	1998	Amounts in NOK million	Note	2000	1999	1998
4 686	4 525	3 866	Power revenues	2,3	4 576	4 539	3 865
599	1 076	1 448	Other operating revenues	4	467	410	828
5 285	5 601	5 314	<b>Gross operating revenues</b>		5 043	4 949	4 693
-614	-689	-554	Transmission costs		-611	-690	-553
4 671	4 912	4 760	<b>Net operating revenues</b>		4 432	4 259	4 140
625	644	597	Salaries and other payroll costs	5,19	436	335	309
252	231	231	Compensation and licence fees	6	250	231	225
767	1 064	904	Other operating costs	7	805	730	695
849	799	830	Ordinary depreciation	11,12	801	759	793
2 493	2 738	2 562	<b>Operating costs</b>		2 292	2 055	2 022
2 178	2 174	2 198	<b>Operating income</b>		2 140	2 204	2 118
729	442	315	<b>Result from associated companies</b>	13	-	-	-
426	210	156	Financial revenues	8	893	354	295
-1 568	-1 135	-1 038	Financial costs	8	-1 523	-1 118	-1 056
-1 142	-925	-882	<b>Net financial items</b>		-630	-764	-761
1 765	1 691	1 631	<b>Pre tax income</b>		1 510	1 440	1 357
-903	-636	-696	Taxes payable	9	-845	-637	-646
-15	-108	-45	Change in deferred tax	9	49	-117	-69
-918	-744	-741	<b>Taxes</b>		-796	-754	-715
847	947	890	<b>Net income for the year</b>		714	686	642
6	1	3	Hereof minority interests				
841	946	887	Hereof the Groups share				
<b>Allocation of net income for the year</b>							
			Dividend	18	631	600	309
			Provisions to other equity		83	86	333
<b>Group contribution</b>							
			Group contribution paid		514	14	-

The Board of Directors of Statkraft SF

Bærum, 6. March 2001

  
Terje Vareberg  
Chairman

  
Jon Ivar Nalsund

  
Odd Vanvik

  
Marit Buch-Holm

  
Anders Eckhoff



## Balance sheet

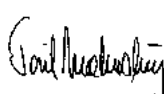
The Group

Statkraft SF

2000	1999	1998	Amounts in NOK million	Note	2000	1999	1998
<b>ASSETS</b>							
2 109	2 123	2 230	Intangible assets	11	2 235	2 026	2 143
25 596	26 095	26 520	Property, plant and equipment	12	23 975	24 600	25 214
22 214	14 348	7 616	Investments in subsidiaries and associated companies	13	8 627	8 262	5 752
1 959	1 717	1 391	Other financial assets	14	17 049	8 197	3 947
51 878	44 283	37 757	<b>Fixed assets</b>		51 886	43 085	37 056
34	31	31	Inventories		33	30	30
1 040	1 308	1 326	Receivables	15	1 099	1 114	1 195
150	146	1 520	Investments	16	-	6	1 405
2 514	1 299	1 796	Bank deposits, cash and cash equivalents	17	1 062	1 012	1 623
3 738	2 784	4 673	<b>Current assets</b>		2 194	2 162	4 253
55 616	47 067	42 430	<b>Assets</b>		54 080	45 247	41 309
<b>EQUITY AND LIABILITIES</b>							
19 250	19 250	15 400	Owner's capital	18	19 250	19 250	15 400
-	-	-	Share premium fund		-	-	-
19 250	19 250	15 400	<b>Paid-in capital</b>		19 250	19 250	15 400
80	83	87	<b>Minority interests</b>	18	-	-	-
-	-	-	Reserve for valuation variances		-	-	-
2 412	2 170	1 835	Other equity	18	1 528	1 444	1 359
2 412	2 170	1 835	<b>Retained earnings</b>		1 528	1 444	1 359
21 742	21 503	17 322	<b>Total equity</b>		20 778	20 694	16 759
394	146	31	Provisions	19	231	112	17
98	82	3 921	Subordinated loan		-	-	3 850
30 557	21 681	18 097	Other long-term liabilities	20	30 482	21 018	17 782
31 049	21 909	22 049	<b>Long-term liabilities</b>		30 713	21 130	21 649
89	1 348	500	Interest-bearing liabilities	21	88	1 348	500
692	573	611	Taxes payable	9	640	578	572
2 044	1 734	1 948	Other non interest-bearing liabilities	22	1 861	1 497	1 829
2 825	3 655	3 059	<b>Current liabilities</b>		2 589	3 423	2 901
55 616	47 067	42 430	<b>Equity and liabilities</b>		54 080	45 247	41 309
2 100	2 105	2 109	Mortgages	23	2 100	2 105	2 106
6 750	2 466	1 426	Guarantees	23	6 652	2 172	1 780

  
Tom Andersen

  
Jan Stenersen

  
Toril Mølmshaug

  
Ingvald Ragna Myhre

  
Lars Uno Thulin  
President and C.E.O.

## Cash flow analysis

The Group

Statkraft SF

2000	1999	1998	Amounts in NOK million	Note	2000	1999	1998
<b>CASH FLOWS PROVIDED BY/ USED IN OPERATING ACTIVITIES</b>							
847	946	887	Provided by the year's operations		714	686	642
-127	-4	-507	Gain/loss on sale of fixed assets		18	-1	-463
849	799	830	Ordinary depreciation		801	759	793
29	-	-	Write-down of fixed assets		29	-	-
174	108	46	Change in deferred tax/deferred tax assets		-49	117	69
1772	1 849	1 256	<b>Cash flow provided by operations</b>		1 513	1 561	1 041
93	18	-730	Change in inventories, debtors and creditors		72	-189	-610
-410	-215	-50	Share of result in associated companies		-	-	-
-115	1 821	-584	Change in other current assets and liabilities		-893	1 926	-226
1 340	3 473	-108	<b>Net cash flow provided by operations</b>	A	692	3 298	205
<b>CASH FLOWS PROVIDED BY/ USED IN INVESTMENT ACTIVITIES</b>							
-630	-391	-1 347	Investments in fixed assets		-394	-161	-563
1 287	23	1 772	Proceeds from sale of fixed assets		11	16	1 771
-8 781	-6 635	-286	Investments in other companies		-359	-2 510	-136
-8 124	-7 003	139	<b>Net cash flow used in investment activities</b>	B	-742	-2 655	1 072
<b>CASH FLOWS PROVIDED BY/ USED IN FINANCING ACTIVITIES</b>							
10 490	5 928	-	Loan proceeds		10 282	5 743	-
-1 227	-2 314	-632	Repayment of long-term liabilities and subordinated loans		-1 212	-2 584	-632
-1 264	-581	1 646	Change in long-term receivables and liabilities		-8 970	-4 413	656
7 999	3 033	1 014	<b>Net cash flow from financing activities</b>	C	100	-1 254	24
1 215	-497	1 045	<b>Net change in cash and cash equivalents</b>	A+B+C	50	-611	1 301
1 299	1 796	751	Cash and cash equivalents as per 01.01.		1 012	1 623	322
2 514	1 299	1 796	Cash and cash equivalents as per 31.12.		1 062	1 012	1 623

# Accounting principles

## Accounting principles

The accounts are prepared in accordance with the law and Norwegian accounting standards. Statkraft SF is established as a state-owned enterprise, and its activities are regulated by the Act relating to State-owned Enterprises.

## Consolidation and Group accounts

The Group accounts include those companies where Statkraft has a controlling interest. If a subsidiary is considered immaterial to the Group, this might result in it not being consolidated.

Subsidiaries that are acquired or established during the year are included with effect from the date of acquisition/date of establishment. Subsidiaries are included in the consolidated accounts in accordance with the purchase method of accounting. The difference between the price paid for the subsidiary's shares and the book value of the equity is, on the basis of a valuation, allocated to those specific company assets and liabilities that have values that differ from the book values. Insofar as differences cannot be assigned to the values of assets and liabilities, they are recorded as goodwill/negative goodwill.

In the Group accounts, inter-company sales and receivables are eliminated, as are inter-company profits related to the Group's own investments.

The accounts of foreign subsidiaries are translated to Norwegian kroner at current exchange rates. Possible conversion differences are recorded directly against other equity.

Power plants with joint ownership, being power plants operated by Statkraft but with other owners as well, and plants others operate, but where Statkraft has an ownership interest, are carried on the balance sheet at the value of Statkraft's holding in accordance with the gross method of accounting. Co-owners directly administer electricity produced, with the exception of licensed power. Statkraft's share of the electricity is included in power revenues. Other operating revenues and operating costs are recorded in accordance with the gross method of accounting in accordance with Statkraft's pro rata shares.

Power drawn from partly owned companies organised as joint-stock companies is included in power revenues. Statkraft's share of other operating revenues and operating costs is included in accordance with the shareholder agreement. The shares are recorded at cost.

Power plants that are leased to others are recorded gross in the accounts, the gross leasing charge being recorded as other operating revenues and operating costs etc. under their respective cost caption.

Associated companies, defined as companies where Statkraft has a considerable but not decisive influence, are treated in accordance with the equity method of accounting in the consolidated accounts if their size is significant. This means that the Group's share of the associated company is recorded at cost as a fixed asset in the balance sheet, adjusted for the part of the accumulated net result after tax in the associated company, less dividend received, depreciation of added value and possible currency adjustments. The Group's part of the associated company's net income after tax less

added value depreciation is shown as a separate item in the Group's income statement

## Principles governing revenue and cost accounting

Revenues relating to goods and services are, as a general rule, recognised when they are earned, while costs are recorded in accordance with the accrual principle. Dividend from companies where Statkraft has a decisive influence is recognised according to the earnings principle, while dividend from other companies is recognised in accordance with the cash principle. Contracts involving substantial prepayments are recognised as delivery is made. Interest revenue on the prepayment is classified as operating revenue.

## Financial instruments

Financial instruments in power trading are financial bilateral contracts, forwards/futures contracts, and options. The valuation of the financial instruments is dependent on whether they are considered to be hedging or trading contracts. The principles for valuation appear from the paragraph on revenue from power trading below.

## Option premium

Paid and received option premium for future power supplies on fixed terms is recorded in the balance sheet and taken to income in line with realised deliveries, or at the time that the option lapses or at the date of a counter-trade or at the time it is realised that the value of the contract is lower than the premium paid.

## Recording of revenue from power trading

**Power production** Statkraft's power production is taken to income as produced volume times sales price.

**Hedging** Statkraft hedges power production by entering into physical or financial contracts. All physical and financial trading within the company's production capacity is accounted for as hedging. Production capacity is defined as the production capacity that the company is 80 per cent certain to achieve. Both sales and purchase positions are considered hedging. Loss/gains on hedging contracts, calculated as the margin between contract price and spot price, are recorded on realisation as a correction to power revenues. No valuation is made in the intermediate period. If net sales obligations exceed production capacity, the hedging contracts are transferred to the trading portfolio based on the LIFO principle.

**Trading** Physical and financial sales and purchase contracts that are not covered by production capacity, are recorded as trading. Trading contracts are valued on the lower value principle on a portfolio basis. Unrealised losses are recorded, but unrealised gains are not recognised. Contracts originally entered into for trading are not transferred to the hedging portfolio, even if they can be satisfied by production capacity.

## Current production contracts

In the case of ongoing projects, revenues are recorded by the Group's companies in accordance with the percentage of completion method. This implies that income is recorded in line with the

progress of the individual project. A project's income is defined as revenue less assignable costs. Assignable costs are comprised of materials, payroll costs, sub-contractors, machine leases and local management.

Current appraisal of work in progress will, in many cases, entail uncertainty and estimates. The final result of the individual project may, therefore, deviate from what is reflected in the accounts for the previous years. In the case of projects that are expected to result in an overall loss, the total estimated loss is charged as per 31 December in its entirety.

#### Public grants

Public subsidies are assessed on an individual basis, and are recorded in the accounts as a correction to the item for which the subsidy is intended.

#### Compensation

The Group pays compensation to landowners for the right to use waterfalls and ground. In addition, compensation is paid to others for damage caused to forests, land, telecommunication lines etc. These payments are in part lump sum, and in part recurring in the form of cash payments or in kind by the supply of compensatory power etc. Lump sum payments of compensation in relation to new power plants are capitalised as part of the investment in the plant, and depreciated over the life of the plant, while recurring payments are charged as costs as they arise.

The present value of future compensation is calculated, and can be seen from the Notes to the Accounts

#### Licence fees

Licence fees are paid annually to the Government and to local authorities, for the increase in hydroelectric power that is obtained from regulating water courses and catchment transfers. These fees are therefore permanent and payable so long as the licensee uses the watercourse regulations on which they are based. These licence fees are expensed as incurred. The present value of future fees is calculated and can be seen from the Notes to the accounts.

#### Research and development costs

Project development and project engineering costs are expensed through to critical action. Critical action is in place when necessary resolutions are passed and approval given. In the case of domestic projects, this means a Board resolution and a licence is obtained, if required, and for foreign projects a Board resolution and financial closing.

#### Maintenance

Ongoing maintenance is recorded as an expense on a continuous basis.

#### Taxes

With effect from 1997, new tax regulations for the power sector were introduced. Both Statkraft SF and the subsidiary Finnmark Energiverk AS are subject to these taxation rules. The other subsidiaries in the Group are subject to ordinary income tax

pursuant to the Tax Act. The Group must therefore deal with four different types of tax, namely property tax, natural resource tax, resource rent tax, and income tax.

**Property tax** This tax is not related to income and is calculated on the basis of the assessed value for taxation purposes. Property tax amounts to up to 0.7 per cent of these values. New rules for the calculation of property tax have been adopted with effect from the year 2001.

**Natural resource tax** Natural resource tax is an income-independent tax that is calculated on the basis of the individual power plant's average production over the last seven years. The tax rate is NOK 0.013 per kWh. Income tax can be offset against natural resource tax paid. Any natural resource tax not offset can be carried forward, together with interest, to later years, and is recorded as prepaid tax.

**Resource rent tax** The resource rent tax is to some extent income-related. It is calculated on the individual plant's production, hour by hour, multiplied by the spot price in the corresponding hour. In the case of supplies of licence power and power on long-term contracts with a term of more than seven years, the actual contract price is applied. The calculated revenue is thereafter reduced by the actual operating costs, depreciation and tax-free revenues, in order to arrive at the tax base; net resource rent revenue. Tax-free revenues amount to 9.8 per cent of the value of the plant's operating assets for taxation purposes. The resource rent tax amounts to 27 per cent of net resource rent revenues at each power plant. Negative net resource rent revenues per power plant can be carried forward and offset against later positive resource rent income, with interest, in the same power plant. This forms part of the basis for calculating deferred tax assets in resource rent taxation, together with deferred tax assets related to temporary difference in operating assets in power production. Calculating deferred tax assets in resource rent taxation takes into account the tax-free income, as a correction to the nominal tax rate. The estimate for effective resource rent tax is based on assessments made for all power plants where it is probable that there will be positive resource rent revenues within a 15-year horizon. The average tax rate over the selected time horizon is 20 per cent and that has been used as the effective rate for deferred tax assets in the resource rent taxation.

**Income tax** Income tax is calculated in accordance with ordinary taxation rules. The tax charge in the income statement comprises taxes payable and changes in deferred tax/deferred tax assets. Taxes payable are calculated on the basis of the year's taxable result.

Deferred tax/deferred tax assets are calculated on the basis of temporary differences between values for accounting and taxation purposes and the effect on taxes of carry forward losses. Deferred tax assets in the balance sheet are only recorded to the extent that it is probable that the asset will be realised in the future. Tax related to equity transactions, for example group contributions, is recorded against equity.

#### Classification of balance sheet items

Assets intended for retention by or long-term use in Group companies are classified as fixed assets. Other assets are classified as



current assets. Receivables falling due within one year are nevertheless classified as current assets. The same criteria are applied to current and long-term liabilities.

Fixed assets are recorded at acquisition cost and are written down to market value when the decrease in value is not considered to be of a temporary nature. Fixed assets with a limited useful economic life are depreciated systematically. Long-term liabilities are recorded in the balance sheet at the nominal amount received at the time the liability was established. Long-term liabilities are not appreciated to market value as a result of changes in interest rates. Current assets are valued at the lower of cost and market value. Current liabilities are recorded in the balance sheet at the nominal amount received at the time the liability was established. Current liabilities are not appreciated to market value as a result of changes in interest rates.

#### **Intangible assets**

Costs relating to intangible assets, including costs of research and development, are recorded in the balance sheet to the extent the requirements for such recording have been fulfilled.

#### **Property, plant and equipment**

Investments in production facilities and other long-term assets are capitalised and depreciated on a straight-line basis over the expected useful economic life of the asset from the date the asset is put into ordinary operations. Investments in power plants not operated by Statkraft SF, are similarly depreciated using an average rate of depreciation.

Accrued costs of inter-company construction work are recorded as cost reductions. Interest on building loans for major investments is calculated and capitalised. Rights associated with waterfalls, and the rights to take over power plants that will revert to state ownership, are capitalised at cost and are not depreciated. Reverted power plants will be depreciated from the date they are taken over.

#### **Shares and interests in subsidiaries and associated companies**

These are recorded in accordance with the cost method in the enterprise's accounts. Dividend received and other distributions of income from the companies are recorded as financial income. Shareholdings in associated companies of a significant size are dealt with in accordance with the equity method in the consolidated accounts, while shareholdings of an insignificant size are dealt with according to the cost method.

#### **Other shares and interests classified as fixed assets**

These are recorded according to the cost method in the company's accounts and the consolidated accounts. Dividend received is recorded as financial income.

#### **Inventories/spare parts**

Standard inventories and spare parts that have been purchased for the operations of the power plants are recorded as current assets and evaluated on the lower value principle. Non-standard spare parts that are related to specific long-term assets or groups of

capital assets are capitalised, and depreciated over the economic life of the underlying asset.

#### **Reservoir inventory**

Water in the reservoirs is not recorded as an asset in the accounts. Details of volumes are to be found in the Notes to the Accounts.

#### **Receivables**

Accounts receivable and other receivables are recorded at nominal value less provisions for bad debts. Provisions for bad debts are made on the basis of an individual assessment of each receivable.

#### **Shares, bonds, certificates etc.**

Shares, bonds and certificates etc. that are classified as current assets are, for each group of assets, valued on a portfolio basis on the lower value principle.

#### **Foreign currencies**

Monetary items denominated in foreign currencies are translated at the exchange rates on the balance sheet date. Liabilities in foreign currencies that are taken up as part of the hedging of assets or future income in the same foreign currency are, however, recorded at the rate applicable on the date of the transaction. Liabilities in the consolidated accounts that secure assets that are converted at the current rate, are also converted at the current rate. Conversion differences are recorded directly against equity.

#### **Pension costs**

In the accounts, pension costs and pension obligations are treated in accordance with the Draft Norwegian Accounting Standard for pension costs. The enterprise's pension scheme is treated as a benefit plan.

The net pension cost for the period is included in salaries and other payroll costs and is made up of the period's pension earnings, the interest expenses for the obligation that has occurred and the expected yield on pension assets.

Prepaid pension is the difference between a fair value of the pension assets and the present value of the estimated pension obligations, and is entered as a long-term asset in the balance sheet. Correspondingly, a long-term liability arises in the accounts when the pension obligations exceed the pension assets. The effect of a change in assumptions, estimate deviations when calculating pension obligations, and the difference between projected and actual yield on pension assets, are recorded in the accounts in the year they arise.

#### **Principles for cash flow analysis**

The cash flow analysis is prepared using the indirect method. This implies that the analysis is based on the company's net income/loss for the year in order to show cash flows generated by the operating activities, investment activities, and financing activities respectively.

## Note 1

### LARGE SINGLE TRANSACTIONS

In the year 2000 Statkraft SF sold its subsidiary Statkraft Anlegg AS. This produced a gain, before tax, of NOK 64 million and NOK 6 million in the Enterprise's accounts and the consolidated accounts respectively. Statkraft Invest AB, a subsidiary of a subsidiary, sold a shareholding in Sydkraft in 2000 which resulted in a gain of NOK 145 million before tax in the consolidated accounts. During the year Statkraft SF acquired shares in Hedmark Energi AS, Vestfold Kraft AS, Skiensfjordens kommunale kraftselskap AS and Sydkraft AB. Reference is made to note 13 for further details.

## Note 2

### POWER SALES

Statkraft optimises its power production based on an assessment of the value of available water compared to the actual and expected future spot price. This is done irrespective of contracts entered into. In the event that Statkraft has physical contractual obligations to supply power that deviate for actual production, the difference is either bought or sold in the open market. Necessary spot purchases are recorded as a correction of power revenues. Physical and financial contracts are used to hedge the underlying production by way of entering into options to buy or sell. Sales positions are assumed to hedge the price of a specific fraction of planned future production. Purchase positions are entered into to adjust the hedging level if assumptions change and Statkraft realises that the hedged fraction is too high. All contracts are recorded as an adjustment of the underlying revenue from production based on the margin between contract price and spot price.

amounts in NOK million	Statkraft SF		
	2000	1999	1998
Production at spot prices	4 142	3 654	3 773
Gain/loss on industrial contracts and free contracts:			
Industrial contracts with prices determined by the Storting	-45	-266	-452
Price hedging free contracts	-124	387	459
Other net revenue power sales <sup>1)</sup>	603	764	85
<b>Total</b>	<b>4 576</b>	<b>4 539</b>	<b>3 865</b>

1) Includes gain/loss on trading, margin on production optimising, international exchange contracts and licence power for power plants outside the Group

Statkraft has the following long-term physical sales contracts with the power-intensive and the wood processing industries at terms set by the Storting (Parliament) together with delivery obligations at cost to licence power recipients:

figures in TWh	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Firm sales agreements	20.4	20.4	20.3	20.0	17.4	15.6	13.4	11.3	11.3	11.3	3.2

In addition, Statkraft has other physical contractual obligations of varying duration to both domestic and foreign customers. Statkraft has no long-term physical purchase obligations of significance. Power trading was divided among the geographic markets as follows:

figures in TWh	Statkraft SF		
	2000	1999	1998
Home market (incl. Sweden and Finland)	38.8	31.0	31.5
Denmark	0.6	0.7	0.7
Germany	0.8	0.8	0.2
<b>Total</b>	<b>40.2</b>	<b>32.5</b>	<b>32.4</b>

## Note 3

### WATER RESERVOIRS AND SALEABLE PRODUCTION

figures in TWh	reservoirs			maximum capacity	saleable production			
	31.12.2000	31.12.1999	31.12.1998		2000	1999	1998	Mean
	28.2	28.5	25.3	33.9	40.2	32.5	32.4	33.2

In a normal year, the water in reservoirs varies around the average level by - 11 TWh at the minimum in April, and + 5 TWh at the maximum in October. Inflow in 2000 was extremely high, but correspondingly high production results in reservoir levels at the turn of the year being at about the same level as at the end of 1999.

## Note 4

### OTHER OPERATING REVENUES

the Group			amounts in NOK million	Statkraft SF		
2000	1999	1998		2000	1999	1998
239	223	181	Revenues from leasing out power plants	239	223	197
94	121	77	Revenues from leasing out transmission lines	93	119	78
255	720	663	Other lease revenues and sale of services	66	60	62
11	10	507	Gain on sale of fixed assets	69	6	471
-	2	20	Tax refunds relating to years prior to 1992	-	2	20
599	1 076	1 448	<b>Total</b>	467	410	828

The decline in other lease revenues and sale of services is mainly a result of Statkraft Anlegg not being part of Statkraft Group with effect from 2000.

The tax refunds refer to refunds of tax by local authorities for the years prior to the establishment of state owned enterprise.

Pursuant to the regulations to the Energy Act, separate accounting information is presented for the profit centres for the central grid, the regional grid and distribution network (monopoly activities) for Statkraft SF, cf. revenues from leasing power transmission lines above. The figures for 2000 will be finally settled in 2001.

The revenue ceiling for 2000 is NOK 100.9 million.

amounts in NOK million	central grid		regional grid		distribution grid	
	2000	1999	2000	1999	2000	1999
Operating revenues <sup>1)</sup>	62.5	65.3	36.8	31.6	1.6	0.1
Operating costs	31.6	26.6	16.6	15.6	2.9	0.9
Result	30.9	38.7	20.2	16.0	-1.3	-0.8
Correction		1.2		3.8		12.8
Corrected result	30.9	37.5	20.2	12.2	-1.3	-13.6
Yield	17.6 %	15.9 %	15.7 %	7.8 %	-9.8 %	-52.1 %

1) Revenues from plants run by others are not included.

Corrections arise as a result of estimated operating costs made in connection with the closing of the accounts deviating from the exact figure that is reported to the Norwegian Water Resources and Energy Directorate (NVE) in June.

## Note 5

### SALARIES AND OTHER PAYROLL COSTS

the Group				Statkraft SF		
2000	1999	1998	amounts in NOK million	2000	1999	1998
512	507	484	Salaries	371	268	257
27	72	61	National insurance contribution	51	35	30
17	51	31	Pension costs	13	31	21
69	14	21	Other benefits	1	1	1
625	644	597	<b>Total</b>	436	335	309

A provision of NOK 80 million has been made in 2000 in connection with the future workforce reduction in the production division. The amount relates to early retirements and various severance packages.

Salary to the President and C.E.O. of Statkraft SF amounted to NOK 1,596,224 in 2000 and other remunerations amounted to NOK 90,000. Remuneration to the Board of Directors totalled NOK 1,070,500, of which NOK 172,000 to the Chairman of the Board. The President and C.E.O. will retire on 1.9.2001 and will then be entitled to a pension of 66.7 per cent of his annual salary. The year's pension costs related to the President and C.E.O. amounts to NOK 1,316,234.

Members of Group management have a pension age of 65 years with a right to 66 per cent of their salary, Bjørn Blaker and Finn Quale irrespective of the pension rights earned at the time of retirement. In the case of retirement between the age of 60 and 65 years, members of Group management have agreements that imply a mutual decline in work assignments and remuneration for work carried out. Neither the President nor members of Group Management have severance arrangements in addition to what is mentioned above, nor are there any bonus schemes, loans or guarantees given. The Board has no agreement other than remuneration and no loans have been granted or guarantees issued in favour of board members.

In 2000, the average number of employees in the Group was 1,400, while it was 892 in the parent company.

## Note 6

### COMPENSATION AND LICENCE FEES

the Group				Statkraft SF		
2000	1999	1998	amounts in NOK million	2000	1999	1998
201	186	194	Licence fees	200	186	194
51	45	37	Compensation	50	45	31
252	231	231	<b>Total</b>	250	231	225

Licence fees are adjusted 5 years after the licence has been issued, and thereafter at intervals of 5 years, based on the Consumer Price Index. Annual and permanent fixed compensation payments for damage and inconvenience, which arise as a result of hydro power development, are adjusted in accordance with the same rules that apply to licence fees. The present value of current and fixed licence fees and compensation obligations related to plants are estimated to be NOK 2.85 billion and NOK 0.35 billion, respectively, discounted at an interest rate of 7 per cent in accordance with the regulations applicable to redemption.



# Note 7

## OTHER OPERATING COSTS

the Group				Statkraft SF		
2000	1999	1998	amounts in NOK million	2000	1999	1998
29	309	252	Materials	29	30	50
309	245	252	External services	313	340	311
87	83	81	Costs, power plants leased out	87	83	81
72	64	50	Costs, power plants operated by others	72	64	50
17	-	17	Write-down of fixed assets	16	17	17
253	361	251	Other operating costs	288	196	186
767	1 064	904	<b>Total</b>	805	730	695

Other operating costs are reduced as a consequence of the sale of Statkraft Anlegg.

In 2000, Statkraft SF paid auditor's fees of NOK 850,000 for external audit services, NOK 2,760,500 for internal audit services and NOK 5,613,500 for consultancy services. Correspondingly, NOK 738,500 and NOK 972,000 were charged to the accounts of Norwegian subsidiaries for external audit and consultancy services respectively.

In 2000 the Group spent NOK 40 million on research and development, which has been charged to the accounts in its entirety. Statkraft is engaged in research and development in the field of hydro power and other renewable energy such as wind power, hydrogen and salt gradients.

# Note 8

## FINANCIAL REVENUES AND COSTS

Financial income:

the Group				Statkraft SF		
2000	1999	1998	amounts in NOK million	2000	1999	1998
-	-	-	Interest income from group companies	637	180	161
206	185	154	Other interest revenues	229	153	136
220	25	2	Other financial revenues	27	21	-2
426	210	156	<b>Total</b>	893	354	295

Financial costs:

the Group				Statkraft SF		
2000	1999	1998	amounts in NOK million	2000	1999	1998
-	-	-	Interest costs to group companies	-	-	-22
-1 555	-1 112	-1 029	Other interest costs	-1 515	-1 112	-1 028
-13	-23	-9	Other financial costs	-8	-6	-6
-1 568	-1 135	-1 038	<b>Total</b>	-1 523	-1 118	-1 056

Net financial items:

the Group				Statkraft SF		
2000	1999	1998	amounts in NOK million	2000	1999	1998
-1 142	-925	-882	<b>Total</b>	-630	-764	-761

The increase in financial revenues for the Group is the result of the sale of shares in Sydkraft and higher dividends from associated companies.

## Note 9

### TAXES

Taxes for 1998 have been restated in accordance with new principles for reasons of comparison. In 1998 carry forward natural resource tax was included in deferred tax assets, which because of the upper-limit regulation was not recorded in the balance sheet. In the accounts for 1999 and 2000 carry forward natural resource tax is included as a prepaid tax and this is also shown for 1998.

the Group				Statkraft SF		
2000	1999	1998	amounts in NOK million	2000	1999	1998
460	448	451	Natural resource tax	454	442	446
342	335	349	Property tax	338	331	344
-4	-5	-56	Refunded/reversed tax from previous years	-4	-5	-56
798	778	744	Income-independent taxes	788	768	734
387	190	263	Income tax	333	177	218
-339	-183	-223	Income tax offset <sup>1)</sup>	-333	-177	-218
-121	-265	-228	Prepaid tax <sup>2)</sup>	-121	-265	-228
175	116	126	Resource rent tax	175	116	126
3	-	14	Changes for previous years/restatements	3	18	14
105	-142	-48	Income-dependent taxes	57	-131	-88
903	636	696	Taxes payable	845	637	646
15	108	45	Change in deferred tax	-49	117	69
918	744	741	Taxes	796	754	715

1) Income tax charged by the central authorities is offset against the natural resource tax.

2) In the event that the natural resource tax cannot be fully co-ordinated with income tax, the excess amount of natural resource tax and interest can be carried forward and offset against income tax in later years.

The following shows how one arrives at the tax base for calculating income tax on the basis of the accounts. Comparative figures for temporary differences have been changed because of new estimates.

the Group				Statkraft SF		
2000	1999	1998	amounts in NOK million	2000	1999	1998
1 765	1 691	1 631	Pre-tax income	1 510	1 440	1 357
-819	-565	-294	Permanent differences	-452	-332	-146
555	-435	-296	Changes in temporary differences	148	-467	-378
-	-	-	Loss brought forward	-	-	-
1 501	691	1 041	Tax basis for the year	1 206	641	833
28 %	28 %	28 %	Tax rate	28%	28 %	28 %
420	194	292	Estimated income tax	337	180	233
-33	-4	-29	Tax credit for deduction	-4	-3	-15
-339	-183	-223	Natural resource tax offset	-333	-177	-218
48	7	40	Income tax after offset	-	-	-
52%	44%	45%	Effective tax rate <sup>1)</sup>	53%	52%	53%

1) Taxes/pre-tax income.

The following is a specification of the temporary differences and the taxable loss to be carried forward as well as the calculation of deferred tax/deferred tax assets on the balance sheet. Deferred tax assets are recorded in the balance sheet to the extent that it is probable that they will be used. The deferred tax assets related to operating assets includes temporary differences in both income taxation and resource rent taxation. The figures for 1998 have been restated to show recorded deferred tax assets disregarding the upper limit rule. With effect from 2000 deferred tax is calculated on results from foreign associated companies. The change in deferred tax 2000 as a result of this amounts to NOK 162 million.

the Group				Statkraft SF		
2000	1999	1998	amounts in NOK million	2000	1999	1998
-280	-327	-632	Current assets/current liabilities	-396	-239	-596
-1 397	-2 051	-2 180	Fixed assets	-1 821	-1 825	-1 939
-60	-	-	Loss brought forward	-	-	-
-1 737	-2 379	-2 812	Total temporary differences and loss brought forward	-2 217	-2 064	-2 535
-486	-666	-787	Deferred tax/deferred tax assets	-621	- 578	-710
-61	-395	-527	Temporary differences, resource rent taxation	-60	- 395	-527
-198	- 126	-86	Resource rent tax brought forward	-198	- 126	- 86
-211	-205	-191	Deferred tax assets resource rent taxation	-210	- 205	-191
-697	-871	-979	Total deferred tax/deferred tax assets	-831	-783	-901
28/20%	28/20%	28/20%	Tax rate	28/20%	28/20%	28/20%

## Note 10

### TREATMENT OF REVENUES AND COSTS IN POWER PLANTS OPERATED BY OTHERS

In companies where Statkraft SF has an ownership interest without operating responsibility, cf. note 12, the enterprise takes out for own sale a part of that company's electricity production that corresponds to the ownership share. This is part of ordinary power revenues, in line with the power produced by the power plants the company operates itself. Exception is made for contractual sales of licence power arranged by the power company in question, where the revenue on sales is distributed among the owners.

For such joint ventures, the power company's operating costs and revenues related to the sale of licence power etc. are distributed among the owners by means of current settlement accounts. The following is a review of Statkraft's share of the income statement items in these power plant companies. Calculated revenues are Statkraft's actual take-out of power multiplied by the average hourly-weighted spot price, and Statkraft's share of licence power revenue.

	Statkraft SF		
amounts in NOK million	2000	1999	1998
Calculated revenues	544	440	373
Other operating revenues	10	9	13
Transmission costs	-52	-39	-33
<b>Net operating revenues</b>	<b>502</b>	<b>410</b>	<b>353</b>
Compensation and licence fees	23	22	19
Other operating costs	82	61	59
Ordinary depreciation	80	60	60
<b>Operating costs</b>	<b>185</b>	<b>143</b>	<b>138</b>
<b>Net financial items</b>	<b>2</b>	<b>2</b>	<b>8</b>
<b>Calculated income before taxes</b>	<b>315</b>	<b>265</b>	<b>207</b>

# Note 11

## INTANGIBLE ASSETS

the Group				Statkraft SF		
2000	1999	1998	amounts in NOK million	2000	1999	1998
1 409	1 249	1 248	Licences, fall rights etc.	1 404	1 243	1 242
697	871	979	Deferred tax assets	831	783	901
3	3	3	Goodwill	-	-	-
2 109	2 123	2 230	<b>Total</b>	2 235	2 026	2 143

### Statkraft SF

amounts in NOK million	rights	goodwill	total
Acquisition cost 01.01.00	1 243	-	1 243
Additions 2000	180	-	180
Disposals 2000	-	-	-
Accumulated depreciation 31.12.00	19	-	19
Book value 31.12.00	1 404	-	1 404
Current year's ordinary depreciation	19	-	19

### The Group

amounts in NOK million	rights	goodwill	total
Acquisition cost 01.01.00	1 248	13	1 261
Additions 2000	180	1	181
Disposals 2000	-	-	-
Accumulated depreciation 31.12.00	19	11	30
Book value 31.12.00	1 409	3	1 412
Current year's ordinary depreciation	19	1	20
Estimated useful economic life	7 years to perpetuity	5 years	-

Depreciation of rights is linked to the acquisition of shares in Tyssefaldene. Through this acquisition Statkraft SF obtained a right to take out part of the production of 3 power plants at cost. These power plants revert to Statkraft SF in 2007 and 2010. The book value of these rights was NOK 132 million at 31.12.2000.

Deferred tax assets are referred to in detail in note 9.



# Note 12

## PROPERTY, PLANT AND EQUIPMENT

amount in NOK million	regulating plants	turbines, genera- tors etc.	shares in power plants operated by others	buildings, roads, bridges and kaianlegg	plant under construc- tion	other	total
<b>Statkraft SF</b>							
Acquisition cost 01.01.00	15 742	6 378	2 704	4 648	214	869	30 555
Additions 2000	135	88	13	29	87	81	433
Disposals 2000	1	17	-	11	153	-	182
Write-down 2000	-	-	-	-	29	-	29
Acc. depreciation 31.12.00	2 526	2 372	547	830	-	527	6 802
Book value 31.12.00	13 350	4 077	2 170	3 836	119	423	23 975
Current year's ordinary depreciation	307	240	61	93	-	81	782
<b>The Group</b>							
Acquisition cost 01.01.00	16 174	7 558	2 704	4 881	217	906	32 440
Additions 2000	135	312	13	29	87	90	666
Disposals 2000	1	17	-	11	154	1	184
Write-down 2000	-	-	-	-	29	-	29
Acc. depreciation 31.12.00	2 745	2 507	547	942	-	556	7 297
Book value 31.12.00	13 563	5 346	2 170	3 957	121	439	25 596
Current year's ordinary depreciation	315	266	61	97	-	90	829
Estimated useful economic life	30-60 years	15-30 years	5-50 years	50-60 years	-	3-40 years	-

Power plants etc. where ownership is shared between Statkraft and others, or where county local authorities etc. have a right to take out and administer part of the power produced in return for financing part of the costs involved, are recorded after deducting the value of others' take-out rights, calculated as their relative share of the take-out.

County local authorities and publicly owned power companies have the following rights to take out power from power plants owned by Statkraft:

power plant	others' shares
Kobbelv	17.50 %
Grytten	12.00 %
Svorka	50.00 %
Leirdøla	35.00 %
Vikfalli	12.00 %
Ulla-Førre	28.00 %
Folgefonn	14.94 %
Eidfjord	35.00 %

Statkraft has the following ownership interests in power plants operated by others:

amounts in NOK million	ownership	share of fixed assets
Aurlandsverkene	7.00 %	401
Kraftverkene i Øvre Namsen	50.00 %	267
Mørkfoss-Solbergfoss	33.33 %	84
Røldal-Suldal Kraft AS	8.74 %	-
I/S Sira-Kvina kraftselskap	32.10 %	1 418
Tyssefaldene	20.29 %	132
<b>Total</b>		<b>2 302</b>

Additions and disposals in 2000 for plants under construction are specified below.

amounts in NOK million	plant under construction
Book value 01.01.00	214
Direct investments	87
Capitalisation of building loan interest	-
Write-down	29
Transfers to fixed assets	153
<b>Book value 31.12.00 Statkraft SF</b>	<b>119</b>
Book value 01.01.00	217
Direct investments	87
Capitalisation of building loan interest	-
Write-down	29
Transfers to fixed assets	154
<b>Book value 31.12.00 the Group</b>	<b>121</b>

## Note 13

### INVESTMENTS IN SUBSIDIARIES AND ASSOCIATED COMPANIES

Shares in subsidiaries and associated companies are dealt with in accordance with the cost method in the company's accounts.

amounts in NOK 1 000	registered office	owner- ship	share of votes	book value
<b>Shares in subsidiaries owned by the parent company</b>				
Statkraft Energy Enterprise AS	Bærum	100 %	100 %	3 206 347
Statkraft Holding AS	Bærum	100 %	100 %	4 730 129
Finnmark Energiverk AS	Alta	100 %	100 %	343 256
Himal Power Limited	Kathmandu	74 %	74 %	173 333
Statkraft Energy Europe AS	Bærum	100 %	100 %	82 996
Statkraft Forsikring AS	Bærum	100 %	100 %	30 000
Statkraft Grøner AS	Bærum	100 %	100 %	18 500
Statkraft Peru AS	Bærum	100 %	100 %	100
<b>Total</b>				<b>8 584 661</b>
<b>Shares in associated companies owned by the parent company</b>				
Naturkraft AS	Bærum	33 %	33 %	36 994
Peru Hydro SA	Peru	50 %	50 %	4 461
Settefiskanlegget Lundamo AS	Trondheim	47 %	47 %	700
Norsk Krafteksport AS	Bærum	40 %	40 %	200
Nordic Hydropower AB	Stockholm	50 %	50 %	55
Fjordkraft AS	Sandane	50 %	50 %	25
Aursjøveien AS	Sunnalsøra	33 %	33 %	17
Aktieselskapet Tyssefaldene	Odda	29 %	29 %	101
<b>Total</b>				<b>42 553</b>
<b>Total shares in subsidiaries and associated companies owned by the parent company</b>				<b>8 627 214</b>

Shares in associated companies that are considered to be of insignificant size for the Group are dealt with in accordance with the cost method also in the consolidated accounts. This applies to all of the parent company's shares in the tables above, as well as shares in the table below that are owned by other Group companies.

#### Shares in associated companies and non-consolidated subsidiaries owned by other Group companies

amounts in NOK 1 000	registered office	ownership	share of votes	book value
ScanEnergi AS	Herning	24 %	24 %	14 582
ScanEnergi Elsalg AS	Herning	8 %	8 %	484
Mias AS	Oslo	34 %	34 %	200
Grøner Currie & Brown AS	Bærum	50 %	50 %	176
GBS Data	Bærum	49 %	49 %	619
Kopiservice	Porsgrunn	41 %	41 %	361
Energy Future Park AS	Hamar	50 %	50 %	13 000
<b>Total</b>				<b>29 422</b>

Shares in associated companies of a significant size are dealt with in accordance with the equity method in the consolidated accounts. This applies to the following companies:

name	head office	ownership	share of votes
Oslo Energi Produksjon AS	Oslo	20,0 %	20,0 %
Sydskraft AB	Malmö	35,1 %	28,9 %
BKK AS	Bergen	26,0 %	26,0 %
BKK Kraftsalg AS	Bergen	49,5 %	49,5 %
Hedmark Energi AS	Hamar	33,3 %	33,3 %
SKK AS	Porsgrunn	34,0 %	34,0 %
VK AS	Tønsberg	34,0 %	34,0 %

amounts in NOK million	OEP	Sydskraft	BKK AS	HEAS	SKK AS	VK AS	TOTAL
Opening balance	1 998	9 621	2 655	-	-	-	14 273
Acquired	-	2 978	-	1 323	2 474	2 004	8 779
Sold	-	-1 052	-	-	-	-	-1 052
Result from associated companies	78	559	62	9	22	-2	728
Dividend	-	-267	-51	-	-	-	-318
Foreign exchange gains/losses	-	-269	-	-	-	-	-269
Closing balance	2 076	11 570	2 666	1 332	2 496	2 002	22 141
Depreciation added value 2000	-	154	16	20	4	6	200
Added value 31.12.00	-	4 495	899	531	698	797	7 418
Depreciable added value 31.12.00	-	3 437	213	371	766	612	5 329

acquisitions in 2000	Sydskraft	HEAS	SKK	VK
Cost of acquisition	2 978	1 323	2 474	2 004
Equity recorded in balance sheet at time of acquisition	1 954	772	1 775	1 201
Added value	1 024	551	699	803

The calculation of the results from associated companies for the year is based on forecasts for 2000.

## Note 14

### OTHER FINANCIAL FIXED ASSETS

the Group				Statkraft SF		
2000	1999	1998	amounts in NOK million	2000	1999	1998
732	779	803	Loans to associated companies	729	779	803
-	-	-	Loans to group companies	15 127	6 534	2 594
1 220	940	581	Bonds and other long-term receivables	1 186	877	543
7	8	7	Other shares and interests	7	7	7
1 959	1 717	1 391	<b>Total</b>	17 049	8 197	3 947

#### Specification of the other shares and interests

amounts in NOK 1 000	ownership	book value
<b>Other shares and interests owned by the parent company</b>		
Røldal-Suldal Kraft AS <sup>1)</sup>	9%	958
Settefisk AL	19 %	566
EXPO 2000	11 %	250
Sauda Industriutvikling AS	9 %	40
Labroskolen AS	12 %	53
Vefsenlaksen AS	10 %	10
Capital contribution Statkraft Pension Fund		5 000
Interest in housing co-operative		160
<b>Total</b>		<b>7 037</b>

#### Other shares owned by Finnmark Energiverk AS

NEFO AS	1 %	420
Kvænangen Kraftverk AS	5 %	25
<b>Total</b>		<b>445</b>

#### Grand total for the Group

**7 482**

1) Statkraft owns 8.74 per cent of the shares in Røldal-Suldal Kraft AS, which in turn owns 54.79 per cent of the power plant IS Røldal-Suldal Kraft. Thus, Statkraft's indirect stake in that partnership is 4.79 per cent.

## Note 15

### RECEIVABLES

The Group				Statkraft SF		
2000	1999	1998	amounts in NOK million	2000	1999	1998
578	457	206	Accounts receivable	501	340	100
345	226	273	Accrued revenues etc	283	185	277
29	77	273	Prepaid costs	26	65	42
88	548	574	Other receivables	273	135	559
-	-	-	Current receivables from group companies	16	389	217
1 040	1 308	1 326	<b>Total</b>	1 099	1 114	1 195

Accounts receivable are recorded after provision of NOK 18 million for bad debts in 2000 compared to NOK 10 million at 31.12.99 and 31.12.98.



## Note 16

### INVESTMENTS

the Group				Statkraft SF		
2000	1999	1998	amounts in NOK million	2000	1999	1998
38	24	2	Shares - financial placements	-	-	-
112	122	1 518	Bonds	-	6	1 405
150	146	1 520	<b>Total</b>	-	6	1 405

#### Bonds by debtor category

the Group				Statkraft SF		
2000	1999	1998	amounts in NOK million	2000	1999	1998
26	41	23	Commercial/savings banks	-	6	-
9	5	70	Mortgage companies	-	-	65
5	10	10	Industry	-	-	-
72	66	75	Public sector	-	-	-
112	122	178	<b>Total</b>	-	6	65

All bonds are in NOK.

## Note 17

### BANK DEPOSITS, CASH AND CASH EQUIVALENTS

The Group				Statkraft SF		
2000	1999	1998	amounts in NOK million	2000	1999	1998
650	-	-	Certificates and promissory notes	300	-	-
1 864	1 299	1 796	Cash and bank deposits	762	1 012	1 623
2 514	1 299	1 796	<b>Total</b>	1 062	1 012	1 623

Restricted bank accounts for withholding taxes at source totalled NOK 26.4 million for the Group and NOK 18.8 million for Statkraft SF. In addition, NOK 392.7 million is security for organised energy trading. Statkraft SF has a long-term committed credit line of USD 300 million (NOK 2,655 million) that is undrawn and an overdraft facility of NOK 100 million. This was not drawn on at 31.12.00.

## Note 18

### EQUITY

amounts in NOK million	the Group	Statkraft SF
Equity as at 31.12.99	21 503	20 695
Net income for the year	847	714
Dividend	-631	-631
Minority differences	-3	-
Conversion differences	26	-
<b>Equity as at 31.12.00</b>	<b>21 742</b>	<b>20 778</b>

## Note 19

### PROVISIONS FOR LIABILITIES

the Group				Statkraft SF		
2000	1999	1998	amounts in NOK million	2000	1999	1998
30	28	28	Pension obligations	15	14	13
364	118	-16	Other provisions for liabilities	216	98	4
394	146	12	<b>Total</b>	231	112	17

Other provisions for liabilities are mostly provisions for exchange rate hedging in Statkraft SF, and provisions for exchange rate hedging and option premiums in the Group.

#### The National Pension Fund/other Group pension schemes

Statkraft has a group pension scheme for its employees with the National Pension Fund. The pension scheme in the National Pension Fund provides benefits in accordance with the National Pension Fund Act. These benefits are retirement pension, disability pension, surviving spouse's and dependent children's pension, and Agreement-linked early retirement pension (AFP). The pension benefits are co-ordinated with the benefits from the National Insurance Scheme.

Statkraft Grøner has a group pension scheme for its employees with a private insurance company. This covers salaries up to 12G (the basis amount in the National Insurance Scheme). For accounting purposes, the pension schemes are treated in accordance with the Draft Norwegian Accounting Standard for pension costs.

The fixing of premiums and estimates of the value of pension obligations are made on actuarial principles. However, the National Pension Fund scheme is not asset-based. Payment of pensions is guaranteed by the State (Section 1 of the Pension Act). Financial management of the pension assets (fictive assets) is simulated as though the assets were invested in long-term Government bonds. In this simulation, it is assumed that the bonds are held to maturity. Pension assets are therefore valued at book value.

#### Statkraft's own pension fund

Statkraft has approved a supplementary pension scheme that provides benefits in addition to those from the National Pension Fund. The supplementary scheme covers full pension (66 per cent) up to 12 times the basis amount in the National Insurance Scheme (G), as well as full surviving spouse's pension for all employees. All Statkraft employees are members of the scheme.

#### Uncovered pension obligations

In addition to the above, Statkraft SF has entered into pension agreements with 10 of the Group's senior executives. These pensions are covered through the company's running operation. Statkraft Grøner has pension obligations in respect of 9 people that are covered through the company's running operation.

#### Assumptions

When calculating the year's net pension cost, and net pension assets (obligations), the following assumptions were made:

Annual discount rate	6.0 %
Salary adjustment	3.3 %
Pension adjustments	2.9 %
Annual increase in G (Nat. Insurance Scheme's basis amount)	2.9 %
Forecasted voluntary retirement	
• Up to 45 years of age	2.5 %
• Between 45 and 60 years	0.5 %
• Over 60 years	0.0 %
Anticipated yield	5.6 % / 7.5 %
Rate of inflation	2.5 %

The pension cost for the period was as follows:

amounts in NOK million	the Group	Statkraft SF	the Group	Statkraft SF
	2000	2000	1999	1999
Present value of earned pension rights for the year	30.4	22.4	28.1	20.0
Interest costs on pension obligations	34.9	25.3	37.8	22.8
<b>Gross pension cost for the year</b>	<b>65.3</b>	<b>47.7</b>	65.9	42.8
Expected yield on pension funds	40.3	27.9	42.6	24.9
Recognised effect of change in estimates, pension plans and deviations in yield	10.1	0.7	27.6	13.4
<b>Net pension cost for the year</b>	<b>14.9</b>	<b>19.1</b>	50.9	31.3

## Reconciliation of pension obligations and pension fund assets

amounts in NOK million	the Group	Statkraft SF	the Group	Statkraft SF
	31.12.00	31.12.00	31.12.99	31.12.99
Gross pension obligations	610.6	443.8	645.3	398.2
Pension fund assets	645.6	461.0	655.0	398.7
<b>Net pension fund assets (obligations)</b>	<b>35.0</b>	<b>17.2</b>	<b>9.7</b>	<b>0.5</b>

Obligations over operations – uncovered schemes	27.7	13.2	26.6	12.7
Pension assets – covered schemes	62.7	30.4	36.3	13.2
Nat. insurance contribution – uncovered schemes	1.8	1.8	1.8	1.7

## Note 20 OTHER LONG-TERM DEBT

the Group			amounts in NOK million	Statkraft SF		
2000	1999	1998		2000	1999	1998
23 706	15 706	12 251	Bond loan	23 706	15 706	12 251
1 618	1 107	1 306	Liabilities to credit institutions	1 972	476	818
5 233	4 868	4 540	Other long-term liabilities	4 804	4 836	4 713
<b>30 557</b>	<b>21 681</b>	<b>18 097</b>	<b>Total</b>	<b>30 482</b>	<b>21 018</b>	<b>17 782</b>

Detailed specification of the above table:

amounts in NOK million	2000	1999	1998
Government loan	2 550	2 975	3 400
Other long-term loans in NOK	12 545	8 036	5 893
Loans in SEK	10 176	6 419	4 266
Loans in EURO	2 921	1 686	2 095
Share of loan in Sira-Kvina Kraftselskap	36	41	49
Prepayments/accrued power sales	1 741	1 847	1 804
Loans from subsidiaries	513	14	275
<b>Total Statkraft SF</b>	<b>30 482</b>	<b>21 018</b>	<b>17 782</b>

The foreign exchange distribution in the above table takes into account the underlying currency and interest rate swaps with the exception of NOK 340 million in Government loans that has an underlying currency and interest rate swap contract from NOK to SEK. The increase in other long-term liabilities is mainly due to the financing of further shares in Sydkraft, and the acquisition of shares in Hedmark Energi AS, Vestfold Energi AS and Skiensfjordens kommunale kraftselskap AS. Other long-term liabilities in Norwegian kroner comprise 15 Norwegian bond issues amounting to NOK 7,858 million net, and loans in foreign currency for the countervalue of NOK 4,687 million net, where Statkraft has an exposure in NOK as a result of currency and interest rate swaps. The loan denominated in EURO was taken up to hedge future contractual revenues in EURO and is therefore booked at a rate that is equivalent to the rate at the time the loan was disbursed. The weighted average EUR/NOK exchange rate is 8.2656. The loans denominated in SEK were raised in connection with Statkraft's investment in Sydkraft AB and are recorded at the exchange rate on the date the loans were disbursed. The weighted average SEK/NOK rate is 96.79. In the consolidated accounts the SEK loans and the ownership interest in Sydkraft are valued at the rate on the balance sheet date. The average current interest rate on Statkraft SF's loans in NOK was 6.60 per cent at the end of the year. The corresponding figures for SEK and EURO were 4.91 per cent and 4.77 per cent respectively.

**Instalment schedule**

amounts in NOK million	2001	2002	2003	2004	2005	rest
Instalment schedule Government loans	425	425	425	425	425	425
Instalment schedule other loans	3 403	3 519	1 772	2 304	2 199	14 811
<b>Total for the Group</b>	<b>3 828</b>	<b>3 944</b>	<b>2 197</b>	<b>2 729</b>	<b>2 624</b>	<b>15 236</b>

Statkraft is free to take up loans in the private market, provided that the company's total loans and guarantee obligations do not exceed the value of the company's assets. The value of the assets is fixed on the basis of the latest official balance sheet, corrected for additions and disposals of assets after the balance sheet date. In addition, consideration shall be given to post-balance sheet reductions which are considered not to be of a temporary nature. These constraints do not apply to credits or guarantees on customary terms, and which are related to ordinary commercial transactions. In order to limit the Government's liability for Statkraft's obligations, a limit of NOK 42.5 billion has been placed on the company's total loans and guarantee obligations by the Storting (Parliament).

In the event that the company is reorganised from a state owned enterprise to a limited liability company lenders are entitled to renegotiate their loans if the Government does not issue guarantees for loans and accrued interest.

## Note 21

### INTEREST-BEARING LIABILITIES

Interest-bearing liabilities totalling NOK 89.1 million are comprised of a Euro Commercial Paper Programme of USD 9.6 million (recorded in the balance sheet as NOK 88.3 million) for Statkraft SF and other liabilities to credit institutions by other group companies aggregating NOK 0.8 million.

## Note 22

### OTHER NON INTEREST-BEARING LIABILITIES

the Group				Statkraft SF		
2000	1999	1998	amounts in NOK million	2000	1999	1998
168	149	163	Accounts payable	141	118	138
165	203	175	Public duties payable	149	169	129
964	651	1 057	Accrued costs	899	557	943
116	131	244	Other non interest-bearing liabilities	36	42	201
631	600	309	Dividend payable	631	600	309
-	-	-	Short-term liabilities to group companies	5	11	109
<b>2 044</b>	<b>1 734</b>	<b>1 948</b>	<b>Total</b>	<b>1 861</b>	<b>1 497</b>	<b>1 829</b>

## Note 23

### MORTGAGES, OBLIGATIONS AND GUARANTEES

**Mortgages**

County administrations and publicly owned power companies are, in certain cases, entitled to utilise part of the power production from Statkraft SF's power plants, in return for paying part of the construction costs, cf. note 12. As a basis for financing the acquisition of such rights, permission has been given for the county administrations/companies to offer lenders collateral in the power plants in question. At 31 December 2000, such mortgage debt amounted to an aggregate NOK 2,100 million, while the book value of the pledged assets amounted to NOK 6,095 million.

**Obligations and guarantee liability**

Statkraft Group has obligations and guarantees for a total of NOK 6,750 million while the corresponding figure for Statkraft SF is NOK 6,652 million. For Statkraft SF NOK 120 million refers to projects, NOK 1,972 million to power exchange agreements and NOK 4,560 million to put options to buy shares. In addition the subsidiaries have guarantees, mainly referring to projects and power trading, for a total of NOK 71 million. Statkraft leases premises for its central administration at Høvik. The lease runs to 30 June 2002, with an annual rent (2000) of NOK 14.4 million. Total annual rent for the Group is NOK 27 million. In 1998, Statkraft entered into an agreement with Mustad Eiendom AS to lease an office building that Mustad Eiendom is constructing at Lilleakerveien 6, Oslo. The agreement has a lease period of 20 years with an option to renew for a further 10 years. Work on the building is on schedule and the office complex should be completed as planned in June 2002.



# Note 24

## OFF-BALANCE SHEET ITEMS

### Forward contracts, foreign exchange

currency amount in million	bought	sold	market value in NOK
SEK	-	251	0.5
EUR	-	196	59.7
DKK	-	13	-0.4
USD	10	-	-3.4
<b>Total</b>			<b>56.4</b>

The forward contracts mature between 2001 and 2002. These transactions are linked to agreed sales revenues in the respective currencies, or loans taken up to hedge such revenue. The forward contracts are therefore classified as hedging transactions, and according to the principles for recording such hedging transactions, are not recorded at market value in the accounts. This is countered by the sales revenues that are hedged being recorded at the agreed forward exchange rate for hedging transactions. Forward contracts are recorded gross. At 31 December 2000, the market value of the contracts was NOK 56 million. Realised, unrecorded gains on hedging contracts in foreign currencies totalled NOK 137 million at 31 December 2000.

### Foreign exchange options

At year-end Statkraft had entered into options to sell a total of EUR 4 million as part of the foreign exchange hedging strategy. The market value of the contracts at 31 December 2000 was NOK 0.5 million.

### Interest swaps

currency amounts in million	principal amount in currency	market value in NOK
NOK	15 247	-13
SEK	8 850	-68
EUR	640	49
<b>Total</b>		<b>-32</b>

Interest swaps are used to adjust the interest sensitivity of the company's loans to what the company regards as adequate hedging. In addition, interest swaps are used to extend existing forward contracts. As per 31 December 2000 the market value of the agreements was NOK -32 million.

### Interest and foreign exchange swaps

currency amounts in million	principal amount in currency	market value in NOK
From currency to NOK	4 966	108
From currency to SEK	10 400	1 001
From currency to EUR	151	-6
From currency to DKK	237	13
From currency to USD	197	-248
<b>Total</b>		<b>868</b>

Interest and foreign exchange swaps are used to achieve favourable financing in the desired currency when a combination of financing in another currency and a customised interest and foreign exchange swap gives lower interest costs than financing in the desired currency. Statkraft has underlying financing in CHF, FRF, DKK and JPY. The market value of the agreements as per 31 December 2000 was NOK 868 million.

### Options on loans and interest swaps

At year-end, Statkraft had entered into options to extend a loan for a total underlying amount of NOK 1,736 million. In addition options have been sold for interest swaps that match interest and term for the possible extension of the underlying loans. The total market value of the agreements as at 31 December 2000 offset each other.

### Interest options

Interest options are entered into to adjust the interest rate sensitivity on the company's floating rate loans to what the company at any time considers adequate hedging. At year-end Statkraft had entered into interest options in SEK for a total underlying amount of SEK 200 million. The market value of the agreement as per 31 December 2000, including the option premium, was NOK 0.7 million.

### Interest rate exposure for Statkraft SF Re-pricing table (NOK million)

Re-pricing period

duration	0-3 mths	3-6 mths	6-12 mths	1-3 years	>3 years
Bank deposits	762	-	-	-	-
Funding, investments and derivatives	-2 210	-6 657	-2 549	-9 183	-8 096

(positive figures = investments, negative figures = funding)

The table shows which parts of Statkraft's investments and funding portfolios are exposed to interest rate adjustments in the various duration intervals.

### Exposure by currency as at 31.12.00

currency	NOK	SEK	EUR
Modified duration <sup>1)</sup>	2.01	2.13	2.82

1) Statkraft uses modified duration to measure interest rate sensitivity in the funding portfolio. The figures show the percentage change in market value if market rates change by one percentage point.

## Note 25 MARKET AND FINANCIAL RISK

In its business, Statkraft is exposed to various types of risk. The most important naturally enough relates to production of and trading in energy, but the company is also exposed to other financial and operational risks.

### Market risk

Statkraft's main activities are the production of and trading in electric power. In a market with a great deal of hydro power, where access to water varies a great deal from year to year, price and production capacity will also vary considerably. This may have a marked impact on Statkraft's results. Since production and price are often negatively correlated, i.e. a great deal of water and high production brings about lower prices, and vice versa, this means that the outcome of the revenue is naturally dampened. In addition, Statkraft is active in risk management to adjust to the actual market situation. This way, Statkraft endeavours in the long term to achieve maximum earnings from production, taking into account the company's risk criteria.

**Risk management** To a considerable extent, Statkraft makes use of forward contracts and other financial instruments in its hedging of revenue. Contract trading helps stabilise Statkraft's revenues from year to year. This is desirable because of the great uncertainty surrounding the total revenue from power sales. This depends on a volatile spot price and uncertain production capacity. In this connection there is no difference between physical and financial contracts that are traded bilaterally and via brokers or financial markets in the forward market (Nord Pool). Price is the prime criterion when selecting the trading form. Hence, the most important factor is that contracts are good seen in relation to existing power contracts and the scope of the outcome on both own production and spot prices. The company is constantly adjusting the contract portfolio so that expected earnings are maximised without the downside risk increasing.

**Use of derivatives for hedging purposes** Statkraft deals in various instruments, physical and financial, in order to hedge revenues. This hedging, which also takes into consideration the company's present and future production capacity, is intended to ensure an optimal contract position in relation to risk criteria. Statkraft is exposed to both price and volume risk because future prices and water inflow are unknown. At the end of 2000, the company had hedged more than 58 per cent of mean production through to and including the year 2011. The total market risk can be quantified as the scope of net power revenue, after transmission, in relation to expectations. With a probability of 80 per cent, it is estimated that net power revenue will be within +/- NOK 700 million in 2001 and +/- NOK 1,100 million in 2002 and +/- NOK 900 million in 2003. Taxation of power plants will dampen the impact on the company's net income after taxes.

**Use of derivatives for trading purposes** In addition to hedging activities, Statkraft also uses financial derivatives to take limited short-term positions in the market. Here, Value at Risk is an important risk management tool. The volume traded is significant, but the financial exposure at any one time is extremely limited compared to hedging activities. Internal guidelines have been established for market exposure, both for hedging and trading purposes.

### Foreign exchange risk

Statkraft's goal for its foreign exchange risk management is to limit fluctuations in the present value of foreign exchange revenues and assets in foreign currencies, and to maximise the present value of these within given limits. To achieve the desired risk level the company uses loans in the currencies in question, interest and currency swaps to the desired currency and forward foreign exchange contracts. Statkraft's long-term investments in assets denominated in foreign currencies refer primarily to the ownership stake in Sydkraft. 70-100 per cent is to be hedged. At year-end Statkraft had hedged about 100 per cent of the company's foreign currency assets. A change in the value of Statkraft's assets in foreign currency because of fluctuations in an exchange rate would therefore be offset by a corresponding change in the value of Statkraft's liabilities in the same currency. 40-70 per cent of the present value of the foreign exchange revenue that Statkraft expects to receive in 3 or more years hence, is to be hedged. At year-end slightly more than 50 per cent was hedged. In the case of revenues that will be realised earlier, the degree of hedging is set higher. For foreign exchange revenue in the next three years that is not hedged, the change in value would be NOK 1.3 and 5 million respectively should exchange rates change 5 per cent.

### Interest rate risk

Statkraft's goal for interest rate management is to minimise interest costs, reduce fluctuations in these, and limit changes in the value of the company's net liabilities. Modified duration is used to measure interest rate sensitivity. This indicates changes in market values as a result of a one percentage point change in market interest rates. Based on Statkraft's foreign exchange exposure the funding portfolio is divided into three currencies: NOK (about 50 per cent), SEK (about 40 per cent) and EURO (about 10 per cent). The portfolio shall have a modified duration between 1 and 3, both on the whole and for each currency. Statkraft uses mainly interest rate swaps to achieve the risk goal. At the end of 2000 the modified duration in NOK and SEK portfolios was approximately 2. This implies that the market value of these portfolios would be changed about 2 per cent in the event of a one percentage point change in the market interest for these currencies. The modified duration of the EURO portfolio was approximately 2.8. Reference is also made to the re-pricing table in note 24.

### Liquidity risk

Statkraft assumes a liquidity risk because the term of the financial obligations are not matched to the cash flow generated by the assets. The company's credit worthiness is very high, which is confirmed by the long-term credit ratings, Aaa and AA+ from the rating agencies Moody's Investor Service and Standard & Poor's respectively. These good ratings are rooted to a great extent in the provision in the Act relating to State-owned Enterprises, which stipulates that winding up proceedings cannot be filed against state enterprises. In the event that the company is bankrupt, the state is responsible for the creditors receiving full cover. Based on the state enterprise corporate form, the good ratings and standardised loan programmes, the company will normally be able to finance, at fairly short notice, the payment obligations that might arise. As an extra security against possible unrest on the financial markets, Statkraft has established a long-term committed credit line for the countervalue of USD 300 million. The company's policy is to limit short-term borrowing to the sum of cash and cash equivalents and committed credit lines.

### Credit risk

Statkraft enters into financial contracts on Nord Pool and bilaterally with individual companies. The latter results in Statkraft assuming a counterparty risk for the contract's counterpart. The reasons for entering into such bilateral contracts are that some types of contract are not traded on Nord Pool (applies to some options contracts with lengthy terms), for financial reasons (i.e. better contractual terms and conditions) and for strategic considerations pertaining to our market positions. To deal with this risk Statkraft's Market Division has established its own Counterparty Committee which sets ceilings for exposure to individual companies. A special procedure has been introduced that regulates the process around bilateral transactions and this procedure regulates the term and scope of the contracts that can be entered into with different companies. During the last few years Nord Pool has been the counterpart for the vast majority of the contract volume. Statkraft also assumes a credit risk primarily by placing excess liquidity with issuers of securities and from the use of hedging instruments such as interest rate swaps, currency and interest rate swaps, and forward contracts. The limits for each debtor are set on the basis of assumed creditworthiness and possible formal credit ratings. Quantification of the risk in placements is based on the principal amount of Statkraft's receivables, but in the case of financial instruments a loss potential is calculated in the event the counterpart should fail to fulfil his obligations. At year-end Statkraft's exposure related to placements and financial instruments was slightly more than NOK 4 billion. The exposure was for the most part divided between foreign financial institutions with A ratings or better and the major Norwegian banks.

### Insurance risk

Statkraft has a considerable risk exposure in its operations related to damage/loss of assets (primarily power plants), production losses and damage to third-party lives and property, e.g. from fire, floods or inundation following damage to or fractures in dams. Statkraft has directly, and through its captive insurance company Statkraft Forsikring AS, bought coverage in the insurance market under a comprehensive insurance programme.

The maximum loss arising from individual damage to assets is NOK 8 million and the maximum loss per year is NOK 12 million. In the case of production losses the maximum loss is NOK 6 million per insurance event and NOK 8 million per year.

In order to reduce the risk of losses arising from a failure on the part of the insurance company to pay compensation, Statkraft has required that both the direct insurance company and reinsurance companies shall have a rating of BBB or better. Furthermore, Statkraft's risk is limited by the Norwegian authorities having established a guarantee scheme that ensures that policyholders receive claim payments even though the insurance cover is with a Norwegian insurance company that goes into liquidation.

## Note 26

### OTHER ISSUES

In January 2001, the Corporate Meeting instructed Statkraft to stop all work on the Beiarn, Bjellåga and Melfjord development projects. As a result of this, provisions have been made for liquidation costs. The Board assumes that Statkraft will receive compensation in connection with these projects being stopped. None of this was taken to income in 2000.

In 2001 the German energy company E.ON increased its stake in Sydkraft AB to more than 40%. Under Swedish law this triggers off a mandatory offer to all shareholders. In a press release, E.ON says that the prices offered will be SEK 240 and SEK 200 for A-shares and C-shares respectively. The EU competition authorities are now considering the case and it is expected that they will decide whether the acquisition is in line with the EU's competition regulations by 15 March. The final prospectus is expected to be issued on 16 March and Statkraft will then have 3 weeks to evaluate the offer.

# Auditor's report for 2000

## To the Corporate Meeting of Statkraft SF

We have audited the annual financial statements of Statkraft SF as of 31 December 2000, showing a profit of NOK 714 million for the Enterprise and a profit of NOK 847 million for the Group. We have also audited the information in the director's report concerning the financial statements, the going concern assumption, and the proposal for the appropriation of the profit. The financial statements comprise the balance sheet, statements of income and cash flows, the accompanying notes and the consolidated accounts. These financial statements are the responsibility of the Board of Directors and Chief Executive Officer. Our responsibility is to express an opinion on these financial statements and on other information according to the requirements of the Norwegian Act on Auditing and Auditors.

We conducted our audit in accordance with the Norwegian Act on Auditing and Auditors and auditing standards and practices generally accepted in Norway. Those standards and practices require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. To the extent required by law and auditing standards an audit also comprises a review of the management of the Enterprise's financial affairs and its accounting and internal control systems. We believe that our audit provides a reasonable basis for our opinion.

### In our opinion

- the financial statements have been prepared in accordance with law and regulations and present the financial position of the Enterprise and of the Group as of 31 December 2000, and the results of its operations and its cash flows for the year then ended, in accordance with accounting standards, principles and practices generally accepted in Norway.
- the Enterprise's management has fulfilled its obligation in respect of registration and documentation of accounting information as required by law and accounting standards, principles and practices generally accepted in Norway
- the information in the directors' report concerning the financial statements, the going concern assumption, and the proposal for the appropriation of the profit is consistent with the financial statements and comply with law and regulations.

Oslo, 6 March 2001

ARTHUR ANDERSEN & CO.



Finn Berg Jacobsen (sig)

State Authorised Public Accountant (Norway)



# Key figures

## The Group

	Unit	2000	1999	1998	1997	1996
<b>Financial result:</b>						
Gross operating revenues	NOK mill.	5 285	5 601	5 314	5 353	5 562
Net operating revenues	NOK mill.	4 671	4 912	4 760	4 702	4 698
Operating income	NOK mill.	2 178	2 174	2 198	1 998	2 354
Pre-tax income	NOK mill.	1 765	1 691	1 631	1 277	1 686
Net income for the year <sup>1)</sup>	NOK mill.	847	947	890	1 238	455
<b>Investments</b>						
Investments	NOK mill.	9 411	7 026	944	1 085	6 772
<b>Balance sheet 31.12.</b>						
Cash and cash equivalents	NOK mill.	2 514	1 299	1 796	1 153	1 314
Equity	NOK mill.	21 742	21 503	17 322	16 669	14 480
Total assets	NOK mill.	55 616	47 067	42 430	40 075	39 089
<b>Key ratios:</b>						
Return on total assets before tax <sup>2)</sup>	%	6.5	6.3	6.5	6.2	7.2
Return on total assets after tax <sup>3)</sup>	%	4.7	4.7	4.7	6.1	3.8
Return on equity before tax <sup>4)</sup>	%	8.2	8.7	9.6	8.2	13.2
Return on equity after tax <sup>5)</sup>	%	3.9	4.9	5.2	7.9	3.6
Gross profit margin <sup>6)</sup>	%	33.4	30.2	30.7	23.9	30.3
Net profit margin <sup>7)</sup>	%	16.0	16.9	16.7	23.1	8.2
Equity ratio <sup>8)</sup>	%	39.1	45.7	40.8	41.6	37.0
Current ratio <sup>9)</sup>		1.3	0.8	1.5	1.1	0.8
Interest coverage <sup>10)</sup>		1.5	1.9	1.8	2.0	1.5
Net cash flow provided by operations	NOK mill.	1 772	1 849	1 256	1 427	1 814
<b>Staff</b>						
Employees 31.12.	Number	1 187	1 430	1 535	1 400	1 037
<b>Production and turnover:</b>						
Production (after pumping and loss)	TWh	40.2	32.5	32.4	27.5	32.2
Purchases	TWh	1.1	2.5	2.7	3.4	4.4
Sales, contract market	TWh	22.4	25.6	27.0	25.2	28.5
Sales, spot market	TWh	17.5	7.9	7.2	2.9	3.8
Firm export contracts	TWh	1.4	1.5	3.5	2.8	4.2
Installed generator capacity (Statkraft's share)	MW	8 815	8 800	8 700	8 700	8 700
Wholly and partly owned plants	Number	93	91	91	86	86

1) 1997 and 1998 have been restated in accordance with the new Accounting Act.

$$2) \frac{\text{Net income} + \text{financial expenses}}{\text{Average total assets}} \times 100$$

$$3) \frac{\text{Net income} + \text{financial expenses}}{\text{Average total assets}} \times 100$$

$$4) \frac{\text{Pre-tax income}}{\text{Average equity}} \times 100$$

$$5) \frac{\text{Net income}}{\text{Average equity}} \times 100$$

$$6) \frac{\text{Income before taxes}}{\text{Gross operating revenues}} \times 100$$

$$7) \frac{\text{Net income}}{\text{Gross operating revenues}} \times 100$$

$$8) \frac{\text{Equity}}{\text{Assets}} \times 100$$

$$9) \frac{\text{Current assets}}{\text{Current liabilities}}$$

$$10) \frac{\text{Net income} + \text{financial expenses}}{\text{Financial expenses}}$$

## Social audit - Value added statement

The Social Audit (Value Added Statement) shows the value added that has taken place through labour input, capital input, knowledge and technology input, and how this is distributed among the various stakeholders who have contributed. The employees get their share of value added in the form of wages and social benefits. The owners get their share in the form of dividends and retained earnings, while lenders receive their part of the value added in the form of interest payments. Central and local authorities receive their share in the form of taxation levied on the company and duties/levies paid by the company.

In 2000 the value added was higher than ever before, namely NOK 4.2 billion. The value added was maintained despite a difficult energy market, and was distributed as follows: 13 per cent to the employees, 38 per cent to lenders, 29 per cent to central and local authorities and 20 per cent to the owner. Of the owner's share an amount of NOK 631 million was distributed as dividend while the company retained NOK 210 million. Thus the company retained only 5 per cent of value added.

<b>Value added in NOK million</b>	<b>2000</b>	<b>1999</b>	<b>1998</b>	<b>1997</b>	<b>1996</b>
Gross operating revenues	5 285	5 601	5 314	5 353	5 562
- Consumption of goods and services purchased	1 419	1 798	1 495	1 458	1 469
<b>Gross value added</b>	<b>3 866</b>	3 803	3 819	3 895	4 093
- Ordinary depreciation	849	799	830	824	827
<b>Net value added</b>	<b>3 017</b>	3 004	2 989	3 071	3 266
+ Financial income	426	210	156	217	235
+ Result from associated companies	729	443	315	255	-
- Minority interests	6	1	3	10	-
<b>Value added for distribution</b>	<b>4 166</b>	3 655	3 457	3 533	3 501
<b>Distribution of value added in NOK million</b>	<b>2000</b>	<b>1999</b>	<b>1998</b>	<b>1997</b>	<b>1996</b>
<b>Employees</b>					
Gross wages and social benefits	554	575	530	396	276
<b>Lenders/owners</b>					
Interest	1 568	1 135	1 038	1 193	903
Dividend	631	600	309	-	-
Taxes and levies	1 202	999	1 002	716	1 867
<b>The company</b>					
Change in equity	210	346	578	1 228	455
<b>Total distributed</b>	<b>4 166</b>	3 655	3 457	3 533	3 501

**Gross operating revenue:**

Power revenues + Other operating revenues

**Consumption of goods and services purchased:**

Transmission costs + compensation + other operating costs

**Gross wages:**

Labour costs - Nat. insurance contribution

**Taxes and levies:**

Taxes + production levies + licences fees + Nat. insurance contribution

**Statkraft's 10 largest municipal recipients of tax 1997 - 2000**

**Taxes and levies in NOK million**

Municipality	2000	1999	1998	1997
1 Vinje	65.6	65.3	64.6	61.3
2 Suldal	60.2	59.1	60.1	66.9
3 Hemnes	57.2	57.4	60.1	35.0
4 Rana	48.8	49.5	51.2	35.8
5 Tokke	42.7	42.3	42.6	37.3
6 Eidfjord	38.1	36.7	37.7	38.1
7 Luster	36.6	35.9	35.9	37.4
8 Meløy	32.8	33.7	41.7	41.3
9 Narvik	31.9	32.0	32.5	31.0
10 Nore og Uvdal	27.7	27.4	27.3	20.9
<b>Total</b>	<b>441.7</b>	439.5	453.6	405.2

The figures include taxes and licence fees paid directly to the municipalities. The amount refers to tax paid for the individual year. Possible additional payments or refunds from earlier years are not included.



**Thorolf Holmboe (1866–1935):**

*Issvull under en demning (Patches of Ice)*, 1902. Oil on canvas 62 x 86.5 cm. National Gallery's collection. Photo: J. Lathion ©Nasjonalgalleriet 1996.

Frozen moment of rumbling water masses turn into formations that stand as monuments to the summer's enormous cascades. The fall is silent now, but under a blanket of ice it rumbles on.

# Environment: from dam to fjord

## Challenges and opportunities



### Dam and surroundings

#### Challenges

Regulation zone  
Less fish  
Erosion  
Aesthetics

#### Opportunities

Reservoir exploitation that accommodates the environment  
Inlet brook undertakings  
Spawning gravel in brooks and shoreline  
Measures to hinder erosion  
Laying grounds for natural reproduction  
Releasing smolt and fry

### Transfer from other watercourses

#### Challenges

The quality of water transferred from other watercourses may be better, equal or inferior.

#### Opportunities

Measures against poor water quality, such as adding lime. Better water quality is considered positive.

### Buildings along the river

For agricultural and built-up areas, watercourse regulation can reduce such problems as floods, drifting ice and erosion.

### The river course is affected

#### Challenges

Change in water flow  
Reduction in splendour and richness of nature  
Inferior conditions for fish

#### Opportunities

Physical intervention in river course to improve appearance of river and to improve conditions for fish  
Environmentally-adapted water flow

### Impact on the landscape

#### Challenges

Scenic beauty of waterfalls, runs and riverbank is diminished

#### Opportunities

Environmentally adapted water flow, thresholds etc.

### Heritage sites

#### Challenges

Cultural heritage sites taken out of their natural environment

#### Opportunities

Positive action for heritage sites

### Power plants

Environmentally friendly power plant operations

### Water course below the power plant

#### Challenges

Change in conditions for salmon and sea trout and fishing between the power plant and the fjord  
Erosion  
Drifting ice  
Effect of water temperature  
Local changes in climate, e.g. frost smoke

#### Opportunities

Adjust water flow for fish and fishing  
Artificial freshet  
Thresholds, deep pools etc.  
Spawning gravel  
Minimum water flow  
Measures to affect water temperature  
Power plant operations adjusted to the environment



# Environment: challenges facing hydro power production

## GLOBAL ENVIRONMENTAL IMPACT: HYDRO POWER AND \ KYOTO

Production for the year (Statkraft)	40.2 TWh	0 tonnes CO <sub>2</sub>
Corresponding volume "coal-power"		26.9 million tonnes CO <sub>2</sub> (NOU 1998:11, tab 24.2)
Norways Kyoto quota		55 million tonnes CO <sub>2</sub>

### Local environmental impact: Better understanding and co-operation gives better solutions

<b>Knowledge of environmental impact</b>	Life cycle analyses (LCI, LCA)	Mapping of all input to the building and operation of hydro power plant (LCI study) was carried out for 5 plants in 1999. The environmental impacts were then analysed through in an LCA study. This was further developed in 2000 through participation in the work on environmental product descriptions and pricing of environmental costs
	Pricing of environmental costs	The first attempt by the energy industry to calculate environmental costs in kroner per kWh. Carried out in association with EBL, BKK and SFE.
	Studies, surveys and R&D projects	<ul style="list-style-type: none"> <li>• Fish biology surveys in i.a. Alta River, Suldalslågen, Eidsfjord watercourse, Eira, Vikja, Osa, Sima and Gluggvass rivers and participation in county surveys in Troms, Nordland and Telemark.</li> <li>• Pre-studies and impact assessments related to hydro power projects.</li> <li>• Studies of rapid changes in water levels in rivers.</li> <li>• Contribution to and use of a watercourse simulator</li> </ul>
<b>Communication, openness and participation</b>	Open planning processes	Early involvement of local community, municipal authorities and other affected parties when planning energy projects.
	Environmental product description	Statkraft participates in the development of new standard for certified environmental product descriptions (ISO 14025). Statkraft also participates in the work of establishing a market for green certificates.
	Environmental accounting	First draft prepared in 2000.
<b>Environmental management</b>	Environmental certification	Start-up of certification to NS ISO 14001
	Environmental follow-up of construction projects	New internal requirements for environmental plans and to following up external environment in construction projects

## ENVIRONMENTAL ACTION IN 2000

<b>Biological diversity</b>	<ul style="list-style-type: none"> <li>• Operating fish hatchery</li> <li>• Release of fish</li> <li>• Strengthening of natural reproduction through use of thresholds, digging pools, spawning gravel etc.</li> <li>• Operating living gene banks</li> <li>• Environmentally adjusted operation of power plants</li> <li>• Operation and maintenance of fish ladders</li> <li>• Video surveillance of salmon migration</li> <li>• Surveillance of vulnerable nature</li> </ul>
<b>Outdoor life</b>	<ul style="list-style-type: none"> <li>• Aesthetic landscape measures linked to tips, roads, mass pits</li> <li>• Measures in watercourses to maintain water surface and reduce impact of regulation</li> <li>• Plan and prepare for better access to regulated watercourses, e.g. by establishing bathing spots, new walking tracks</li> <li>• Contribute to sustainable fish stocks</li> <li>• Parts of Statkraft's road network is kept open to the general public</li> </ul>
<b>Heritage sites and cultural environments</b>	<ul style="list-style-type: none"> <li>• Heritage sites and the like shall be mapped in connection with impact assessments</li> </ul>
<b>Health and environmentally hazardous chemicals, top dressing and oil pollution</b>	<ul style="list-style-type: none"> <li>• Comprehensive registration and surveillance of old waste tips</li> <li>• Surveillance of erosion and particle transportation from regulating reservoirs</li> <li>• Phasing out of halogen gas (fire extinguishers) completed</li> <li>• Phasing out of oils containing PCB underway</li> <li>• Ascertaining pollution risk of development and operating activities</li> <li>• Registration of materials in Statkraft's plant that are hazardous to health and the environment</li> <li>• Recipient evaluations included in earlier planning stage</li> </ul>
<b>Waste and recovery</b>	<ul style="list-style-type: none"> <li>• Established systems and routines for handling special waste</li> <li>• Registering and tidying up of old plants</li> <li>• Better procedures developed for handling waste from construction works</li> </ul>
<b>Climatic changes, air pollution and noise</b>	<ul style="list-style-type: none"> <li>• Statkraft produced 40.2 TWh CO<sub>2</sub>-free energy in the year 2000</li> </ul>



# Environment: New renewable energy New solutions

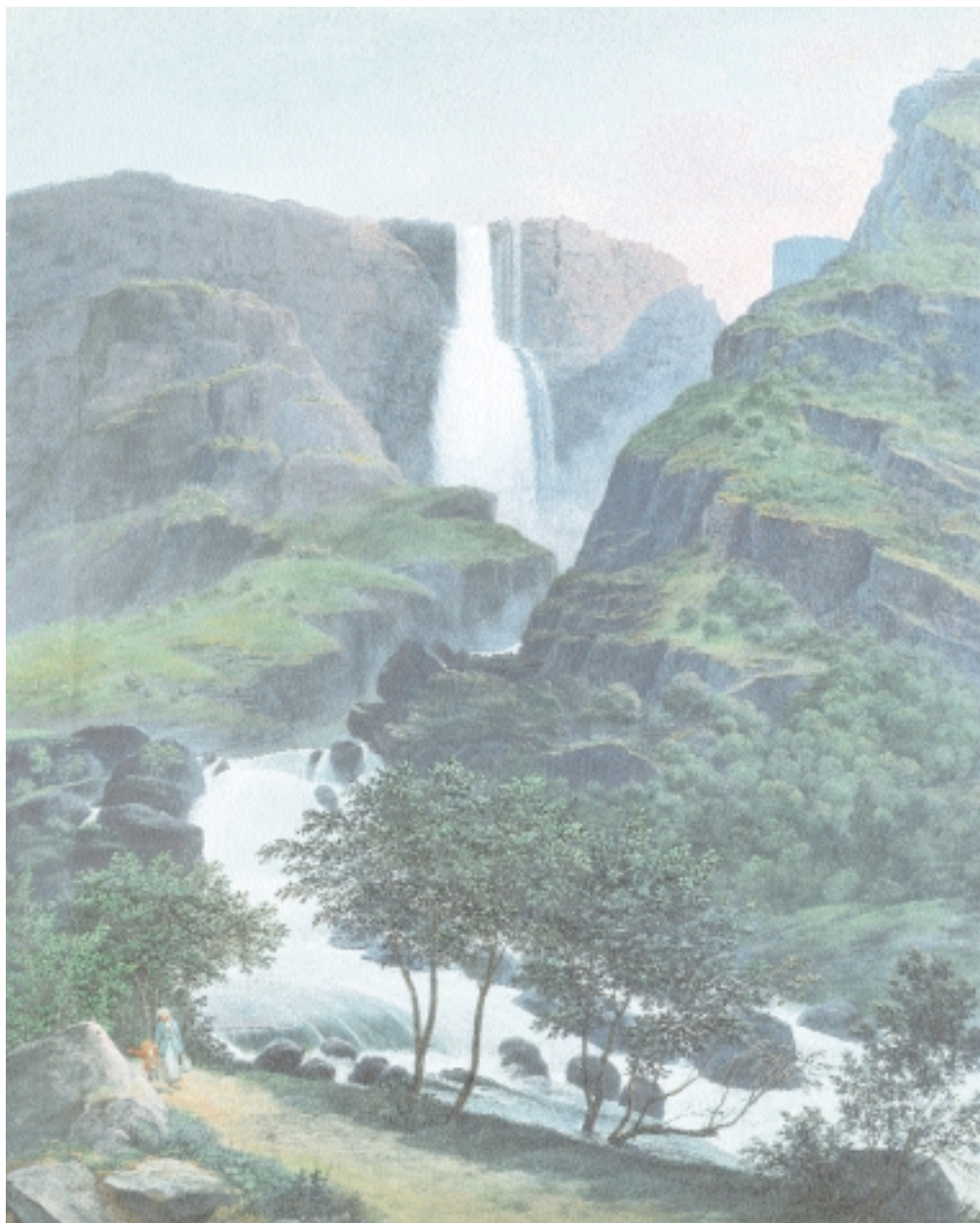
<p><b>Wind power</b></p>	<p>Smøla Hitra Stadlandet</p> <p>New projects</p>	<p>Following comprehensive preparatory work, Statkraft was granted a licence in December 2000 to build windmill parks at Smøla (144 MW), Hitra (56 MW) and Stadlandet (70 MW). Total output is 276 MW and the estimate production is 768 GWh.</p> <p>Wind gauging has started at seven new sites along the coast, from Finnmark in the north to Rogaland in the south. The results of these measurements will decide the further work at these locations.</p>
<p><b>Salt power</b></p>	<p>SINTEF/ Norwegian Research Council/Eureka</p>	<p>Second phase of assessment of salt gradients exploited for energy production, in association with SINTEF (Foundation for Scientific and Industrial Research) was completed.</p> <p>The preliminary conclusions from this project indicates a development costs of down to NOK 0.25/kWh assuming adequate economies of scale and a further development of the membrane technology. The unexploited potential for salt power in Norway is very large, about 25 TWh p.a.</p> <p>The challenge ahead is to develop a technological base for profitable power production. Further development will be linked to leading membrane development circles. No commercial solutions can be expected before 2010.</p>
<p><b>Hydrogen/ Fuel cells</b></p>	<p>Pre-project</p> <p>IEA projects EU projects</p> <p>Dr. Eng. candidates</p> <p>Demo projects</p>	<p>Own activities for building up competence and following technological and market-related developments for hydrogen as an energy carrier.</p> <p>Statkraft participates in international projects that are expected to provide considerable insight into systems, market niches and technology challenges.</p> <p>Among other things, Statkraft is supporting 3 Dr. Eng. candidates, thus developing essential long-term competence.</p> <p>A demo plant will provide a better understanding of how technology for hydrogen production and application can be exploited in a later commercial phase. Statkraft will consider this. No commercial solution can be expected before 2010.</p>

*A more detailed presentation of environmental challenges and Statkraft's environmental measure will appear in Statkraft's Environmental Report for 2000.*

# Waterfalls in norwegian painting

The overriding plan behind the design of this annual report and the selection of art works is to show that Statkraft is a company with long traditions, rooted in our natural resources. We have chosen to illustrate this by selected examples from Norwegian art history. Some of

the paintings are well known - others are reproduced less frequently. These works of art portray waterfalls and they tell us a lot about how people have viewed nature and the power of the cascade. In the oldest pictures the waterfalls represent the wild and frightening. So



**Johannes Flintoe (1787–1870):** *Skytjefoss i Simadalen (The waterall Skytjefoss in Simadalen)*, 1822. Oil on canvas 93,5 x 72 cm. Property of Bergen Billedgalleri. Photo: O. Væring © O. Væring eff. AS. Flintoe's meeting with Norwegian nature was of decisive importance for many that followed in his footsteps and listened to his advice. Both J.C. Dahl and Hans Gude started to visit Norway's mountain wilds under Flintoe's guidance.

the enormous powers of nature are portrayed with respect. We soon see that the ferocity of the falls attracts the first tourists who refrain from doing anything but viewing the foaming cascades of water at a safe distance. The size of people in these paintings also provides an indication of proportions. They were probably included to show us just how powerful nature is. In the third phase, people have tamed the forces of the waterfall and put them to work. In many of the paintings we see examples of sagacious devices that serve mankind's interests. Every type of waterfall has been used, be it the gushing cascades or the quiet streams. Creative engineering ensured that many needs were satisfied and people spared of hard labour. The waterfalls were the first things we learned to tame here in Norway, maybe because they are among the most fascinating.

When the first artists started to seek out Norwegian nature, they often produced picturesque "travelogues". They had very definite opinions as to what was "picturesque" and this was often described as the sublime that should be sought out and reached for. At the end of the 1700s, when Englishmen started to print the first collections of graphic works with travel

motifs, a series was published with pictures from Norway, Switzerland and India, because these countries were considered to be equally exotic. The Norwegian painters, whom for the most part were educated abroad, sought out Norwegian motifs in summer. Based on sketches made "on the spot" they could spend the rest of the winter in Germany or France completing large paintings of Norwegian waterfalls. Falls have been a favourite motif since the mid-1800s, but their popularity fell quickly toward the end of the century. Times changed, and so did motifs. It is therefore interesting to look at examples by Gerhard Munthe and Nikolai Astrup. They belong to the last generation of waterfall painters.

Paintings are our collective memory and cultural history. Today, hardly any children build waterwheels in brooks, and neither water-powered saws nor millstones are part of our everyday lives. We live comfortably and protected, so we use these illustrations as a reminder that behind much of our electricity based day-to-day material comfort, lies the forces of waterfalls.

Dorthea Hysing