

NORSK HYDRO A S A  
Form 20-F  
June 30, 2004

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

**Washington, D.C. 20549**

**FORM 20-F**

- REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934**

**OR**

- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For The Fiscal Year Ended December 31, 2003**

**OR**

- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the transition period from \_\_\_\_\_ to \_\_\_\_\_**

**Commission file number: 1-9159**

**NORSK HYDRO ASA**

**(Exact name of Registrant as specified in its charter)**

**Kingdom of Norway**

**(Jurisdiction of incorporation or organization)**

**Drammensveien 264, Vaekerø**

**N-0240 OSLO**

**Norway**

**(Address of principal executive offices)**

Securities registered or to be registered pursuant to Section 12(b) of the Act:

<b>Title of each class</b>	<b>Name of each exchange on which registered</b>
American Depositary Shares Ordinary Shares, par value NOK 18.30 per share	New York Stock Exchange New York Stock Exchange*

Edgar Filing: NORSK HYDRO A S A - Form 20-F

\* Not for trading, but only in connection with the registration of the American Depositary Shares, pursuant to the requirements of the Securities and Exchange Commission.

Securities registered or to be registered pursuant to Section 12(g) of the Act: None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: Ordinary Shares, par value NOK 18.30 per share.

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

256,712,000 Ordinary Shares, whose par value was then NOK 20.00 per share

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes

No

Indicate by check mark which financial statement item the registrant has elected to follow.

Item 17

Item 18

---

## TABLE OF CONTENTS

ITEM	PAGE
Exchange Rate Information	4
<b>PART I</b>	
Item 1. Identity of Directors, Senior Management and Advisers	5
Item 2. Offer Statistics and Expected Timetable	5
Item 3. Key Information	5
A. Selected Consolidated Financial Data	5
B. Capitalization and Indebtedness	9
C. Reasons for the Offer and Use of Proceeds	9
D. Risk Factors	9
Item 4. Information on the Company	16
A. History and Development of the Company	16
B. Business Overview	18
C. Organizational Structure	76
D. Property, Plants and Equipment	76
Item 5. Operating and Financial Review and Prospects	77
Item 6. Directors, Senior Managers and Employees	118
A. Directors, Corporate Assembly and Corporate Management Board	118
B. Compensation	122
C. Board Practices	124
D. Employees	128
E. Share Ownership	129
Item 7. Major Shareholders and Related Party Transactions	130
A. Major Shareholders	130
B. Related Party Transactions	131
C. Interests of Experts and Counsel	131
Item 8. Financial Information	132
A. Consolidated Financial Statements and Other Financial Information	132
B. Significant Changes	135
Item 9. The Offer and Listing	136
A. Offer and Listing Details	136
B. Plan of Distribution	137
C. Markets	137
D. Selling Shareholders	137
E. Dilution	137
F. Expenses of the Issue	137

<b>ITEM</b>	<b>PAGE</b>
Item 10. Additional Information	137
A. Share Capital	137
B. Articles of Association	137
C. Material Contracts	150
D. Exchange Controls	151
E. Taxation	151
F. Dividends and Paying Agents	155
G. Statement by Experts	155
H. Documents on Display	155
I. Subsidiary Information	155
Item 11. Quantitative and Qualitative Disclosures About Market Risk	156
Item 12. Description of Securities Other Than Equity Securities	156
<b>PART II</b>	
Item 13. Defaults, Dividend Arrearages and Delinquencies	157
Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds	157
Item 15. Controls and Procedures; CEO and CFO Certifications	157
Item 16A. Audit Committee Financial Expert	158
Item 16B. Code of Ethics	158
Item 16C. Principal Accountant Fees and Services	159
<b>PART III</b>	
Item 17. Financial Statements	160
Item 18. Financial Statements	160
Item 19. Financial Statements and Exhibits	160

In the following discussion, references to **Hydro** or the **Company** are to Norsk Hydro ASA or Norsk Hydro ASA and its consolidated subsidiaries, as the context requires. References to the **Group** are to Norsk Hydro ASA and its consolidated subsidiaries. References to the **Kingdom** are to the Kingdom of Norway. The glossary found immediately after the signature page of this annual report provides the definitions of certain other terms used throughout this annual report. In addition, the definitions of oil and gas terms, including terms defined in applicable regulations and Industry Guide 2 ( **Disclosure of Oil and Gas Operations** ) of the U.S. Securities and Exchange Commission (the **SEC** ), can be found in Item 4.B. of this annual report at the end of the business description for the Exploration and Development sub-segment of Hydro Oil and Energy.

### EXCHANGE RATE INFORMATION

The Company publishes its consolidated financial statements in Norwegian kroner ( **NOK** ). In this annual report, references to US dollar, US dollars, USD US\$ or \$ are to United States dollars. The following tables set forth, for periods indicated, certain information concerning the exchange rate of Norwegian kroner for USD 1.00, based on the noon buying rate in the City of New York for cable transfers in foreign currencies as certified for customs purposes by the Federal Reserve Bank of New York (the **Noon Buying Rate** ):

Calendar Year Period	Average Noon Buying Rate <sup>(1)</sup>	
1999	7.84	
2000	8.83	
2001	9.00	
2002	7.93	
2003	7.06	

  

Calendar Monthly Period	Noon Buying Rate	
	High	Low
December 2003	6.83	6.64
January 2004	7.07	6.66
February 2004	7.07	6.84
March 2004	7.14	6.82
April 2004	7.00	6.82
May 2004	6.97	6.70

<sup>(1)</sup> The average of the Noon Buying Rates on the last business day of each calendar month during the year indicated.

The Noon Buying Rate on June 18, 2004 was NOK 6.89 = \$1.00.

Fluctuations in the exchange rate between the Norwegian kroner and the US dollar will affect the US dollar equivalent of the Norwegian kroner price of the Company's ordinary shares on the Oslo Stock Exchange and, as a result, are likely to affect the market price of the Company's ordinary shares represented by American depositary shares ( **ADSs** ) in the United States. Such fluctuations could also affect the US dollar amounts received by holders of ADSs on conversion of cash dividends, paid by the Company in Norwegian kroner, on the ordinary shares represented by the ADSs. See Item 3.A. Selected Consolidated Financial Data and Item 10.B. Articles of Association Description of American Depositary Receipts Dividends and Other Distributions.



**PART I**

**ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS**

In accordance with the instructions to Form 20-F, the Company does not need to provide the information called for by Item 1 if, as is the case in this instance, the Form 20-F is being filed as an annual report under the Securities Exchange Act of 1934, as amended (the **Exchange Act** ).

**ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE**

In accordance with the instructions to Form 20-F, the Company does not need to provide the information called for by Item 2 if, as is the case in this instance, the Form 20-F is being filed as an annual report under the Exchange Act.

**ITEM 3. KEY INFORMATION**

**ITEM 3.A. SELECTED CONSOLIDATED FINANCIAL DATA**

The following financial information with respect to the five years ended December 31, 2003, 2002, 2001, 2000 and 1999 has been derived from Hydro's audited consolidated financial statements prepared in accordance with United States generally accepted accounting principles ( **US GAAP** ). The financial information for the three years ended December 31, 2003, 2002 and 2001 should be read in conjunction with and is qualified in its entirety by reference to the consolidated financial statements and notes included in the Company's annual report to shareholders for the year ended December 31, 2003 (the "**Consolidated Financial Statements**"), included in Exhibit 10 to this annual report on Form 20-F.



Income Statement Data <sup>(1)</sup>

	Year ended December 31,				1999
	2003	2002	2001	2000	
	(in NOK million, except per share data)				
Operating revenues <sup>(2)(3)</sup> <sup>(4)</sup>	171,782	167,040	152,999	156,467	111,955
Operating costs and expenses excluding depreciation, impairment and restructuring charges <sup>(2)(4)</sup>	132,431	133,297	118,722	115,328	93,094
Depreciation	15,093	13,912	12,273	12,538	10,494
Restructuring charges <sup>(5)</sup>		(10)	921	135	632
Operating income before financial and other items	24,258	19,841	21,083	28,466	7,735
Financial and other income (expense), net <sup>(6)</sup>	1,484	1,670	3,991	5,580	3,193
Interest expense and foreign exchange gain (loss)	(1,266)	517	(3,609)	(3,905)	(3,055)
Income before taxes and minority interest	24,476	22,028	21,465	30,141	7,873
Provision for taxes	(13,937)	(13,278)	(13,750)	(16,178)	(4,337)
Minority interest	148	15	177	18	(90)
Income (loss) before cumulative effect of accounting changes	10,687	8,765	7,892	13,981	3,446
Cumulative effect of accounting change for:					
Start-up costs					(30)
Asset retirement (implementation of SFAS 143)	281				
Net income (loss)	10,968	8,765	7,892	13,981	3,416
Earnings (loss) per share:					
Before cumulative effect of accounting changes	41.50	34.00	30.50	53.40	13.90
	1.10				(0.10)

Cumulative effect of  
accounting changes

Earnings (loss) per share:	42.60	34.00	30.50	53.40	13.80
----------------------------	-------	-------	-------	-------	-------

Avg. number of outstanding ordinary shares	257,528,511	257,799,411	258,434,202	261,620,982	247,045,270
--	-------------	-------------	-------------	-------------	-------------

Cash dividends paid per share during period: NOK per share <sup>(7)</sup>	10.50	10.00	9.50	8.00	7.50
Converted into USD per share <sup>(7)</sup>	1.56	1.24	1.05	0.90	0.94

- (1) See Note 2 to the Consolidated Financial Statements for a discussion of significant business acquisitions and dispositions during the three-year period ended December 31, 2003.
- (2) As of fiscal year 2000, operating revenues for certain trading activities have been presented on a gross basis in the income statement. The amounts for 1999 have been restated to reflect the change. As a result, operating revenues and operating costs have increased by NOK 9,522 million in 1999.
- (3) Effective January 1, 2003, Hydro adopted EITF 02-3 Recognition and Reporting of Gains and Losses on Energy Contracts. This standard requires only energy contracts that meet the definition of a derivative according to SFAS 133 Accounting for Derivative Instruments and Hedging Activities and are held for trading be recorded in the balance sheet at fair value. Other energy contracts are recorded at the lower of historical cost and fair market value. This change applies to contracts entered into before October 25, 2002. For contracts entered after October 25, 2002, the regulation applied from initial recognition.
- (4) Prior years amounts have been reclassified to reflect the implementation of EITF 02-3 and EITF 03-11, which require realized and unrealized gains and losses on all derivative instruments be presented on a net basis in the income statement. Previously, gains and losses on energy derivative contracts were reported according to EITF 98-10 and were presented on a gross basis in the income statement.
- (5) See Note 6 to the Consolidated Financial Statements for more information regarding restructuring charges.
- (6) Equity in net income of non-consolidated investees is included under Financial and other income (expense), net.
- (7) Cash dividends paid during the period represent payments of dividends with respect to the previous year. Amounts paid in Norwegian kroner have been converted at prevailing exchange rates on the date of such payments.

**Balance Sheet Data** <sup>(1)</sup>

	<b>2003</b>	<b>2002</b>	<b>As of December 31, 2001 (in NOK million)</b>	<b>2000</b>	<b>1999</b>
Cash, cash equivalents and other liquid assets	16,830	8,612	29,569	24,257	9,970
Total assets	218,629	207,211	197,922	196,354	177,419
Short-term debt	6,811	9,264	10,424	11,297	8,268
Long-term debt	28,568	30,902	37,853	40,174	42,228
Deferred tax liabilities	34,083	37,071	31,429	31,644	30,573
Ordinary shares and additional paid-in capital	20,403	20,420	20,402	20,391	20,387
Total shareholders equity	80,080	75,867	74,793	71,227	59,497

<sup>(1)</sup> See Note 2 to the Consolidated Financial Statements for a discussion of significant business acquisitions and dispositions during the three-year period ended December 31, 2003.

### Segment Data

The following table indicates the Group's operating revenues, sales to unaffiliated customers and operating income (after eliminating inter-segment sales) by business segment for each of the three fiscal years in the period ended December 31, 2003.

Year ended December 31, Business Segment <sup>(1)</sup>	Operating Revenues			Sales to Unaffiliated Customers			Operating Income/(Loss) Before Financial and Other Income		
	2003	2002	2001	2003	2002	2001	2003	2002	2001
Exploration and Production <sup>(2)</sup>	37,904	32,970	32,426	12,099	10,136	6,992	18,500	13,137	16,910
Energy and Oil Marketing <sup>(2)</sup>	49,370	45,915	45,824	44,308	41,929	41,315	2,668	2,784	2,267
Eliminations	(27,315)	(23,040)	(26,070)	(1,576)	(965)	(846)	(25)	26	
Hydro Oil and Energy	59,959	55,845	52,180	54,831	51,100	47,461	21,143	15,947	19,177
Metals	39,923	39,646	31,475	26,509	26,025	24,961	2,293	1,690	372
Rolled Products	18,377	14,790	4,228	17,825	14,135	4,126	132	(295)	58
Extrusion and Automotive Other and Eliminations <sup>(3)</sup>	24,529 (13,677)	24,245 (13,630)	22,487 (7,107)	24,472 190	24,186 162	21,854 1	98 (67)	14 289	(228) (17)
Hydro Aluminium	69,152	65,051	51,083	68,996	64,508	50,942	2,456	1,698	185
Hydro Agri	38,174	33,348	37,407	37,828	32,818	36,809	2,800	2,207	2,114
Other Activities <sup>(4)</sup>	14,013	21,769	22,361	10,206	17,988	17,714	(414)	13	(340)
Corporate and Eliminations <sup>(5)</sup>	(9,516)	(8,973)	(10,032)	(79)	626	73	(1,727)	(24)	(53)
<b>Total</b>	<b>171,782</b>	<b>167,040</b>	<b>152,999</b>	<b>171,782</b>	<b>167,040</b>	<b>152,999</b>	<b>24,258</b>	<b>19,841</b>	<b>21,083</b>

<sup>(1)</sup> See Note 2 to the Consolidated Financial Statements for a discussion of significant business acquisitions and dispositions during the three-year period ended December 31, 2003.

<sup>(2)</sup>

Edgar Filing: NORSK HYDRO A S A - Form 20-F

As of January 1, 2003, Hydro's gas transportation activities are reported as part of Energy and Oil Marketing. Prior periods have been reclassified for comparative purposes.

- (3) Other and Eliminations includes unrealized gains and losses related to London Metals Exchange (LME) contracts with a loss of NOK 49 million in 2003, a gain of NOK 266 million in 2002 and a loss of NOK 50 million in 2001.
- (4) Other Activities consist of the following: Petrochemicals, Treka AS (previously A/S Korn- og Foderstof Kompagniet or KFK), Flexible Packaging, Pronova, the industrial insurance company, Industriforsikring, and Hydro Business Partner.
- (5) Corporate and Eliminations includes the elimination of the unrealized gains included in Hydro Energy's results relating to internal sales contracts for power. These eliminations resulted in a charge to Corporate and Eliminations of NOK 141 million in 2003 compared with a gain of NOK 588 million in 2002. Corporate and Eliminations operating income (loss) also includes a net periodic pension cost of NOK 1,146 million for 2003, NOK 312 million for 2002, and a credit of NOK 421 million in 2001.

### **ITEM 3.B. CAPITALIZATION AND INDEBTEDNESS**

In accordance with the instructions to Form 20-F, the Company does not need to provide the information called for by Item 3.B. if, as is the case in this instance, the Form 20-F is being filed as an annual report under the Exchange Act.

### **ITEM 3.C. REASONS FOR THE OFFER AND USE OF PROCEEDS**

In accordance with the instructions to Form 20-F, the Company does not need to provide the information called for by Item 3.C. if, as is the case in this instance, the Form 20-F is being filed as an annual report under the Exchange Act.

### **ITEM 3.D. RISK FACTORS**

In order to utilize the "safe harbor" provisions of the United States Private Securities Litigation Reform Act of 1995, Hydro is providing the following cautionary statement:

This annual report contains (and oral communications made by or on behalf of Hydro may contain) forecasts, projections, estimates, statements of management's plans, objectives and strategies for Hydro, such as planned expansions, investments or other projects, targeted production volumes, capacities or rates, start-up costs, cost reductions, profit objectives, and various expectations about future developments in Hydro's markets (particularly prices, supply and demand, and competition), results of operations, margins, risk management and so forth. These forward-looking statements are based on a number of assumptions and forecasts, including world economic growth and other economic indicators (including rates of inflation and industrial production), trends in Hydro's key markets, and global oil and gas, and aluminium supply and demand conditions. By their nature, forward-looking statements involve risk and uncertainty and various factors could cause Hydro's actual results to differ materially from those projected in a forward-looking statement or affect the extent to which a particular projection is realized. The following paragraphs address important factors that may cause actual results or developments to differ materially from those expressed or implied by the forward-looking statements.

#### **Risks Relating to Hydro's Oil and Energy Business**

*Hydro Oil and Energy's future performance depends on the ability to find and develop additional oil and gas reserves that are economically recoverable.*

The majority of Hydro Oil and Energy's proved reserves (93 percent as of December 31, 2003) are located on the Norwegian Continental Shelf (the "NCS"). The southern part of the NCS (the location of the most easily accessible and exploitable fields offshore Norway) is a maturing resource province from which reserve additions have been low in recent years. Norway's oil production has been declining for the last two years. See the discussion in Item 4.B.

Business Overview Hydro Oil and Energy Exploration and Production Oil Industry Trends Reduced Exploration Results Worldwide and Maturing NCS.

Exploration for oil and gas involves a high degree of risk that hydrocarbons will not be found or that they will not be found in commercial quantities. The 3-D seismic data and other appraisal technologies Hydro Oil and Energy uses do not provide conclusive knowledge prior to drilling a well that oil or gas is present or economically feasible to extract. Accordingly, Hydro Oil and Energy's drilling activity with respect to any particular project area or areas may be unsuccessful. The overall performance of Hydro's exploration activity during the last few years has not met expectations, in particular, the activity on Block 34 in Angola and the drilling activity in the US Gulf of Mexico. See the discussion in Item 4.B. Business Overview Hydro Oil and Energy Exploration and Production Strategy Building the Basis for Future Production.



The cost of drilling, completing and operating a well is often uncertain and can result in cost overruns negatively impacting the potential returns of a given project. Offshore drilling in deep-water (such as in Angola and the US Gulf of Mexico) is extremely expensive and long-term in nature. Drilling operations may be curtailed, delayed or cancelled as a result of factors outside of Hydro's control, such as unexpected drilling conditions, pressure or irregularities in geological formations, equipment failures or accidents, adverse weather conditions, and shortages or delays in the availability of drilling rigs. Further, completion of a well does not guarantee that it will be profitable or even that it will result in recovery of drilling, completion and operating costs.

Unless Hydro Oil and Energy conducts successful exploration and development activities or acquires properties containing proved reserves, or both, its proved reserves will decline as reserves are produced. In addition, the volume of production from oil and natural gas properties generally declines as reserves from those prospects are depleted. Hydro Oil and Energy's future production is highly dependent upon its success in finding or acquiring, and developing, additional reserves. If unsuccessful, proved reserves will decline, which will, in turn, adversely affect Hydro's results of operations and financial condition.

***Hydro Oil and Energy's development projects involve many uncertainties and operating risks that can prevent Hydro from realizing profits and can cause substantial losses.***

On the NCS, Hydro Oil and Energy is increasingly developing smaller satellite fields in mature areas. Other Hydro Oil and Energy development projects are in remote locations with limited operational histories and, consequently, the success of these projects is less predictable. In addition, some of Hydro Oil and Energy's development projects are located in deep-water or other hostile environments, such as areas on the NCS, the US Gulf of Mexico and Angola, or produced from challenging reservoirs. Planning and development of the Ormen Lange field, for example, has been described as one of the most challenging assignments any oil company has tackled, not just in Norway but in a global context, given the combination of deep-water, harsh weather conditions, freezing water temperatures and a very uneven seabed. As a result, Hydro Oil and Energy may face increased challenges maintaining targeted levels of production and production growth in future years. This could negatively affect Hydro's results of operations and financial condition.

***A substantial or extended decline in oil or natural gas prices would have a material adverse effect on Hydro Oil and Energy's business.***

Historically, prices for oil and natural gas have fluctuated widely in response to changes in many factors, including:

global and regional economic and political developments in resource-producing regions, particularly in the Middle East;

changes in the supply of and demand for oil and natural gas; and

the ability of the members of the Organization of the Petroleum Exporting Countries ( **OPEC** ) to agree on and maintain oil price and production controls.

It is impossible to predict future oil and natural gas price movements. Declines in oil and natural gas prices will reduce Hydro Oil and Energy's results of operations and financial condition, and ability to finance planned capital expenditures. Based on Hydro's analysis of indicative price and currency sensitivities included in this annual report (see Item 5. Operating and Financial Review and Prospects Risk Management ), a USD 1 decline in oil prices will reduce Hydro Oil and Energy's pre-tax income and after-tax income by approximately NOK 1,450 million and NOK 390 million, respectively. Lower oil and natural gas prices also may influence the amount of oil and natural gas that Hydro can produce economically or reduce the potential return and viability of projects being considered or in



development.

***Hydro Oil and Energy is exposed to foreign currency exchange rate fluctuations.***

Oil prices are denominated in US dollars while operating results are reported in Norwegian kroner. Accordingly, operating results will, in general, decline when the Norwegian kroner strengthens against the U.S. dollar. Based on Hydro's analysis of indicative price and currency sensitivities included in this annual report (see Item 5. Operating and Financial Review and Prospects Risk Management ), a strengthening of the Norwegian kroner against the US dollar of NOK 1 per US\$1.00 will reduce Hydro Oil and Energy's pre-tax income and after-tax income by approximately NOK 2,900 million and NOK 785 million, respectively.

***Hydro Oil and Energy's oil and gas reserves are only estimates and may prove inaccurate.***

There are numerous uncertainties inherent in estimating quantities of proved reserves and their values, including many factors beyond the control of the producer. The reserve data included in this annual report represent only Hydro's estimates; the estimates of other companies with interests in the same oil and gas field or fields may differ and the magnitude of the differences may be substantial. This reflects the degree to which reservoir engineering is a subjective and inexact process, requiring the estimate of underground accumulations of oil and natural gas that cannot be measured in an exact manner. Evaluating properties for their recoverable reserves of oil and natural gas entails the assessment of geological, engineering and production data, some or all of which may prove to be unreliable. Accordingly, reserve estimates may be subject to downward or upward adjustment. See the discussion in Item 5.

Operating and Financial Review and Prospects Hydro's Critical Accounting Policies Proved Oil and Gas Reserves. Actual production, revenues and expenditures with respect to Hydro Oil and Energy's reserves will likely vary from estimates, and those variances may be material. Any downward adjustment in Hydro Oil and Energy's reserve data could lead to lower future production, which would negatively affect Hydro's results of operations and financial condition.

***Hydro may be subject to the imposition of sanctions by the U.S. government in connection with its activities in Iran and/or Libya.***

Hydro Oil and Energy is engaged in certain activities in Iran and has an interest in oil and gas exploration licenses in Libya, where exploratory and appraisal wells are in the process of being drilled and limited production has commenced. In August 1996, the United States adopted the Iran and Libya Sanctions Act of 1996 (the **Sanctions Act** ) with the objective of denying Iran and Libya the ability to support acts of international terrorism and fund the development and acquisition of weapons of mass destruction. In April 2004, the Bush administration announced the termination of application of the Sanctions Act with respect to Libya, but the Sanctions Act continues in force with respect to Iran.

If the U.S. government were to determine that a person's activities in Iran or Libya are covered by the Sanctions Act, the Act requires the President of the United States to apply two or more sanctions, including a ban on any license to export goods or technology to a sanctioned person, a prohibition of loans or extensions of credit by U.S. financial institutions in an amount greater than U.S.\$10 million in any 12-month period to the sanctioned person, and restrictions on imports into the United States from a sanctioned person. The President also has the authority to grant country-specific and project-specific waivers of these sanctions under certain circumstances. To date, there have not been any sanctions imposed against any person or entity under the Sanctions Act, which makes it difficult to predict how any sanctions, if imposed, would be implemented and enforced against an individual company if a violation of the Sanctions Act were to be determined to exist or have occurred.

Hydro cannot predict future interpretations of, or the implementation policy of the U.S. government with respect to, the Sanctions Act. However, taking into consideration the limited size of Hydro's operations in Iran and Libya relative to its total oil and energy activities, as well as Hydro's operations not currently importing from the United

States any goods or technology requiring a license from the U.S. government, the absence, at present, of any loans or extensions of credit from U.S.

financial institutions, and other relevant considerations, Hydro does not believe that imposition of sanctions under the Sanctions Act (should a violation be determined to exist or have occurred) would have a material adverse effect on Hydro's financial condition or results of operations.

### **Risks Relating to Hydro Aluminium's Business**

#### ***Hydro Aluminium's results of operations are affected by the cyclical nature of the aluminium industry.***

The aluminium industry is highly cyclical. Hydro Aluminium's results of operations could be negatively affected as a result of unfavorable economic conditions or conditions affecting the aluminium industry specifically. In particular, Hydro Aluminium is exposed to economic conditions in Europe, as a significant portion of its products is sold into the European market. Virtually all aluminium end-use markets, including the building, transportation and packaging industries, are also cyclical. When downturns occur in these industries, decreased demand for aluminium may result in lower prices for Hydro Aluminium's products, which may have an adverse effect on Hydro Aluminium's results of operations.

Aluminium product prices, reflecting the cyclical nature of the aluminium industry, have been volatile historically. Hydro Aluminium expects such volatility to continue. The London Metals Exchange ( **LME** ) price, in US dollars, is the main reference price for aluminium contracts worldwide. The variance in the LME price can have a material effect upon Hydro Aluminium's results as a whole. The operating results of Hydro Aluminium's Metals sub-segment's upstream operations, in particular, are negatively affected by lower LME prices. Based on Hydro's analysis of indicative price and currency sensitivities included in this annual report (see Item 5. Operating and Financial Review and Prospects Risk Management ), a USD 100 decline in the LME price per tonne will reduce Hydro Aluminium's pre-tax income and after-tax income by approximately NOK 875 million and NOK 615 million, respectively.

Hydro makes extensive use of derivatives in managing its aluminium price exposure, which can result in volatility of its accounting results from period to period.

#### ***Hydro Aluminium is exposed to foreign exchange rate fluctuations.***

The LME price for aluminium is denominated in US dollars. Further, a portion of Hydro Aluminium's production of aluminium is sold in local currencies, including the euro, based on US dollar exchange rates. Accordingly, operating results, which are reported in Norwegian kroner, will be reduced by a strengthening of the Norwegian kroner against the US dollar. Based on our analysis of indicative price and currency sensitivities included in this annual report (see Item 5. Operating and Financial Review and Prospects Risk Management ), a strengthening of the Norwegian kroner against the US dollar of NOK 1 per US\$1.00 will reduce Hydro Aluminium's pre-tax income and after-tax income by approximately NOK 2,100 million and NOK 1,475 million, respectively.

As a result of Hydro's acquisition in 2002 of the German and overseas smelters of VAW Aluminium AG, a major integrated international aluminium company based in Germany ( **VAW** ), Hydro Aluminium's Metals sub-segment has reduced Hydro Aluminium's relative exposure to the USD/NOK exchange rate, but increased the exposure to changes in the USD/euro and NOK/euro exchange rates.

Although alumina prices are denominated in US dollars (as are most of Hydro Aluminium's raw materials costs), Hydro Aluminium's Brazilian-based alumina business, through its non-consolidated investee, Alunorte, is exposed to the USD/Brazilian real exchange rate, which can affect Hydro Aluminium's operating results. A decline in the value of the Brazilian real against the US dollar (the US dollar being the predominant financing currency for Alunorte) can lead to a currency loss with respect to the Metals sub-segment's interest in Alunorte. In 2002, currency losses related to Alunorte were NOK 461 million, while changes in currency rates resulted in a currency gain of NOK 218 million for

2003.

***Hydro Aluminium's operations are dependent on substantial amounts of energy and, as a result, its profitability may decline if energy costs rise or if energy supplies are interrupted.***

Hydro Aluminium's operations consume large volumes of energy, mainly electricity, in producing primary aluminium. Most of Hydro Aluminium's smelters in Norway, Canada and Australia have electricity supply contracts with terms ranging from approximately 7 to 15 years. The electricity supply contracts for Hydro Aluminium's German smelters, scheduled to expire at the end of 2005, will need to be extended or alternative supply arrangements made. Hydro Aluminium may not be able to renew or replace these contracts on comparable terms following the expiry of these contracts. See the discussion in Item 4.B. Business Overview Hydro Aluminium Hydro Aluminium's Operating Sub-Segments Metals Raw Materials Energy.

Reduction in regulation of electricity markets in Europe continues at varying rates of progress from country to country. See the discussion in Item 4.B. Business Overview Hydro Oil and Energy Oil and Energy Government Regulation Liberalization of European Electricity Markets. There is a possibility of new environmental taxes on electricity. Hydro Aluminium is particularly exposed to energy tax regimes in Norway and Germany because of its substantial electricity consumption in these countries. If electricity costs rise as a result of market or other factors such as new taxes, or if electricity supplies or supply arrangements are disrupted, Hydro Aluminium's operating results could decline.

***Hydro Aluminium is subject to a broad range of environmental laws and regulations in the jurisdictions in which it operates.***

Hydro Aluminium is subject to a broad range of environmental laws and regulations in each of the jurisdictions in which it operates. See Item 4.B. Business Overview Hydro Aluminium Environmental Matters. These laws and regulations, as interpreted by relevant agencies and courts, impose increasingly stringent environmental protection standards regarding, among other things, air emissions, the storage, treatment and discharge of waste waters, the use and handling of hazardous or toxic materials, waste disposal practices, and the remediation of environmental contamination. The costs of complying with these laws and regulations, including participation in assessments and remediation of sites, could be significant. In addition, these laws and regulations create the risk of substantial environmental liabilities, including liabilities associated with divested assets and past activities.

***Hydro Aluminium's operating results could decline as a result of government actions or the absence of such actions in respect of third parties, under current or future laws and regulations pertaining to the market and trade in aluminium.***

Hydro Aluminium's operating results could decline as a result of government actions such as controls on imports, exports and prices, new forms of taxation, and increased government regulation in the countries in which Hydro Aluminium operates or services customers. In addition, Hydro Aluminium is subject to the disruptive effects of dumped or subsidized products in markets by producers engaging in unfair competition. Such activities may not result in the application of anti-dumping or countervailing duties by appropriate governmental agencies and any such duties imposed may be insufficient to eliminate all of the potential negative effects of such practices. For example, increased quantities of Chinese magnesium available in Western markets contributed to Hydro's decision to close its primary magnesium facility in Norway in 2001, notwithstanding anti-dumping duties imposed on China by the European Community.

In addition, Hydro Aluminium's shipments to certain markets may be subjected to anti-dumping and/or countervailing duties that could negatively affect Hydro's competitive position. Any such actions could affect Hydro Aluminium's revenues, expenses and results of operations.



***Hydro Aluminium could be adversely affected by disruptions of its operations.***

Many of Hydro Aluminium's customers are, to varying degrees, dependent on planned deliveries from Hydro Aluminium's plants located in various parts of the world. Breakdown of equipment or other events leading to production interruptions in Hydro Aluminium's plants could lead to financial losses. Interruption in the energy supply to a smelter for more than six to eight hours could lead to the metal solidifying in the pots (see Item 4.B. Business Overview Hydro Aluminium Overview of the Aluminium Industry Aluminium Smelting ), which would result in Hydro Aluminium incurring significant costs to restore the smelter to normal operations. Reduced production, itself, could result in reduced income. Further, customers may have to reschedule their own production due to Hydro Aluminium's missed deliveries, which may result in customers pursuing financial claims against Hydro Aluminium. For example, Hydro Aluminium supplies many of the automotive manufacturers in the world and, in a number of cases, is a sole supplier for special products. The automotive industry is particularly dependent on regular, on-time supplies. The consequences of not meeting scheduled deliveries or quality standards might be costly. Hydro Aluminium's operations may also be unable to meet customers' quality demands due to obsolete technology or other problems in Hydro Aluminium's operations. Hydro Aluminium may incur costs to correct any of such problems, in addition to facing claims from customers. Further, Hydro Aluminium's reputation among actual and potential customers may be harmed, potentially resulting in a loss of business. While Hydro Aluminium maintains insurance policies covering, among other things, physical damage, business interruptions, product liability and transportation, these policies may not cover all of Hydro Aluminium's losses.

**Risks Relating to the Demerger**

***Norwegian law subjects Hydro and Yara to joint liability after the Demerger.***

As a result of the demerger of Hydro's Agri business (the **Demerger** ), which was completed on March 24, 2004, the obligations of Hydro have been divided between Hydro and Yara International ASA ( **Yara** ), the company formed to act as the transferee company in the Demerger, in accordance with the agreement memorializing the terms of the Demerger (the **Demerger Plan** ). For more information on the Demerger, see Item 4.A. History and Development of the Company Demerger of Hydro Agri. If either Hydro or Yara is liable under the Demerger Plan for an obligation that arose prior to completion of the Demerger and fails to satisfy that obligation, the non-defaulting party will, in accordance with applicable provisions of the Norwegian Public Limited Companies Act, be jointly and severally liable for the obligation. This statutory liability is unlimited in time, but is limited in amount to the equivalent of the net value allocated to the non-defaulting party in the Demerger.

In addition to the joint and several liability provided under Norwegian law, Hydro has issued a number of guarantees for the payment and performance obligations of companies that are now part of the Yara group following consummation of the Demerger. The aggregate amounts payable under such guarantees that are limited in amount was approximately NOK 3.4 billion as of March 5, 2004. In addition, Hydro has issued some guarantees that are not limited in amount as credit support for long-term commercial contracts. Although Hydro and Yara are using commercially reasonable efforts to obtain Hydro's release from outstanding guarantees in consideration for the substitution of Yara, there can be no assurance that such releases will actually be obtained.

***Certain aspects of the Demerger could cause Hydro to incur tax or tax-related liabilities.***

The Demerger involved the separation of the activities of Hydro's Agri business from those of Hydro in a number of countries. Certain of these separations were structured so as not to be subject to tax in Norway and other jurisdictions. However, in certain circumstances, actions taken after the Demerger could cause one or more of the separations, or the Demerger, to be taxable to Hydro. For example, a change in either Hydro's or Yara's business or corporate structure after the Demerger could result in a tax liability for one or more companies within the Hydro



Group because such changes would constitute a breach of the conditions for tax exemption in connection with an earlier transaction.

## **Risks Relating to Hydro's Shares**

### ***Preferential rights may not be available to U.S. holders of Hydro's shares.***

Under Norwegian law, prior to Hydro's issuance of any new shares against consideration in cash, Hydro must offer holders of its then-outstanding shares preferential rights to subscribe and pay for a sufficient number of shares to maintain their existing ownership percentages, unless these rights are waived at a general meeting of Hydro's shareholders. These preferential rights are generally transferable during the subscription period for the related offering and may be quoted on the Oslo Stock Exchange (the **OSE**).

U.S. holders of Hydro's shares may not be able to receive, trade or exercise preferential rights for new shares unless a registration statement under the U.S. Securities Act of 1933, as amended (the **Securities Act**) is effective with respect to such rights or an exemption from the registration requirements of the Securities Act is available. If U.S. holders of Hydro's shares are not able to receive, trade or exercise preferential rights granted in respect of their shares in any rights offering by Hydro, then they may not receive the economic benefit of such rights. In addition, their proportional ownership interests in Hydro will be diluted.

### ***Holders of Hydro's shares that are registered in a nominee account may not be able to exercise voting rights as readily as shareholders whose shares are registered in their own names with the VPS.***

Beneficial owners of Hydro's shares that are registered in a nominee account (e.g., through brokers, dealers or other third parties) may not be able to vote such shares unless their ownership is re-registered in their names with the Norwegian Central Securities Depository, Verdipapirsentralen (the **VPS**), prior to Hydro general meetings. Hydro cannot guarantee that beneficial owners of its shares will receive the notice for a general meeting in time to instruct their nominees to either effect a re-registration of their shares or otherwise vote their shares in the manner desired by such beneficial owners. See the discussion in Item 10.B Articles of Association Description of Ordinary Shares Voting Rights.

### ***It may be difficult for investors based in the United States to enforce civil liabilities predicated on U.S. securities laws against Hydro, its Norwegian affiliates, or Hydro's directors and executive officers.***

Hydro is organized under the laws of the Kingdom of Norway. All of Hydro's directors and executive officers reside outside the United States. Further, a significant portion of Hydro's assets, and those of its directors and executive officers, are located in Norway and other Western European countries. As a result, it may be difficult for investors in the United States to effect service of process within the United States upon Hydro or its directors and executive officers or to enforce against Hydro or its directors and executive officers judgments obtained in U.S. courts predicated on the civil liability provisions of U.S. federal securities laws. Although U.S. investors may bring actions against Hydro, its Norwegian affiliates or any of its directors or executive officers resident in Norway, Norwegian courts are unlikely to apply U.S. law when deciding such cases. Accordingly, there is doubt as to the enforceability, in original actions in Norwegian courts, of liabilities predicated solely on U.S. federal securities laws. Furthermore, judgments of U.S. courts are not enforceable in Norway.

## **ITEM 4. INFORMATION ON THE COMPANY**

### **ITEM 4.A. HISTORY AND DEVELOPMENT OF THE COMPANY**

#### **Historical Overview**

Norsk Hydro ASA was organized under Norwegian law as a public company in 1905 to utilize Norway's large hydroelectric energy resources for the industrial production of nitrogen fertilizers. In the years since, energy, in the form of hydroelectric power, natural gas and petroleum, has been the basis for Hydro's growth and the common link among its core business activities.

Since the end of the Second World War, Hydro has expanded into a number of new businesses. In 1951, Hydro began to produce magnesium metal and polyvinyl chloride at Porsgrunn, Norway. In 1967, Hydro opened an aluminium reduction plant and semi-fabricating facilities at Karmøy, Norway, and built the Røldal-Suldal hydroelectric power project to provide energy to the Karmøy facilities.

In 1965 and 1967, Hydro commenced production of ammonia at two large ammonia plants in Norway, one of which made use of naphtha and the other, heavy fuel oil, as feedstocks (i.e., sources of hydrogen) in the ammonia production process. Hydro had previously depended on the electrolysis of water to provide the hydrogen needed to produce ammonia used in nitrogen-based fertilizers. The discovery of natural gas in the Netherlands and on the continental shelf off England in the North Sea created a new and competing source of feedstock for ammonia in Europe. Consequently, Hydro began to take steps to ensure that it could continue to compete with other European producers of ammonia that were obtaining access to these relatively inexpensive natural gas supplies. As a result, Hydro began to investigate various opportunities to participate in oil and gas production. In 1965, Hydro obtained concessions from the Norwegian State to explore for petroleum on the NCS.

Hydro and its partners discovered oil and gas in the Ekofisk field in 1969 and in the Frigg field in 1971. Exploration of these discoveries ensured Hydro a source of feedstock for its fertilizer plants and also brought Hydro into the petroleum refining and marketing business. In 1975, Hydro began oil refining operations at Mongstad, Norway.

Norway's natural gas liquids resources and Hydro's experience in the chemical process industry served as the foundation for its investments in the petrochemicals industry in Norway, and in 1978, Hydro commenced production of ethylene and vinyl chloride monomer.

In the 1980s, Hydro acquired a number of businesses, both in Norway and in other areas. Hydro's expansion of its fertilizer operations resulted in Hydro becoming one of the leading suppliers of fertilizer in Europe. Hydro also entered a new era as an oil company, becoming operator of the Oseberg offshore oil field. Hydro also developed or tested new technologies for deep-water oil and gas production and horizontal drilling, which Hydro subsequently put to commercial use in developing the Troll oil project. In 1986-87, Hydro acquired the Norwegian State-owned aluminium company, Årdal og Sunndal Verk, and several European aluminium extrusion plants from Alcan and Alcoa, thus establishing Hydro Aluminium as a major business within Hydro and an important company in the European aluminium industry.

In 1999, Hydro's management determined to concentrate Hydro's business in three core areas, Oil and Energy, Aluminium, and Agri, and to divest other non-core businesses.

In recent years, each of Hydro's Oil and Energy and Aluminium businesses has grown as a result of substantial investments, including several acquisitions. In 1999, Hydro acquired Saga Petroleum a.s, a Norwegian-based oil

company, merging Saga's operations into Hydro Oil and Energy. In 2002, Hydro acquired interests in eight oil and gas licenses on the NCS from the Norwegian State. This acquisition increased Hydro's interests in the Oseberg, Tune and Grane fields, where Hydro is the operator. Hydro paid NOK 3.45 billion (US\$415 million) for the license interests which expire between

2015 and 2032. In March 2002, Hydro acquired all the outstanding shares of VAW for a total purchase price, including indirect acquisition costs, of euro 1,911 million (NOK 14.8 billion; US\$1.7 billion). Earlier in that same year, Hydro acquired the French building systems supplier, Technal. A significant portion of the expansion of these two core business areas has been financed through the sale of non-core businesses. Since 1999, Hydro has divested non-core businesses with an aggregate enterprise value of approximately NOK 26 billion.

### **Demerger of Hydro Agri**

In the second half of 2001, Hydro's Board of Directors initiated a corporate portfolio strategy project that was concluded in June 2003, when Hydro announced that preparations for establishing Hydro's Agri business as a separate, Norwegian-based company would commence, with the aim of listing the shares of such company on the Oslo Stock Exchange in the first half of 2004. After considering various possible ways of separating Hydro Agri from Hydro, the Board determined that Hydro Agri should be established as a separate, publicly traded company by means of a demerger transaction effected in accordance with Norwegian law. Under Norwegian law, a demerger is the transfer of part of the assets, rights and liabilities of a company (the transferor company) to one or more newly formed or pre-existing companies (the transferee company or companies) in exchange for consideration in the form of shares of the transferee company (or companies) issued to the holders of shares in the transferor company, and possibly other consideration which must not exceed 20% of the total consideration.

On November 10, 2003, Hydro established Yara International ASA, initially named AgriHold ASA, for purposes of acting as the transferee company in the Demerger. Hydro subscribed for all of the initially issued shares of Yara at a total subscription price of approximately NOK 2.0 million. On November 28, 2003, the Board of Directors of the Company and Yara entered into the Demerger Plan. Hydro transferred all assets, rights and liabilities primarily relating to Hydro Agri to Yara on March 24, 2004 (the **Completion Date**), in accordance with the Demerger Plan. The transferred assets consisted primarily of shares, partnership interests and other financial interests held by Hydro in companies (including minority interest companies) and partnerships forming the business activities of Hydro Agri.

In consideration for this transfer of assets, rights and liabilities, Yara issued one of its shares for each Hydro share outstanding on the Completion Date. The Demerger resulted in the split of Hydro's share capital through a reduction of the par value of each Hydro share (from NOK 20.00 to NOK 18.30 per share) simultaneously with the issuance of one new share of Yara for each outstanding Hydro share. The Yara shares issued in the Demerger constituted 80% of Yara's total outstanding shares at the time of completion of the Demerger. These shares were registered in the names of the registered holders of Hydro's shares in the Yara shareholder registry with the VPS on March 30, 2004.

Hydro retained a 20% interest in the Yara shares immediately following the completion of the Demerger. Hydro offered half of these shares in a global offering (the **Global Offering**) that consisted of (i) in Norway, a public offering and an offering to institutional investors; (ii) in the United States, an offering to qualified institutional buyers (**QIBs**) as defined in, and in reliance on, Rule 144A under the Securities Act; (iii) outside Norway and the United States, an offering to institutional investors in reliance on Regulation S under the Securities Act; and (iv) an offering to directors and senior management of Yara. The offer price (the **Offer Price**) was NOK 41 per share. Hydro also granted to the managers of the Global Offering an option (the **Over-Allotment Option**), exercisable for a period of 30 days starting at the opening of trading of the Yara shares on the Oslo Stock Exchange (which occurred on March 25, 2004), to purchase some or all of the remaining Yara shares held by the Company, at the Offer Price, less underwriting commissions. The managers exercised the Over-Allotment Option in full on March 29, 2004, at which time Hydro ceased to have any equity interest in Yara. The total proceeds from the sale of the Yara shares (including the shares subject to the Over-Allotment Option) amounted to approximately NOK 2.6 billion, resulting in a pre-tax gain of approximately NOK 530 million. The gain has been included in income from discontinued operations in the first quarter of 2004.



With the completion of the Demerger of Hydro Agri, Hydro's core business areas now consist of Oil and Energy, and Aluminium. Hydro is a Fortune 500 energy and aluminium supplier operating in more than 40 countries. Hydro's other activities include: its petrochemicals business; a 68.8 percent interest in Treka AS, whose activities consist of fish feed operations; Hydro Pronova, which is responsible for commercializing products and businesses at the periphery of Hydro's core business areas; Industriforsikring a.s, a captive insurance company; and Hydro Business Partner, which provides service and support functions throughout Hydro.

## General Information

As a public limited company organized under Norwegian law, the Company is subject to the provisions of the Norwegian act relating to public limited liability companies (i.e., the Norwegian Public Limited Companies Act). See the disclosure under Item 10.B. Articles of Association Description of Ordinary Shares for a more complete discussion of certain provisions of the Norwegian Public Limited Companies Act.

Following the Demerger, the Company's principal executive offices have been moved to Drammensveien 264, Vækerø, N-0240 Oslo, Norway; telephone number: 47-22-53-81-00. The Company's registered agent in the United States is Trygve Faksvåg, whose address is c/o Norsk Hydro Americas, Inc., 100 North Tampa Street, Suite 3300, Tampa, Florida 33802; telephone number: (813) 222-5700. Hydro's internet site is [www.hydro.com](http://www.hydro.com).

## ITEM 4. B. BUSINESS OVERVIEW

### HYDRO OIL AND ENERGY

Hydro Oil and Energy consists of two sub-segments, Exploration and Production and Energy and Oil Marketing.

**Exploration and Production** consists of Hydro's oil and gas exploration activities, field development activities and the operation of production and transportation facilities.

**Energy and Oil Marketing** consists of Hydro's commercial operations in the oil, natural gas and power sectors, the operation of Hydro's power stations, management of Hydro's interest in the gas transportation system on the Norwegian Continental Shelf as well as Hydro's seaborne transportation of crude oil, natural gas liquids and other petroleum products and the marketing and sales of refined petroleum products (e.g., gasoline, diesel and heating oil).

Definitions of oil and gas terms used throughout the business description of the Oil and Energy segment are provided at the end of the Exploration and Production business description. These terms have the meanings indicated unless the context indicates otherwise.

### EXPLORATION AND PRODUCTION

#### Introduction and Overview

Exploration and Production's business activities encompass oil and gas exploration, field development and the operation of production and oil transportation facilities. The gas transportation activities were transferred to the Energy and Oil Marketing sub-segment as of January 1, 2003.

Hydro has a strong position on the Norwegian Continental Shelf (NCS), where it is the third-largest producer of equity (i.e., owned) oil and natural gas. In 2003, approximately 89 percent of Hydro's average daily production of 530,000 barrels of oil equivalents ( boe ) was from the NCS. As an operator of 11 producing fields on the NCS with a total production in 2003 of approximately 880,000 boe per day ( boed ), Hydro is a relatively large operator of oil and

gas fields, in particular, offshore fields.



Internationally, Hydro's main producing fields are in Angola and Canada. Hydro also has producing fields in Russia and Libya. In addition to these countries, Hydro is involved in exploration activities in other countries, including the United States (Gulf of Mexico) and Iran.

Hydro has a history of delivering strong production growth. From 1998 to 2003, Hydro has nearly doubled its total equity production of oil and gas.

### **Oil Industry Trends**

The main trends in the oil industry affecting Hydro's Exploration and Production activities are described below. Trends affecting the energy market are described under the Energy business description.

#### ***High Crude Oil Price Levels***

Crude oil prices have been high over the past three years. This has resulted from stronger OPEC market management, political unrest in important producing countries such as Iraq and Venezuela and, of late, increasing world demand combined with a limited margin of unused capacity. Spot Brent Blend crude oil has averaged USD 26.70 per barrel between 2000 and 2003 and has mostly ranged within the USD 22-28 per barrel price band initiated by OPEC for its basket of crude oil types at the beginning of 2000.

OPEC aims to function as a stabilizing force in the market. Its long-term price target is considered to be USD 25 per barrel, which is considered above the marginal cost of new production outside OPEC. As a result, it is reasonable to question whether maintaining this price target is realistic over a longer-term (e.g., 5-20 years) perspective. Should this remain OPEC's price target, crude oil prices could reflect cyclical periods of high and low prices from the interplay between market forces and actions taken by OPEC.

#### ***Reduced Exploration Results Worldwide***

Based on data from the consulting firm, IHS Energy, worldwide oil and gas exploration activity during 2002-2003 resulted in proportionally smaller discoveries and lower amounts of hydrocarbons discovered compared to previous years.

According to IHS Energy data, a significant trend in 2003 was the dominance of deep-water discoveries. South Atlantic deep-water exploration resulted in 11 of the top 20 discoveries in 2003, seven in Brazil and four in Angola. Other areas with significant discoveries were the Sudan, Vietnam, Indonesia, Mauritania, Egypt and Nigeria. Exploration results offshore Canada, Norway and the UK were disappointing.

#### ***Maturing NCS***

The NCS, where 93 percent of Hydro's proven reserves are located, is maturing. Norway's oil production has been in decline after 2001, while total production has been increasing due to increased gas production.

In August 2003, Kon-Kraft, a policy group representing the Norwegian petroleum industry, recommended in a report to the Norwegian government certain changes in the petroleum tax regime and other incentives, as well as opening of new areas on the NCS, in order to stimulate more exploration activity, new developments and increasing recovery from existing fields. Hydro believes that there is significant potential for adding new production and value to its NCS portfolio if changes are made in line with the group's recommendations.



As part of the Revised National Budget, passed in June 2004, the Norwegian government made certain changes to the Petroleum Tax Act, which will be put forward in the budget for 2005. These changes are described more in detail under the caption Taxation of Oil and Gas Production. Hydro believes that the changes are moderately positive. For Hydro the changes may stimulate marginal investments in tail-end producing assets, but will have only marginal effects with respect to exploration decisions.

In December 2003, the government announced the extensive 18th Concession Round on the NCS covering 95 blocks or parts of blocks in the North Sea and the Norwegian Sea. At the same time, the government concluded the evaluations of year round petroleum activities in the Barents Sea and the Lofoten area. A decision was made to allow further petroleum activities within areas already open for exploration in the southern part of the Barents Sea with some exceptions. Furthermore, the government decided to discontinue further activities in Nordland VI, an area outside Lofoten. Nordland VI will be reevaluated when the government's integrated management plan for the Barents Sea is completed, which is expected during the winter of 2005/06.

## Strategy

Hydro's strategic goal is to position itself as a profitable participant in the upstream oil and gas business based on Hydro's core competencies, including advanced drilling techniques, reservoir management and the development and execution of complex and technologically challenging projects. To achieve its strategic aim, Hydro intends to focus its exploration and production activities on:

- delivering strong production growth through 2007 based on Hydro's existing portfolio in well-defined, profitable projects;

- building the basis for future production growth; and

- improving the profitability of existing assets.

### ***Delivering Strong Production Growth***

Hydro has a history of delivering strong production growth. From 1998 to 2003, Hydro nearly doubled its total equity production of oil and gas. The increase included organic growth on the NCS, start-up of production from Hydro's international activities, and the acquisition in 1999 of Saga Petroleum. In addition, during 2002, Hydro acquired increased ownership interests in Hydro-operated fields on the NCS (i.e., Oseberg, Tune and Grane) from the Norwegian State.

Total oil and gas production in 2003 was 530,000 boed, representing an increase of 10 percent over the prior year. This increase reflected the start-up of production from the Grane, Fram Vest and Mikkell fields on the NCS, the second phase of the Kharyaga field in Russia, the Murzuq-A field in Libya and the Jasmim field in Angola. Production also increased from fields (e.g., Tune, Snorre B, Åsgard, Oseberg Sør, Girassol and Terra Nova) that came on stream in recent years. Hydro's increased interests in fields, through the acquisition of such interests from the Norwegian State as described above, also contributed to the growth with a full year effect in 2003.

Hydro has earlier announced a targeted compound annual growth rate for production of 8 percent for the 2001-2007 period. Hydro expects that this production growth will be achieved within its existing portfolio based on producing fields, fields under development and fields planned for development. More than 70 percent of the production in 2007 is expected to come from currently booked proved reserves. Hydro has targeted an average daily production of 560,000 boe for 2004 from fields with currently booked reserves, of which approximately 90 percent is expected to come from currently booked proved reserves. For further information regarding currently booked proved reserves, see the table of proved reserves included in Note 27 to the Consolidated Financial Statements. See, also, the

description of fields underlying the growth projections within the disclosure under Item 4.B.

Business Overview Hydro Oil and Energy Exploration and Development Development within this annual report.

In 2003, approximately 11 percent of Hydro's total oil and gas production came from outside the NCS, mainly Canada and Angola. Total international oil production was approximately 58,000 boed, an increase of 20 percent compared to the previous year.

### ***Building the Basis for Future Production***

Hydro will continue to explore for and develop new oil and gas fields that can contribute to a sustainable production profile for the long-term. The substantial Grane oil field commenced production in September 2003. Development of the Ormen Lange gas field is expected to make a significant contribution to Hydro's income for many years after planned start-up of production in 2007.

Future activity on the NCS will depend on, among other things, whether the tax system and other incentives are adjusted to promote exploration activities, new field developments and increased recovery from existing fields, as well as the access to new prospective exploration areas. The large number of blocks offered in the 18th Concession Round and the announcement by the government of the continuation of year round exploration activity in parts of the Barents Sea are positive developments as seen by Hydro. Hydro believes that there is attractive exploration potential on the NCS, as follows:

Areas around existing infrastructures in the North Sea offer additional oil and gas potential primarily in terms of satellite tie-ins to increase the economic life of current installations. These areas are perceived as moderate risk.

The Norwegian Sea may still have a potential for large gas prospects, although the disappointing results from the exploration on licenses awarded in the 16<sup>th</sup> Concession Round have increased Hydro's perceived exploration risk in this area.

The northern part of the NCS, including the Barents Sea, a large under-explored area, has potential in terms of both oil and gas prospects, although the perceived risk is high.

Hydro's international expansion has been based on alliances with regional producers and international partners with a focus mainly on oil prospects. Hydro's strategy for international expansion has been to concentrate its efforts in a limited number of areas with sufficient potential to create economic scale. Hydro's technological competence, including the application of leading-edge reservoir and development solutions developed through its experience as an operator of oil and gas producing fields in the harsh Norwegian offshore environment, has provided a solid basis for Hydro's international expansion.

Areas in which Hydro is currently active include the East Coast of Canada, the US Gulf of Mexico, Angola, Russia, Libya and Iran. Activities in Russia, Libya and Iran are in onshore areas that have different cost structures than the activities in the deep-water areas in the US Gulf of Mexico and Angola, providing balance in the portfolio. In general, Hydro strives to balance the total risk in its commercial portfolio by seeking partnerships with other companies to share geological, commercial and political risks.

In light of the maturity of the NCS, Hydro has increased its focus on international exploration opportunities by building up a portfolio of prospects that has been explored mainly over the last three years. In 2001, Hydro's international exploration activity was, for the first time, greater than on the NCS. In 2002 and 2003, international exploration activity represented around three quarters of Hydro's total exploration activity. This, combined with the acreage awarded in the 16<sup>th</sup> Concession Round on the NCS, has resulted in high exploration budgets, reaching an all time high of around NOK 2.4 billion for 2002.



The overall performance of Hydro's exploration activity during the last few years has not met expectations, in particular, the activity on Block 34 in Angola and the drilling activity in the US Gulf of Mexico. As a result, Hydro has completed a thorough review of the past years' exploration activities. The results of this review indicate, among other things, that Hydro's portfolio has had too high a share of high risk/high reward prospects. As a result, a more centralized exploration organization has been implemented and exploration activities are being scaled down in 2004 to approximately NOK 1 billion in order to continue the review of the portfolio. In future years, an exploration level of about NOK 1.5 billion is expected.

In addition, Hydro intends to search actively to acquire resources, under the condition that returns will have a clear priority over volume growth, where Hydro can add value based on its core competencies in reservoir management, flow assurance and/or management of development projects. Hydro will primarily concentrate on the geographical areas where Hydro has an active presence, including adjoining areas.

### ***Improving the Profitability of Existing Assets***

Hydro continues to pursue cost improvements in its exploration and production activities. As fields on the NCS mature and demonstrate a decline in production, high priority will be given to reducing costs and implementing measures to increase production on existing fields, including development of satellite fields that may be time critical with respect to utilizing existing infrastructure. Hydro's objective is to maintain its status as an efficient operator.

Hydro has announced a targeted production cost in 2004 of NOK 24/boe. The increase of around NOK 3/boe compared to 2003 is, to a large extent, caused by increased gas injection cost on the Grane field in order to increase oil production from that field.

Hydro is actively seeking to concentrate its activities on the NCS by increasing ownership interests in core areas and by selling license interests in non-core areas. The purchase of assets from the Norwegian State in 2002 strengthened Hydro's position in core assets (i.e., the Oseberg, Tune and Grane fields). In recent years Hydro has divested non-core assets on the NCS, including the sale of its equity interest in the Snøhvit field in 2004, which is subject to government approval.

### **Exploration and Production's Competitive Position**

The following discussion includes a description of Hydro's exploration and production positions on the NCS and internationally. This should be read in connection with the description of the relevant risk factors relating to Hydro's Oil and Energy business included in Item 3.D.

#### ***Strong Position on the NCS***

Hydro is the third-largest producer on the NCS, trailing Petoro (the Norwegian State oil and gas holding company) and the majority-State controlled Statoil. In 2003, approximately 89 percent of Hydro's average daily equity production of 530,000 boe came from the NCS.

As of December 31, 2003, Hydro had interests in 102 licenses on the NCS, of which it was operator of 48 licenses. In total, the licenses cover a gross offshore area of around 33,000 square kilometers (km) in the North Sea, the Norwegian Sea and the Barents Sea. Hydro also has interests in four exploration areas with a total of 12 optional licenses on the NCS, of which it is operator of one area. Each of the optional licenses may turn into a license under normal conditions if the partners commit to an exploration well following seismic evaluations. These four exploration areas cover an additional gross area of more than 18,000 square km.

Hydro is the operator of 11 producing oil and gas fields on the NCS: Oseberg, Oseberg Øst (East), Oseberg Sør (South), Brage, Tune, Njord, Troll Oil (Troll B and C), Heimdal, Vale, Grane and Fram Vest. Hydro is also the operator of the development phase of the large Ormen Lange gas field, for which the Plan for Development and Operation ( **PDO** ) was approved by the authorities in April 2004.



The total average daily production in 2003 from Hydro-operated fields was approximately 880,000 boe. This means that Hydro is a relatively large operator of oil and gas fields, in particular offshore fields. Measured in terms of equity production, however, Hydro is a medium-sized upstream oil and gas company. This is partly due to the Norwegian licensing system, under which a relatively low equity interest historically has been awarded to an operator.

Hydro has an equity interest in most of the main producing oil and gas fields on the NCS. The most important producing fields for Hydro in 2003 were the fields in the Oseberg area, the Troll field and fields in the Tampen area. Other important fields were the Åsgard field, the Sleipner fields and the Ekofisk fields. In the coming years, the Grane oil field, which started production in 2003, will be an important contributor to Hydro's Norwegian oil production. The Ormen Lange field is the largest field presently under development on the Norwegian Continental Shelf and Hydro expects that Ormen Lange will be an important part of Hydro's production after start-up in 2007.

Hydro has a strong focus on optimizing its portfolio on the NCS through reducing its interest in or selling non-core assets and increasing its ownership share in its core areas. In January 2004, Hydro signed an agreement with Statoil for the sale of Hydro's equity share in the Snøhvit field. At the same time, Hydro agreed to purchase an additional equity interest in the Kristin field from Statoil, which will improve Hydro's position in the Norwegian Sea. The Norwegian authorities approved the transaction during the second quarter of 2004 subject to certain commercial conditions which are expected to be resolved during the third quarter of 2004. In 2003, Hydro also entered into an agreement to sell its interest in the Gjøa field, which is presently in the pre-development phase. That sale was completed in the first quarter of 2004.

### ***Interesting International Positions***

In 2003, Hydro's international oil production increased by 20 percent compared to the previous year and represented approximately 11 percent of its total oil and gas production. The main producing fields are in Angola and Canada. Hydro also has producing fields in Russia and Libya. In addition to these countries, Hydro is involved in exploration activity in other countries, including the United States (Gulf of Mexico) and Iran.

**Angola:** Hydro has participated in Angola's oil and gas industry since 1991. Hydro's main asset is its 10 percent interest in the deep water offshore Block 17, where a total of 15 discoveries have been made as of December 31, 2003. This includes Girassol and Jasmim, which contributed an average of almost 20,000 boed of oil production in 2003, as well as the Dalia field that is under development. Further geological and engineering studies are planned in order to appraise newly discovered structures, including the Acacia and Hortensia discoveries that were announced in the spring of 2003.

Hydro also holds a 30 percent interest and is the technical assistant to the Angolan national oil company, Sonangol, the field operator, on Block 34. The first well, drilled in April 2002, did not result in the discovery of hydrocarbons. A second exploratory well, drilled in December 2003, discovered gas, but was considered a non-commercial well. Technical evaluations are continuing to identify potential targets for a third well in the block. As of December 31, 2003, Hydro's two exploration licenses in Angola in total cover a gross exploration area of around 9,000 square km, mainly deep-water or ultra deep-water acreage with water depths down to 2,600 meters.

**Canada:** In 1996, Hydro entered into a strategic alliance with Petro-Canada that entailed a swap of certain Hydro interests in licenses on the NCS in exchange for the right to participate in oil production from proven fields and explore for further oil discoveries on the Grand Banks. Hydro presently has ownership in two producing fields, Hibernia and Terra Nova. These fields contributed a total average oil production of approximately 30,000 boed in 2003. Hydro is also working together with



the operator, ChevronTexaco, to develop the Hebron field in the same area. Hydro is also evaluating the Annapolis discovery located offshore of Nova Scotia to determine possible development solutions. As of December 31, 2003, Hydro's 16 exploration licenses in Canada in total cover a gross exploration area of approximately 25,000 square km, including shelf and deep-water acreage with water depths ranging from 50 to 3,100 meters.

**Russia:** Hydro has been present in Russia for 15 years and has equity production from the onshore Kharyaga field in the Timan Pechora basin. This field started production in 1999 and phase two came on stream in 2003. Further development of the field is being planned. In 2003, average equity production was 5,500 boed. Hydro is also pursuing new business opportunities in Russia. In 2003, Hydro signed a technical cooperation agreement with Rosneft for the evaluation of development scenarios relating to the giant Shtokman gas field, located in the deep water continental shelf on the Russian side of the Barents Sea. In June 2004, the Russian gas company, Gazprom, indicated that Hydro could become one of the most important partners in the Shtokman field. A work group shall now draw up a proposal for the concrete agreements for Hydro's possible participation in the development of the field. There are a number of issues to be clarified, including the progress plan for the development, ownership stakes and other conditions.

**Libya:** Hydro is a partner in the onshore Mabruk field, which lies in the northern part of the country. In addition, Hydro has taken part in oil exploration in the Murzuq Basin, in the Sahara Desert, since 1998. Production in the Murzuq Basin started in the autumn of 2003 from the A-field and in June 2004 from the D-field. Total average daily equity production from Hydro's Libyan fields was around 2,000 boed in 2003. Libya represents an interesting resource potential. Hydro anticipates continuing to pursue new opportunities in Libya in light of the currently improving general political situation there. As of December 31, 2003, Hydro's four licenses in Libya cover a gross onshore area of around 37,000 square km.

**Iran:** Hydro established an office in Tehran, Iran during November 1999. In April 2000, Hydro entered into a contract with the National Iranian Oil Company for the exploration of the Anaran Block close to the Iraqi border. The Anaran Block covers an area of approximately 3,200 square kilometers, of which Hydro will acquire 1,000 km of 2D seismic and drill 5 wells. The contract has a term of 4.5 years with an option for a one-year extension. Hydro has applied for extension of the contract. The agreement provides Hydro with the right to enter into negotiations for a buy-back agreement to develop reserves in the event of a commercial discovery. After clearing minefields, Hydro completed the seismic acquisition program. The first well was spudded in the spring of 2003, but drilling proved to be more difficult than anticipated, and the well was abandoned in January 2004. New wells will be drilled during 2004. Hydro's farm-out of 25 percent of the interest in the Anaran contract to the Russian company, Lukoil, was approved by the Iranian authorities in 2003, leaving Hydro with an equity share of 75 percent. Hydro's prime objective in Iran is to focus on completion of the exploration program on the Anaran Block. A successful completion of the activity in Anaran may better position Hydro for new opportunities in Iran.

**US Gulf of Mexico:** Hydro entered into a joint venture agreement with ConocoPhillips in September 2001. This agreement provided Hydro with a 25 percent working interest in five firm and three contingent exploratory wells in the US Gulf of Mexico. An obligation to participate in the fifth firm well was later eliminated and the joint venture agreement amended to provide for Hydro's participation in the ConocoPhillips-operated Lorien prospect. The Lorien prospect was drilled in 2003 and resulted in a discovery believed to be commercial and is planned to be developed as a tie-back to existing infrastructure. During the first quarter of 2004, Hydro purchased an additional ownership interest in the Lorien discovery in the US Gulf of Mexico, increasing its ownership from 10 to 30 percent. The other four firm wells did not result in commercial discoveries. Evaluation of prospects relating to leases in ConocoPhillips' portfolio that Hydro has options to participate in will continue in 2004. In total, Hydro's 63 exploration leases as of December 31, 2003 in the US Gulf of Mexico, of which Hydro is an operator of 14 leases, cover an exploration area of around 1,500 square km, mainly deep-water acreage with water depths down to 2,300 meters. Hydro has concentrated its efforts in the US Gulf of Mexico in the Walker Ridge and Green Canyon areas to establish a good geological knowledge base in the area. In the most recent lease sale in April 2004, Hydro was awarded seven new

exploration blocks, all in these areas.

In addition, Hydro has two exploration licenses in **Denmark**. Hydro had one exploratory license in **Trinidad and Tobago**, which was relinquished in February 2004.

## Exploration

The following tables reflect the number of exploratory oil and gas wells drilled by Hydro as of December 31, 2003. The first table reflects all the gross exploratory wells drilled and completed during the years indicated. The second table reflects the exploratory wells in the process of being drilled as of December 31, 2003. A total of 13 wells were drilled and completed in 2003, of which three were considered productive. In addition, two wells were in the process of being drilled at year-end, of which one resulted in a commercial discovery and one was abandoned.

### Drilling Activity

		Norway			International			Total		
		2003	2002	2001	2003	2002	2001	2003	2002	2001
Exploratory wells	Productive <sup>(1)</sup>	2	6	8	1	8 <sup>(3)</sup>	7	3	14 <sup>(3)</sup>	15
(presented on a gross basis)	Dry <sup>(2)</sup>	4	5	10	6	12	4	10	17	14

(1) A productive well is an exploratory well deemed to be commercially viable.

(2) A dry well is an exploratory well found to be incapable of producing either oil or gas in sufficient quantities to justify completion as an oil or gas well.

(3) Includes the Acacia and Hortensia discoveries in Angola. These wells were drilled during 2002 and the result announced in 2003.

### In Process Drilling Activities

As of December 31, 2003		Norway	International	Total
Exploratory	Gross <sup>(1)</sup>	0	2	2
	Net <sup>(2)</sup>	0	1	1

(1) A gross well is a well in which a whole or fractional working interest is owned.

(2) A net well is the sum of the whole fractional working interests in gross wells which equal one.

In 2004, Hydro plans to participate in approximately 20 exploratory wells. Around half of these are planned on the NCS and the remaining are planned internationally, mainly in Iran, Angola and Libya.

### Norway

In 2003, Hydro participated in six exploratory wells on the NCS, and was operator for two of the wells. Two of the exploratory wells resulted in commercial discoveries (the Klegg and Ringhorne Øst (East) discoveries in the North Sea). Hydro is the operator of Klegg and intends to submit a Plan for Development and Operation of the discovery before December 2004. Production is expected to start-up in 2006. Hydro is considering developing this small discovery through a sub-sea development connected to the Heimdal field or other installations in the area. Hydro holds an equity interest of 28.5 percent in Klegg. The Ringhorne Øst discovery is the second oil discovery on Ringhorne and is being evaluated for connecting to the existing infrastructure on Ringhorne, Balder and/or Jotun. Hydro has an ownership interest of 45 percent in production license 169 that covers part of the discovery.

In March 2003, Hydro was awarded operatorship in two licenses and partnership in one license in the North Sea area through the 2002 annual North Sea round. In December 2003, Hydro was awarded operatorship in six licenses and partnership in three licenses under the new system of Awards in Predefined Areas that includes mature areas close to existing or planned infrastructure.

The Norwegian authorities announced the 18th Concession Round in December 2003 covering 95 blocks or parts of blocks in the Norwegian Sea and the North Sea. At the same time, the government decided to allow further year round petroleum activity in the Barents Sea South, excluding certain valuable areas. However, the government decided not to continue further petroleum activities in the Nordland VI area outside Lofoten. This decision will be reevaluated when the government's integrated management plan for the Barents Sea is completed. In June 2004 Hydro was granted operatorship in two licenses and partnership in two licenses in the awards of the 18th Concession Round.

In January 2004, the Norwegian authorities announced a new round of Awards in Predefined Areas covering mature areas close to existing or planned infrastructure in the North Sea, the Norwegian Sea and the Barents Sea. The deadline for application is October 1, 2004. Awards are expected to take place in December 2004.

### ***International***

In 2003, Hydro's international exploration activities encompassed Angola, Canada, Libya, Iran, and the United States (Gulf of Mexico). Hydro participated in seven exploratory and appraisal wells that were completed during 2003. One discovery was made in the Gulf of Mexico. In addition, two wells were in the process of being drilled at year-end.

In **Angola**, one well was drilled on Block 25 during 2003. This well did not result in a commercial discovery and the block was relinquished to Sonangol at the end of the exploration period on December 31, 2003. In December 2003, the second exploratory well on Block 34 was drilled. While gas was discovered, the well was not considered to be commercially viable. Technical evaluations are continuing to identify potential targets for a third well in the block. In April 2003, the Acacia and Hortensia discoveries on Block 17 were announced, based on exploratory drilling in 2002.

In **Canada**, none of the three wells drilled during 2003 resulted in commercial discoveries. New exploration wells are planned for 2004.

In **Libya**, one exploratory well was ongoing at year-end, which resulted in a commercial discovery. The exploration and appraisal program in Libya will continue in 2004 with the planned drilling of further wells. In the first quarter of 2004, a delineation well on Block 186 was completed, resulting in additional commercial resources.

In **Iran**, the Anaran well was spudded in spring 2003 and was abandoned in January 2004 due to technical difficulties. New wells are planned for 2004.

In the **US Gulf of Mexico**, Hydro participated in two wells during 2003, one of which resulted in the Lorien discovery, believed to be commercially viable.

In **Denmark**, Hydro has a 25 percent interest in license 6/98 with the Hejre discovery. An appraisal well is planned for 2004. In addition, the second commitment well on license 4/98 is presently under evaluation.

### **Reserve Information**

At the end of 2003, Hydro's share of proved developed reserves of oil and gas was estimated to be 1,558 million boe. Hydro's share of proved undeveloped reserves accounted for an additional 730 million boe. Total developed and undeveloped proved reserves amounted to 2,288 million boe, of which gas reserves represented approximately 57 percent.

Reserve life, defined as the number of years of production from proved reserves at the present production level, was approximately 12 years at the end of 2003, with approximately 7 years for oil and approximately 27 years for gas.

The following table summarizes Hydro's net quantities of proved oil and gas reserves as of December 31, 2003, 2002 and 2001.

### Oil and Gas Reserves

Oil in millions of boe Gas in billions of cubic feet ( bcf )	2003			2002			2001		
	Norway	Int (1)	Total	Norway	Int (1)	Total	Norway	Int (1)	Total
Proved oil reserves, developed and undeveloped (2)	839	154	993	883	172	1055	825	193	1,018
Of which developed	690	88	778	559	93	652	564	62	626
Proved gas reserves, developed and undeveloped(2)	7,317		7,317	6,629		6,629	5,986		5,986
Of which developed	4,415		4,415	4,416		4,416	3,669		3,669
Proved oil and gas reserves, developed and undeveloped (in millions of boe)(2)	2,134	154	2,288	2,053	172	2,225	1,880	193	2,073
Of which developed	1,470	88	1,558	1,339	93	1,432	1,211	62	1,273

(1) Reserves reflected in the International columns are shown net of royalties and the government's share of profit oil.

(2) For the definition of proved reserves, proved developed reserves and proved undeveloped reserves, and applicable conversion factors, see Definitions of Oil and Gas Terms at the end of the Exploration and Production business description.

Hydro's reserve replacement ratio in 2003, including purchase and sale of reserves, was approximately 133 percent. Excluding purchase and sale of reserves, the ratio was approximately 134 percent.

Proved reserves are estimates and are expected to be revised as oil and gas are produced and additional data become available. Accordingly, recoverable reserves are subject to upward and downward adjustments from time to time. Please see the discussion in Item 5. Operating and Financial Review and Prospects Hydro's Critical Accounting Policies Proved Oil and Gas Reserves.

An analysis of changes to proved developed and proved undeveloped reserves of oil and gas as of and for the three years ended December 31, 2003, 2002 and 2001 is included in the table in Note 27 to the Consolidated Financial Statements. Estimates of the proved reserves, presented on an individual field basis, as of December 31, 2003, can be found in Exhibit 99.2 to this annual report.

### Development

In 2003, Hydro invested NOK 8,487 million in the development of new and existing fields and transportation systems compared to NOK 8,222 million and NOK 7,763 million in 2002 and 2001, respectively. The implementation of SFAS 143 relating to asset retirement obligations resulted in an additional charge of NOK 1,089 million for 2003,



which is not included in the above amount. For more information on Hydro's adoption of SFAS 143, see Note 1 to the Consolidated Financial Statements. Hydro's three most important development projects in 2003 were the Grane, Kristin and Snøhvit fields.

A summary of the fields under development as of December 31, 2003, is included in the following table. Only the main fields are presented in the table. Development projects in connection with fields under production and smaller satellite developments relating to fields in production are described under the caption "Production" below.

**Development****Fields under Development<sup>(1)</sup>**

<b>Field</b>	<b>Type of Field</b>	<b>Approved for Development</b>	<b>Scheduled to Commence</b>	<b>Total Estimated Investment<sup>(2)</sup> (in NOK billion)</b>	<b>Investment Incurred to Date<sup>(2)</sup> (in NOK billion)</b>	<b>Hydro's Equity Share</b>
<b>Norway</b>						
Ormen Lange <sup>(3)</sup>	Gas/Condensate	April 2004	October 2007	51.6	0	18.0728%
Kvitebjørn	Gas/Condensate	July 2000	October 2004	9.8	7.5	15%
Kristin	Oil/Gas	December 2001	October 2005	17.5	8.2	12% <sup>(4)</sup>
Byggve/Skirne <sup>(5)</sup>	Gas/Condensate	July 2002	March 2004	2.0	1.5	10%
<b>International</b>						
Dalia	Oil	April 2003	October 2006	24.4	2.6	10%
Murzuq D <sup>(6)</sup>	Oil	August 2003	June 2004	2.1	0.5	8%

(1) The table does not include the Snøhvit field because an agreement was entered into with Statoil in January 2004 for the sale of Hydro's equity interest in the field.

(2) Total Estimated Investment and Investment Incurred to Date amounts are as of December 31, 2003. These amounts represent the total estimated investment based on the Plan for Development and Operation or current cost estimate and total incurred investment for the applicable field, respectively. All amounts are in nominal values.

(3) The Ormen Lange PDO was submitted to Norwegian authorities on December 4, 2003. The PDO was approved by the authorities in April 2004. The total estimated investment for Ormen Lange excludes the cost of the Langed gas export pipeline.

(4) Hydro's interest in the Kristin field will increase to 14 percent if the Norwegian authorities approve the agreement entered into with Statoil in January 2004, under which Hydro has agreed to purchase an additional equity interest in the field. The operator of the Kristin field, Statoil, has announced an expected increase in the estimated investment level.

(5) The Byggve/Skirne field started production in the beginning of March 2004.

(6) The total estimated investment relates to the Murzuq A and D fields, which are an integrated development. Production from the A-field started in October 2003 and from the D-field in June 2004. Hydro has an equity interest of 20% in the exploration phase, 10% in the development phase and 8% in the production phase.

In connection with the development projects described in this section, Hydro has invested NOK 0.4 billion, NOK 0.9 billion and NOK 2.3 billion for the years 2001, 2002 and 2003, respectively. Estimated investments for the same projects for 2004, 2005 and 2006 are NOK 4.6 billion, NOK 6.4 billion and NOK 4.4 billion, respectively.

*Norway*

The PDO for the **Ormen Lange** gas field was submitted to the Ministry of Petroleum and Energy on December 4, 2003, together with the Plan for Installation and Operation ( **PIO** ) for the new gas export pipeline, Langed. The authorities approved both the PDO and the PIO in the beginning of April 2004. Ormen Lange is situated in water depths of 850 to 1,100 meters in the Norwegian Sea, 100 km off the northwest coast of Norway. Based on seismic and other data, Ormen Lange is believed to be the second-largest gas field and the largest field presently under development in Norway. Given Hydro's estimate of the total proved reserves for the field, Hydro's share is 234 million boe including 35.0 billion cubic meters (bcm) of gas. The field development is planned as a sub-sea installation linked to the Nyhamna onshore processing plant not far from the city of Molde in Norway. Gas is to be exported from the plant through a new pipeline (Langed) via the Sleipner riser platform to Easington

on the east coast of England. Langedel will be merged with the Gassled pipeline joint venture after start-up of operations of the southern leg of the pipeline in 2006. Production is scheduled to begin in October 2007. The total investment, in nominal terms (i.e., not discounted to present value), is estimated at NOK 71.8 billion, including NOK 51.6 billion for field and plant development and NOK 20.2 billion for the pipeline. Hydro's equity share is 18.0728 percent. Hydro is the operator during the development phase of the field.

The **Kvitebjørn** gas and condensate field is situated southeast of the Gullfaks field. The field is to be developed using a fixed production platform. Rich gas will be transported through a new pipeline to the Kollsnes gas terminal for processing and export. Condensate will be transported through the new Kvitebjørn oil pipeline to the Mongstad terminal. Production is scheduled to commence in October 2004. Given Hydro's estimate of the total proved reserves for this field, Hydro's share is 49 million boe, including 5.4 bcm of gas. Hydro's equity share is 15 percent.

The **Kristin** oil and gas field is situated in the Norwegian Sea, approximately 20 km south of the Åsgard field. The field will be developed with sub-sea production facilities tied back to a semi-submersible production platform. Gas will be exported through the Åsgard transport pipeline while condensate will be loaded offshore from Åsgard C. Production from the field is expected to commence in October 2005. Given Hydro's estimate of the total proved reserves for this field, Hydro's share, based on its current 12 percent equity interest, is 36 million boe, including 2.3 bcm of gas. As previously announced, Hydro has adjusted downward the reserve estimates of certain fields as of December 31, 2003, from that reflected in its 2003 annual report to shareholders following the conclusion of a dialogue initiated with the staff of the SEC relating to the reserve estimate for Ormen Lange. Kristin was one of those fields. The downward adjustment for Kristin was 3 million boe or eight percent. In January 2004 Hydro entered into an agreement with Statoil to increase its interest in the Kristin field to 14 percent. The Norwegian authorities approved the transaction during the second quarter of 2004 subject to certain commercial conditions which are expected to be resolved during the third quarter of 2004.

In January 2004, Hydro announced that it had entered into an agreement to sell its equity share in licenses relating to the **Snøhvit** field to Statoil. The Norwegian authorities approved the transaction during the second quarter of 2004 subject to certain commercial conditions which are expected to be resolved during the third quarter of 2004. The authorities approved the development concept for the Snøhvit field in March 2002. The plan consists of a sub-sea development with a pipeline to the LNG plant at Melkøya, close to Hammerfest, for processing. Statoil, the operator, announced in June 2004 that the total Snøhvit investments may increase by NOK 4-6 billion to between 49.3 and 51.3 billion, of which NOK 10.1 billion was invested as of December 31, 2003. Hydro's equity share in the field prior to entering into the agreement was 10 percent, representing proved reserves of 71 million boe, including 9.5 bcm of gas, based on Hydro's estimate of the total proved reserves. Hydro has adjusted downward the reserve estimate for Snøhvit as of December 31, 2003, by 19 million boe (21 percent) from that reported in its 2003 annual report to shareholders.

The **Skirne** and **Byggve** gas and condensate fields are situated approximately 20 km east of the Heimdal field. The fields will be developed with a wellhead platform at each field tied to the Heimdal gas center. Production started in March 2004. A booster compressor module will be installed on the Heimdal field in 2005. Given Hydro's estimate of the total proved reserves for the fields, Hydro's share is 4 million boe, including 0.5 bcm of gas. Hydro's equity share is 10 percent.

### *International*

**Angola:** The Dalia field is the third development on Block 17 and was sanctioned by the Angolan government at the end of April 2003. The development concept comprises a sub-sea production system linked to a floating production and storage-offloading unit with an average production capacity of 225,000 boed. Production is expected to commence in October 2006. Given Hydro's estimate of the total proved reserves for this field, Hydro's share is 35

million boe. In light of the delay in the expected timing of final approval of the development of the Rosa/Lirio field, Hydro has determined to remove from its portfolio of proved reserves its estimate of 26 million boe of proved reserves that were booked for this field.

**Libya:** The field development plan for the onshore Murzuq D-field was submitted for approval to the Libyan authorities in October 2002 and was approved in August 2003. Production started in June 2004. The field development is integrated with the A-field 30 km away, which started production

in October 2003. Oil from the field will be transported to the El Sahara field 29 km away, where it will be blended with oil from El Sahara and transported by a 800 km pipeline to the As Zawiyah terminal west of Tripoli. Given Hydro's estimate of the total proved reserves for the Murzuq fields, Hydro's share is 10 million boe. Hydro's equity share is 20 percent in the exploration phase, 10 percent in the development phase and 8 percent in the production phase.

### Production

The following table includes the number of gross and net productive oil and gas wells in which Hydro had interests as of December 31, 2003.

Type of well		Norway	International	Total
		(1)		
Crude oil	Gross	546	101	647
	Net	72	18	89
Natural gas	Gross	88	0	88
	Net	11	0	11

(1) Includes 43 wells with multiple completions (i.e., more than one formation producing into the same well bore). If one of the multiple completions in a well is an oil completion, the well is classified as an oil well.

The following table reflects Hydro's share of the average daily production of oil and gas from fields in which Hydro had an interest during 2003 and 2002. Information regarding the total production of oil and gas in 2003, Hydro's ownership interest, the remaining production period of the producing fields and the license period for such fields can be found in the table included in Exhibit 99.2 to this annual report.

### Hydro's Share of Average Daily Production<sup>(1)</sup>

Field	2003			2002		
	Total (in thousands of boe)	Oil <sup>(2)</sup> (in thousands of boe)	Gas (in millions of cubic feet)	Total (in thousands of boe)	Oil <sup>(2)</sup> (in thousands of boe)	Gas (in millions of cubic feet)
Oseberg fields <sup>(3)</sup>	115.1	103.0	59.6	114.5	97.7	89.3
Troll	80.0	37.0	248.1	79.7	37.7	242.5
Snorre fields <sup>(4)</sup>	67.5	65.0	12.8	66.4	63.6	14.6
Åsgard	40.6	24.2	91.6	33.5	21.5	67.4
Sleipner fields <sup>(5)</sup>	35.2	12.0	127.0	34.1	11.8	122.3
Tune	30.8	7.8	122.0	0.4	0.1	1.6
Ekofisk fields <sup>(6)</sup>	28.2	23.9	23.0	28.6	24.0	24.9
Gullfaks fields <sup>(7)</sup>	26.0	21.2	26.8	24.9	21.0	22.3
Norne	13.2	12.2	5.9	15.6	14.6	5.9
Brage	7.3	7.0	1.9	9.9	9.4	2.3
Visund	6.6	6.6		8.2	8.2	
Njord	6.1	6.1		7.2	7.2	
Grane	5.5	5.5				
Frigg	3.9		22.6	4.0		23.1
Fram Vest	2.9	2.9				
Mikkel	1.5	0.7	4.4			
Vale	1.3	0.7	3.2	0.5	0.2	1.2
Heimdal	0.8	0.2	3.7	1.2	0.3	5.3
Varg				3.5	3.5	
<b>Total Norway</b>	<b>472.5</b>	<b>336.0</b>	<b>752.6</b>	<b>432.2</b>	<b>320.8</b>	<b>622.7</b>
Terra Nova	20.1	20.1		15.8	15.8	
Girassol	19.5	19.5		17.6	17.6	
Hibernia	10.1	10.1		9.0	9.0	
Kharyaga	5.5	5.5		3.4	3.4	
Mabruk	2.1	2.1		2.4	2.4	
Jasmim	0.2	0.2				
Murzuq	0.2	0.2				
<b>Total Int'l</b>	<b>57.7</b>	<b>57.7</b>		<b>48.2</b>	<b>48.2</b>	
<b>Total</b>	<b>530.2</b>	<b>393.7</b>	<b>752.6</b>	<b>480.4</b>	<b>369.0</b>	<b>622.7</b>

(1) For information regarding conversion factors for the measurement units in the table, please see "Definitions of Oil and Gas Terms" at the end of the Exploration and Production business description.

(2) Includes crude oil and NGL/condensate.

(3) Includes Oseberg, Oseberg Vest, Oseberg Sør and Oseberg Øst fields.

- (4) Includes Snorre, Tordis, Tordis Sørøst, Tordis Øst, Borg, Vigdis, Statfjord Øst and Sygna fields.
- (5) Includes Sleipner Vest, Sleipner Øst, Gungne and Sigyn fields.
- (6) Includes Ekofisk, Eldfisk, Embla and Tor fields.
- (7) Includes Gullfaks, Gullfaks Vest, Gullfaks Sør, Gullveig and Rimfaks fields.



*Norway*

**Oseberg Fields.** The Oseberg fields are core areas for Hydro on the NCS, contributing 24 percent of Hydro's total NCS production in 2003. The Oseberg Fields include the main Oseberg field (the Field Center installations and the Oseberg C production platform) and the two satellite fields, Oseberg Øst (East) and Oseberg Sør (South). Oil and gas from the satellites are piped to the Oseberg Field Center for processing and transportation. Oil is brought ashore through the Oseberg Transport System pipeline to the Sture terminal in Norway. Gas is exported through the Oseberg Gas Transport pipeline to the Heimdal field and further through the Gassled pipeline system. Oil production from the Oseberg Field Center and the Oseberg C platform are currently in the decline phase. Natural gas export from the Oseberg Field Center and Oseberg Øst and Oseberg Sør began in 2000 and 2001, respectively. In February 2003, a revised PDO for the development of the Oseberg Sør field was sent to the authorities for approval, and was approved in May 2003. The revised PDO covers the J-structure that will be developed with a separate sub-sea installation with production start-up in October 2004. The total cost for the J-development is estimated at NOK 1.6 billion, of which NOK 0.2 billion was invested as of December 31, 2003. The Plan for Development and Operation of the Oseberg Vestflanken (West flank) was submitted to the authorities in October 2003 and approved in December 2003. Production start-up is planned for October 2005. Oseberg Vestflanken is planned to be developed by a sub-sea installation tied into the Oseberg Field Center platforms. Total investments are estimated at NOK 2.3 billion, of which NOK 23 million was invested as of December 31, 2003. Hydro's equity share in the Oseberg fields is 34 percent.

**Troll Field.** The Troll field is the largest gas field on the NCS. Gas from the Troll field represents a major part of Hydro's current developed gas reserves and gas production. In 2003, approximately one-third of Hydro's gas production came from the field. The gas development consists of a platform linked to the Kollsnes gas terminal. The gas is exported from Kollsnes through the Gassled system. Gas production started in 1996. Troll is also a major oil field. The oil development on the western part of Troll is operated by Hydro and consists of two floating production units linked by two oil pipelines to the Mongstad terminal. Oil production started in 1995.

**Snorre Fields.** The Snorre fields are located in the Tampen area and include the Snorre, Tordis, Vigdis, Statfjord Øst and Sygna fields. Production of oil and associated gas from the **Snorre field** began in 1992. The Snorre B platform came on stream in June 2001. Oil and gas from the Snorre field is piped to the Statfjord field for processing, storage and transportation. Production of oil and gas from the **Tordis field** began in 1994. Oil from the Tordis field is processed on the Gullfaks C platform. Production from the field peaked in 1996 and is currently in the decline phase. Since the Tordis field started declining, several satellite structures have been connected to the field including Tordis Øst in 1998, Borg in 1999 and Tordis Sørøst in 2001. In 1999, water injection was implemented to increase the recoverable reserves from the field. Production of oil and gas from the **Vigdis field** began in early 1997. Production began declining in 2000. To maintain production levels, a PDO for the Vigdis Extension was submitted to and approved by the government in 2002 with production start-up in October 2003. Oil from the Vigdis field is processed on the Snorre platform and piped to Gullfaks A for storage and transportation. The **Statfjord Øst** and **Sygna** fields started production in 1994 and 2000, respectively. Both fields are linked to the Statfjord C platform.

**Åsgard Field.** The Åsgard field is situated in the Norwegian Sea. The Åsgard Unit covers the three fields, Midgard, Smørbukk and Smørbukk Sør. The field is developed with a production ship (Åsgard A) for oil and condensate production and a floating production platform (Åsgard B) for condensate and gas production and a storage vessel (Åsgard C). Oil production started in May 1999 and gas export commenced in October 2000. The gas is transported through the Åsgard Transport pipeline to the Kårstø gas terminal for processing. Since the commencement of production, average gas export from Åsgard B has varied due to considerable technical problems. However, the platform is now in stable production at maximum available gas capacity.

**Sleipner Fields.** Production of gas and condensate began at **Sleipner Øst** in late 1993 and from **Sleipner Vest** in the middle of 1996. Production from the satellite fields, **Gungne**, **Loke Trias** and **Sigyn**, began in 1996, 1999 and 2002, respectively. Gas from Sleipner is exported through Gassled and the condensate is transported to the Kårstø

facilities. In 2002, a decision was made to develop the northern part of the Sleipner Vest field with three sub-sea wells. These wells are expected to come on stream during the second half of 2004.

**Tune Field.** The Tune gas and condensate field (phase 1) developed as a sub-sea satellite to Oseberg, came on stream in November 2002, using spare processing capacity at the Oseberg Field Center and was a major contributor to Hydro's growth in production in 2003. A decision to develop Tune phase 2 was made in June 2004, with start up of a single well planned for October 2005.

**Ekofisk Fields.** Ekofisk is situated in the southern part of the North Sea and is the oldest operating field complex within Hydro's portfolio, having commenced production in 1971. Oil is exported through the Norpipe oil pipeline to Teesside in England, while gas is exported through the Gassled system. In 1984, subsidence of the seabed around the complex was observed as a result of gradually decreasing reservoir pressure. In 1987, water injection started with the result that subsidence now is under control and reservoir pressure has returned to its original level. At the same time installations were raised to a higher level. In 1998, the new Ekofisk II facilities replaced old production facilities. Problems related to the gas processing equipment have affected and continue to affect production efficiency relating to gas output; however, measures have been introduced to limit the effects on oil production. Gas production rates are expected to increase after planned repair during a maintenance shutdown scheduled for August 2004. Abandonment of the satellite platforms is ongoing and alternatives are being discussed for extending the lifetime of the centrally located Ekofisk I and Eldfisk platforms in order to increase both well potential and production capacities. The Ekofisk Area Growth project includes installing a new wellhead platform tied in to the Ekofisk II process platform. The authorities approved the Plan for Development and Operation in June 2003, with potential first production in the third quarter of 2005. Total investments for the Ekofisk Area Growth project are estimated at NOK 8.5 billion, of which NOK 1.0 billion was invested as of December 31, 2003. Hydro's equity share is 6.65 percent. Alternatives for further development of the Eldfisk and Tor field are being discussed among the owners.

**Gulfaks Fields.** The Gulfaks fields are situated in the Tampen area. The main Gulfaks field consists of three integrated platforms, where production started in 1986. The satellite fields, **Gulfaks Vest**, **Gullveig**, **Rimfaks** and **Gulfaks Sør**, are linked to the main field. Oil is transported by tankers from the fields while gas is transported by pipeline to the Kårstø terminal in Norway. A decision to develop the Gulltopp satellite was concluded by the license owners at the end of 2003. Production is planned to start in July 2005. Gulltopp will be developed by a long extended reach well from the Gulfaks A platform. The total project investment is estimated at approximately NOK 0.3 billion. Hydro's equity share is 9 percent. Due to the nature and small size of the investment, the authorities will not require the submission of a PDO for the development.

**Norne Field.** The Norne field is located in the Norwegian Sea. Oil production started in late 1997. Gas production started in February 2001. The installation consists of a combined production and storage vessel with gas handling facilities and a gas transportation pipeline. The gas is transported via the Åsgard transportation pipeline to the Kårstø gas terminal in Norway. In May 2004, the PDO for Norne satellites was submitted to the Norwegian authorities. A decision by the authorities is expected during the summer of 2004. The two discoveries are due to be developed with sub-sea installations tied back to the existing installation. Total investments are estimated to be NOK 3.6 billion. Hydro's equity share is 13.5 percent.

**Brage Field.** The Brage field is located in the North Sea, approximately 13 km east of the Oseberg Field Center. Production began in 1993. Oil from the field is transported to the Sture terminal via the Oseberg Field Center. Production from the field is currently in the decline phase. As part of Hydro's active management of its oil and gas portfolio, Hydro entered into an agreement in 2002 with OER Oil AS to reduce its ownership in Brage to 20 percent. The authorities approved the transaction in 2003.

**Visund Field.** The Visund field is situated in the Tampen area. The field is developed with a floating production unit that came on stream in early 1999. Oil produced from Visund is stored in and shipped from Gulfaks A. A sub-sea installation for developing the northern reservoir of Visund was put



on stream in early 2002. In October 2002, the authorities approved the plan for development and operation of the Visund Gas Extension, which covers development of the gas volumes. The project includes increased gas treatment and injection capacity and a gas export pipeline connected to the Kvitebjørn gas pipeline for transport to the Kollsnes terminal. Gas export is expected to start in October 2005. The total investment is estimated at NOK 2.2 billion, of which approximately NOK 0.4 billion was invested as of December 31, 2003. Hydro's equity share is 20.3 percent.

**Njord Field.** The Njord field is located in the Norwegian Sea. Production from the field began in late 1997. The installation consists of a floating production unit (Njord A) combined with a tanker, Njord Bravo, for storage and loading of oil. Gas produced is re-injected into the field to maintain reservoir pressure. As part of Hydro's active management of its oil and gas portfolio, Hydro entered into an agreement in 2002 with OER Oil AS to reduce its ownership in Njord to 20 percent. The transaction was approved by the authorities in 2003.

**Grane Field:** The Grane field is located in the North Sea and is developed with an integrated production and drilling platform. Production from the field started three weeks ahead of schedule on September 23, 2003. Oil from the field is exported in a new pipeline from the Grane platform to the Sture terminal in Øygarden, Norway. Gas for injection into the field will be imported through a 50 km pipeline from the Heimdal Gas Center to ensure optimum production of oil. The Grane field contains heavier oil than is normally found on the NCS and is therefore expected to be sold at a lower price than, for example, Brent Blend.

**Frigg Field.** It is currently anticipated that the Frigg gas field will be permanently shut down in 2004.

**Fram Vest Field.** The field is located approximately 22 km from the Troll field. The field is developed by a sub-sea installation linked to the Troll C platform for processing. Production commenced in October 2003. Processed oil is transported to the Mongstad terminal while gas will be used for re-injection for a period of approximately six years to facilitate oil recovery. After this period, gas will be transported to the Kollsnes gas terminal. Hydro is currently evaluating further sub-sea developments in the Fram region, phased in to the existing Troll installations as soon as there is available capacity.

**Mikkel Field.** The Mikkel field is located in the Norwegian Sea and started production in October 2003. The development concept consists of sub-sea installations linked to the Åsgard B platform for processing. The condensate will be exported from Åsgard C for offshore loading. The gas will be transported to the Kårstø terminal through the Åsgard transport system.

**Vale Field.** The Vale field was developed by one satellite well that is tied to the Heimdal Gas Center. Production started in May 2002. In July 2004, the production will be suspended due to drilling of a new sidetrack well. Production is expected to start up again in October 2004.

**Heimdal Field.** The Heimdal gas and condensate field is currently operated as a gas processing and distribution center after reconstruction of the platform in 2000 and 2001. Production of remaining reserves began in August 2001 after a temporary shut down during the construction period. This tail end production is expected to last until June 2005. In March 2004, production started from the small Skirne and Byggve fields, which are connected to the Heimdal Gas Center.

### *International*

**Angolan Fields.** The **Girassol** field is an offshore field located on Block 17 in Angola. Oil production started in December 2001. The installation consists of a production and storage-offloading vessel that is the largest of its type ever built. The processing capacity is above 200,000 boed and the storage capacity is two million barrels. Hydro has a working interest of 10 percent. The **Jasmim** field is a sub-sea satellite connected to the Girassol field. Production

started in November 2003.

**Canadian Fields.** Both of Hydro's producing fields in Canada are located in the Grand Banks area off the east coast of Newfoundland. Oil production from the **Hibernia** field came on stream in November 1997. Hydro has a five percent interest in the field. The **Terra Nova** field is southeast of Hibernia and started production in January 2002. Hydro has a working interest of 15 percent.

**Russian Fields.** The **Kharyaga** field is located in Northwest Russia. Production commenced in October 1999 under the Production Sharing Agreement (PSA) entered into with the Russian authorities. Hydro's share in the PSA is 40 percent. Production from phase 2 of the project has been gradually phased in since May 2003. A third phase is planned to further increase the total production from 2007.

**Libyan Fields.** Production from the **Mabruk West** field in the north of Libya started in 1995. Hydro became owner of a 25 percent interest in the license through the acquisition of Saga in 1999. Production from the **Murzuq A**-field in the south of Libya started in October 2003 and from the Murzuq D-field in June 2004. The Murzuq A- and D-fields are being developed as an integrated unit. Hydro's equity share is eight percent of the production phase.

## Transportation of Oil and Gas

### Norway

Effective January 1, 2003, ownership of the major gas transportation pipelines on the NCS was merged into a new joint venture named Gassled. This is described in more detail in the business description for Energy and Oil Marketing below, which includes more comprehensive information regarding Hydro's ownership share in Gassled than is reflected in the table below.

The information in the following table reflects Hydro's interest in the major pipelines for the transportation of oil and gas from the NCS and in the corresponding land terminals as of December 31, 2003.

Pipeline	End Point	Length (km)	Hydro's percentage interest
Gassled (gas)	From the NCS to Germany, Belgium, France and the U.K.	>6,000	11.134 <sup>(1)</sup>
Langeled North <sup>(2)</sup>	Nyhamna - Sleipner (Norway)	630	17.96
Langeled South <sup>(2)</sup>	Sleipner - Easington (U.K.)	540	17.14
Norpipe Oil A/S (oil)	Ekofisk - Teesside (U.K.)	354	3.50
Oseberg Transport System (OTS) (oil)	Oseberg - Sture (Norway)	115	22.23
Frostpipe (oil)	Frigg - Oseberg (Norway)	82	13.75
Sleipner Øst NGL pipeline (NGL)	Sleipner - Kårstø (Norway)	245	10.00
Troll Oil 1 & 2 (oil)	Troll - Mongstad (Norway)	165	9.73
Grane Oil Pipeline (oil)	Grane - Sture (Norway)	212	24.40
Grane Gas Pipeline (gas)	Grane - Heimdal (Norway)	50	38.00
Norne Transport (gas)	Norne - Åsgard (Norway)	130	8.10
Vestprosess (NGL)	Kollsnes/Sture - Mongstad (Norway)	56	17.00

<sup>(1)</sup> Initial interest.

(2) The plan for installation and operation was approved by the authorities in April 2004. The final route is to be decided.



The **Sture** terminal outside Bergen receives crude oil and condensate from the Oseberg fields, Brage, Veslefrikk and Huldra through the Oseberg Transport System (OTS), and since 2003, from the Grane field through the Grane Oil Pipeline. The terminal started operations in 1988. The Sture terminal includes facilities for further processing of crude oil and for production of LPG (a mix of propane and butane gases). The Sture terminal has the same ownership structure as OTS excluding the LPG facilities that are owned 100 percent by Hydro and the export facilities for NGL that are owned by Vestprosess DA, in which Hydro has an equity share of 17 percent.

***International***

Crude oil from the Hibernia and Terra Nova fields in Canada is transported from the fields in dedicated offshore loading tankers directly to market or to a terminal located at Whiffen Head, Newfoundland. Hydro has an ownership interest in two of the tankers of 14.9 percent and 12.7 percent, respectively, and a 5 percent interest in the terminal. In addition, Hydro has long-term contracts for use of storage capacity at the terminal. The terminal has been expanded to accommodate the commencement of production at Terra Nova.

### Definitions of Oil and Gas Terms

Term	Definition
bbbl	Barrels
bcm	Billion cubic meters (Sm <sup>3</sup> )
boe	Barrels of oil equivalents
boed	Barrels of oil equivalents per day
bcf	Billion cubic feet
cf	Cubic feet measured at 60 degrees Fahrenheit. See also Sm <sup>3</sup>
condensate	Light hydrocarbon substances produced with natural gas, which condense into liquid at normal temperatures and pressures associated with surface production equipment.
development well	A well drilled within the proved area of an oil or gas reservoir to the depth of a stratigraphic horizon known to be productive. See Regulation S-X, Rule 4-10(a)(11).
dry well	An exploratory well found to be incapable of producing either oil or gas in sufficient quantities to justify completion as an oil or gas well.
exploratory well	A well drilled to find and produce oil or gas in an unproved area, to find a new reservoir in a field previously found to be productive of oil or gas in another reservoir, or to extend a known reservoir. See Regulation S-X, Rule 4-10(a)(10).
field	An area consisting of a single reservoir or multiple reservoirs all grouped on or related to the same individual geological structural feature and/or stratigraphic condition. See Regulation S-X, Rule 4-10(a)(8).
gross well	A well in which a whole or fractional working interest is owned.
LNG	Liquefied natural gas. A liquid composed chiefly of natural gas (i.e., mostly methane). Natural gas is liquefied to make it easy to transport if a pipeline is not feasible (as across a body of water). Not as easily liquefied as LPG, LNG must be put under low temperature and high pressure or under extremely low (cryogenic) temperature and close to atmospheric pressure to become liquefied.
LPG	Liquefied petroleum gas, a liquid composed chiefly of butane and propane.
net well	The sum of the whole or fractional working interests in gross wells that equals one.
NGLs	Oil and gas condensate and natural gas liquids. For purposes of converting quantities of NGL cited in this annual report, 1 ton NGL = 11.951 boe.

PDO

Plan for development and operation

proved reserves, , proved  
developed reserves,  
proved

Proved reserves are estimated quantities of crude oil, natural gas and natural gas liquids which geological and engineering data demonstrate

Term	Definition
undeveloped reserves	<p>with reasonable certainty to be recoverable in future years from known reservoirs under existing economic and operating conditions (i.e., prices and costs as of the date the estimate is made).</p> <p>Proved developed reserves are reserves that can be expected to be recovered through existing wells with existing equipment and operating methods.</p> <p>Proved undeveloped reserves are reserves that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion.</p> <p>For a more complete understanding of these terms, see Regulation S-X, Rule 4-10(a) (2), (3) and (4). This information can be accessed on the website of the SEC at <a href="http://www.sec.gov">www.sec.gov</a>.</p>
PSA	Production sharing agreement.
reservoir	A porous and permeable underground formation containing a natural accumulation of producible oil or gas that is confined by impermeable rock or water barriers and is individual and separate from other reservoirs. See Regulation S-X, Rule 4-10(a)(9).
Sm <sup>3</sup>	Standard cubic meters measured at 15 degrees C. For purposes of converting quantities of natural gas cited in this annual report, 1 Sm <sup>3</sup> = 35.3826 cubic feet. When converting natural gas into barrels of oil equivalents, Hydro makes an adjustment for calorific value to an equivalent 40 MegaJoule/Sm <sup>3</sup> volume. 1000 Sm <sup>3</sup> of natural gas = 6.2898 boe.

## **ENERGY AND OIL MARKETING**

While Energy and Oil Marketing represents a single sub-segment within the Oil and Energy business segment, Hydro believes that the business activities of Energy and Oil Marketing are better explained through a separate discussion of their respective activities.

### **ENERGY**

#### **Overview**

Energy's business activities include:

marketing of Hydro's equity oil production, including gas liquids;

marketing of Hydro's equity gas production as well as third-party sourced gas to customers, primarily on the European continent;

managing Hydro's interest in the gas transportation system on the NCS and Hydro's sea-borne transportation of crude oil, NGLs and other petroleum products;

production and sale of electricity generated at hydroelectric power plants in Norway;

sourcing Hydro's natural gas and power requirements for its Norwegian and European industrial facilities; and

developing Hydro's hydrogen and renewable energy business activities.

Hydro has an established position in the European natural gas and power markets as a producer of natural gas and power, a holder of an equity interest in the natural gas transportation systems, an active trader in the markets, and through customer portfolios in the industrial/wholesale markets for both natural gas and electricity. By combining all commercial activities for energy products and services in one operating segment, Hydro leverages its commercial skills and contacts in each of the energy sectors. Hydro's experience as a major producer and consumer of energy products has enabled it to provide services to major electricity customers in the Nordic region. Its experience in the Nordic region contributes to Hydro's knowledge base in pursuing opportunities in other markets.

As part of its development of the business activities, Hydro in 2003 acquired Duke Energy's Dutch gas marketing operations (Duke Energy Europe Northwest B.V.) and entered into an agreement with the German gas transportation and supply company, Wingas GmbH, to set up a joint venture for marketing and sales of natural gas in the UK. Furthermore, Hydro sold its interest in the Scanraff refinery and no longer holds an ownership interest in the refining business.

#### **Industry Trends**

##### ***Liberalization of European Energy Markets***

In Europe, both the gas and electricity markets are undergoing liberalization as a result of European Union (EU) policy. For more information on the EU's regulatory initiatives to further the liberalization of EU energy markets, see Oil and Energy Government Regulation - Liberalization of European Electricity Markets below.

##### ***Growth in European Natural Gas Demand***

The demand for natural gas in Europe is, by some estimates, expected to grow significantly from the 2002 level of approximately 500 bcm, fueled in large part by demand from the electric power

industry. However, the timing of the electricity sector's increase in gas consumption is uncertain. Current market conditions in continental Europe appear not to justify new investment in gas for power facilities at the present time. However, the Nordic region is experiencing a trend of much tighter electricity supply, as experienced during the winter of 2002/03, and gas for power production may become economic sooner in this area than in continental Europe.

In 2002, Norway supplied approximately 13 percent of the total consumption of natural gas in Europe. This percentage is expected to rise in future years based on existing contract commitments and remaining reserves. The United Kingdom, in particular, is an attractive market for Norwegian gas due to the maturing of U.K. North Sea fields, which is expected to result in a decline of production by 2005. Given its close proximity, the NCS is considered a competitive source for new deliveries. Norwegian fields are presently linked to the United Kingdom through the Vesterled pipeline to St. Fergus, which can handle 11-12 bcm of natural gas per year. In 2003 the Norwegian and U.K. authorities agreed on the main principles for a treaty relating to new pipelines between the two countries, making possible the shipment of gas from new gas fields, such as the Ormen Lange field, to the United Kingdom.

### ***Integration of Energy Markets***

Along with the liberalization of the energy markets in Europe, there is a trend towards integration of the electricity and gas markets because the business models are, to a large degree, based on the same competence and types of customers.

### ***Increased Focus on Renewable Energy and Hydrogen***

There is an increasing interest in renewable energy and the utilization of hydrogen in the energy market in developed economies throughout the world. The major political drive and basis for a number of public support schemes is driven by concerns about the security of energy supply and environmental considerations. The European Union has adopted a directive (Directive 2001/77/EC) that seeks to promote the production of electricity from renewable energy sources, including wind and hydropower. EU Member States are encouraged by the directive to set targets in line with global expectations of 12 percent of gross domestic energy consumption by 2010. A more efficient renewable energy framework is expected to be developed in Norway and implemented in 2005/06. This is expected to increase focus on wind energy in an area characterized by having relatively good wind conditions.

### **Strategy**

Hydro's strategy is to further enhance its position in the Northern European energy market, based on increasing gas production and commercial competence gained from the European gas market and the liberalized Nordic power market. Focus areas comprise:

enhancing the value of Hydro's crude oil portfolio;

enhancing the value of Hydro's natural gas portfolio;

optimizing Hydro's power activities; and

pursuing hydrogen and renewable energy opportunities.

### ***Enhancing the Value of Hydro's Crude Oil Portfolio***

The focus of Hydro's marketing efforts with respect to its North Sea and international crude oil production is to achieve optimal prices by marketing fewer grades of crude oil, in larger volumes, while minimizing logistical costs. Swap arrangements result in savings in logistical costs, particularly with respect to production from Hydro's international crude oil portfolio.



Trading activities include the sale of Hydro's crude oil, refined oil products and NGL production. The volumes of these activities have increased partly due to increased equity oil and gas production over the past years. Furthermore, Energy supplies NGL feedstock to Hydro's petrochemical plants, as well as the former Hydro Agri (now Yara) fertilizer plants. Following the Demerger, Hydro expects to continue to supply the Yara fertilizer plants under arm's-length agreements.

In 2003, Hydro sold its 25 percent interest in the Scanraff oil refinery, located at Lysekil, Sweden, to the oil company, Preem, which owned the other 75 percent of the refinery at the time of the transaction. As a result, Hydro no longer holds an ownership interest in the refining business. Hydro is now sourcing the refined products requirements for its Swedish retail marketing activities through a long-term supply agreement with Preem.

The tables below reflect the volumes of Hydro's sales and refining activities, respectively, in the last three years.

<b>Sales (thousands of tonnes)</b>	<b>2003</b>	<b>2002</b>	<b>2001</b>
Crude oil/NGL	18,560	19,068	17,507
Oil products	2,808	2,326	2,912
<b>Refining (thousands of tonnes)</b>	<b>2003<sup>(1)</sup></b>	<b>2002</b>	<b>2001</b>
Gasoline	797	660	841
Diesel fuels, gasoils, etc.	766	796	897
Heavy fuel oil	502	550	440
Other	77	36	66
<b>Total refining</b>	<b>2,142</b>	<b>2,042</b>	<b>2,244</b>

<sup>(1)</sup> Volumes for 2003 are through December 17, 2003, the effective sales date of Scanraff.

#### ***Enhancing the Value of Hydro's Natural Gas Portfolio***

Because of location, transportation infrastructure and substantial reserves, Norwegian natural gas is competitive in the European region. Hydro is the third-largest producer on the NCS. Hydro has an interest in all the major natural gas fields and in Gassled, the gas pipeline joint venture on the NCS. Hydro also holds capacity rights in Gassled, enabling access to five landing points for natural gas in Europe. This offers a flexible and favorable position with respect to capturing value in the market. In the European continental market, Hydro has achieved an attractive position through a combination of long-term sales contracts, long-term supply contracts and access to transportation.

Hydro's strategy is to combine its role as a natural gas producer with that of a wholesaler and trader to increase its market share in the developing liberalized European natural gas market. The main geographic focus is Northwest Europe. The wholesale market includes larger industrial customers, power companies and local distribution companies, as well as the traditional transmission companies. Hydro wants to develop a strong and balanced customer portfolio, including a mix of long-term contracts with wholesalers, end-user sales to the power and industrial segments, and spot sales, in order to optimize its natural gas portfolio.

A major focus for Hydro in 2003 was increasing the value of Hydro's natural gas portfolio through, among other things, more optimal utilization of Hydro's production and transportation capacity. These upstream positions, combined with Hydro's market presence across Europe, provide Hydro with an opportunity to create business further down the gas value chain in Northwest Europe. Further growth will be based on both increased access to natural gas from fields in which Hydro has an equity interest and sourcing natural gas in the market. In line with this strategy, Hydro in 2003 acquired Duke Energy's gas sales and marketing organization in the Netherlands (Duke Energy Europe Northwest B.V.), which has a portfolio of sourcing, sales, transportation and storage agreements.

Furthermore, Hydro entered into a sourcing contract with Maersk, the Danish oil company, which will deliver 0.6 bcm/year of gas from the Danish Continental Shelf into the Netherlands for five year starting in 2005. In December 2003, Hydro also entered into an agreement with the German gas transportation and supply company, Wingas GmbH, to set up a joint venture, HydroWingas, for marketing and sales of natural gas in the UK. The main goal in pursuing this joint venture is to establish a competitive and effective U.K. gas marketing channel by combining Wingas and Hydro's gas positions and marketing skills. HydroWingas commenced marketing activities in the spring of 2004.

The table below reflects Hydro's equity gas production and downstream non-equity gas sales and sourcing in the last three years.

(in bcm)	2003	2002	2001
Equity natural gas production	7.8	6.4	5.4
Sales of non-equity gas	3.8	3.7	2.4

In 2003, Hydro's equity natural gas production from the NCS amounted to 7.8 bcm, an increase of 22 percent compared to the previous year.

In addition to its equity gas, during 2003 Hydro supplied 3.8 bcm in the downstream market based on non-equity natural gas, including 2.0 bcm supplied to Hydro's industrial factories (mainly those of the former Hydro Agri) on the European continent. Following the Demerger, Hydro expects that deliveries will continue to be governed under arm's-length agreements.

Natural gas produced from fields in which Hydro has an equity interest is mainly sold under long-term contracts. Pricing under long-term contracts is generally based on a price formula whereby the natural gas price is indexed to oil product prices in the end-user market, mainly gas oil and low sulphur fuel oil. These contracts typically have provisions for price reviews based on changes in certain market conditions.

In the future, Hydro expects an increasing volume of its natural gas will be sold under short-term contracts. Physical positions are still necessary in order to gain increased margins by optimizing logistics and trading. However, more natural gas is available on the European continental short-term market and liquidity is increasing at new hubs, complementing the existing long-term, bilateral agreements between producers and large end-users and distributors. Hydro intends to evolve its trading activities as liquidity increases. Such market developments have been evident in the United Kingdom for some time and similar developments are underway on the European continent, most notably around the market hubs in Zeebrugge in Belgium and in the Netherlands.

Hydro has made substantial investments in natural gas export capacity from the Oseberg and Troll fields, together comprising a major portion of its proved reserves of natural gas. This capacity will enable Hydro to increase exports of gas significantly in the coming years as reservoir conditions allow higher natural gas production. The start-up of the Ormen Lange gas field will further increase Hydro's gas production and the development of the connected Langede transportation system will further increase transportation flexibility on the NCS.

Gassled, the new natural gas transportation infrastructure joint venture on the NCS, has been in operation since January 1, 2003. The NCS natural gas pipelines and associated terminals had previously been organized as several different joint ventures owned by oil companies and the Norwegian State. Gassled consists of the following systems: Europipe, Europipe II, Norpipe gas pipeline, Zeepipe, Franpipe, Vesterled, Statpipe, Oseberg Gas Transport, Åsgard Transport and the Kårstø terminal. The Kollsnes gas terminal is included in Gassled from February 1, 2004. Currently

Hydro holds a direct ownership interest of 11.134 percent in Gassled. Hydro's participation in future capacity expansions such as Langeled will initially result in a moderate increase in Hydro's ownership interest before it is expected to be reduced to about 10 percent in 2011 in accordance with the agreed redistribution of ownership shares.

*Optimizing Hydro s Power Activities*

Hydro is one of the largest producers of power in Norway, with a normal annual production from hydroelectric facilities in Telemark, Røldal/Suldal and Sogn of approximately 8.3 terrawatt hours ( **TWh** ). Hydro is presently engaged in a large development project to expand the Tyin hydropower plant in Sogn at a cost of approximately NOK 1.5 billion. In 2003, Hydro disposed of its interest in Sundsfjord Kraft ANS in exchange for a 20.2 percent ownership interest in the power producing company, SKS Produksjon AS. Hydro has title concessions that do not revert to the Norwegian government for power plants with an average generating capacity of 2.7 TWh per year. This represents approximately 33 percent of Hydro s normal production capacity. The remaining production capacity, 5.6 TWh, or approximately 67 percent of Hydro s normal production capacity, will revert to the Norwegian government without compensation at the expiration date of the concessions. Separate concessions apply to each power plant. The year of expiration of the individual concessions ranges from 2022 to 2051 and does not include a phase-out period. In addition to its hydroelectric power stations, Hydro is a partial owner of the Havøygavlen wind power plant with an expected total annual production of 120 gigawatt hours (GWh).

Since the liberalization of the Norwegian electricity market in 1991, Hydro has developed trading and marketing activities, along with analysis, portfolio and risk management systems. Hydro s Nordic electricity portfolio includes owned generation facilities, long-term supply contracts, internal and external sales contracts and short-term optimization contracts.

The table below reflects Hydro s power production and the volumes acquired under long-term purchase contracts for the last three years.

(in TWh)	2003	2002	2001
Power production	7.5	10.3	9.8
Acquired under long-term contracts for Hydro s industrial use	7	7	7

As reflected in the table, production in 2003 was lower than normal due to low precipitation in Norway during the autumn and winter of 2002/03.

Energy supplies electric power to Hydro s industrial plants in Norway. To meet those needs, Hydro has entered into long-term purchase contracts, the majority of which are with the Norwegian State-owned power company, Statkraft. These long-term contracts provide assurance of the availability of and predictable prices for a certain quantity of power to Hydro s power intensive industries. In 1997, Hydro entered into an agreement with Statkraft to purchase electricity from 2000 to 2020. The agreement replaces supplies under existing contracts, which terminate during the 2006-2010 period.

More recently, Hydro has started to build a European continental electricity portfolio based on optimizing supply to Hydro s larger consuming plants, including plants that are now owned by Yara. Hydro is providing Nordic and European continental customers with structured energy products and energy services ranging from physical power supply to advanced hydro-power optimization, pricing services and portfolio management, including market analysis, price forecasting and risk management/trading.

Hydro intends to continue to expand into new markets and grow its Nordic and European continental power portfolios based on demonstrated profitability while controlling risk.

*Pursuit of Hydrogen and Renewable Energy Opportunities*

Hydro has extensive experience within the traditional industrial hydrogen markets as well as with renewable hydroelectric energy production. Hydro is seeking to leverage its experience to position itself in renewable energy and new energy markets for hydrogen.

Hydro views wind power generation as the most important part of the renewable energy market and is making selective investments in this market. In 2002, Hydro completed the Havøygavlen wind park, located in northern Norway, in which Hydro holds a 44 percent interest. Havøygavlen is one of the largest wind power projects in Norway, with an expected annual output of around 120 GWh. Further Norwegian and European projects are continuously evaluated, in Norway pending the framework for production and sale of renewable energy.

Hydro is presently involved in several hydrogen projects. These include filling stations for hydrogen-fueled vehicles in Iceland and Germany, and combining hydrogen and wind power to form a demonstration project of a sustainable energy society on the Norwegian island of Utsira.

## OIL MARKETING

Oil Marketing markets and sells refined petroleum products (gasoline, diesel and heating oil) and electricity to customers in Scandinavia and the Baltic countries. Hydro owns 100 percent of its oil marketing unit in Sweden and 50 percent of Hydro Texaco, an oil marketing company with retail outlets in Norway, Denmark and the Baltic countries. Hydro markets a range of complementary energy products in addition to refined petroleum products, such as electricity, natural gas, biogas for cars and bioenergy for heating purposes, as well as convenience store goods.

At the end of 2003, Hydro's retail network in Sweden comprised 526 gasoline stations and 124 Hydro Diesel service stations. Hydro operates both Hydro and the Uno-X branded stations in the Swedish gasoline market. Approximately 50 percent of the station network is Hydro-branded. As of year-end 2003, Hydro Texaco operated 407 gasoline outlets and 46 diesel sites in Norway, 443 gasoline outlets and 106 diesel sites in Denmark, and 43 gasoline outlets and 10 diesel sites in the Baltic countries with Hydro Texaco or Uno-X brands. Hydro's strategy is to maximize its return on investments already made in its gasoline station chains by focusing on the most profitable stations and closing smaller and unprofitable outlets, building strong brand recognition and expanding on profitable segments of the market.

Hydro has a strong brand and market position in the most profitable segments of the industrial and residential heating oil markets. Its large customer base offers a platform for the sale of electricity to residential and industrial customers. Also, Hydro's and Hydro Texaco's large customer bases provide a potential for cross-sales. Sales of electricity have, to date, been relatively modest compared to Hydro's sale of gasoline and gasoil, but are growing.

Gasoline is sold through service stations and unmanned, automated stations in all of Hydro's markets. Gasoils are sold through automated diesel stations and through direct deliveries from depots to end consumers.

Volumes (thousands of m <sup>3</sup> ) <sup>(1)</sup>	2003	2002	2001
Gasoline	1,435	1,476	1,500
Gasoil	2,109	2,074	2,084

<sup>(1)</sup> Volumes reflected in the table include 100 percent of Hydro Texaco's volumes.

In 2003, Hydro's market share in the Swedish gasoline market declined by 0.7 percent mainly as a result of the discontinuation of agreements with Volvo dealers and their customers. These agreements are being phased out over a period of 5 years, from 2001 to 2005. To compensate for the loss in market share, Oil Marketing in 2003 entered into a deal with VW/Audi Sweden, allowing holders of VW/Audi credit cards access to Hydro and Uno-X stations. Bankcards, such as Eurocard and Visa, have also been introduced as valid means of payment at Hydro and Uno-X stations during the year.





Market share (%) (2003) <sup>(1)</sup>	Sweden	Norway <sup>(2)</sup>	Denmark <sup>(3)</sup>
Gasoline	9.9	20.2	16.8
Gasoil	14.3	16.0	17.5

<sup>(1)</sup> Includes 100 percent of Hydro Texaco.

<sup>(2)</sup> As of November 2003.

<sup>(3)</sup> As of October 2003.

### **Oil and Energy Government Regulation**

The principal Norwegian legislation applicable to petroleum activities in Norway and on the NCS is currently the Norwegian Petroleum Act of 1996, a number of regulations issued under that Act, and the Petroleum Taxation Act of June 13, 1975.

The general principles underlying the Petroleum Act are that:

the Norwegian State is the owner of all petroleum resources in the ground;

the exclusive right to resource management is vested in the Norwegian State; and

the Norwegian State alone is authorized to award licenses with respect to petroleum activities.

Under the Petroleum Act, the Norwegian Ministry of Petroleum and Energy (the **Ministry**) has been delegated responsibility for resource management and administering petroleum activities on the NCS. The Ministry primarily implements petroleum policy through its power to award licenses, to approve operators' field and pipeline development plans, and to approve gas sales contracts.

#### ***Norwegian Licensing System***

Hydro normally participates in exploration and production activities with other parties, including private and state-owned oil and gas companies and other government entities. Contractual arrangements among partners are generally governed by an operating agreement, which provides that costs, production entitlements and liabilities are allocated according to each partner's respective percentage interest in a particular field or license area. Normally, one party is appointed as operator. Field activities are conducted under the overall supervision and control of an operating committee consisting of representatives from each participant in the field. This enables each of the non-operator partners to be involved in field development and operations.

The Petroleum Act and related regulations contain the main legal basis for the license system which regulates Norwegian petroleum activity. The most important type of license award under the Petroleum Act is the production license. A production license grants the holder an exclusive right to explore for and produce petroleum within a specified geographical area. The licensee becomes the owner of the petroleum produced from the field covered by the license, and, together with any partners, is jointly and severally responsible to the Norwegian State for obligations arising from petroleum operations carried out under the license. Notwithstanding the exclusive rights granted under the production license, the Ministry has the power to, in exceptional cases, permit third parties to carry out exploration in the area covered by a production license.

Production licenses are normally awarded through licensing rounds. The first licensing round for NCS production licenses was announced in 1965. Awards of licenses take place both through the principal licensing rounds (of which the 18<sup>th</sup> was announced for application in December 2003) and through separate rounds covering a defined area.

Licensees are required to submit a PDO to the Ministry for approval. In respect of fields of a certain size, the Norwegian Parliament (Storting) must accept the PDO before it is formally approved by the Ministry.

Production licenses are normally awarded for an initial exploration period, which is typically six years but can be for a shorter period or for a period of a maximum of ten years. During this exploration period, the licensees must meet a specified work obligation set out in the license. The work obligation will typically include seismic surveying and/or exploration drilling. If the licensees fulfill the obligations under the production license, they are entitled to extend the license for a period specified at the time when the license is awarded, typically 30 years.

For licenses granted after July 1, 1985, the Norwegian governmental authorities can delay development of a field indefinitely under the Norwegian Petroleum Act. Should development be delayed, licensees can apply for an automatic extension of the license term corresponding to the delay period. For licenses granted before July 1, 1985, the conditions in the specific license apply.

The Norwegian State may, if important public interests are at stake, direct licensees on the NCS to reduce their production of petroleum. From July 15, 1987 until the end of 1989, licensees were directed to curtail oil production by 7.5 percent. Between January 1, 1990 and June 30, 1990, licensees were directed to curtail oil production by 5 percent. In 1998, the Norwegian State resolved to reduce Norwegian oil production by about 3 percent, or 100,000 boed. In March 1999, the Norwegian State decided to further decrease production by 200,000 boed. In the second quarter of 2000, the reduction was brought back to 100,000 boed. On July 1, 2000, this restriction was removed. By a royal decree of December 19, 2001, the Norwegian government decided that Norwegian oil production should be reduced by 150,000 boed from January 1, 2002 until June 30, 2002. This amounted to roughly a 5 percent reduction in output.

Licensees may buy or sell interests in production licenses subject to the consent of the Ministry and the approval of the Ministry of Finance of the tax treatment. The Ministries must also approve direct or indirect transfers of interests in a license, including change of control of a licensee, if it would result in a new licensee's obtaining a decisive influence over the licensee. In most licenses there are no pre-emption rights in favor of the other licensees. The State's Direct Financial Interest ( **SDFI** ), or the Norwegian State, as appropriate, however, still holds pre-emption rights in most licenses.

A license from the Ministry is also required in order to establish facilities for transport and utilization of petroleum. When applying for such licenses, the owners, which are in practice licensees under a production license, must prepare a plan for installation and operation. Licenses to establish facilities for transport and utilization of petroleum will normally be awarded subject to certain conditions. Typically, these conditions require the facility owners to enter into a participants' agreement. The ownership of most facilities for transport and utilization of petroleum in Norway and on the NCS is organized as a partnership or joint venture of a group of license holders, and the participants' agreements are similar to the joint operating agreements entered into among the members of the partnership holding production licenses.

Licensees are required to prepare a decommissioning plan before a production license or a license to establish and use facilities for transportation and utilization of petroleum expires or is relinquished, or the use of a facility ceases. The decommissioning plan must be submitted to the Ministry no sooner than five and no later than two years prior to the expiry of the license or the cessation of the use of the facility, and must include a proposal for the disposal of facilities on the field. On the basis of the decommissioning plan, the Ministry makes a decision as to the disposal of the facilities.

The Norwegian government can require that licensees participate in the removal of offshore oil and gas installations (platforms, pipelines, etc.) on the NCS when production ceases or at the expiration of the concessions, whichever occurs first. The Norwegian government has the option to take ownership of a permanent offshore

installation at no cost to it when a license expires, is surrendered or revoked or

when the use of such installation has been terminated permanently. For onshore installations, compensation for expropriation has to be paid. In such cases, the Norwegian government would assume total responsibility for any well closure and decommissioning costs after this time, as well as removal costs of the installation. As a basis for estimating Hydro's future liabilities related to well closures, decommissioning and removal costs of the installation, Hydro's management evaluates Norwegian and international laws, treaties and practices, and the estimated value of recoverable oil and gas reserves that are expected to exist at the end of the various concession periods. See the discussion in Item 5. Operating and Financial Review and Prospects Hydro's Critical Accounting Policies Asset Retirement Obligations. The regulations allow for full deductibility in taxable income of dismantlement and removal costs.

### ***Organization of Norwegian Gas Sales and Transportation***

Until June 2001, gas sales contracts with buyers for the supply of Norwegian gas were required by Norwegian authorities to be concluded with the Gas Negotiation Committee, known as the *Gassforhandlingsutvalget* ( **GFU** ).

The structural changes taking place in the European gas market (see the discussion under EU Regulation EU Gas Directives and Related Regulatory Developments below) prompted the Norwegian State to consider whether changes to the gas resource management system on the NCS could contribute to further enhancing the efficiency of Norwegian gas producers. Accordingly, the Norwegian State, by a royal decree dated June 1, 2001, determined to abandon the GFU system and put in place a system whereby the individual licensees manage the disposal of their own gas. Adjustments in legislation, license agreements and other existing contracts necessary to implement the new system were finalized during 2002.

From January 1, 2003, the ownership of the Zeepipe, Franpipe, Europipe, Europipe II, Åsgard Transport, Statpipe, Oseberg Gas Transport and Vesterled joint ventures, and Norpipe AS was transferred to Gassled. As of February 1, 2004, the Kollnes gas terminal is also included in Gassled. With the approval of Gassled, Norwegian authorities have, by a royal decree of December 31, 2002, issued regulations for access to and tariffs for capacity in the upstream gas transportation system. Gassled has a uniform access regime, giving all natural gas undertakings and eligible customers who have a duly substantiated reasonable need of transportation a right to access the system under non-discriminatory, objective and transparent conditions. Access to the system is based on long-term and short-term transportation agreements. Gassled tariffs have been established through regulations established by the Ministry of Petroleum and Energy with effect from January 1, 2003.

### ***Health, Safety and Environment Regulations***

Petroleum operations in Norway are subject to extensive regulation with regard to health, safety and the environment ( **HSE** ). Under the Petroleum Act, which is in this respect administered by the Ministry of Labor and Government Administration, all petroleum operations must be conducted in compliance with a reasonable standard of care, taking into consideration the safety of employees, the environment and the economic values represented by installations and vessels. The Petroleum Act specifically requires that petroleum operations be carried out in such a manner that a high level of safety is maintained and developed in accordance with technological developments.

Licensees and other persons engaged in petroleum operations are required to maintain at all times a plan to deal with emergency situations. During an emergency, the Ministry of Labor and Government Administration may decide that other parties should provide the necessary resources, or otherwise adopt measures to obtain the necessary resources, to deal with the emergency for the account of the licensees.

The Norwegian Petroleum Directorate has adopted a wide range of regulations that set forth detailed requirements as to the HSE aspects of petroleum operations. In addition, a number of regulations adopted under other acts, such as the Working Environment Act of 1977 and the Pollution Act of 1981, apply to Hydro's operations. Violations of such regulations can lead to fines.

In Hydro's capacity as a holder of licenses under the Petroleum Act, it is subject to strict statutory liability in respect of losses or damages suffered as a result of pollution caused by spills or discharges of petroleum from petroleum facilities covered by any of its licenses. This means that anyone who suffers losses or damages as a result of pollution caused by any of Hydro's NCS license areas can claim compensation from Hydro without needing to demonstrate that the damage is due to any fault on Hydro's part. If the pollution is caused by a force majeure event, a Norwegian court may reduce the level of damages to the extent it considers reasonable.

### *EU Regulation*

Although Norway is not a member of the EU, it is a member of the European Free Trade Association ( **EFTA** ). The European Union and its Member States have entered into the Agreement on the European Economic Area (the **EEA Agreement** ) with the members of the EFTA other than Switzerland. The main purpose of the EEA Agreement is to include the EFTA countries in the European Common Market. The EEA Agreement makes relevant provisions of EU legislation binding for the EFTA states other than Switzerland. Regulations and directives affecting Hydro are being adopted, in an increasing number, within the EU and then implemented in Norway under the EEA Agreement.

### *EU Emissions Trading Directive*

The European Commission has adopted a directive (Directive 2003/87/EC) that seeks to establish an internal emissions trading system by January 1, 2005. The system would limit carbon dioxide emissions from a broad range of industries, including power generation, and place them within a regulatory framework. Under the directive, all producers with significant emissions of climate gases will be given an emissions permit for each year of production. Each Member State will develop a national allocation plan for such permits. The emissions trading system will increase a producer's costs if that producer does not achieve its targets. Additional costs would also be associated with the development of emissions reduction technology and trading tools. It is not clear how the directive will be implemented within the EEA.

### *EU Gas Directives and Related Regulatory Developments*

Fundamental changes are now taking place in the organization and operation of the European gas market, with the objective of opening up national markets to competition and integrating them into a single EU internal market for natural gas. It is difficult to predict the effect of liberalization measures on the evolution of gas prices, but the main objective of the single gas market is to bring greater choice and reduced prices for customers through increased competition.

The EU Gas Directive of 1998 (Directive 98/30/EC, 1<sup>st</sup> Internal Gas Market Directive) established common rules for the transmission, distribution, supply and storage of natural gas. The main purpose of the directive was to require owners of natural gas pipelines to open up their transport systems, including systems within domestic markets, to customers, such as distribution companies and large industrial customers, in order to bring greater competition into the European gas market. The directive established rules relating to the organization and functioning of the natural gas sector, access to the market, the operation of systems, and the criteria and procedures applicable to the granting of authorizations for transmission, distribution, supply and storage of natural gas. The directive imposed a series of obligations on EU Member States and other states implementing the directive. In June 2002, the Norwegian Parliament (Storting) agreed to incorporate the directive into its legislation as part of the EEA Agreement.



On June 26, 2003, the European Parliament and the Council of the European Union adopted Directive 2003/55/EC (2<sup>nd</sup> Internal Gas Market Directive), providing for common rules for the internal market for natural gas. Directive 2003/55/EC repealed the earlier Directive 98/30/EC, which was viewed as taking the first relatively tentative steps toward the creation of an internal market for natural gas. Directive 2003/55/EC is not yet incorporated in the EEA Agreement. Directive 2003/55/EC is expected to provide the necessary structural changes in the regulatory framework to tackle the remaining barriers to the completion of the internal market. The directive provides for:

the right for all non-household gas customers to freely choose their supplier no later than July 1, 2004, with all customers to have this right by July 1, 2007;

third party access to transmission and distribution networks on the basis of published and ex ante regulatory approved tariffs;

the establishment of a regulatory authority in each Member State with a common minimum set of responsibilities;

legal unbundling of transmission and large and medium-sized distribution companies; and

access to storage facilities either on a negotiated or regulated basis.

In addition, the directive contains provisions relating to upstream pipeline networks. EU Member States are required to take the necessary measures to ensure that natural gas undertakings and eligible customers, wherever they are located, are able to obtain access to upstream pipeline networks, including facilities supplying technical services incidental to such access in accordance with the directive, except for the parts of such networks and facilities which are used for local production operations at the site of a field where the natural gas is produced. Access is to be provided in a manner determined by the EU Member State in accordance with the relevant legal instruments. EU Member States are to apply the objectives of fair and open access, achieving a competitive market in natural gas and avoiding any abuse of a dominant position, taking into account security and regularity of supplies, capacity that is or can reasonably be made available and environmental protection.

In February 2002, the European Gas Regulatory Forum, which is chaired by the EU Commission and made up of national regulators, network operators and users and gas consumers, agreed on a set of voluntary guidelines (referred to as the Guidelines for Good TPA Practice) on granting access to the gas transmission system. The guidelines were revised in September 2003. In a first compliance report presented to the Forum in October 2002, the EU Commission observed significant lack of compliance with the rules. In its second report presented at the Forum's meeting in September 2003, the EU Commission indicated a significant improvement in terms of compliance with the guidelines, but a continuing unacceptable level of non-compliance such that a level playing field in terms of access conditions to the gas transmission networks was far from being achieved. As a result, in December 2003, the EU Commission proposed a regulation providing for a set of basic principles to be respected as regards third party access (TPA) services to be offered by the system operators, capacity allocation and congestion management procedures, transparency requirements and tariff structures. The proposal also provides for detailed implementing rules to be contained in guidelines annexed to the regulation, which can be adopted and modified through a regulatory comitology procedure whereby the Commission submits a proposal to a committee consisting of representatives of the Member States, but in order for the proposal to be adopted, the committee has to deliver a favorable opinion on the proposal. If the opinion of the committee is negative, the proposal will be submitted to the Council, which may either adopt or reject the Commission's proposal.

On April 20, 2004, the EU Parliament in its first reading adopted the proposal with a number of amendments stating that the regulation, as amended, should be accepted without major amendments if more binding regulation is, indeed, needed. Network operators and the gas industry consider the regulation unnecessary, viewing the existing guidelines as sufficient to establish fair and transparent network access. Nonetheless, on June 10, 2004, the Energy



Council reached a political agreement on the proposed regulation. Once the agreed compromise text has been formally adopted in one of the

upcoming Council sessions, it will be transmitted as the Council Common position to the European Parliament for second reading. The political agreement reached by the Council suggests the entry into force of the regulation on July 1, 2006 (one year before the EU gas market is scheduled to be completely opened up), whereas the guidelines providing the minimum degree of harmonization required to achieve the aim of the regulation may not be implemented before January 1, 2007.

#### *Liberalization of European Electricity Markets*

The EU electricity liberalization directive of 1996, to a large extent, left implementation of the deregulation process to the EU Member States. As a result, each country designed its own national market structure. These structures are not entirely compatible. The European Commission has acknowledged this problem on a number of occasions, indicating that action will be taken to remedy the situation. In 2003, the European Union enacted a number of provisions bearing on the European electricity market:

Directive 2003/54/EC sets forth common rules for the internal market in electricity. The directive establishes common rules for the generation, transmission, distribution and supply of electricity.

Regulation (EC) No. 1228/2003 addresses conditions for access to the network for cross-border exchanges of electricity. It attempts to establish fair rules for cross-border exchanges of electricity, thus enhancing competition within the internal electricity market, taking into account the specificities of national and regional markets. Realizing that objective will involve the establishment of a compensation mechanism for cross-border flows of electricity, the setting of harmonized principles on cross-border transmission charges, and the allocation of available capacities of interconnections between national transmission systems.

#### **Taxation of Oil and Gas Production**

##### *Norway*

**Ordinary Taxes.** Profits from Norwegian oil production are subject to Norwegian income tax at the rate of 28 percent. Revenue for tax purposes is based on market norm prices (as determined by a government-appointed board, normally on a quarterly basis but in recent years with large price fluctuations, on a monthly basis) for crude oil and on realized prices for gas and other primary products. The taxation of a company's income associated with its exploration and production activities on the NCS is assessed on a consolidated basis.

Investments in oil and gas production facilities are, in general, depreciated for tax purposes over six years using a straight-line method of depreciation (i.e., 16.66 percent per year). However, there is an exception for certain large-scale gas liquefaction facilities; such investments are depreciated over three years (i.e., 33.33 percent per year). Depreciation commences when expenditures are incurred. Deductions for exploration and other costs can be taken in the year such costs are incurred.

Any NCS losses may be carried forward indefinitely against subsequent income earned. Any onshore losses may be carried forward for 10 years. Half of the losses relating to activity conducted onshore in Norway may be deducted from NCS income subject to the 28 percent tax rate. Losses from foreign activities may not be deducted against NCS income. Losses from offshore activities are fully deductible against onshore income.

**Special Petroleum Tax.** A special petroleum tax is levied on profits derived from petroleum production and pipeline transportation on the NCS. The special petroleum tax is currently levied at a rate of 50 percent. The special petroleum tax is applied to relevant income in addition to the standard 28 percent income tax, resulting in a 78 percent marginal tax rate on income subject to the petroleum tax. The basis for computing the special petroleum tax is the same as for income subject to ordinary corporate income tax, except that onshore losses are not deductible against the

special petroleum tax,

and a tax-free allowance, or uplift, has been granted at a rate of 5 percent of capital expenditures per year over a period of a minimum of six years (equal to a maximum total of 30 percent of the capital expenditures). The uplift is computed on the basis of the original capitalized cost, including capitalized interest, of offshore production installations. The uplift may be deducted from taxable income for a period of six years beginning in the year in which the capital expenditures are incurred. Unused uplift may be carried forward indefinitely. Special provisions apply to investments made prior to 1992. Deficits relating to NCS exploration and production activities can be carried forward indefinitely, both for ordinary and special petroleum tax purposes. Deficits incurred in 2002 and later can be carried forward with interest. The Ministry of Finance is authorized to issue guidelines on the interest rate.

As part of Revised National Budget passed in June 2004, the Norwegian government adopted changes to the Petroleum Tax Act which will be put forward in the budget for 2005. The tax-free allowance, or uplift, will be accelerated to 7.5 percent of capital expenditures per year over a period of four years. Furthermore the State will pay in cash the tax value of deficits connected to exploration in connection with the yearly tax assessment. The State will also pay in cash the tax value of deficits if a company ceases its activities on the Norwegian Continental Shelf. Changes also include simplification of tax-related conditions in relation to transfer of licenses, and changes in regulations regarding depreciation of investments in fields with life spans of less than six years. Larger flexibility in contracts between oil companies and contractors will be allowed.

### *Taxation Outside Norway*

Hydro's international petroleum activities are covered by local tax legislation. The following provides a brief description of the relevant tax systems of the countries where Hydro has production. Hydro's Canadian production is covered by a tax/royalty regime, and its remaining international production is regulated by production sharing agreements (PSAs). Under a PSA, the host government typically retains the right to the hydrocarbons in place. The contractor under a PSA normally receives a share of the oil produced to recover its cost, and is entitled to an agreed share of the oil as profit in addition. Normally, the contractors carry the exploration costs and risk prior to a commercial discovery. Provisions are, to a large extent, negotiable and are unique to each block. All negotiated and bilateral provisions in the PSAs are subject to a confidentiality clause. The presentation of the taxation as such is, therefore, limited to the structure of the PSAs and to the official information involved.

Under some PSAs, all government take will be in the form of royalty and/or profit oil allocated to the state, whereas other PSAs also include an income tax element. Income is split between a cost oil share for the recovery of costs, and a profit oil pool for further split between the state and the contractors. Allocation of profit oil between the state and the contractor group may depend on many factors, for example, the development of the internal rate of the return of the project, the production rate or the accumulated production. As a result, a larger share will normally be allocated to the state during the life of the production period. Linear depreciation over the first four to five years in production is commonly used. Some PSAs allow for an uplift of the investments, which is included as an additional depreciation in the investment costs and thereby increases the cost recovery entitlement. Most PSAs allow unrecovered costs in one year to be carried forward for recovery in later years. The direct state participation in PSAs has varied, but seems to be more frequent in recently awarded blocks. Different variations as to financing of the direct state share are seen.

Some PSA regimes allow for consolidation of income from different developments in a block; other PSAs set a ring fence for tax purposes around each development. A ring fence around a development area means that the area is defined as a separate entity for tax calculation purposes, meaning that all development and production costs related to a development can only be recovered through income from the same development. One development may also consist of more development areas, all of which are ring fenced for tax purposes. The term "development area" in this respect may be a defined geological structure that may be produced from a common production facility.



Under a tax/royalty regime, the companies are granted licenses by the government to extract petroleum, and the state may be entitled to royalties, in addition to income tax based on the contractor's net income from the operations. The terms are, in general, not negotiable and are subject to legislative change.

**Canada.** The fiscal regime consists of both royalty and provincial/federal tax systems. There are generic royalty regimes for the Grand Banks and Scotian Shelf areas; however, the Hibernia and Terra Nova fields have unique royalty systems. An allowance of 25 percent of operating income is deductible for income tax purposes, and replaces the actual royalty paid. This allowance will be phased out by 2007 and replaced by full deductibility of royalties paid for income tax purposes. The East Coast royalty regimes are progressive with the size of the royalty depending on the field's economy and life cycle. Tax depreciation of facilities is 25 percent per year based on a declining balance method of depreciation. Exploration expenses may be fully written off. The combined Canadian federal and provincial tax rates are declining and will be reduced from the current 43 percent to 36 percent by 2007. Consolidation for tax purposes across all Canadian income is allowed within one legal entity (corporation); however, it is not allowed between separate legal entities.

**Russia.** The Kharyaga field is taxed based on a PSA. Gross income after deduction of the royalty is split in cost oil and a profit oil share. A 35 percent income tax is levied on the contractor share of the profit oil. The profit oil split is based on the project's cumulative internal rate of return.

**Libya.** The Mabruk field is taxed based on a PSA. Gross income after deduction of royalty is eligible as cost oil, and any surplus oil is allocated as profit oil. The profit oil is divided between the state and the contractors based on a sliding scale which is related to the daily production rate and a cumulative income to cost ratio. No further income tax is levied on the contractors' share of the profit oil. The Murzuq field is taxed based on a PSA. The Libyan national company ( **NOC** ) is carried through the exploration phase and partly through the development phase, and then takes a certain ownership share of production. The net income, after deduction of NOC's direct share, is used for cost recovery. Any surplus is split as profit oil between the state and the contractors, with a sharing principle as for the Mabruk development. No further income tax is levied. Consolidation of operations within the Murzuq blocks is allowed.

**Angola.** The producing fields, Girassol and Jasmim, are taxed based on the Block 17 PSA. Gross income is split in cost oil and a profit oil share. The contractor's share of the profit oil is based on the project's cumulative internal rate of return. A 50 percent income tax is levied on the contractors' share of the profit oil. A ring fence around each development area in the block applies for tax purposes. Exploration costs, however, can be recovered from the entire block.

## **Taxation of Electricity**

### ***Ordinary Taxes (Norway)***

Profits from hydroelectric power production are subject to ordinary Norwegian income taxation at a rate of 28 percent. Fixed assets are depreciated for tax purposes over 67 years or the concession period, if shorter (dams and tunnels); 40 years (machinery); and at a 5 percent declining balance (transmission and other electrical equipment).

A company's ordinary income tax for hydroelectric power plants is assessed on an aggregate basis and may be tax consolidated with other activities in Norway.

### ***Surtax on hydroelectric power plants (Norway)***

In 1996, a tax law was enacted in Norway for hydroelectric power plants effective from January 1, 1997. In addition to ordinary income tax, the major provision of the law called for the introduction of a surtax. The surtax rate is 27 percent. The surtax is assessed individually for each hydroelectric power plant (i.e., ring-fenced taxation). Unlike the ordinary income tax, finance costs are not deductible. Uplift is a special deduction in the net income computed as a percentage of the average tax basis of fixed assets (including intangible assets and goodwill) for a given year. The percentage, which is determined

annually by the authorities, essentially provides for a certain return on capital that is not subject to surtax. The percentage used to calculate the uplift for 2003 was 9.7 percent.

Revenue for surtax purposes is based on market spot prices with certain exceptions. Revenues from power supplies used for a company's own industrial production facilities and from sales under certain long-term contracts are not subject to market spot price adjustments. As most of Hydro's hydroelectric production is used for its own production or sold under qualifying contracts, only a minor portion of the production is subject to taxation based on spot prices at the time of production.

Losses can be carried forward indefinitely or until the plant reverts to the Norwegian government. Losses carried forward are increased with interest.

A natural resource tax related to hydro-generated electricity became effective as of January 1, 1997. The rate for 2003 is NOK 0.013 per KWh. The tax is fully deductible from the ordinary income tax of the company.

## **HYDRO ALUMINIUM**

### **Introduction and Overview**

In March 2002, Hydro Aluminium solidified its position as one of the top three integrated aluminium companies in the world, in terms of volume of integrated aluminium products produced, by acquiring VAW, a major producer of primary aluminium, rolled products and other fabricated aluminium products based in Germany. Through this acquisition, Hydro Aluminium has become a full range aluminium company, expanding its range of products and activities in rolled products, extrusion and automotive offerings. In 2003, Hydro Aluminium's total revenues were NOK 69.2 billion compared to NOK 65.1 billion in the prior year.

Hydro Aluminium initiated cost reduction and improvement programs in 2001 and 2002, to be fully achieved in 2004. The objective of the programs was to achieve cost and earnings improvements of NOK 2.5 billion compared to the base-line combined cost and earnings level of Hydro Aluminium and VAW in 2001. The targeted accumulated cost savings and EBITDA improvements were achieved as of the end of 2003. This means that the full year effect for 2004 will be in line with the target of NOK 2.5 billion. The accumulated cost of the program was lower than originally estimated.

Hydro Aluminium's present organizational structure is as follows:



The graph below depicts Hydro Aluminium's aluminium operations, in terms of 2003 tonnage along the value chain.

## **Overview of Aluminium Industry**

Aluminium is the third-most abundant element in the Earth's crust and the second-most used metal. The main properties that make aluminium a viable material include its light weight, strength, recyclability, corrosion resistance, durability, ductility and conductivity. Because of aluminium's unique combination of properties, the variety of aluminium products continues to grow.

### ***Aluminium Smelting***

The primary raw material for aluminium smelting is alumina, which is refined from bauxite. Bauxite deposits are most commonly found in tropical and subtropical regions of the world, such as Africa (Guinea), India, Jamaica, South America (Brazil, Surinam, Venezuela, and Guyana) and Australia. Bauxite is generally extracted by open cast mining. More than 100 million tonnes of bauxite are mined each year. Two to three tonnes of bauxite are required to produce one tonne of alumina; approximately two tonnes of alumina are required to produce one tonne of aluminium.

Alumina is dissolved in an electrolyte within a carbon- or graphite-lined steel container known as a pot. An electric current is passed through the electrolyte at low voltage, but very high current, typically 150,000 amperes, or as high as approximately 300,000 amperes with modern technology. The electric current flows between a consumable carbon anode (positive) and a cathode (negative), formed by the thick carbon or graphite lining of the pot. This splits the alumina into molten aluminium and carbon dioxide. The molten aluminium is periodically siphoned off into a holding furnace, then cleaned and cast into metal products such as extrusion ingot, sheet ingot, cast wire rod, primary foundry alloy, continuous cast coil, liquid metal and standard ingot. The molten aluminium is often blended with other metals, including iron, silicon, zinc, copper and magnesium, to form alloys with different properties.

On average around the world, it takes roughly 15.7 kilowatt-hours ( **kWh** ) of electricity to produce one kilogram of aluminium from alumina. Design and process improvements have progressively reduced this figure from about 21 kWh in the 1950s. In a modern smelter the electricity consumption could be approximately 13 kWh per kilogram. Nonetheless, aluminium smelting remains an energy-intensive process, which is why the world's smelters are located in areas that have access to abundant power resources. Many smelters are located in remote areas, where electricity is generated specifically for the aluminium plant. More than 50 percent of the energy used to produce aluminium supplied to the European market comes from hydro-electricity.

The smelting process is continuous. A smelter cannot easily be stopped or started. If production is interrupted by a power line failure of more than six to eight hours, the metal in the pots will solidify, often requiring an expensive rebuilding process.

### ***Processing of Aluminium***

#### *Rolled Products*

The aluminium rolling process changes the characteristics of the metal, making it less brittle and more ductile. Prior to rolling, the aluminium is in the form of a rolling sheet ingot that typically is up to 600 millimeters ( **mm** ) thick. The rolling sheet ingot is then heated to around 500 degrees Celsius and passed several times through a hot rolling mill. This gradually reduces the thickness of the metal to around 3-13 mm. The thinner aluminium is then cooled and transported to a cold rolling mill for further processing. There are various types of cold rolling mills, producing various types of rolled product with thicknesses as low as 0.006 mm in the case of foil. In general, the type of product depends on the alloy used, the rolling deformation and the thermal treatment used in the process. Rolling mills are controlled by very precise mechanisms and measuring systems. Rolled products include:

Foil typically less than 0.06 mm thick, foil is used mainly in the packaging industry (e.g., for foil containers and wrapping), for electrical applications and for building insulation.

Lithographic sheet typically of a thickness between 0.12 – 2.2 mm and with a high surface quality, lithographic sheet is used in the printing industry.

Sheet and strip typically between 0.06 and 3-4 mm in thickness, sheet and strip are widely used in the construction industry, in transport applications and in packaging.

Plate and shate over 3-4 mm in thickness, plate and shate are used in a number of applications, including airframes, military

vehicles and structural components in bridges and buildings.

*Extrusion*

Aluminium cylinders, referred to as extrusion ingots, which are continuously cast from molten aluminium, can be extruded by heating the aluminium to around 450-500 degrees Celsius and pushing it through a die at great pressure to form intricate shapes and sections. The primary applications for extrusions include:

window frames, door frames and facades;

automotive applications like bumper beams, window and door frames and subframes;

transport segments such as trucks, trains and airplanes; and

machines, furniture and consumer durables.

Extruded products are sold in various forms, such as long lengths (e.g., six meters), cut to length, machined, formed, assembled in a component or module or as systems.

### *Casting*

Aluminium can be cast into an infinite variety of shapes. Cast parts are used in a variety of applications including: light weight components for vehicles, aircraft, ships and spacecraft; general engineering components; architectural fittings; and high-tech products for office and home. Cast products can be produced using either sand casting (used for high production volume processing) or die casting.

### *Recycling*

Anything made of aluminium can be recycled repeatedly. The recycling of aluminium requires only about five percent of the energy to produce primary metal. Scrap aluminium has significant value and commands good market prices. Many aluminium companies, including Hydro Aluminium, have invested in dedicated state-of-the-art secondary metal processing or remelt plants to recycle aluminium.

### ***Industry Trends and Developments***

Aluminium consumption in the Western World (i.e., the world, excluding China, the Commonwealth of Independent States (CIS) and Eastern Europe) has realized an average annual growth rate of approximately 2.7 percent over the last two decades. Industry analysts, such as Brook, Hunt and CRU, predict future growth in the Western World's consumption of aluminium in the next decade to be approximately three percent per year. On a global basis, the growth rate is expected to be about four percent mainly due to increasing consumption in China and the CIS.

Weak global economic conditions over the past few years have contributed to an oversupply situation. China's rapid increase in aluminium production has created increased uncertainty around the potential oversupply situation that could negatively affect international prices. China has traditionally been a net importer of aluminium. However, during 2002, China's capacity and production increased by about 30 percent while consumption grew by roughly 20 percent, and the country became a net exporter (approximately 250,000 tonnes). For 2003, net exports increased by an estimated 100,000 tonnes to a total estimated 350,000 tonnes. Over the longer term, China is expected to devote more or all of its aluminium production to internal consumption. However, if consumption and production in China fail to develop in parallel, it will almost certainly influence the metal pricing and the need for new capacity in the rest of the world. However, China has few natural advantages for primary production. China must import alumina, power sources are far into the country, and much of its power is coal-based. If alumina spot prices remain at levels similar to those in early 2004, this may reduce incentives for starting up additional new capacity in China in the short run. In addition, Chinese authorities announced a reduction of available credit for industrial development in China during the first quarter of 2004.

In 2003, growth in demand in Europe and in the United States, currently the world's largest aluminium consuming regions, was low to moderate. Total shipments of primary aluminium in the Western World increased approximately 4.6 percent (or 900,000 tonnes) compared to the prior year. New capacity resulted in increased production of about 540,000 tonnes. This was partially offset by net capacity idled of about 20,000 tonnes in 2003. In addition, there was an increase in net primary exports to the Western World from China of about 100,000 tonnes. CIS exports are estimated to have remained at the same level as in 2002. As a result, total reported and unreported inventories are estimated to have increased by approximately 300,000 tonnes.

Reported inventories of primary aluminium (defined to include London Metals Exchange (LME), International Aluminium Institute (IAI), Japanese merchant/consumer and other reported stocks) in the Western World increased approximately 100,000 tonnes in 2003 to a level of approximately 3.5 million tonnes.

Historically, stocks in the Western World have fluctuated considerably. From a level of approximately 1.5 million tonnes in the late 1980s, stocks peaked in 1993 at approximately 4.5 million tonnes and thereafter were rapidly reduced to approximately 2.6 million tonnes at the end of 1995. These changes mainly were attributable to the export of Russian metal to the Western World, and the subsequent production reduction implemented by producers. Since 1995, the annual fluctuations have been less than 500,000 tonnes. High and increasing stocks historically have had a downward impact on the aluminium price as illustrated in the following graph showing the LME 3-month price (i.e., the price quotation on the LME for delivery of metal three months from the date of quotation) and reported stocks estimated in days of consumption since 1994.

Primary aluminium is traded on the LME. The most common benchmark is the 3-month price. Prices are quoted on a daily basis, and normally reflect the market's expectations as to the future supply and demand balance, together with actual consumption and production data. Due to the liquidity in the LME market, hedge funds enter the market to varying degrees to capitalize on volatility in the prices. The LME price, which is stated in US dollars per tonne, serves as the main reference price for aluminium purchase and sale contracts worldwide. For medium to long-term alumina contracts, prices are also normally linked to the LME price of aluminium rather than alumina spot prices. For semi-fabricated products, a variety of contracts are used, both with respect to duration and pricing.

The graph below illustrates the annual average LME 3-month price of aluminium during the 1981-2003 period.

During the 1981-2003 period, the nominal LME 3-month price has reflected fluctuations based upon the factors described above and a marginal average annual increase. However, adjusting for the U.S. producer price index (PPI), the LME 3-month price, stated in real terms, declined at an average annual rate of approximately 1.2 percent during this period. Industry sources expect a decline in the real price of aluminium to continue in the long term.

Aluminium is used in a variety of applications in several industries. The table below reflects a percentage breakdown of the estimated levels of Western World consumption by the principal consuming industries in 2003, and the historic annual growth rates for these industries over the period of 1997 through 2003 (2003 reflecting forecasted figures).

<b>Industry</b>	<b>Percentage of Western World Consumption in 2003</b>	<b>Annual Growth Rates (1997-2003)</b>
Transport	29%	2.8%
Building & Construction	20%	0.8%
Packaging	18%	1.5%
Electrical	9%	1.2%
Consumer Durables	8%	1.7%
Engineering	8%	0.7%
Other	8%	1.6%

Source: Brook Hunt

Based on the historical data, the transport segment is expected to experience the most significant growth rates in the foreseeable future. The packaging, and building and construction, industries appear to be more mature industries, in terms of aluminium consumption, particularly in the United States and Western Europe.

During the last two to three years, there has been a prolonged economic downturn in the United States and Western Europe which has impacted the downstream aluminium industry.

The table below provides a breakdown of the 2003 production volumes in the principal aluminium producing regions and the percentage of the estimated percentage of total global production represented by each such region (2003 reflecting forecasted figures).

<b>Region</b>	<b>Production Volume (in millions of tonnes)</b>	<b>Estimated Percentage of Total Global Production</b>
North America	5.5	19.6%
South America	2.3	8.2%
Western Europe	4.1	14.6%
Eastern Europe (including Russia)	4.3	15.4%
Asia	8.2	29.3%
Oceania	2.2	7.9%
Africa	1.4	5.0%
Total	28.0	100.0%

Source: Brook Hunt

### *Industry Structure*

Aluminium competes with substitution materials like steel, polyvinyl chloride ( **PVC** ), wood, glass, magnesium, etc. In addition, there is strong competition among the various aluminium producers, which have focused on reducing costs in order to retain or improve their competitive position. As a consequence, pressure has been put on uneconomic smelters using outdated technology, and some closures have been completed or announced. According to CRU, as of the end of 2003, approximately 2 million tonnes of capacity remained idle in the Western World, 1.5 million tonnes of which was located in the Northwest United States, due primarily to the high price of electricity in the regions where the production capacity is located. The likelihood and timing of the reactivation of any of this capacity is uncertain. In response to the competition, aluminium producers are seeking to expand their existing smelter units to capture economies of scale and investing in the development of cost-efficient plants (i.e., in areas with ample energy supplies and favorable energy prices). This is expected to continue in the foreseeable future.

Over the last decade the aluminium industry has consolidated significantly. Alcoa (based in the United States) has established itself as the number one integrated aluminium company through the acquisitions of Alumix (based in Italy), Inespal (based in Spain), Alumax (based in the United States) and Reynolds (based in the United States). Alcoa has also developed a significant position in alumina. Alcan (based in Canada), the number two integrated aluminium company, has acquired Alusuisse (based in Switzerland), and, in February 2004, Pechiney (based in France). Following the acquisition of Pechiney, Alcan's integrated aluminium operations are estimated to be approximately of a size comparable to that of Alcoa, though Alcan has recently announced its intended spin-off of substantially all of the rolled products businesses held by Alcan prior to its acquisition of Pechiney. Hydro Aluminium, following its acquisition of VAW in March 2002, has become the third-largest globally integrated aluminium company in terms of volume, with approximately 50 percent of the revenues of Alcoa and of a combined Alcan/Pechiney. Industry analysts expect that the consolidation activity within the aluminium industry will continue, although at a reduced scale compared to previous years.

In addition to the integrated companies mentioned in the preceding paragraph, there are several large companies whose focus is on upstream operations (i.e., bauxite, alumina or primary metal), such as BHP Billiton (based in Australia and the United Kingdom), Rio Tinto, through its subsidiary, Comalco Limited (Comalco) (based in Australia), and CVRD, through its subsidiary, Aluvale (based in Brazil). The Russian aluminium industry has consolidated into two companies, Rusal and Sual. Both companies focus on metal production in Russia, with minor downstream operations. Since the 1990s, China has emerged as a major producer of primary metal. The industry structure in China is still fragmented with many small- and medium-sized companies, of which Chalco has evolved as the most significant.

Downstream, there are a few major independent semi-fabricating producers outside the large integrated systems. In finished products, the structure is much more fragmented.



## **Hydro Aluminium's Competitive Position**

Hydro's acquisition of VAW has provided a balance between Hydro Aluminium's primary upstream production and downstream activities. The downstream activities added to Hydro Aluminium's business activities through the VAW acquisition have complemented and broadened Hydro Aluminium's product portfolio, contributing to such activities achieving a critical size. For example, Hydro Aluminium has evolved from a rather marginal to a leading producer in the European rolled products business (annual sales of flat rolled products expanded from 133,000 tonnes in 2001 to 893,000 tonnes in 2003). According to the November 2003 edition of CRU's Aluminium FRP Quarterly report, Hydro Aluminium's Rolled Products sub-segment is now the world's third-largest producer of flat rolled products, measured by volume. Hydro Aluminium's management estimates that flat rolled products represent roughly half of the global aluminium consumption.

Hydro Aluminium now has important European positions within high margin rolled products segments such as lithographic (printing) plates and foil. Each of Hydro and Alcan has a 50 percent ownership interest in Aluminium Norf GmbH ( **AluNorf** ), which is the world's largest hot rolling mill according to CRU's Rolled Mills Equipment Profiles 2000 report. As a result of Alcan's acquisition of Pechiney, the European Commission has required that Alcan divest, within a year, a combination of assets including either Pechiney's Neuf-Brisach rolling mill in France or Alcan's 50% share in AluNorf in Germany. In terms of capacity, either divestment will represent between 13-14% of the consumption in the European market. Alcan's announced spin-off plan for substantially all of the rolled products businesses held by Alcan prior to its acquisition of Pechiney contemplates its interest in AluNorf being shifted to the new company created in connection with the transaction. Alcan announced that the spin-off would achieve its regulatory divestiture requirements from the European Commission.

Hydro Aluminium's management believes the composition of its portfolio has several benefits compared with other integrated aluminium companies. The benefits enable Hydro to maximize high margin product offerings with less capital employed. This is accomplished by or as a result of:

sourcing approximately 50 percent of the alumina needed to produce aluminium through medium- to long-term contracts, rather than through ownership interests;

sourcing a similar tonnage of metal from scrap, other ingot sources and alliance partners (see *Strategy* *Leverage Metal Supplier Concept* below) as Hydro Aluminium produces from its own electrolysis production; and

the composition of its downstream product mix. Hydro Aluminium has a higher proportion of extrusion production than rolled products production when compared with other integrated aluminium companies. Extruded products offer attractive margins and require less capital invested per tonne than rolled products.

### **Strategy**

Hydro Aluminium's strategy has multiple components, reflecting its integrated aluminium operations.

#### ***Ensuring Alumina Supply***

Hydro Aluminium has, over the last decade, based its supply of alumina on a combination of alumina production from facilities in which it has an equity interest and a portfolio of medium- to long-term contracts. Through completion in 2003 of the expansion (to approximately 2.4 million tonnes) of the Alunorte alumina plant in Brazil, in which Hydro Aluminium holds a 34 percent interest, the equity portion of its alumina supply has increased and now covers approximately 50 percent of the needs of its smelter system. Hydro Aluminium has never been an operator of alumina plants, but has instead prioritized its capital and management resources in areas in the value chain where Hydro Aluminium could add greater value. In general, over the last decade there has been a favorable alumina

supply

situation, with the exception of a few short periods of tight supply. Consequently, it has been possible for Hydro Aluminium to capitalize on its financial strength to enter into favorable contracts. During 2003 and in early 2004, the alumina market has been tight and spot prices have risen. For Hydro Aluminium, this had little impact due to its combination of supply from equity interests and contracts. While this situation may continue for several years, Hydro Aluminium's management believes the risk for a long-term tightening of supply of alumina in the market is limited, since there is remaining potential to expand current capacity with moderate investments. Accordingly, Hydro Aluminium will continue to pursue an alumina strategy based on sourcing a substantial part of its needs through medium- to long-term contracts.

### ***Restructure Smelter Portfolio; Improve Relative Cost Position***

Hydro Aluminium, like the other leading integrated aluminium companies, plans to increase the share of its production being produced at larger smelters. Based on approved projects, Hydro Aluminium expects to increase its share of production being produced by smelters with a capacity of more than 250,000 tonnes per year from 27 percent in 2002 to approximately 46 percent by the end of 2006. The expansions in primary production are being made in plants where the existing infrastructure supports a larger capacity. This can be done at a lower investment level than a corresponding new or "greenfield" investment. Expansion of an existing facility improves the operating cost position of the plant, thereby improving the overall long-term cost position.

Hydro Aluminium has taken active steps to increase its metal production and improve its average cost position. The annual production capacities of the Sørådal smelter (located in Norway; Hydro's share is 49.9 percent) and the Slovalco smelters (located in Slovakia; Hydro's share is 20 percent) have been expanded by approximately 32,000 tonnes and 34,000 tonnes, respectively, and now have an annual primary aluminium capacity of approximately 160,000 tonnes each. Hydro's equity share of the increase in combined production due to the expansions is approximately 20,000 tonnes. The fully owned Sunndal smelter (in Norway) is in the process of being expanded to an annual primary aluminium capacity of 330,000 tonnes. The expansion is scheduled to be completed in the autumn of 2004. In 2002, Hydro approved participation in the expansion of the Alouette smelter in Canada. Total annual primary aluminium production capacity will increase by 307,000 tonnes to 550,000 tonnes in 2005, making Alouette the largest aluminium smelter in North America and among the world's lowest cost smelters. Hydro's ownership interest and share of the production is 20 percent. Including other smaller projects, these expansions of primary aluminium production capacity will increase Hydro Aluminium's total annual primary aluminium capacity to approximately 1.7 million tonnes by 2005, from the level of nearly 1.5 million tonnes in 2003.

Even with Hydro's efforts to improve the relative cost position of its smelter system through continuous improvement and reduced cost within existing capacity and expanding capacity at low cost smelters, Hydro's Norwegian smelters face challenges in reaching acceptable cost levels. Approximately 30 percent of production costs in these smelters relate to direct and indirect labor. A combination of higher wages, social benefits, shift schedules, higher manning for support functions and higher prices for purchased services in Norway result in a cost disadvantage for these smelters. As a result, on May 7, 2004, Hydro's Board of Directors decided to recommend to the Corporate Assembly a plan aimed at reducing annual costs by NOK 350 to NOK 400 million. The plan will require a reduction of manning by about 800 employees in the Norwegian plants. The reduction in manning is expected to be completed by the end of the first quarter of 2005.

### ***Leverage Metal Supplier Concept***

In view of the high investment costs associated with new smelter capacity, since the 1990's Hydro Aluminium has pursued a multi-sourcing strategy, which it refers to as the "metal supplier concept". This strategy, focusing on building a strong market position in the metal products market, has been based on three primary components:

develop alternative metal sources through commercial alliances and other agreements;

better utilize Hydro Aluminium's casthouse capacity; and

expand Hydro Aluminium's remelt activities.

Hydro Aluminium has entered into several long-term commercial alliances and agreements that further its strategy of developing and leveraging the metal supplier concept with limited asset investment. Under one of these agreements, Hydro Aluminium will participate in upgrading the aluminium casthouse at Rusal's Sayanogorsk smelter, located in southern Siberia. Upon completion of the first stage of the construction, anticipated in the first half of 2004, Hydro Aluminium will be supplied with 80,000 tonnes per year of high quality extrusion ingot under the terms of a technology and remarketing agreement. The second stage, to follow a few years later, will further increase casting capacity to 160,000 tonnes. Hydro Aluminium has also entered into a new long-term agreement with Talum in Slovenia, under which Talum will supply Hydro Aluminium with 70,000 tonnes of foundry alloy products per year during 2004-2010.

### ***Focused Growth in Selected Markets Downstream***

#### *Rolled Products*

Following the acquisition of VAW, Hydro Aluminium is the number two producer in the European rolling industry; management estimates that it has a market share of approximately 18 percent. Hydro Aluminium has a strong product portfolio including foil, lithographic and automotive sheet products. The acquisition of VAW has improved Hydro Aluminium's asset base, bringing into Hydro a high level of technical competence in the work force and a portfolio of high quality products. Hydro Aluminium's rolled products strategy is to focus on growth in selected segments (such as lithography, a product segment for which management has recently approved an expansion of German capacity of lithographic plate by approximately 75,000 tonnes), while at the same time continuing to work on operating improvements. Several initiatives have been launched to improve the Rolled Products sub-segment's financial results, addressing selling, general and administrative costs and direct production costs. Plant specialization will also be pursued to improve efficiency. Following completion of a number of projects in 2003, the level of capital expenditures is expected to go down somewhat and be at approximately the same level as depreciation.

#### *Extrusions*

Hydro Aluminium currently holds a leading position in the European soft-alloy extrusions market with a market share estimated by Hydro Aluminium's management to be approximately 14 percent. Hydro Aluminium is a leader in the building systems market in Europe, with its position having been bolstered by the acquisition of the French-based company, Technal, in 2002. The acquisitions of the former Wells Aluminum (based in the United States) in 2000 and VAW in 2002 have strengthened Hydro Aluminium's position in the North American extrusions markets. In South America, the plants in Brazil and Argentina have been established as important footholds that will provide bases for future developments. In parallel with this growth, Hydro Aluminium has focused on improving the performance of its extrusions operations under challenging market conditions in order to place itself in a better position to capture new growth opportunities. Hydro Aluminium intends to continue to expand its product offerings in the global extrusions markets through selected forward integration into product refinements and value-added services to improve margins and volume. Further, Hydro Aluminium will seek to increase its presence in these markets through organic growth and selective acquisitions.

#### *Automotive*

Hydro Aluminium is actively engaged in meeting the needs of the automotive market, which has become the principal source of the growth in demand in the aluminium industry during the last ten years. On average, approximately 25 percent of Hydro Aluminium's sales in tonnes of primary metal have been ultimately destined for the automotive sector, either as customers of Hydro Aluminium's own

semi-fabricated and finished products or through other tier suppliers using Hydro Aluminium's foundry alloys to make automotive parts. Hydro Aluminium's product portfolio in Europe includes primary foundry alloys, precision tubing and crash management systems. Hydro Aluminium also engages in the production of aluminium engine blocks and cylinder heads in Europe and Mexico. In the United States, precision tubing products are an important part of Hydro Aluminium's product offerings to the automotive industry.

In 2003, Hydro Aluminium's Automotive sector focused on improving its profitability by streamlining production processes to reduce costs. The short- to medium-term strategy is to continue to focus on selected products and leverage the investments made to improve profitability.

### ***Improvement of Operational Performance throughout the Organization***

The VAW acquisition had the immediate benefit of expanding Hydro Aluminium's portfolio of plants with relatively attractive costs given the scale of several of the smelters and rolling mills acquired. Furthermore, it provided opportunities to capture the synergies available from a larger scale of operations. This included streamlining the sales, general and administration processes, reducing manning, and sharing best production and other practices to enhance productivity and reduce fixed and variable costs. Hydro Aluminium dedicated significant time and attention in 2002 to the successful integration and extraction of synergies from the acquisition. These efforts continued with full force in 2003 to ensure that the entire potential was realized.

Following the completion of the VAW acquisition, Hydro Aluminium undertook the rapid integration of the two companies' activities. To capture the synergies associated with the acquisition, Hydro Aluminium launched a program encompassing internal benchmarking to identify and implement cost savings through the introduction of best practices' work processes across the units and the optimization of production systems. Together with the improvement programs already in place, these programs contributed to cost reductions throughout the system.

Even before the VAW acquisition, Hydro Aluminium had initiated cost reduction and improvement programs throughout its various segments. In 2002, Hydro Aluminium achieved its combined cost and staff reduction targets for these and the VAW-synergy programs. This resulted in aggregate savings of approximately NOK 1 billion, compared to the base-line cost level in 2001 for the combined Hydro Aluminium and VAW businesses. Closure of the primary magnesium production in Norway yielded NOK 424 million of the total savings. Additional programs resulted in the remaining savings. Staff reductions in 2002 totaled 534 employees in the primary magnesium operation and 708 employees associated with other cost reduction initiatives. Hydro Aluminium increased its total savings and improvements targets for its improvement programs in the fourth quarter of 2002 by NOK 400 million to a total of NOK 2.5 billion by the end of 2003, to be achieved with full effect for 2004. As of the end of 2003, Hydro had achieved the cost saving and improvements targets, including an aggregate manning reduction of over 1,700 employees compared to the 2001 base-line level. This means the full year effect for 2004 will be in line with the target of NOK 2.5 billion. Accumulated restructuring and rationalization costs related to these programs were NOK 1,166 million, NOK 397 million less than originally estimated.

In 2004, Hydro Aluminium will maintain a strong focus on identifying and capturing additional cost reduction opportunities throughout the value chain.

### **Hydro Aluminium's Operating Sub-Segments**

#### **METALS**

Hydro Aluminium's Metals sub-segment (Metals) consists of the two sectors, Primary Metal and Metal Products. The Metals sub-segment encompasses Hydro Aluminium's upstream activities, principally the production

and sale of primary aluminium produced in Hydro Aluminium's smelters. Metals activities also include the processing of scrap into high quality products for the mid- and downstream markets, all aluminium and raw materials trading activities, Hydro Aluminium's high purity business and magnesium operations.

**Primary Aluminium Production**

Hydro Aluminium produces its primary aluminium at 12 wholly or partly owned primary aluminium smelters. Most smelters operated at full capacity during 2003. Production at the smelters during the three most recent years are reflected in the table below:

<b>Aluminium production (tonnes)</b>	<b>2003</b>	<b>2002<sup>(1)</sup></b>	<b>2001</b>
<i>Primary Aluminium</i>			
Karmøy	271,000	273,000	272,000
Årdal	215,000	206,000	206,000
Sunndal <sup>(2)</sup>	210,000	153,000	156,000
Høyanger	74,000	73,000	71,000
Sørøst (Hydro's 49.9 percent share) <sup>(3)</sup>	79,000	67,000	62,000
Slovalco (20 percent share) <sup>(4)</sup>	27,000	22,000	18,000
Rheinwerk	221,000	173,000	
Elbework	69,000	48,000	
HAW (33.3 percent share)	43,000	33,000	
Kurri Kurri	156,000	122,000	
Tomago (12.4 percent share)	59,000	45,000	
Alouette (20 percent share)	49,000	38,000	
<b>Total primary aluminium production</b>	<b>1,473,000</b>	<b>1,253,000</b>	<b>785,000</b>
<b>Average price primary aluminium (U.S.\$/tonne per LME 3-month price)</b>	<b>1,428</b>	<b>1,365</b>	<b>1,454</b>

(1) Includes VAW volumes from the VAW acquisition date of March 15, 2002.

(2) The Sunndal smelter is in the process of being expanded to an annual primary aluminium capacity of 330,000 tonnes. The 2003 production volume reflects the partial completion of the expansion.

(3) The annual production capacity of the Sørøst smelter has been expanded by approximately 32,000 tonnes. The 2003 production volume reflects Hydro's share of that expansion.

(4) The annual production capacity of the Slovalco smelters has been expanded by approximately 34,000 tonnes. The 2003 production volume reflects Hydro's share of that expansion.

Emission standards, established by the Norwegian Pollution Authority in accordance with the Oslo and Paris Convention regulations (see Environmental Matters Oslo and Paris Commission (OSPAR) below), require primary aluminium production facilities using the Sørøst technology in the Høyanger and Årdal primary aluminium plants to be closed by the end of 2006. Hydro has decided that investments to replace this capacity will not be made. The resulting closures will reduce Hydro Aluminium's annual primary aluminium production capacity by 72,000 tonnes by, at the latest, 2007.

**Raw Materials***Alumina*



Hydro Aluminium has secured a part of its long-term alumina requirements for its primary metal production through investments in alumina plants. In 2003, following the expansion at Alunorte, a Brazilian alumina refinery, approximately 50 percent of its alumina requirements for primary metal production was provided by such investments.

Hydro Aluminium's major alumina investment is its 34 percent participation in Alunorte. After an expansion of the plant in 2003, its capacity has reached approximately 2.4 million tonnes, enabling

Hydro Aluminium to secure access to 810,000 tonnes of alumina per year. In the third quarter of 2003, Hydro decided to participate in a further expansion of Alunorte. This planned expansion will increase capacity to approximately 4.2 million tonnes in 2006, providing Hydro Aluminium with a total of approximately 1.4 million tonnes of alumina annually. Hydro Aluminium believes that Alunorte's cash operating costs are significantly below the alumina industry's world average. As a result of this investment in Alunorte, Hydro Aluminium will maintain approximately 50 percent coverage of its alumina needs through its equity investments, taking into account the higher production arising from planned primary metal expansions.

Hydro Aluminium also has a 35 percent equity interest in the Alpart alumina refinery in Jamaica, which has an annual production capacity of approximately 1.5 million tonnes. In late May 2004, Hydro decided to exercise its right of first refusal, provided under the Alpart partnership agreement between Hydro Aluminium and Kaiser Aluminum, to acquire the remaining 65 percent interest. On June 3, 2004, the US Bankruptcy Court for the District of Delaware ordered that Kaiser proceeds with the sale of its interests in and related to Alpart to Hydro. Immediately after this purchase has been completed, Hydro will sell this 65 percent interest to the Swiss-based Glencore AG on the same terms and conditions as those governing Hydro's acquisition of the interest. Following the completion of these transactions, Alpart will change from being operated by a managing partner to having independent management. Both Hydro and Glencore will be represented on Alpart's ultimate governing body, the Executive Committee. The agreement with Glencore also contemplates optimization of bauxite mining activities between Alpart and Windalco, an alumina refining company in Jamaica (with an annual production capacity of approximately 1.35 million tonnes), which is 93%-owned by Glencore. The changes in ownership of Alpart, as well as the optimization of bauxite mining activities, are subject to approval by the Jamaican government. Hydro and Glencore have also entered into a memorandum of understanding under which each company will explore the possibility of closer cooperation and utilization of synergies between Alpart and Windalco.

In addition to the equity interests in alumina production capacity mentioned above, Hydro Aluminium has a number of short-, medium- and long-term purchase contracts to secure alumina for its own smelters and trading activities. These contracts typically have pricing formulas based upon a percentage of the LME price.

In June 2003, Hydro Aluminium and Comalco signed one of the largest alumina supply contracts in the history of the aluminium industry. Under the agreement, Comalco will supply Hydro Aluminium with 300,000 tonnes of alumina in 2005 and 500,000 tonnes of alumina annually from 2006 through 2030.

### *Energy*

Energy represents about 25 percent of the operating costs associated with primary aluminium production. Hydro Aluminium has negotiated long-term contracts for its Norwegian smelters. Much of this energy is purchased from or through Hydro Energy. Hydro Energy produces, in its own hydroelectric generating plants, electricity amounting to more than 70 percent of the requirements of Hydro Aluminium's Norwegian primary aluminium smelters. More than 95 percent of the electricity needed to operate the Norwegian smelters in 2004 is covered by medium to long-term supply contracts. Certain long term supply contracts with Statkraft expire in the summer of 2006. Hydro has already entered into new contracts with Statkraft replacing these contracts through year 2020. Compared with the expiring contracts, the new pricing structure will increase energy costs starting in the second half of 2006. Long-term availability of electricity at predictable prices is considered a prerequisite for the further development of the Norwegian operations particularly since Nordic spot market prices can be highly volatile.

The smelters outside Norway source energy under contracts with local producers. For the large smelters in Canada and Australia, Hydro has entered into long-term contracts. The current contracts for the German smelter system are scheduled to expire at the end of 2005. New contracts will need to be negotiated before that time. Hydro owns 33.33 percent of the German aluminium smelter, Hamburger Werk GmbH (HAW). HAW has an electricity supply contract through the end of 2005 with Hamburger Electricitätswerke AG (HEW). During the fourth quarter of 2003, HEW gave notice of an early termination of the existing electricity supply contract effective September 30, 2004. The current market price for power is considerably higher than the contract price. Negotiations for an acceptable settlement, including a new electricity price for the period from the beginning of October 2004 to the end of December 2005, have not yet reached a conclusion. If these negotiations do not reach a satisfactory agreement, it is likely that litigation will be initiated. Should it not prove possible to obtain power at an acceptable price, the ultimate consequence may be the closure of HAW.

### *Anodes*

Anodes are used and consumed in the smelting process. Most of Hydro Aluminium's smelters produce their anodes at their own on-site facilities.

### *Remelt Activities*

Hydro Aluminium has established remelt plants for conversion of scrap metal into extrusion ingot in all major European markets. Facilities are located in Norway, Luxembourg, the United Kingdom, Germany, Spain and France, as well as at the primary metal plants in Norway, Germany and Slovakia.

Scrap is sourced from internal and external customers, and in addition standard ingot is used as input material. The main customers are internal and external extrusion plants.

### *Sales and Distribution; Trading Activities*

Most of Hydro Aluminium's own production of aluminium cast house products is sold in Western Europe and in the United States to semi-fabricating plants like extruders, rollers and wire mills, as well as foundries. The main consumer areas are transportation, construction and packaging. The major consuming countries in Europe are Germany, France, the United Kingdom, Italy and Spain. Most of the aluminium is sold in the form of value-added products such as extrusion ingot, rolling ingot, wire rod and foundry alloys.

Hydro Aluminium has consistently strengthened its commitment to customer service and increased the efficiency of its production systems. Metals' regional market teams have competencies within technical and commercial service, research and development, logistics, contract administration and scrap conversion. To enhance its existing service level, Metals implemented a program in 2001 called Hydro Billet Plus. The aim of the program is to reward the Metals sub-segment's most important customers and customers who wish to increase their business volume. This service concept includes a web-enabled tool allowing customers to improve their understanding of commercial and LME price risk and to optimize their production system.

To support the metal supplier concept, Hydro Aluminium engages in trading of aluminium and related raw materials, mainly alumina. Trading is a natural extension of Hydro's internal sourcing activity. Trading contributes to optimizing capacity utilization within Hydro's own system as well as reducing logistics costs by sourcing both internally and externally from a variety of sources. Aluminium trading activities consist of physical metal purchases and sales, as well as trading on the LME. In 2003, Hydro's metal traders sold externally 705,000 tonnes of primary aluminium products, compared to 478,000 tonnes in 2002. The main trading product is standard aluminium ingot, which is also the global aluminium product on which price quotations on the LME and other metal exchanges are

based. Hydro Aluminium has a small alumina trading activity that has been profitable during the last five years.

Alumina is often used in combination with metal trading/sourcing activities, for example, by supplying a third party smelter with alumina and receiving metal as compensation.

### ***High Purity Aluminium***

As a result of the VAW acquisition, Hydro Aluminium produces and sells high purity aluminium products which are mainly used in the electronics industry in products like electrolytic capacitors or semiconductors. High purity products have an aluminium content of between 99.98 to 99.9999 percent. The producers of high purity aluminium are quite concentrated, with two producers in Europe, four in Japan, two in China and one in Russia. Hydro Aluminium's management has estimated that global production in 2003 was approximately 70,000 tonnes. Through its three production sites in Japan, Norway and Germany, Hydro Aluminium sold about 12,000 tonnes in 2003.

### ***Magnesium***

The magnesium industry in the Western World comprises only a few producers of primary magnesium. The International Magnesium Association (IMA) predicted that worldwide shipments for 2003 would reach approximately 388,000 tonnes compared with its estimate of actual 2002 shipments of 365,000 tonnes. Based on the latest statistics available (2002), China and CIS shipments represented about 57 percent of the total. Increased quantities of Chinese magnesium available in Western markets over the past several years have resulted in significant downward pressure on magnesium prices.

Hydro Aluminium has a primary (electrolytic) magnesium plant in Becancour, Canada, that produced approximately 50,000 tonnes in 2003. In addition, it has remelt operations in Norway, Canada, Germany and China with a combined remelting and recycling capacity of approximately 50,000 tonnes.

## **ROLLED PRODUCTS**

Hydro Aluminium's Rolled Products sub-segment (Rolled Products) is centered in Europe, with rolling mills in Germany, Norway, Spain and Italy, as well as a foil rolling mill in Malaysia that provides a foothold in Asia. Production capacity includes a 50 percent share in the AluNorf hot rolling mill in Germany, which in 2003 provided almost 610,000 tonnes to Rolled Products. Most of Hydro Aluminium's entitlement to the products from AluNorf is further processed in the nearby plant in Grevenbroich before being delivered to customers. Grevenbroich is the center (from the standpoint of technology, best competence and capacity) of Rolled Products' foil and lithographic sheet operations.

The table below shows the ownership interest and sales volume per main site in Rolled Products' production system.

Site	Ownership Percentage	2003 Sales Volume (1) (in thousands of tonnes)
Grevenbroich, Germany	100	506
Hamburg, Germany	100	131
Slim, Italy	100	78
INASA, Spain	100	22
AISB, Malaysia	81	18

Edgar Filing: NORSK HYDRO A S A - Form 20-F

Karmøy, Norway	100	58
Holmestrand (including Alucoat), Norway	100	80
<b>Total</b> , excluding internal sales and wire rod		893
AluNorf, Germany	50	610 <sup>(2)</sup>

<sup>(1)</sup> Excludes intra-company shipments, except volume cited for AluNorf.

<sup>(2)</sup> 100 percent of shipments from AluNorf are intra-company.

67

---

In 2003, Rolled Products had external shipments of 893,000 tonnes, mainly to the European market, where Hydro Aluminium's management estimates it holds a market share of approximately 18 percent.

Rolled Products, like the rest of the rolling industry, produces a wide variety of products for different industries and with different product margins. Important success factors within the rolling industry are optimizing the product mix and capacity utilization, as well as streamlining the production system. Because the rolling industry is capital intensive, high capacity utilization (volume) is important to reach an acceptable fixed cost per tonne. This must be balanced with optimizing margins and product mix. There are large differences in margins between different products, with the most attractive products limited in terms of demand.

Rolled Products' customer base includes customers in the packaging, automotive, transport, building, engineering, electrical and printing industries. A major part of Rolled Products' sales functions is organized centrally along the product lines. Such organization enables optimization of sales, planning and production in Rolled Products' total system.

Rolled Products consists of four business units serving different market segments, which in 2003 had the following sales volumes to external customers:

<b>Unit</b>	<b>2003 External Sales Volumes (in tonnes)</b>
Lithography	128,000
Foil	143,000
Strip	562,000
Automotive	60,000
<b>Total</b>	<b>893,000</b>

In 2003, Rolled Products' management estimates that the Lithography business unit had an average annual growth in sales volume of about 14 percent, outpacing management's estimate of five to seven percent growth in general lithography demand in the market. Rolled Products' management attributes this primarily to Rolled Products' focus on quality and customer service. Hydro Aluminium's Lithography business unit is well positioned to continue to expand its customer base and meet increased competition. Both on the demand and supply side, the lithography market is characterized by a high degree of concentration.

Rolled Products' Foil business unit has endeavored to leverage its market position in Europe to respond to the needs of global customers for a global supplier with a local presence. Within important foil segments such as liquid packaging, management estimates Rolled Products is the global leader (in terms of volume). In 2001, Rolled Products acquired a 65 percent ownership interest (increased to 81 percent in 2002) in a Malaysian rolling mill to serve as a base for supplying customers in the Asian region. Living standards in Asia are rising, hence packaging needs are growing rapidly and foil is an important packaging material.

The Strip unit's business is characterized by higher volumes and lower margins compared to the other units within Rolled Products. For this business, high capacity utilization and production efficiency are particularly important. The current strategy is to optimize the combined production and market system of Rolled Products to realize the full potential.

Automotive flat rolled products are expected by Hydro Aluminium's management to have higher growth than other flat rolled products in Europe. Principally using its existing asset base, Rolled Products is expanding its flat rolled product range from non-visible applications to applications that are visible (referred to as the body-in-white market) on a finished manufactured vehicle. Body applications are expected to be a strong, growing market segment

due to auto manufacturers' continued desire to reduce weight. CRU projects that auto body sheet consumption will approximately double in size from 2002 to 2007 in Europe. As the surface requirement demands a special quality, a new finishing line has been constructed in Grevenbroich, Germany.



Most of the metal required for the production in Rolled Products is delivered from Metals. In addition, process scrap from Rolled Products' customers and scrap collected from the market is, together with Rolled Products' own process scrap, remelted and casted to rolling ingots in the casting facilities of Rolled Products. Supplies from Metals are priced on an arm's-length basis with reference to the LME price. External supplies of rolling ingot to Rolled Products are approximately 14 percent of its total requirements.

## EXTRUSION AND AUTOMOTIVE

The Extrusion and Automotive sub-segment of Hydro Aluminium consists of three sectors: Extrusion, Automotive and North America. Their main products are extruded aluminium profiles, used primarily in the building and construction markets and the transportation segment.

### *Extrusion*

The Extrusion sector ( **Extrusion** ) is primarily focused on the European market. Extrusion is Europe's largest soft alloy extruder of aluminium, in terms of volume, based upon estimates of Hydro Aluminium's management. Extrusion also has operating entities in Brazil and Argentina, and has a minority participation in a South African entity. In 2003, Hydro Aluminium's total production of extruded products (i.e., from all sectors) was 569,000 tonnes.

Extrusion mainly consists of general extrusion activities and its Building Systems unit. With respect to its general extrusion activities, Extrusion supplies custom-made general extrusions of soft alloy aluminium, surface treatments such as anodizing and powder coating, fabrication, components and finished products. Building Systems supplies complete design and solution packages to metal builders, enabling them to supply both the commercial and residential building markets with products, such as facades, partition walls, doors and windows, as well as other building applications through its three main brands: Technal™, Wiconal™ and Domal™.

In January 2002, Extrusion enhanced its position through the acquisition of Technal, a French-based manufacturer of aluminium building systems. The Technal acquisition augmented Extrusion's general extrusion operations through the addition of extrusion capacity in France and by doubling Building Systems' volumes.

### *Automotive*

The Automotive sector ( **Automotive** ) comprises all of Hydro Aluminium's precision tubing, structures and shape-casting businesses worldwide. In the last few years, Automotive has followed a strategy of continuous growth in order to strengthen its position as a supplier to the highly demanding automotive industry. Automotive is currently introducing several new products with start-up of new production lines.

Hydro Aluminium's management believes that Automotive is the leading supplier of aluminium extrusion-based applications within crash management (e.g., bumper beams, crash boxes, engine cradle components) in Europe. Automotive is also involved in crash management in North America and has increased its U.S. bumper production in 2003 based upon existing contracts. The sector has received safety awards for crash management systems supplied to several vehicles.

Automotive's precision tubing unit produces applications used primarily within radiators, fuel coolers and liquid lines. This unit has a significant market presence in Europe, North America and South America. The unit also supplies part of the Chinese market through its joint venture plant in China. Hydro Aluminium has announced that it will start construction of its first wholly owned precision tubing plant in China, to deliver precision drawn tubing, multi-port extrusions and extruded tubular profiles used in automotive heat transfer applications. Hydro will break ground in the first half of 2004. The investment costs are estimated to be NOK 150 million, and will create about 140 new jobs in

Suzhou.

Through the acquisition of VAW, Automotive became the owner of VAW's casting business and technology. The sector is one of a few independent (i.e., not affiliated with an automotive manufacturer) suppliers in Europe of aluminium cylinder heads, engine blocks and inlet manifolds. In June of 2004, Hydro announced its intended closing of the aluminium cylinder head production plant located in Leeds in the U.K. as a result of an unfavorable competitive environment/position. Production is planned to cease toward the end of 2004 or in early 2005. Production of turbo cylinder heads for GM will be relocated to Hydro's plant in Győr, Hungary.

Through its competence in technology and in cooperation with Daimler Chrysler, Automotive has developed the first aluminium high performance, high volume V6 diesel engine block.

### ***North America***

The North America sector ( **North America** ) comprises all non-automotive extrusion and remelt plants in the United States. Through the acquisition of Wells Aluminum in 2000 and VAW's North American extrusion assets in 2002, the sector has increased its size as an extrusion company in the North American market, with seven extrusion plants and four stand-alone component manufacturing fabrication facilities, including one in Mexico.

The North America sector produces a broad range of extruded shapes, and provides finishing services, for numerous end markets. The sector has a leading position within the North American drawn tube market for demanding applications in office imaging products and health care. It also supplies extrusion-based products to the transportation, building and construction, and consumer durable markets.

The sector operates six remelters, including its new remelter in Commerce, Texas (which started operations in 2002), representing one of the largest remelting systems in the United States. The remelt network produces extrusion ingot and offers cost-efficient remelt solutions to the North American sector's customers.

The U.S. market has proven to be more volatile than the Western European market. The North American extrusion market fell by approximately 21 percent from 2000 to 2001, and remained flat in 2002. In 2003, the American Aluminum Association estimated that extrusion shipments fell by one percent compared to 2002. By comparison, estimated consumption in the Western European market declined by about four percent from 2000 to 2001 and a further one percent in 2002. In 2003, estimated Western European consumption increased approximately one percent compared with 2002.

North America's operations were particularly affected by the trailer market segment, which experienced the largest decline, starting in 2001. The North America unit took a number of actions to respond to the drop-off in demand. In 2002, it closed the former VAW headquarters in Florida and an office in Kentucky. In 2002, it also closed a Georgia extrusion plant, transferring existing contracts to other facilities to improve press utilization and profitability.

### **Environmental Matters**

Hydro Aluminium is subject to a broad range of environmental laws and regulations in each of the jurisdictions in which it operates. These laws and regulations, as interpreted by relevant agencies and the courts, impose increasingly stringent environmental protection standards regarding, among other things, air emissions, the storage, treatment and discharge of wastewater, the use and handling of hazardous or toxic materials, waste disposal practices, and the remediation of environmental contamination. The costs of complying with these laws and regulations, including participation in assessments and remediation of sites, could be significant.



Aluminium production is an energy-intensive process that has the potential to produce significant environmental emissions, especially air emissions. Carbon dioxide, a greenhouse gas, is a major emission from aluminium production. The European Commission has adopted a directive that would limit carbon dioxide emissions from a broad range of industries and establish an internal emission trading system. So far the aluminium industry has not been included in the emission-trading directive.

In the European Union and other countries, various protocols address trans-boundary pollution controls, including the reduction in emissions from industrial sources of various toxic substances such as poly-aromatic hydrocarbons, and the control of pollutants that lead to acidification. Carbon dioxide regulation has been the subject of significant political debate in the United States, but thus far the United States has decided not to ratify the Kyoto Protocol. U.S. legislation regarding carbon dioxide emissions could be enacted in the future. Such legislation could have an effect on costs, but until such legislation is passed, it is not possible to provide a meaningful estimate. The United States has an extensive regulatory program to control other air emissions from aluminium facilities, including hazardous air pollutants.

The European Union has a framework of environmental directives integrated into the Water Framework Directive (2000/60/EC) regarding discharges of dangerous substances to water. The implementation of the directive has started in Europe and must be finalized by 2009. The manner in which this directive will be interpreted and enforced cannot be predicted. However, based upon the information currently available, Hydro Aluminium's management does not believe it will have a material negative impact on its business. The United States has a regulatory permit system limiting the discharge from facilities to water bodies and publicly owned treatment works, as well as regulations to prohibit discharges of hazardous substances into groundwater.

Hydro Aluminium has a number of facilities that have been operated for a number of years by Hydro Aluminium or have been acquired by Hydro Aluminium after operation by other entities. Subsurface contamination of soil and groundwater has been identified at a number of such sites and may require remediation under the laws of the various jurisdictions in which the plants are located. Hydro Aluminium has reserved amounts for sites where contamination has been identified that it believes to be sufficient to pay the cost of remediation under existing laws. Because of uncertainties inherent in making such estimation, it is at least reasonably possible that such estimates could be revised in the future. In addition, contamination may be determined to exist for additional sites that could require future expenditure. Therefore, actual costs could be greater than the amounts reserved.

Hydro Aluminium believes that it is currently in material compliance with the various environmental regulatory and permitting systems that affect its facilities. However, the effect of new or changed laws or regulations or permit requirements, or changes in the ways that such laws, regulations or permit requirements are administered, interpreted or enforced, cannot be predicted.

#### ***Oslo and Paris Commission (OSPAR)***

The Oslo and Paris Convention for the Protection of the Marine Environment of the North-East Atlantic has resulted in new emission levels for the aluminium industry related to the prevention of marine pollution, which are scheduled for implementation by all signatories to the Convention before 2007. Emission standards, established by the Norwegian Pollution Authority in accordance with the Oslo and Paris Convention regulations, require primary aluminium production facilities using the S oderberg technology in the H oyanger and  rdal primary aluminium plants to be closed by the end of 2006.

#### ***Integrated Pollution Prevention and Control***

Under the EU Directive on Integrated Pollution Prevention and Control 96/61/EC, from October 2007 existing industrial installations will require national emission permits, which will be based on

best available techniques ( **BAT** ) for pollution prevention and control. The directive already applies to all new installations. The European Commission has issued a guidance document relevant for the aluminium industry; Best Practice Reference (BREF) for the Non-Ferrous Metals Industries (2001). This is also relevant for the European Economic Area (EEA) and the Norwegian authorities will start a process whereby the emission permits will be changed accordingly, to be effective by, at the latest, 2007. Hydro Aluminium's production facilities currently meet the EU requirements and are positioned to comply with future expected requirements from the Norwegian authorities.

### *Climate Gases*

EU directive 2003/87/EC issued on October 13, 2003, establishes a scheme for trading greenhouse gas emission allowances. The directive introduces mandatory trading of carbon dioxide from combustion plants and certain specified industry sectors effective as of January 1, 2005. The intention with the directive is to broaden it to include more gases and sectors as of January 1, 2008. EU Member States' national authorities are currently setting up National Allocation Plans and registries. This EU directive is also believed to be relevant for the EEA, although it is not clear at this time how the directive will be implemented in the EEA. The aluminium industry is not expected to be included before, at the earliest, 2008. Hydro Aluminium's operations are positioned to comply with the new requirements, when applicable.

The directive could impact production costs at facilities in the EU indirectly through increased electricity costs.

### **Government Regulation**

#### *EU Aluminium Tariffs*

The EU has implemented an import duty of six percent on non-EU imports of aluminium. The Eastern European countries that joined the EU on May 1, 2004 became subject to this duty, though inventories of aluminium located in these countries prior to the date of accession are exempt from duty. The EEA, of which Norway is a member, is not subject to such duty for aluminium metal produced in the EEA.

The import duty has been subject to debate within the European Union and it is not possible to predict whether it will be maintained. The World Trade Organization ( **WTO** ) round of negotiations on tariff and non-tariff barriers on industrial products may ultimately lead to a reduction, if not elimination, of aluminium tariffs. However, it is likely that changes arising from WTO commitments will not be phased in until 2006 or 2007, at the earliest. Thus, the WTO negotiations are not expected to have a substantial impact on Hydro Aluminium in the near future. The Federation of Aluminium Consumers in Europe, which represents some aluminium consuming industries in the EU, has been pressing the EU authorities for the removal of the EU's aluminium tariff for the past several years. The EU Commission has, however, resisted a unilateral reduction of the tariff.

#### *Energy Taxation*

An EU directive on the taxation of energy products became effective on January 1, 2004. The directive will expand the minimum tax system of energy products from mineral oils to all energy products, including coal, coke, natural gas and electricity. This could affect Hydro Aluminium by making energy inputs, including electricity, more expensive as a result of the tax. However, countries subject to the directive will be authorized to apply reduced rates or tax exemptions on certain products or energy uses, such as energy used in reduction processes, renewable energy sources or heat produced in combined generation installations. Accordingly, aluminium producers in the European Union may be able to secure tax relief depending upon how the individual countries implement the directive and its reductions and exemptions.





## OTHER ACTIVITIES

Other activities include Hydro's petrochemicals operations (Hydro Polymers), Treka AS, Hydro Pronova and Hydro Business Partner. Other activities include products and businesses outside of Hydro's core business areas. Other activities are managed together with the objective of developing their long-term business potential as part of Hydro or outside of the Hydro Group.

Other activities also includes Industriforsikring a.s., Hydro's captive insurance company.

## PETROCHEMICALS

Since late 1996, the global petrochemicals industry has faced an oversupply situation. Competitive pressures have led to alliances, restructurings and mergers within Europe (e.g., the merger of Royal Dutch/Shell's and DEA's petrochemicals businesses in Germany and BP's purchase of Veba Oel from E.On). The consolidation has been motivated, in large part, by the objectives of achieving economies of scale, lowering operating costs and increasing unit margins. The consolidation in the part of the petrochemical industry in which Hydro is active, mainly PVC in Europe, has been less extensive.

Hydro's petrochemicals business has responded to increased competition by lowering fixed, recurring and variable costs and increasing asset productivity through, among other things, de-bottlenecking and staff reductions of roughly 58 percent (including activities sold) compared to 1996 levels. In early 2004, Hydro decided to discontinue the previously announced divestment of its petrochemicals business.

For the foreseeable future, the competitive environment for world commodity petrochemicals and polymers is expected to be characterized by a widening cost gap between the petrochemical/polymer producers that are integrated into raw materials and those that are not backwards integrated. In view of market conditions, Hydro's petrochemicals business will continue to focus on operational improvements through the establishment of best practice teams to ensure the transfer of knowledge in both operations management and process technology. The efficiency enhancement process is expected to entail further staff reductions, improved supply contracts, increased productivity and improved margin management.

Hydro's petrochemicals business is involved in all stages of production of the plastic raw material, PVC, also known as vinyl, and its intermediate products, ethylene, chlorine and vinyl chloride monomer ( **VCM** ). Hydro Polymers is the largest PVC supplier in the Nordic countries, with a market share of approximately 70 percent. In the United Kingdom, Hydro Polymers ranks first with approximately 38 percent of the market. The PVC industry in Europe is relatively fragmented, reflecting the industry's development on a national, rather than a European, basis. Hydro has an advantage in being backward integrated into ethylene and having close proximity to other Scandinavian countries and the United Kingdom, as well as long-term strategic relationships with customers in these markets.

Hydro has a 29.7 percent interest in Qatar Vinyl Company Ltd., which operates a petrochemical plant at Mesaieed Industrial City, Qatar. The plant has an annual capacity of 230,000 tonnes of VCM, 175,000 tonnes of ethylene dichloride and 290,000 tonnes of caustic soda. In China, Hydro has a 31.8 percent interest in Suzhou Huasu Plastics Co., Ltd., which produces PVC film and has a suspension PVC ( **S-PVC** ) capacity of 120,000 tonnes per year. Hydro also has a 26.2 percent interest in CIRES, a PVC resin and compound manufacturer in Portugal.

## Raw Materials and Production

Hydro has a 50 percent ownership interest in an ethylene cracker through Hydro's joint venture interest in Noretyl AS. The cracker is integrated with Hydro's chlorine and VCM production facilities



located at Rafnes, in Norway. The production efficiencies inherent in an integrated production process contribute to higher margins compared to margins of competitors that rely on purchased ethylene. Petrochemicals has a secure supply for most of its remaining ethylene (44,100 tonnes). In June 2004, Hydro decided to carry out a project to streamline the production process at Noretyl, increasing total capacity to 557,000 tonnes of ethylene per year. The total cost of the project is estimated to be NOK 600-700 million.

#### Petrochemicals production (in tonnes)

	2003	2002	2001
Base Products			
VCM	575,000	540,000	591,000
Caustic Soda	281,000	262,000	279,000
Polymers			
S-PVC	507,000	458,000	465,000
P-PVC	81,000	70,000	72,000
Total Polymers	588,000	528,000	537,000
PVC Compounds	129,000	128,000	143,000

#### Average Market Quoted Prices in Northwest Europe

	2003	2002	2001
Ethylene /tonne delivered	522	518	616
VCM Spot export fob US\$/tonne	452	451	345
S-PVC /tonne delivered	683	714	656

Hydro manufactures PVC at the following plants: Hydro Polymers AS (Porsgrunn, Norway), Hydro Polymers AB (Stenungsund, Sweden) and Hydro Polymers Ltd. (Aycliffe, United Kingdom). The Nordic sites produce S-PVC and paste PVC ( **P-PVC** ) while the U.K. site produces S-PVC for external sale and mixing with additives to generate PVC compounds in a variety of grades to meet customer specifications. VCM is produced at Hydro's Rafnes and Stenungsund plants.

Ethylene feedstock for the Rafnes facility is supplied by long-term contracts for NGLs from a number of North Sea fields for approximately 50 percent of the required volumes. The remaining needs are covered by spot purchases. The share of NGL purchased under long-term contracts will increase from the autumn of 2005. Price formulas are linked to naphtha and therefore indirectly to oil prices. As such, oil prices are an important driver of ethylene costs. Petrochemicals' share of ethylene produced at Rafnes in 2003 was 220,000 tonnes. Hydro Polymers AS and Borealis entered into an agreement with Statoil and Petoro, under which it will purchase their ethane production at Kårstø, for a period up until 2015. This, together with the Noretyl project described above, should help enhance the long-term competitiveness of the ethylene plant.

The total production of chlorine in 2003 was approximately 250,000 tonnes. Chlorine feedstock in excess of Hydro's own production is covered by medium-term and spot purchases (approximately 95,000 tonnes). Plant closures in Europe reduced the chlorine supply in 2002. In March 2003, Hydro's Board of Directors approved a plan to build a new 130,000 tonne chlorine plant at Rafnes, at a cost of approximately NOK 1,000 million. The project is expected to be completed in the autumn of 2005.

At present, Hydro Polymers transports raw materials and intermediates among its plants in Rafnes, Stenungsund and Aycliffe. Increased efficiency and lower transportation costs could be achieved by an improved balance between input (raw materials) and output (final product) streams at the individual plants.

## **Sales and Description**

PVC and PVC compounds are mainly sold by Hydro's own sales organization. Distribution is mainly by truck. Pipe grade S-PVC is considered to be a commodity product, while there is considerable product and price differentiation in other S-PVC applications. P-PVC accounts for about 7 percent of the total PVC market. P-PVC is traditionally considered to be a specialty product influenced only to a limited extent by S-PVC price developments.

Caustic soda, a by-product of chlorine production, which is used by a variety of industries such as in paper and pulp, alumina and soap production, is sold to customers in Europe and North America mainly through Hydro's own sales organization. Distribution is by vessel, rail or truck. In addition to its own production, Hydro trades moderate quantities of caustic soda in the same markets.

### **TREKA AS**

Treka AS is a publicly held Danish company listed on the Copenhagen stock exchange, in which Hydro has a 68.8 percent interest. After the sale of major parts of the former KFK throughout 2002 and 2003, the remaining operational activities in Treka consist of the BioMar fish feed operations. Due to difficult conditions in the fish farming industry, BioMar undertook write-downs of goodwill, provisions for accounts receivable and bad debt in the total amount of NOK 570 million in 2003. A potential divestment of the BioMar activities was announced and initiated, but did not result in any offers on acceptable terms. Treka's board has, therefore, decided to terminate the sales process.

### **PRONOVA**

Hydro Pronova was set up to develop and commercialize activities outside of Hydro's core areas.

Through its subsidiary Biocare, Hydro Pronova has developed a highly concentrated Omega-3 pharmaceutical product, Omacor, for treatment of post-myocardial infarction (Post-MI) and hypertriglyceridemia. In the first quarter of 2004, Hydro sold 80.1 percent of its interest in Biocare for NOK 165 million.

Pronova sold its Swedish subsidiary, Carmeda AB, in 2003. Further, Hydro Formates AS, which had also been part of Pronova, was transferred to Yara in connection with the Demerger. Following these developments, the bulk of Pronova's portfolio has been disposed of and Hydro intends to phase out the unit.

### **HYDRO BUSINESS PARTNER**

Hydro Business Partner ( **HBP** ) was formed as a sector for service and support functions in the beginning of January 2000. HBP is organized in two primary functional units: Production and Facility Services and IS Services and Business Support Services. HBP has made substantial contributions to cost reductions in the units it serves. Long-term agreements have been entered into with Yara for the supply of maintenance and IS services, among others.

### **INDUSTRIFORSIKRING**

Industriforsikring a.s., a captive insurance company, is a wholly-owned subsidiary of Hydro. Industriforsikring provides property damage, business interruption, cargo and third party liability insurance coverage for subsidiary companies of the Hydro Group. Industriforsikring also provides similar coverage for several related companies where Hydro owns a substantial equity interest. Industriforsikring has an extensive reinsurance program and has maximum exposure per policy varying from NOK 5 million for cargo insurance up to NOK 110 million for third party liability claims exceeding NOK 1,500 million. The operations of Industriforsikring are not substantial to Hydro's overall

business and the Company's exposure to uninsured risk is not material.

**ITEM 4.C. ORGANIZATIONAL STRUCTURE**

The following significant subsidiaries, as that term is defined by applicable rules of the SEC, are included in the Hydro Group:

Company Name	Country of Incorporation	Proportion of ownership Interest*
Norsk Hydro Produksjon AS	Norway	100 percent
Hydro Aluminium AS	Norway	100 percent
Hydro Aluminium Deutschland GmbH	Germany	100 percent

\* Ownership percentage reflects proportion of voting power.

**ITEM 4.D. PROPERTY, PLANTS AND EQUIPMENT**

The Group's rights to oil and gas located on the Norwegian Continental Shelf, mainly in the North Sea, are among its most important assets. See Item 4.B. Business Overview Oil and Energy Exploration, Development and Production for information with regard to reserves and sources of oil and gas and Item 4.B. Business Overview Hydro Oil and Energy Oil and Energy Government Regulation with regard to the Norwegian government's authority to increase its participation in the development of certain oil and gas fields and other regulatory matters.

The Group's major production plants in Norway are located at Porsgrunn (PVC), Rafnes (petrochemicals), Karmøy, Årdal, Sunndalsøra, Holmestrand and Høyanger (aluminium). The Group owns clear title concessions to hydroelectric power stations with a generating capacity of 2.7 TWh per year. Generating capacity of approximately 8.7 TWh is operated under concessions from the Norwegian government that will expire without compensation in the period between 2018 and 2052. Hydro's principal aluminium production facilities abroad are located in Austria, Belgium, Canada, China, Denmark, France, Germany, Hungary, Italy, Luxembourg, Poland, Portugal, Australia, Spain, Sweden, the United Kingdom and the United States. Hydro has an interest in a retail gasoline and fuel oil marketing network through an affiliated company in Denmark and Norway and wholly owned operations in Sweden. Hydro also participates in alumina refineries in Jamaica and Brazil, and an automotive parts casting plant in Mexico.

Virtually all of the Group's properties are owned by the Company's subsidiaries, except certain facilities in the oil and gas, hydroelectric and petrochemicals businesses which are jointly-owned with other companies. All major facilities of the Group are insured in line with customary industry practices.

Hydro is subject to changing environmental laws and regulations that in the future may require Hydro to modernize technology to meet more stringent emissions standards or to take actions for contaminated areas. See Note 21 to the Consolidated Financial Statements for a description of expenses and accruals relating to corrective environmental measures for 2003 and preceding fiscal years. There were no environmental measures, implemented voluntarily or required by law, which had a significant effect on the utilization of Hydro's main production facilities in 2003.

**ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS****ITEMS  
5.A.-D. OPERATING RESULTS; LIQUIDITY AND CAPITAL RESOURCES;  
RESEARCH AND DEVELOPMENT, PATENTS AND LICENSES; TREND  
INFORMATION**

The comparative discussion of Hydro's financial condition and results of operations as of and for the years ended December 31, 2003 and 2002, as well as information regarding Hydro's material commitments for capital expenditures as of year-end 2003 and Hydro's research and development policies for the three-year period ended December 31, 2003 is included in the following discussion.

**2003 Compared with 2002**

## Financial review

Amounts in NOK million	2003	2002	2001
Operating revenues	<b>171,782</b>	167,040	152,999
Operating costs and expenses	<b>(147,524)</b>	(147,199)	(131,916)
Operating income before financial items and other income	<b>24,258</b>	19,841	21,083
Non-consolidated investees	<b>1,229</b>	33	566
Financial income (expense), net	<b>201</b>	1,935	(762)
Other income (expense), net	<b>(1,212)</b>	219	578
Income before taxes and minority interest	<b>24,476</b>	22,028	21,465
Income tax expense	<b>(13,937)</b>	(13,278)	(13,750)
Minority interest	<b>148</b>	15	177
Income before cumulative effect of change in accounting principle	<b>10,687</b>	8,765	7,892
Cumulative effect of change in accounting principle	<b>281</b>		
Net income	<b>10,968</b>	8,765	7,892
Earnings per share before change in accounting principle (NOK)	<b>41.50</b>	34.00	30.50
Earnings per share (NOK)	<b>42.60</b>	34.00	30.50



This discussion should be read in conjunction with the information contained in the Company's consolidated financial statements and the related notes included in this annual report.

#### Summary of key developments in 2003

Hydro's net income in 2003 was NOK 10,968 million (NOK 42.60 per share) compared with NOK 8,765 million (NOK 34.00 per share) in 2002. The result reflects overall improvements in Hydro's main business areas compared to the prior year. Market conditions have been good for many of the Company's products, although the weaker US dollar had a negative influence on all business areas. The positive developments also reflected the efficient implementation of improvement programs.

The most substantial improvement related to a significant increase in oil and gas production, together with somewhat higher oil and gas prices. For 2003, total oil and gas production was 530,000 boe per day representing an increase of 10 percent compared with 2002.

Improvement programs carried out by Aluminium generated considerable savings for the year. Programs initiated in 2001 and 2002 were completed and are expected to achieve targeted reductions of annual costs of NOK 2.5 billion, with full effect from 2004, compared to the combined cost level of the VAW and Hydro Aluminium businesses in 2001. The accumulated cost of the program was NOK 1,166 million (NOK 176 million for 2003) which was NOK 397 million below the original cost estimate. Markets for semi-fabricated aluminium products were weak during the year, but there are some signs of improvement. The competitive position for Hydro's European aluminium smelters is challenging and the Company plans to continue working to improve the cost position of these plants.

The fertilizer business also improved its results due to higher product prices and productivity gains. A strong development in nitrogen fertilizer prices led to significantly higher results for the year, despite negative currency effects and higher energy costs.

The Ormen Lange project is on schedule. The Plan for Development and Operation (PDO) was submitted to the Norwegian authorities at the beginning of December 2003. The field is expected to produce significant new volumes of gas, which are planned for sale in the UK gas market. The field is expected to come on stream in autumn 2007.

Hydro's Extraordinary General Meeting resolved January 15, 2004 to demerge Hydro Agri. The new company is named Yara International ASA, and has been listed on the Oslo Stock Exchange since March 25, 2004. Yara has approximately 7,600 employees and is headquartered in Oslo. Yara has the right to use Hydro's former viking ship logo, which is an important fertilizer brand. Every Hydro shareholder as of the listing date received one Yara share for each Hydro share held. In the demerger, 80 percent of the Yara shares were distributed to Hydro's shareholders. Hydro sold the remaining 20 percent of the Yara shares in an offering following the completion of the demerger which occurred on March 24, 2004.

## Operating Results

The change in operating income and the most important items affecting the change follows:

Amounts in NOK million

Operating income 2003	24,258
Operating income 2002	19,841
<hr/>	
Change in Operating Income	4,417
<hr/>	
Prices and currency, E & P <sup>1)</sup>	1,870
Margin including currency effects <sup>2)</sup>	(695)
Volume	3,580
Fixed costs	(326)
Depreciation	(945)
Production and exploration costs, E & P <sup>1)</sup>	1,540
Infrequent items and restructuring costs	245
Trading and unrealized LME effects, Aluminium	475
New / disposed business	135
Other	(1,462)
<hr/>	
Total change in operating income	4,417
<hr/>	

1) Exploration and Production

2) Including negative variance for elimination of unrealized gain/loss on internal electricity contracts of NOK 729 million for 2003

Operating income for Oil and Energy in 2003 amounted to NOK 21,143 million, approximately 33 percent higher than in 2002. Production of oil and gas increased by 10 percent compared to 2002. The positive effect of higher oil prices in US dollars during 2003 was offset somewhat by the decline in the US dollar/Norwegian kroner exchange rate.

However, oil prices measured in Norwegian kroner were 4 percent higher than in the previous year. Exploration costs of NOK 1,577 million were charged to income in 2003, a reduction of approximately NOK 2 billion compared with 2002.

Operating income for Aluminium in 2003 was NOK 2,456 million, approximately 45 percent higher than in 2002. However, excluding new business and infrequent items, operating income for Aluminium declined NOK 143 million. Margins, excluding the effect of hedge programs, were approximately NOK 560 million lower compared with 2002. Margins improved for Rolled Products and Extrusion but were weaker for Metals and Automotive. During 2003, aluminium prices measured in Norwegian kroner fell by seven percent compared with 2002. As a result, margins were substantially weaker in Metals compared to 2002 reducing results by approximately NOK 760 million. The decline

was offset by contribution from hedges and higher trading results. However, higher fixed cost and depreciation from ramp up of new production capacity and unrealized losses on LME contracts, more than offset the savings from improvement programs and the contribution from increased volumes.

Operating income for Agri was NOK 2,800 million, NOK 593 million higher than the year before. Higher fertilizer prices measured in US dollars improved operating income by approximately NOK 2,600 million. Price gains were partly offset by the negative effect of increased raw material and energy costs of approximately NOK 1,200 million. The strengthening of European currencies against the US dollar affected operating income negatively for 2003 by approximately NOK 750 million. Total sales volumes for Agri were unchanged for the year as a whole. Sales of own produced products were up six percent for the year. Due to the strong increase in prices, many customers made their purchases early in the season. However, prices are expected to decline somewhat and high volumes sold in the first half of the fertilizer season may impact sales volumes negatively in the remainder of the season (first half of 2004).

Operating income relating to Other Activities reflected losses on bad debts and write downs of goodwill and intangible assets amounting to approximately NOK 570 million relating to the fish feed operations included in Treka.

Corporate and Eliminations incurred an operating loss of NOK 1,727 million in 2003 compared to a loss of NOK 24 million in the previous year. The loss primarily reflected higher pension costs and the elimination of unrealized gains on internal power purchase contracts. In addition, the 2003 result included costs of NOK 130 million linked to the demerger of Hydro Agri, charged during the fourth quarter.

Costs relating to pensions and related employers' social security costs, charged to Corporate and Eliminations amounted to approximately NOK 1,146 million compared to NOK 312 million in 2002.

The increase in 2003 primarily reflected increased pension obligations and a reduction in plan assets during 2002. The increase in 2003 also included a non-recurring charge of roughly NOK 230 million, including employers' social security costs, due to a settlement loss incurred in connection with a reduction in the number of members in certain pension plans in Norway. The reduction in the number of members resulted from workforce reductions and early retirement programs.

Hydro Energy is responsible for ensuring the supply of electricity for the company's own consumption, and has entered into power purchase contracts in the market and sales contracts with other units in the Group. These contracts are recognized at market value in Hydro Energy. For other Hydro units, the related internal purchase contracts are regarded as normal purchase contracts and are not recognized at market value. During the year, the estimated market value of the external power purchase contracts decreased with a corresponding increase in the contract value of internal sales contracts for Hydro Energy. The elimination of the unrealized gains

included in Hydro Energy's results relating to internal sales contracts resulted in a charge to Corporate and Eliminations of NOK 141 million compared with a gain of NOK 588 million in 2002. The total negative variance relating to these contracts for 2003 was NOK 729 million. The power purchase contracts have a duration of up to 10 years and can result in significant unrealized gains and losses, impacting the results in future periods. This will depend on trends in forward prices for electricity and changes in the contract portfolio.

Earnings from non-consolidated investees amounted to NOK 1,229 million for the year compared to NOK 33 million in 2002. A currency loss of NOK 461 million relating to alumina operations in Brazil influenced the result in 2002, compared to a currency gain of NOK 218 million in 2003. Excluding these effects, earnings improved by NOK 517 million for the year primarily due to stronger results from non-consolidated investees which are part of the Agri business area reflecting high ammonia and urea prices.

Other income (expense), net for 2003 reflected a loss of NOK 1,212 million. The loss included a charge of NOK 2,207 million resulting from new Norwegian tax regulations relating to the removal costs for oil and gas installations on the Norwegian continental shelf. In accordance with earlier regulations, removal costs could not be deducted when calculating taxable income. Instead, the Norwegian state assumed a portion of the removal costs by means of a special removal grant for each license calculated on the basis of the average tax rate incurred by the participating companies over the license period. The new rules permit removal costs to be deducted from taxable income. The amendment resulted in a charge in the second quarter representing the estimated value of expected grants. The charge had no cash effect. At the same time, a deferred tax asset representing the value of the new tax deductions (calculated at 78 percent of the accrued asset removal obligation), was included as a reduction to the tax provision for the second quarter in the amount of NOK 2,380 million. Other income also included a gain of NOK 490 million on the sale of Hydro's share in Skandinaviska Raffinaderi AB, the Scanraff oil refinery and a gain of NOK 326 million resulting from the disposal of Hydro's ownership interest in Sundsfjord Kraft ANS.

Net financial income for 2003 was NOK 201 million, including a foreign exchange gain of NOK 1,035 million. During the course of 2003, the US dollar fell by four percent against the Norwegian krone, and weakened considerably against other currencies (roughly 17 percent against the Euro, and 25 percent against the Australian dollar). The US dollar movements have resulted in gains on Hydro's net US dollar denominated debt for the year as a whole. The weakness of the Norwegian krone has, however, resulted in losses on Hydro's net Euro denominated debt for 2003. Financial income for 2002 was NOK 1,935 million including a net foreign currency exchange gain of NOK 3,262 million.

The provision for current and deferred taxes for 2003 amounted to NOK 13,937 million, approximately 57 percent of pre-tax income. The tax provision has been strongly influenced by the effects of amendments to the Norwegian tax regulations relating to the future costs of removing oil and gas installations on the Norwegian continental shelf after production has ceased. In addition, the tax provision for the third quarter included a one time positive effect of NOK 139 million relating to the final conclusion of an outstanding tax ruling in Norway. Excluding these effects, tax expense amounted to 62 percent of pre-tax income for 2003.

The high tax percent in both 2003 and 2002 results because oil and gas activities in Norway, which account for a relatively large part of earnings, are charged a marginal tax rate of 78 percent.

#### Non-GAAP Measures of Financial Performance

Within this discussion, Hydro refers to certain non-GAAP financial measures which are an integral part of Hydro's steering model, Value Based Management, reflecting Hydro's focus on cash flow based indicators, before and after taxes. These non-GAAP financial measures are:

EBITDA

Gross Cash Flow

Gross Investment

Cash Return on Gross Investment (CROGI)

Hydro's management makes regular use of these cash flow-based indicators to measure performance in its operating segments, both in absolute terms and comparatively from period to period. Management views these measures as adding to the understanding, for management and for investors, of:

The rate of return on investments over time, in each of its capital intensive businesses

The operating results of its business segments

Cash flow generation of its business segments

Edgar Filing: NORSK HYDRO A S A - Form 20-F

A reconciliation of Operating income to EBITDA for each of Hydro's operating segments is presented in the following table:

Operating income EBIT EBITDA 2003

Amounts in NOK million	Operating income (loss)	Non-cons. Investees	Selected			EBIT	Depr. and amort.	EBITDA
			Interest Income	financial income	Other income			
Exploration and Production	<b>18,500</b>	29	32	4		<b>18,565</b>	9,059	<b>27,624</b>
Energy and Oil Marketing	<b>2,668</b>	81	35	(24)	816	<b>3,576</b>	650	<b>4,226</b>
Eliminations	<b>(25)</b>	(3)				<b>(28)</b>	4	<b>(24)</b>
<b>Hydro Oil &amp; Energy</b>	<b>21,143</b>	107	67	(20)	816	<b>22,113</b>	9,713	<b>31,826</b>
Metals	<b>2,293</b>	379	3	53		<b>2,728</b>	1,570	<b>4,298</b>
Rolled Products	<b>132</b>	(14)	18	(5)		<b>131</b>	704	<b>835</b>
Extrusion and Automotive	<b>98</b>	68	22	(8)		<b>180</b>	1,252	<b>1,432</b>
Other and eliminations	<b>(67)</b>			1		<b>(66)</b>	(1)	<b>(67)</b>
<b>Hydro Aluminium</b>	<b>2,456</b>	433	43	41		<b>2,973</b>	3,525	<b>6,498</b>
<b>Hydro Agri</b>	<b>2,800</b>	610	192	(8)		<b>3,594</b>	1,154	<b>4,748</b>
Other activities	<b>(414)</b>	83	164	245	162	<b>240</b>	900	<b>1,140</b>
Corporate and eliminations	<b>(1,727)</b>	(4)	723	20	(2,190) <sup>1)</sup>	<b>(3,178)</b>	2,219 <sub>1)</sub>	<b>(959)</b>
<b>Total</b>	<b>24,258</b>	1,229	1,189	278	(1,212)	<b>25,742</b>	17,511	<b>43,253</b>

1) Includes non-cash charge relating to an expected state grant pertaining to an asset removal obligation of NOK 2,207 million.

EBITDA and reconciliation to net income

Edgar Filing: NORSK HYDRO A S A - Form 20-F

Hydro defines EBITDA as Income/(loss) before tax, interest expense, depreciation, amortization and write-downs . EBITDA is intended to be an approximation of cash flow from operations before tax. EBITDA is a measure that includes in addition to Operating income , Interest income and other financial income , results from non-consolidated investees and gains and losses on sales of activities classified as Other income, net in the income statement. It excludes depreciation, write-downs and amortization, as well as amortization of excess values in non-consolidated investees. Hydro s definition of EBITDA may differ from that of other companies.

The EBITDA figures by core business area are presented in the table below, in addition to the reconciliation from EBITDA to income before taxes and minority interest.

Reconciliation to net income

Amounts in NOK million	2003	2002	2001
Hydro Oil & Energy	31,826	25,340	27,604
Hydro Aluminium	6,498	4,334	2,543
Hydro Agri	4,748	3,945	4,402
Other Activities	1,140	1,044	1,215
Corporate and Eliminations	(959)	995	1,993
<b>Total EBITDA<sup>1)</sup></b>	<b>43,253</b>	<b>35,658</b>	<b>37,757</b>
Depreciation, depletion and amortization <sup>2)</sup>	(15,093)	(13,912)	(12,534)
Amortization of excess values in non-consolidated investees	(211)	(235)	(149)
Other income (expense) non-cash <sup>3)</sup>	(2,207)		
Interest expense	(2,912)	(3,189)	(3,721)
Capitalized interest	715	607	685
Net foreign exchange gain/(loss)	1,035	3,262	(416)
Other financial items	(104)	(163)	(157)
Income before tax and minority interest	24,476	22,028	21,465
Income tax expense	(13,937)	(13,278)	(13,750)
Minority interest	148	15	177
Income before cumulative effect of change in accounting principle	10,687	8,765	7,892
Cumulative effect of change in accounting principle	281		
<b>Net income</b>	<b>10,968</b>	<b>8,765</b>	<b>7,892</b>

1) EBITDA: Earnings Before Interest, Taxes, Depreciation and Amotization. EBITDA information by segment in each of the core business areas, as well as explanation of the financial performance of each segment, is

included in the presentation of the business areas.

- 2) Includes write-downs of property, plant, and equipment included in restructuring costs of NOK 261 million for 2001.
- 3) The amount relates to the reversal of an expected state grant pertaining to an asset removal obligation.



Another cash flow based indicator used by Hydro to measure its performance is cash return on gross investment (CROGI). CROGI is defined as gross cash flow after taxes, divided by average gross investment. Gross cash flow is defined as EBITDA less total tax expense. Gross investment is defined as total assets (exclusive of deferred tax assets) plus accumulated depreciation and amortization, less all short-term interest free liabilities except deferred taxes. CROGI has been Hydro's main financial return metric since 2000 and is used by management to measure financial performance at the operating segment level and the Group level.

In order to calculate Gross Cash Flow per operating segment, tax is also calculated for the operating segments. Tax is calculated by dividing each operating segment into the main tax regimes in which the segment operates, and applying the applicable statutory tax rates in those tax regimes to the taxable income/loss included in EBITDA. Taxable income/loss is typically Operating income, Interest income and other financial income and Other income/(expense), net. This taxable income for each operating segment is multiplied with the applicable average tax rate. For the sub-segment Exploration and Production an average tax rate of 60 percent is applied. An average tax rate of 50 percent is used for our Energy and Oil Marketing sub-segment. An average tax rate of 30 percent is being used for all other operating segments. This method represents an approximation to a tax expense for the operating segment. It does not, however, necessarily capture the effects of tax consolidation across the operating segments, which is permissible in certain countries where Hydro operates. Such effects are included at the Group level under the line Corporate and Eliminations in Hydro's segment disclosures. The allocated tax expense for the segments plus the tax expense reported under Corporate and Eliminations equals the total USGAAP tax expense for the Group as presented in the income statement. As Hydro is subject to significantly different tax regimes in its operating segments, e.g. Norwegian surtax on petroleum and power production, management believes financial performance must also be measured on an after tax basis, in order to achieve comparability between Hydro's operating segments.

In 2003, CROGI was 9.8 percent compared with 8.5 percent in 2002. CROGI for Hydro in total and each of the business areas is presented in the table below:

CROGI	2003	2002	2001
Hydro Oil & Energy	<b>13.0%</b>	12.1%	13.2%
Hydro Aluminium	<b>8.6%</b>	7.1%	5.7%
Hydro Agri	<b>11.7%</b>	9.4%	9.6%
Hydro	<b>9.8%</b>	8.5%	9.4%

EBITDA and Gross Cash Flow should not be construed as an alternative to operating income, income before taxes and net income as an indicator of Hydro's results of operations in accordance with generally accepted accounting principles. Nor are EBITDA and Gross Cash Flow an alternative to cash flow from operating activities in accordance with generally accepted accounting principles. Hydro's management makes regular use of measures calculated according to generally accepted accounting principles in addition to non-GAAP financial measures described above when measuring financial performance.

The following tables present a calculation of gross cash flow and gross investment for the Group as a whole and for each of the Business Areas:

## Cash Return on Gross Investment Hydro

Amounts in NOK million	<b>Year ended 31 December 2003</b>	Year ended 31 December 2002	Year ended 31 December 2001	
Operating income	<b>24,258</b>	19,841	21,083	
Equity in net income of non-consolidated investees	<b>1,229</b>	33	566	
Interest income and other financial income	<b>1,467</b>	1,418	2,847	
Other income/expense, net	<b>(1,212)</b>	219	578	
<b>EBIT</b>	<b>25,742</b>	21,511	25,074	
Depreciation and amortization	<b>17,511</b>	14,147	12,683	
<b>EBITDA</b>	<b>43,253</b>	35,658	37,757	
Income tax expense	<b>(16,144)</b>	(13,278)	(13,750)	
<b>Gross Cash Flow</b>	<b>27,109</b>	22,380	24,007	
Amounts in NOK million	<b>31 December 2003</b>	31 December 2002	31 December 2001	31 December 2000
Current assets <sup>1)</sup>	<b>74,416</b>	64,179	78,217	80,113
Non-consolidated investees	<b>12,711</b>	11,499	9,687	7,211
Property, plant and equipment	<b>114,998</b>	112,342	95,277	95,025
Prepaid pension, investments and other non-current assets	<b>14,387</b>	15,081	11,636	10,983
Other current liabilities	<b>(42,890)</b>	(38,331)	(32,245)	(33,171)
Accumulated depreciation and amortization	<b>115,197</b>	101,907	97,930	92,385
Other	<b>(1,231)</b>	(1,281)	(1,663)	
<b>Gross Investment</b>	<b>287,588</b>	265,396	258,839	252,546

Edgar Filing: NORSK HYDRO A S A - Form 20-F

	31 December <b>2003</b>	31 December 2002	31 December 2001
Cash Return on Gross Investment (CROGI)	<b>9.8%</b>	8.5%	9.4%

1) Excluding current deferred tax assets  
Cash Return on Gross Investment Oil & Energy

Amounts in NOK million	<b>Year ended 31 December 2003</b>	Year ended 31 December 2002	Year ended 31 December 2001
Operating income	<b>21,143</b>	15,947	19,177
Equity in net income of non-consolidated investees	<b>107</b>	179	65
Interest income and other financial income	<b>47</b>	125	144
Other income/expense, net	<b>816</b>	77	179
<b>EBIT</b>	<b>22,113</b>	16,328	19,565
Depreciation and amortization	<b>9,713</b>	9,012	8,039
<b>EBITDA</b>	<b>31,826</b>	25,340	27,604
Income tax expense	<b>(12,911)</b>	(9,114)	(11,202)
<b>Gross Cash Flow</b>	<b>18,915</b>	16,226	16,402

Amounts in NOK million	<b>31 December 2003</b>	31 December 2002	31 December 2001	31 December 2000
Current assets <sup>1)</sup>	<b>15,564</b>	20,204	11,473	12,950
Non-consolidated investees	<b>2,406</b>	1,991	2,095	1,402
Property, plant and equipment	<b>74,460</b>	73,223	70,146	68,667
Prepaid pension, investments and other non-current assets	<b>1,294</b>	1,362	1,654	1,362
Other current liabilities	<b>(11,493)</b>	(16,589)	(8,732)	(9,133)
Accumulated depreciation and amortization	<b>68,186</b>	59,928	52,069	45,360

Edgar Filing: NORSK HYDRO A S A - Form 20-F

Gross Investment	<b>150,417</b>	140,119	128,705	120,608
		31 December <b>2003</b>	31 December 2002	31 December 2001
Cash Return on Gross Investment (CROGI)	<b>13.0%</b>		12.1%	13.2%

1) Excluding current deferred tax assets

82

## Cash Return on Gross Investment Aluminium

Amounts in NOK million	<b>Year ended 31 December 2003</b>	Year ended 31 December 2002	Year ended 31 December 2001
Operating income	<b>2,456</b>	1,698	185
Equity in net income of non-consolidated investees	<b>433</b>	(219)	118
Interest income and other financial income	<b>84</b>	129	149
Other income/expense, net			(25)
<b>EBIT</b>	<b>2,973</b>	1,608	427
Depreciation and amortization	<b>3,525</b>	2,726	2,116
<b>EBITDA</b>	<b>6,498</b>	4,334	2,543
Income tax expense	<b>(737)</b>	(522)	(58)
<b>Gross Cash Flow</b>	<b>5,761</b>	3,812	2,485

Amounts in NOK million	<b>31 December 2003</b>	31 December 2002	31 December 2001	31 December 2000
Current assets <sup>1)</sup>	<b>22,925</b>	21,362	16,021	17,868
Non-consolidated investees	<b>5,787</b>	4,902	3,288	2,498
Property, plant and equipment	<b>29,504</b>	26,496	11,770	11,206
Prepaid pension, investments and other non-current assets	<b>3,880</b>	4,437	2,958	2,611
Other current liabilities	<b>(11,666)</b>	(10,080)	(8,610)	(8,351)
Accumulated depreciation and amortization	<b>21,158</b>	17,997	19,055	18,897
Other	<b>(1,231)</b>	(1,281)	(1,663)	
<b>Gross Investment</b>	<b>70,357</b>	63,833	42,819	44,729

31  
December      31  
December      31  
December

Edgar Filing: NORSK HYDRO A S A - Form 20-F

	2003	2002	2001
Cash Return on Gross Investment (CROGI)	8.6%	7.1%	5.7%

1) Excluding current deferred tax assets  
Cash Return on Gross Investment Agri

Amounts in NOK million	Year ended 31 December 2003	Year ended 31 December 2002	Year ended 31 December 2001
Operating income	2,800	2,207	2,114
Equity in net income of non-consolidated investees	610	57	330
Interest income and other financial income	184	235	422
Other income/expense, net		166	(53)
EBIT	3,594	2,665	2,813
Depreciation and amortization	1,154	1,280	1,589
EBITDA	4,748	3,945	4,402
Income tax expense	(895)	(771)	(733)
Gross Cash Flow	3,853	3,174	3,669

Amounts in NOK million	31 December 2003	31 December 2002	31 December 2001	31 December 2000
Current assets <sup>1)</sup>	13,672	11,355	14,427	16,047
Non-consolidated investees	2,498	2,089	2,519	2,394
Property, plant and equipment	7,189	7,006	7,982	9,294
Prepaid pension, investments and other non-current assets	960	785	748	1,523
Other current liabilities	(6,872)	(6,223)	(6,385)	(6,923)
Accumulated depreciation and amortization	17,602	15,727	17,222	17,759
Gross Investment	35,049	30,739	36,513	40,094

---

	31 December <b>2003</b>	31 December 2002	31 December 2001
Cash Return on Gross Investment (CROGI)	<b>11.7%</b>	9.4%	9.6%

---

1) Excluding current deferred tax assets

83

---

## Non-recurring or Infrequent Items

Hydro also identifies items of a non-recurring or infrequent nature in discussing operating results. These items reflect activities or events which management believes are not indicative of expected trends and outcomes arising from normal, recurring business operations. Generally such items arise as a result of very substantial initiatives including major turnarounds and other transforming events or material events and transactions which are not expected to occur often in the normal course of business. Non-recurring or infrequent items include but are not limited to :

- costs related to major improvement programs (which will vary from period to period and in certain periods may be insignificant, but which are identified nonetheless to enable investors to understand the total impact of such programs)

- material changes in the value of assets or liabilities related to infrequent events or major, unusual circumstances

- material gains or losses related to infrequent or non-recurring events or transactions

In general, Hydro excludes these items from financial measures calculated and presented in accordance with GAAP. This is not done with respect to other smaller, less comprehensive cost reduction programs, efficiency initiatives and business expansion activities which are viewed as normal, recurring activities and do not take away from investors understanding of the underlying business performance.

## Hydro's Critical Accounting Policies

In December 2001, the SEC issued Financial Reporting Release No. 60, "Cautionary Advice Regarding Disclosure About Critical Accounting Policies," referred to as FR 60, suggesting that companies provide additional disclosure and commentary on those accounting policies considered most critical. FR 60 considers an accounting policy to be critical if it is important to a company's financial condition and results of operations and requires significant judgment and estimates on the part of management in its application. In December 2003, the SEC issued FR 72 which included additional guidance relating to critical accounting estimates. In this release, the SEC indicated that companies should consider providing enhanced discussion and analysis of critical accounting estimates that provides greater insight into the quality and variability of information regarding financial condition and operating performance.

Hydro's Consolidated Financial Statements and supplementary information were prepared in accordance with generally accepted accounting principles in the US (US GAAP). Note 1 in the Notes to the Consolidated Financial Statements describes Hydro's significant accounting policies. Inherent in many of the accounting policies is the need for management to make estimates and judgments in the determination of certain revenues, expenses, assets, and liabilities. The following accounting policies represent the more critical areas that involve a higher degree of judgment and complexity which, in turn, could materially impact Hydro's financial statements if various assumptions were changed significantly. Hydro's senior management has discussed estimates underlying certain of its critical accounting policies with its independent auditors.

Hydro believes that the following represents its critical accounting policies as contemplated by FR 60.

### Oil and Gas Exploration Costs

Hydro uses the "successful efforts" method of accounting for oil and gas exploration and development costs. All expenditures related to exploration, with the exception of the costs of drilling exploratory wells, are charged to expense as incurred. The costs of drilling exploratory wells are capitalized on the balance sheet pending determination of whether commercially producible oil and gas reserves have been discovered. If the determination is made that a well did not encounter potentially economic oil and gas quantities, the well costs are charged to expense.



Almost all of our wells capitalized on the balance sheet at December 31, 2003, 2002 and 2001 are in offshore areas where a major capital expenditure (e.g., offshore installation) would be required before production could begin. In such areas, the economic viability might depend on the completion of additional exploratory drilling and the discovery of sufficient commercially producible reserves. Once the additional exploration drilling demonstrates that sufficient quantities of reserves have been discovered, continued capitalization is dependent on project reviews, which take place periodically and no less frequently than every quarter, to ensure that satisfactory progress toward ultimate development of the reserves is being achieved.

For complicated offshore exploratory discoveries, it is not unusual to have exploratory well costs remain suspended on the balance sheet for several years while additional appraisal work on the potential oil and gas field is performed and regulatory approvals for development are sought. In all the areas in which we operate, plans for development are subject to governmental approval. The wells are transferred to development when the Plan for Development and Operation (PDO) has been submitted to the Ministry of Petroleum and Energy (Norway) or matured to a level corresponding to a PDO submittal (International).

Costs related to acquisition of exploration rights are allocated to the relevant geographic areas and are charged to operating expense if no proved reserves are determined to exist. If proved reserves are determined to exist, the acquisition costs are transferred to development cost, and subsequently amortized to become part of the cost of the oil and gas produced.

A determination that proved reserves do not exist can result in a reduction to long-term assets and an increase in operating costs. Each block or area is assessed separately. The amount of the impact depends on the level of current drilling activity and the amount of exploration costs currently capitalized. During 2003, exploration activity (expenditures) totaled NOK 1,609 million, of which NOK 120 million was capitalized during the year. Including capitalized exploration costs and acquisition costs from prior periods, NOK 1,577 million was expensed during the year. At the end of 2003, NOK 1,023 million of such costs were capitalized pending the evaluation of drilling results and planned development, of which NOK 33 million related to acquisition costs.

In connection with the review of our 2002 Form 20-F, the staff of the SEC's Division of Corporation Finance has raised questions about our practice of deferring costs (i.e., continuing to carry such costs as an asset on our balance sheet) related to certain exploratory wells. The wells in question have all demonstrated commercial quantities and the drilling of wells on the properties in question has been completed. Work related to development concept optimization and PDO submission /authority approval is ongoing. Capitalized exploration costs net of property acquisition costs amounted to NOK 990 million as of December 31, 2003. The capitalized exploration costs of the wells in question represent approximately one-third of the net capitalized exploration costs at the end of 2003. The vast majority of these wells are located on the Norwegian Continental Shelf, where the combined tax rate is 78% of income before taxes. Therefore, in the event that it is determined that some or all of these costs should be expensed, the accumulated effect on net income would be reduced by the tax effect.

#### Proved Oil and Gas Reserves

Proved reserves are the estimated quantities of crude oil, natural gas, and natural gas liquids which geological and engineering data demonstrate with reasonable certainty to be recoverable in future years from known reservoirs under existing economic and operating conditions. Proved reserves are related to developed fields (proved developed reserves), and to undeveloped fields (proved undeveloped reserves). The estimation of proved reserves is based on technical evaluations using all available reservoir, well and production data. Proved reserves does not include volumes after license expiry or volumes that are not commercially producible with known technology and prices at year end.

Reserves are revised upwards or downwards as oil and gas are produced and additional data become available. Revisions can result from evaluation of already available geologic, reservoir or production data, or from new geologic or reservoir data obtained from wells. Revisions can also include changes resulting from performance of improved recovery projects, production facility capacity, significant changes in development strategy, oil and gas prices or changing regulatory environment.

Proved developed reserves are the basis for calculating unit-of-production depreciation. Future changes in proved oil and gas reserves can materially impact unit-of-production rates for depreciation, depletion, and amortization. Downward revisions in reserve estimates can result in higher depreciation and depletion expense in future periods. Conversely, upward revisions in reserve estimates can result in lower future depreciation, depletion and amortization. Depreciation, depletion and amortization related to oil and gas producing activities in 2003, 2002 and 2001 were NOK 9,114 million, NOK 8,553 million and NOK 7,423 million respectively.

#### Commodity Instruments and Risk Management Activities

Hydro's revenues, operating results, financial condition and ability to borrow funds or obtain additional capital depend substantially on prevailing commodity prices for oil, aluminium and the US dollar exchange rate. The historical volatility in these commodity prices materially affects Hydro's financial condition, liquidity, ability to obtain financing, and operating results. Depressed prices can have a negative impact on Hydro's financial results. The majority of Hydro's oil and aluminium production is sold at market prices. To mitigate unwanted price exposure and to protect against undesirable price developments, Hydro utilizes physical and financial commodity instruments on a

limited basis. Entering into such positions requires management to make judgments about market conditions and future price expectations. Certain commodity instruments are deemed to be derivatives under US GAAP and required to be recognized at fair value, with changes in the fair value impacting earnings. When market prices are not directly observable through market quotes, the estimated fair value must be calculated using valuation models, relying on internal assumptions as well as observable market information. Such assumptions includes forward curves, yield curves and interest rates. The use of models and assumptions are in accordance with prevailing guidance from the FASB and valuations are based on the Company's best estimates. However, changes in valuations will likely occur and such changes may have a material impact on the estimated fair value of derivative contracts, in particular long-term contracts, resulting in corresponding gains and losses affecting future periods' income statements. It is important to note that use of such instruments may preclude or limit Hydro's ability to realize the full benefit of a market improvement. To further understand Hydro's sensitivity to these factors please refer above to the Indicative income statement sensitivities table on page 107.

#### Asset Retirement Obligations

Hydro has adopted as of January 1, 2003 SFAS 143, Accounting for Asset Retirement Obligations. Among other things, SFAS 143 requires significant changes in the accounting treatment for asset retirement obligations such as abandonment of oil and gas production platforms, facilities and pipelines. Specifically, the fair value of a liability for an asset retirement obligation is required to be recorded when incurred. Furthermore, the liability is to be accreted for the change in its present value each reporting period.

Hydro's asset retirement obligations consist mainly of accruals for removal and decommissioning of oil and gas installations on the Norwegian Continental Shelf. Norwegian regulations and the OSPAR convention (convention for the protection of the marine environment of the north-east Atlantic) regulate which installations must be disposed of and which can be abandoned. The OSPAR convention has imposed a general ban on sea disposal of offshore installations and requires removal and recycling unless exceptions are made which allow abandonment of specific installations.

The OSPAR convention does not cover pipelines and cables. Report No. 47 (1999-2000) to the Storting (Norwegian Parliament) on the disposal of pipelines and cables that have ceased to be used includes general guidelines permitting such facilities to be left in place if they do not result in any inconvenience or safety hazards.

A termination and removal plan for each field must be approved by the Norwegian authorities. The asset retirement obligation is estimated as the present value of the future expected decommissioning and removal costs based on an expected retirement concept and timing. The timing of retirement activities is normally assumed to be the end of production. Retirement activities relating to fields where Hydro has an ownership interest are expected to begin relatively far into the future. There is substantial uncertainty in the scope and timing of future termination and removal activities. Changes to technology, Norwegian regulations and other factors may affect the timing and scope of retirement activities. Such changes may substantially alter the book value of property, plant and equipment, asset retirement obligations and future operating costs.

#### Classification of mineral interests in oil and gas properties

A discussion is currently ongoing within the oil industry regarding the classification of mineral interests in oil and gas properties. Hydro has historically reported and currently reports such interests as part of Property, Plant and Equipment. The industry's current practice as to the proper classification of acquisition of contractual mineral interests under SFAS 141 Business Combinations and SFAS 142 Goodwill and Intangible Assets has been questioned. The Financial Accounting Standards Board (FASB) has issued FASB Staff Position Nos. FAS 141-1 and FAS 142-1, addressing certain aspects of this discussion. In addition, Emerging Issues Task Force (EITF) 04-2 addresses a related issue, whether mineral rights are tangible or intangible assets, concluding that such assets are tangible assets. Furthermore, mineral rights are required to be separately disclosed in reporting periods beginning after 31 March, 2004. However, this statement applies only to mining entities, while oil- and gas-producing entities within the scope of SFAS 19 are excluded. The EITF has included the topic for oil and gas-producing entities on its agenda as Issue No. 03-S, stating that consideration of this issue will be consistent with the approach taken with regard to mineral rights related to mining enterprises. Thus further authoritative guidance on the issue is expected.

The majority of Hydro's oil and gas producing fields and fields under development are offshore fields in various parts of the world and at various water depths. Development of these fields involves installations and production facilities tailored to each development. Hydro has not considered it beneficial to report acquired mineral interests in oil and gas properties and assets related to the development of these properties (e.g., offshore production platforms, wells and equipment) separately.

Hydro has made one significant acquisition of mineral interests in oil and gas properties subsequent to the implementation of SFAS 141 and SFAS 142 in 2001: the acquisition in May 2002 of increased interests in certain oil and gas producing fields and fields under development on the Norwegian Continental Shelf (NCS) from the Norwegian State. Consistent with Hydro's historical practice, the acquired interests, including offshore production platforms, wells and equipment, were recorded as Property, Plant and Equipment in the consolidated balance sheet, of which mineral interests in oil and gas properties were NOK 1.5 billion, all of which was assigned to proved reserves in producing fields and fields in development phase. Should new accounting guidance require hydrocarbon reserves obtained in acquisitions of oil and gas properties to be reported separately, either as tangible or intangible assets, the

maximum amount Hydro would reclassify in accordance with such guidance is approximately NOK 1.3 billion as of December 31, 2003, and NOK 1.4 billion as of December 31, 2002. The determination of these amounts is based on Hydro's current understanding of this issue. A reclassification would not be expected to change Hydro's result of operations or cash flows. Hydro will continue to classify these assets as part of Property, Plant and Equipment until authoritative guidance is provided.

#### Impairment of Long-Lived Assets

Hydro adopted as of January 1, 2002 SFAS 144, Accounting for Impairment or Disposal of Long-Lived Assets. Under SFAS 144, management is required to assess the conditions that could cause an asset to become impaired and require a write-down upon determination of impairment for long-lived assets held by the Company. These conditions include whether a significant decrease in the fair value of the asset(s) has occurred, changes in the Company's business plan for the asset(s) have been made, or whether a significant adverse change in the local business and legal climate has arisen. The amount of such an impairment charge is based on the estimated fair value of the asset compared to its carrying value. Fair value measurements include assumptions made regarding future cash flows associated with the asset under evaluation.

Impairment charges result in a decrease to Property, Plant and Equipment on the balance sheet and an increase in operating costs.

#### Contingencies and Environmental Liabilities

Contingencies and environmental liabilities are recorded when such items are asserted, or are probable of assertion, and the amount of potential loss can be reasonably estimated. Evaluation of contingencies requires management to make assumptions about the probability that contingencies will be realized and the amount or range of amounts that may ultimately be incurred. Environmental liabilities require interpretation of scientific and legal data, in addition to assumptions about probability and future costs. Changes in these assumptions can affect the timing and amounts of recorded liabilities and costs.

#### Business Combinations

In accounting for the acquisition of businesses, Hydro is required to determine the fair value of assets, liabilities, and intangible assets at the time of acquisition. Purchase accounting is subject to a number of assumptions including useful lives of assets, discount rates in different environments, replacement costs and timing of certain future cash flows.

Hydro's most recent significant acquisition was the purchase of VAW for a purchase price of EUR 1,911 million (NOK 14.9 billion). A specification of the allocation of this purchase price to assets and liabilities acquired can be found in Note 2 in Notes to the Consolidated Financial Statements.

#### Goodwill and Intangible Assets

Under SFAS 142, *Goodwill and Other Intangible Assets*, implemented in 2002, goodwill and certain intangible assets are no longer systematically amortized, but reviewed at least annually for impairment.

The largest portion of goodwill was recorded in the North America sector of the Extrusion and Automotive sub-segment. Management assessed the fair value of the sector's goodwill in relation to the carrying value of the sector's net assets. Assumptions related to certain cash flow forecasts and the discount rate were made reflecting the sector's industry. Total goodwill evaluated for impairment during 2003 was approximately NOK 1,100 million. Intangible assets determined to have indefinite useful lives are not amortized until a finite life can be estimated. Such assessment requires management to look at the legal, regulatory, competitive, and contractual factors to determine whether the useful life of the asset acquired is considered to be indefinite. Currently, Hydro has intangible assets with a carrying value of NOK 5 million deemed to have indefinite life. Goodwill and intangible assets are included in prepaid pension, investments, and other non-current assets.

#### Income Taxes

Hydro calculates deferred income tax expense based on the difference between the tax assets' carrying value for financial reporting purposes and their respective tax basis that are considered temporary in nature. This computation requires management's interpretation of complex tax laws and regulations in many tax jurisdictions where Hydro operates. Valuation of deferred tax assets is dependent on management's assessment of future recoverability of the deferred benefit. Management's judgment may change and such change may affect the results for each reporting period.

#### Employee Retirement Plans

Hydro's employee retirement plans consist primarily of defined benefit pension plans. As of December 31, 2003, the projected benefit obligation (PBO) associated with Hydro's defined benefit plans was NOK 29.2 billion. The fair value of pension plan assets was NOK 18.7 billion, resulting in a net unfunded obligation relating to the plans of NOK 10.5 billion. In addition, termination benefit obligations and other pension obligations amounted to NOK 1.5 billion, resulting in a total net unfunded pension obligation of NOK 12 billion. Hydro's net pension cost for 2003 amounted to NOK 2.5 billion. Cash outflows from operating activities in 2003 regarding pensions amounted to NOK 2 billion. The discount rate used for determining pension obligations and pension cost is based on the yield from a portfolio of long-term corporate bonds having one of the two highest ratings given by a recognized rating agency. Hydro provides defined benefit plans in several countries and in various economic environments that will affect the actual discount rate applied. Almost two-thirds of Hydro's projected benefit obligation relates to Norway. The discount rate applied for Norwegian plans as of December 31, 2003 is six percent. Measurement of pension cost and obligations under the plans requires a number of assumptions and estimates to be made by management. These include future salary levels, inflation, discount rates, years of future service, and rate of return on plan assets. Changes in these assumptions can influence the funded status of the plan as well as the net periodic pension expense. The PBO is sensitive to changes in assumed discount rates and assumed compensation rates. Based on indicative sensitivities, a one percentage point reduction or increase in the discount rate will increase or decrease the PBO in the range of 15 to 20 percent. A one percentage point reduction or increase in compensation rates for all plan member categories will decrease or increase the PBO in the range of 15 to 20 percent. It should be noted that changes in the aforementioned parameters and changes in the PBO, will affect net periodic pension cost in subsequent periods, both the service cost and interest cost

components, in addition to amortization of unrecognized net gains or losses, if any.

## Business Segment Information

Prior to the demerger of Agri, Hydro's operating segments consisted of the three core business areas Oil and Energy, Aluminium and Agri. Each business area is divided into sub-segments representing different parts of the value chain as follows:

Oil and Energy:	Exploration and Production Energy and Oil Marketing
Aluminium:	Metals (Primary Metals and Metal Products) Rolled Products Extrusion and Automotive (including the North America sector)
Agri:	Agri (Fertilizer and Industrial Gases and Chemicals)

In addition, Hydro is in the petrochemicals business and is engaged in other activities. A discussion of the operating results for each of the sub-segments within Hydro's core business areas, as well as for Other Activities, follows.

## Hydro Oil &amp; Energy

Amounts in NOK million	2003	2002	2001
Operating Revenues	<b>59,959</b>	55,845	52,180
Operating Income	<b>21,143</b>	15,947	19,177
EBITDA	<b>31,826</b>	25,340	27,604
Gross Investment	<b>150,417</b>	140,119	128,705
CROGI	<b>13.0%</b>	12.1%	13.2%
Number of employees	<b>3,465</b>	4,039	3,891

Hydro Oil & Energy consists of the sub segments Exploration and Production and Energy and Oil Marketing .

## Summary of key developments in 2003

Hydro Oil & Energy's operating income in 2003 was NOK 21,143 million, an increase of 33 percent compared to 2002. The most significant developments that influenced Hydro Oil and Energy's operating income in 2003 were as follows:

Oil and gas production increased by 10 percent to an average of 530,000 boe per day (boed). The increase came both from Norwegian and international fields. During 2003 a number of new fields commenced production, Grane being the most important.

Oil and gas prices were high throughout the year. Oil prices increased in 2003 reaching an average realized oil price of US dollar 28.7, up 16 percent from US dollar 24.7 in 2002. However the depreciation of the US dollar against NOK offset much of the effect of the price increase. Realized oil prices measured in NOK increased by approximately 4 percent compared to the previous year. Realized gas prices increased by approximately 7 percent.



Exploration costs in 2003 were NOK 1,577 million, a reduction of 56 percent compared to the previous year. The decline reflects a 32 percent reduction in the level of exploration activity for 2003 compared to the previous year in addition to a lower level of previously capitalized exploration and acquisition cost expensed in the period. There were 13 exploration wells drilled and completed in 2003 resulting in three discoveries. In addition, two discoveries were announced in Angola during the first quarter of 2003 based on exploration activity in 2002.

Hydro's proved oil and gas reserves were 2,288 million barrels of oil equivalents (mboe) at the end of 2003, compared to 2,225 mboe at the end of 2002. Hydro's reserve replacement ratio for 2003 was 133 percent, including reserves of 1.5 mboe relating to sold interests in the Brage and Njord fields. The reserve replacement ratio was 134 percent excluding purchases and sales of license interests. The increase in the reserves resulted from the inclusion of new fields in Norway, in particular Ormen Lange (SEC reserves; 234 mboe) and Vestflanken, as well as revisions of reserves relating to producing fields. Reserve life (defined as the number of years of production from proved reserves at the present production level) was 12 years at the end of 2003; comprised of 7 years for oil and 27 years for gas.

Hydro continued activities to optimize its license portfolio during the year. In 2003, approval was received from the Norwegian authorities for the sale of interests in the Brage and Njord fields. In addition, Hydro entered into an agreement for the sale of its interest in the Gjoa field. The sale was approved by the authorities in January 2004 and resulted in a tax-free gain of NOK 280 million that was reflected in the results in the first quarter of 2004. In January 2004, the Company signed an agreement to sell its 10 percent share in the Snohvit field to Statoil. The transaction is expected to result in an after tax gain of roughly NOK 100 million. At the same time an agreement was reached for the purchase of a two percent share in the Kristin field increasing Hydro's interest in the field to 14 percent of the field, improving its position in the Norwegian Sea Area on the NCS. Both agreements reflect Hydro's strategy to optimize its oil and gas portfolio.

During 2003, Hydro sold its interest in the company that owns the Scanraff refinery in Sweden (Scandinaviske Raffinaderi AB). The transaction resulted in a gain of NOK 490 million that is reflected in the results of 2003.

Operating cost per barrel for Hydro's oil and gas production was NOK 84 per boe in 2003 compared to NOK 100 per boe in 2002. The main reason for the reduction was lower exploration costs compared to 2002. In addition, increased production resulted in lower

costs per barrel due to greater economies of scale. During 2003 Hydro rationalized parts of its administrative and exploration organizations including manning reductions of approximately 60 people and a substantial reduction in the use of external consultants. This was in addition to the 535 employees that were transferred to Statoil as of January 1, 2003 in connection with the transfer of operatorship on the Tampen fields. Operating costs excluding exploration were NOK 76 per boe in 2003 compared to NOK 79 per boe in 2002, well below the announced target of NOK 82 per boe.

Power production in 2003 was 27 percent lower than 2002 and lower than normal from hydro powered production plants. Prices in the Nordic electric power market were NOK 0.29 per kWh, compared to NOK 0.20 in the prior year.

The change in 2003 operating income compared to the prior year and the most important items affecting the change are included in the table below.

Amounts in NOK million	2003
Operating income 2003	21,143
Operating income 2002	15,947
<hr/>	
Change in Operating Income	5,196
<hr/>	
Prices and currency for E&P	
- oil	4,110
- gas	485
- currency	(2,835)
- put options	110
	<hr/>
	1,870
Margin	205
Volume	2,515
Fixed costs	10
Depreciation	(640)
Production costs	(440)
Exploration costs	1,980
Other	(304)
<hr/>	
Total change in Operating Income	5,196
<hr/>	

The main reasons underlying the material variances are described in the summary above.

Exploration and Production

Amounts in NOK million	2003	2002	2001
Operating Revenues	<b>37,904</b>	32,970	32,426
Operating Income	<b>18,500</b>	13,137	16,910
EBITDA	<b>27,624</b>	21,593	24,312
Gross Investment	<b>124,655</b>	115,938	106,382
CROGI	<b>13.7%</b>	12.2%	13.7%
Number of employees	<b>2,800</b>	3,372	3,213

Exploration and Production (E&P) includes Hydro's oil and gas exploration activities, field development activities and oil and gas production activities. Hydro currently has production of oil and gas in Norway, Canada, Angola, Libya and Russia. Effective January 1, 2003, Hydro's gas transportation assets were transferred from the Exploration and Production sub-segment to the Energy and Oil Marketing sub-segment. All prior periods have been reclassified for comparative purposes.

#### Market Conditions

Oil prices increased in 2003 reaching an average realized oil price of US dollar 28.7, up 16 percent from US dollar 24.7 in 2002. The higher oil prices were mainly due to political turmoil in Venezuela affecting the oil industry in particular; the onset of war in Iraq; a very cold winter in the US; high US natural gas prices and the beginning of a global economic recovery creating increased demand for crude oil. These circumstances were in addition to OPEC actions to maintain high oil prices levels. However the depreciation of the US dollar against NOK offset much of the effect of the price increase. Expressed in Norwegian kroner the oil price went up from NOK 194 in 2002 to NOK 203 in 2003, an increase of 4 percent. The average realized gas price in 2003 was NOK 1.03 per standard cubic meter, up 7 percent from NOK 0.95 per standard cubic meter in 2002. The increase reflected higher prices of oil products (gas prices in long term contracts are to a large extent linked to the price of oil products with a lag of approximately six months).

#### Revenues

Operating revenues for E&P in 2003 were NOK 37,904 million, an increase of 15 percent from the previous year. In addition to the higher price levels experienced for oil and gas, the increase reflected substantial growth in total production volumes. During 2003, average production increased from 480,000 boed in 2002 to 530,000 boed. The increase of approximately 10 percent was well above the forecast for the year and in line with a targeted 8 percent compound annual growth rate for the 2001-2007 period. Oil production increased by 7 percent and accounted for 74 percent of the total production compared to 77 percent in 2002. Gas production increased to a total of 7.8 billion standard cubic meters, an increase of 22 percent compared to 6.4 billion standard cubic meters in 2002. Oil and gas production reached a record level in the fourth quarter with an average production of 596,000 boed.

Hydro experienced production growth both from Norwegian and international fields in 2003. New fields coming on stream in Norway included the Grane, Mikkell, Fram and the satellite Vigdis extension. In addition, Jasmim in Angola and the Murzuq A field in Libya started production in the fourth quarter of 2003. Production also increased from fields coming on stream in recent years including Tune, Snorre B, Åsgard, Oseberg Sør, Girassol and Terra Nova. The increased interests in Hydro operated Oseberg, Tune and Grane fields pur-



chased from the Norwegian State on May 10, 2002 also contributed to the growth with a full year effect in 2003. International production outside the Norwegian Continental Shelf (NCS) accounted for 11 percent of the total production, up from 10 percent in 2002. Planned maintenance stops caused a production loss (or delayed production) of 12,000 boed compared to 9,000 boed in 2002.

Because the Energy and Oil Marketing sub-segment purchases and sells Hydro's Norwegian equity production of oil, about 68 percent of Exploration and Production's revenues in 2003 resulted from internal sales. Equity production of gas and international oil production are sold by Energy and Oil Marketing on behalf of Exploration and Production and account for the majority of the external revenues.

#### Operating Costs

Operating costs for E&P were NOK 19,404 million in 2003, a decrease of 2 percent compared to the previous year.

Hydro's average production cost, defined as the cost of operating fields, including CO<sub>2</sub> emission tax, insurance, gas purchased for injection and lease costs for production installations (but excluding transportation and processing tariffs, operating cost of transportation systems and depreciation), was NOK 21 per boe in 2003, compared to NOK 23 per boe in 2002. The main reasons underlying the cost reduction were increased production, better productivity and the implementation of extensive cost control measures within Hydro's portfolio of producing fields.

Depreciation, including accruals for abandonment and well closure costs and write-downs (but excluding depreciation on transportation systems), averaged NOK 46 per boe, the same level as in 2002. However, total depreciation costs increased in 2003 as a result of higher production levels. Total exploration costs including appraisal costs of discoveries amounted to NOK 1,577 million in 2003 compared to NOK 3,558 million in 2002. The decline compared to 2002 resulted from lower exploration activity and a substantially lower level of previously capitalized exploration and acquisition cost expensed during the period. Cost relating to exploration activity in 2003 was NOK 1,609 million, compared to NOK 2,376 million in the previous year. Seventy-three percent of the exploration activity was dedicated to areas outside the NCS, mainly in Angola, Canada, Iran and the Gulf of Mexico. Out of a total of 13 exploration wells drilled and completed during 2003, one discovery was made in the Gulf of Mexico and two discoveries were made in Norway. In addition, two wells were in the process of being drilled at year-end. Cost of NOK 1,489 million relating to 2003 exploration activities was expensed due to unsuccessful efforts in Angola, Canada and Norway. NOK 88 million relating to costs capitalized in previous years was also expensed.

#### Operating Income

Operating income in 2003 was NOK 18,500 million, a 41 percent increase from the previous year. As discussed above, the main reasons underlying the increase were higher production volumes, lower exploration costs and higher oil and gas prices.

#### EBITDA

EBITDA in 2003 was NOK 27,624 million, an increase of NOK 6,031 million compared to 2002.

#### Outlook

Hydro will continue to focus its exploration and production strategy for the coming years on growing Hydro's exploration and production activities, balancing the portfolio and continuing to focus on cost improvements to improve profitability.

Following a review of the extensive drilling program completed during 2001-2003, Hydro plans to take measures to reduce the risk profile of its exploration activities. Hydro will evaluate purchasing discovered petroleum resources in areas where Hydro's particular strengths in drilling, reservoir management and field development can add greater value. For 2004 Hydro will scale back exploration activity to a level of around NOK 1 billion, and anticipates an annual level of NOK 1.5 billion for 2005.

Hydro's objective is to maintain its position as an efficient operator on the NCS. Hydro has targeted production cost of NOK 24 per boe for 2004. The increase of about NOK 3 per boe compared to 2003 to a large extent results from the cost of purchasing injection gas to increase the oil production on the new Grane field.

Hydro expects its oil and gas production to increase by approximately 8 percent as an annual average during the period 2001-2007 based on its current portfolio of fields in production, fields under development or fields considered for development. The production target for 2004 is an average of 560,000 boed of which approximately 90 percent comes from fields with currently booked proved reserves. Increased production from the Grane field is expected to contribute strongly to the growth in 2004.

A main focus for Hydro in 2004 is the development of the Ormen Lange gas field on the NCS. This is the largest undeveloped gas field on the NCS, at a water depth of 850 to 1,100 meters. The Plan for Development and Operation (PDO) was submitted to the authorities for approval on 4 December 2003 together with the plan for installation and operation of the Langeled gas export pipeline from the field to the United Kingdom. Approval of the PDO occurred in April 2004. Hydro is the operator during the development phase of the field. Production is scheduled to begin in 2007. Total investments including the gas export pipeline is estimated to be NOK 66 billion excluding estimated inflation over the life of the project. Hydro holds an ownership interest in the field of 18.0728 percent.

Crude oil prices have been high for the last three years and current forward market prices indicate that prices will remain high in 2004. It is expected that OPEC will manage crude production to

maintain price levels within their USD 22-28 price band target for their basket of crude oil types for 2004. The growth in demand resulting from global GDP growth and increased demand for oil in new production and transportation systems (refineries, pipelines, terminals etc.) is expected to be balanced by growth in non-OPEC production, increased oil production from Iraq and production cuts from the remaining OPEC countries if needed.

#### Energy and Oil Marketing

Amounts in NOK million	2003	2002	2001
Operating Revenues	<b>49,370</b>	45,915	45,824
Operating Income	<b>2,668</b>	2,784	2,267
EBITDA	<b>4,226</b>	3,721	3,292
Gross Investment	<b>25,734</b>	24,128	22,366
CROGI	<b>9.8%</b>	11.2%	10.6%
Number of employees	<b>665</b>	667	678

Energy and Oil Marketing includes Hydro's commercial operations in the oil, natural gas and power sectors, the gas transportation operations and the operation of Hydro's power stations in Norway. Energy and Oil Marketing markets and sells refined petroleum products (gasoline, diesel and heating oil) to customers in Scandinavia and the Baltic countries. Hydro owns 100 percent of the operating unit in Sweden and 50 percent of Hydro Texaco, an oil marketing company with retail outlets in Norway, Denmark and the Baltic countries. Energy and Oil Marketing is also responsible for developing Hydro's hydrogen and renewable energy business activities such as wind power. In 2003, Hydro sold its interest in the company that owns the Scanraff refinery in Sweden (Scandinaviske Raffinaderi AB). As a result, Hydro no longer holds an interest in the refining business. Results from the operation of Scanraff are included until 17 December 2003.

Except for the operation of Hydro's own power stations, gas infrastructure activities and development activities, Energy and Oil Marketing's business mainly consists of margin-based sales and trading activities. As a result, operating revenues and costs in any given year are largely a function of volume traded and the level of prevailing market prices for crude oil, natural gas and electricity.

#### Market Conditions

As described under the caption "Market Conditions" for the Exploration and Production sub-segment, the price level for oil, oil products and gas was higher during 2003 and somewhat higher than in 2002.

Nordic electricity prices were high during 2003 as a result of unusually low precipitation during autumn 2002 resulting in low reservoir levels. The situation improved in Norway and Sweden during 2003, but reservoir levels were around 20 percent lower than normal at the end of the year. Average spot prices for 2003 were NOK 0.29 per kWh, compared to NOK 0.20 per kWh in the prior year.

#### Operating Revenues

Energy and Oil Marketing's operating revenues for 2003 were NOK 49,370 million, up NOK 3,455 million or 8 percent from the prior year.

Power production in 2003 was 7.5 TWh compared with 10.3 TWh in 2002, a reduction of 27 percent and below normal production from the hydroelectric power plants. The decrease in production from Hydro's hydroelectric power plants was expected due to low reservoir levels at the beginning of the year.

In 2003, internal sales to other business areas within Hydro amounted to NOK 5,062 million, including internal sales to Hydro Agri and Hydro Aluminium Metals sub-segment of NOK 1,596 million and NOK 1,776 million, respectively. Internal sales in 2002 were NOK 3,986 million.

#### Operating costs

Energy and Oil Marketing's operating costs of NOK 46,702 million in 2003 were 8 percent higher than the prior year. As described above, Energy and Oil Marketing's operating costs are mainly comprised of purchases of crude oil, natural gas and electricity. Operating costs also include process costs relating to the operations of power stations, gas infrastructure and other fixed costs. There were no substantial changes in these costs in 2003 compared to the previous year.

#### Operating income

Energy and Oil Marketing's operating income in 2003 was NOK 2,668 million, a decrease of 4 percent compared to the prior year. The main change in 2003 was a decrease in operating income from power sourcing and marketing activities which to a large extent was offset by an increase in the operating income from the gas activities.

Operating income from power sourcing and marketing activities was NOK 664 million in 2003, down NOK 521 million or 44 percent from the prior year. The decrease in operating income resulted primarily from lower production, which was partly offset by higher average spot prices. In addition, unrealized gains relating to power purchase contracts increased the results for 2002 by NOK 220 million. Energy and Oil Marketing secures electricity in the market for Hydro's own consumption, for delivery to external parties and to reduce the risk of price fluctuations on its electricity portfolio. In 2002 Hydro purchased electricity contracts in the derivative market for deliveries in 2003 to compensate for the low reservoir levels and expected shortfalls in production. Spot and forward electricity prices fell in the early part of 2003 compared to an exceptionally high level at the end of 2002. As a result, a portion of the net unrealized gains relating to these contracts that were included in the results of 2002 were reversed in 2003 as expected.



Operating income from oil trading and refining activities was NOK 406 million in 2003, an increase of 5 percent from the prior year. These activities include crude oil trading, gas liquids trading, refining activities and shipping. Strong refining margins and good trading results in the markets for gas liquids and crude oil were offset by inventory losses related to refining activity. Average refining margins for 2003 were US dollar 4.4 per barrel, compared to US dollar 2.2 per barrel in 2002. Operating income in 2003 included an inventory loss of NOK 82 million compared to an inventory gain of NOK 64 million in 2002.

Operating income from gas activities was NOK 1,795 million in 2003, up NOK 540 million from the prior year (43 percent). Around NOK 190 million of the improved operating income came from gas sourcing and marketing activities, while the remaining improvement related to gas infrastructure activities. The improved results from gas infrastructure activities were mainly due to higher tariff revenues, and lower depreciation charges resulting from the extension of license periods for a number of gas pipelines following the establishment of Gassled in January 2003.

Oil Marketing incurred an operating loss of NOK 16 million compared to operating income of NOK 68 million in 2002. The decline reflects lower margins and higher inventory losses.

#### EBITDA

EBITDA for 2003 was NOK 4,226 million, an increase of 14 percent compared to the prior year. Hydro's share of net income from Hydro Texaco included in EBITDA was NOK 117 million in 2003, the same level as in the prior year.

In 2003, Hydro sold its interest in Sundfjord Kraft ANS for 20.2 percent of the shares of SKS Produksjon AS resulting in a gain of NOK 326 million reflected in the results.

The sale of Hydro's 25 percent ownership interest in the Scanraff oil refinery in Sweden resulted in a gain of NOK 490 million reflected in the results for the year.

#### Outlook

Hydro power reservoir levels were below average at year-end 2003 for Hydro-owned power stations and for the Nordic market area in general. As a result, the Company's hydro power generation in 2004 is expected to be approximately 12 percent below the normal levels. The present reservoir deficit in the Nordic market area results in an expected price level above historic average. However, this estimate is uncertain and depends on precipitation levels during the next few months. Spot and forward prices for 2004 are below the 2003 levels at present, however, the tighter Nordic power balance has increased dependence on electricity imports and energy from other sources. Lack of new capacity to cover expected annual demand growth of more than 1 percent is expected to result in a tighter capacity balance in the coming years. Prices in the Nordic Region will be influenced by electricity prices within the European continental market that are high mainly due to record high coal prices. Prices could increase further in 2004 due to restrictions on greenhouse gas emissions in the European Union.

The European continental gas market continues to be dominated by long-term contracts indexed to oil products. The ongoing liberalization process of the European gas market is expected to lead to a more liquid and short-term gas market on the continent similar to what has existed in the UK for some time. New gas trading hubs are emerging, in particular at Zeebrugge in Belgium, in the Netherlands and at Emden/Bunde at the German/Dutch border. Hydro expects to be able to exploit business opportunities resulting from these developments. In 2003, Hydro strengthened its position in the continental gas market through the acquisition of Duke Energy's marketing activities in the Netherlands (Duke Energy Europe Northwest B.V). Hydro also established a joint venture, HydroWingas Ltd, with German gas supplier Wingas GmbH. HydroWingas will market gas in the UK, focusing on wholesalers and large end-users. In 2003, Hydro also signed an agreement with A.P. Møller-Maersk A/S, a Danish company, for the

purchase of 0.6 billion cubic meters of gas per year during the period 2005 to 2009 for delivery in the Netherlands. Hydro believes that the long-term fundamental conditions underlying natural gas demand in Europe are strong in part because natural gas continues to be the preferred choice for new supplies due to environmental benefits, competitive pricing and convenience of use. Hydro will continue to focus on profitable growth of its gas portfolio both upstream and downstream to capture the opportunities created by a more flexible and liquid European gas market.

Following the Scanraff sale in December 2003, Hydro no longer holds an interest in the refining business. Operating income relating to this activity was approximately NOK 200 million in 2003.

## Hydro Aluminium

Amounts in NOK million	2003	2002	2001
Operating Revenues	<b>69,152</b>	65,051	51,083
Operating Income	<b>2,456</b>	1,698	185
EBITDA	<b>6,498</b>	4,334	2,543
Gross Investment	<b>70,357</b>	63,833	42,819
CROGI	<b>8.6%</b>	7.1%	5.7%
Number of employees	<b>26,728</b>	27,110	16,244

The Aluminium business area is comprised of the sub-segments Metals (Primary Metals and Metal Products), Rolled Products, Extrusion and Automotive (including the North America activities).

## Summary of key developments in 2003

Aluminium's major strategic drive in the last few years has been to improve competitiveness by generating greater economies of scale (through acquisitions and expansions) and reducing costs.

During the first quarter of 2002, Hydro acquired VAW Aluminium AG (VAW) and the French building systems company, Technal. Hydro's consolidated results include the operating results of VAW as of 15 March 2002 and Technal, as of 26 January 2002.

Improvement programs were initiated in 2001 and 2002 to improve operating results, including reductions of annual costs, by NOK 2.5 billion compared to the combined cost level of VAW and Hydro Aluminium businesses in 2001. The target was achieved at end of the fourth quarter of 2003. This means the full year effect for 2004 will be in line with the target of NOK 2.5 billion. The accumulated cost of the program was NOK 1,166 million (NOK 176 million for 2003) which was NOK 397 million below the original cost estimate.

Since 2002, other improvement programs have been instituted. For example, Rolled Products established in 2003 an improvement program for the Holmestrand, Norway plant to reduce annual fixed costs by approximately NOK 80 million. The program includes manning reductions of 80 persons, representing approximately 16 percent of the total work force by the end of 2004. About 80 percent of the reductions were completed at the end of 2003.

Emission standards established by the Norwegian Pollution Authority require production facilities using Söderberg technology in the Høyanger and Årdal primary aluminium plants to be closed or replaced by 2006. After an extensive assessment, Hydro determined that investments to replace this capacity will not be made. The resulting closures will reduce the Company's annual primary aluminium production capacity by 72,000 tonnes. The affected parts of the facilities will be fully depreciated as of the closure date. A project to evaluate the impact of the closures on manning, restructuring and other sustainability issues relating to the locations was established. This work was expanded to look at the overall competitive position of Hydro Aluminium's European smelters and concluded upon subsequent to year end. For additional information see Outlook below.

**Investments:** Hydro Aluminium's brownfield expansion projects are all progressing according to plan and within budget. The expansion of the 50 percent-owned Sørå primary aluminium plant was brought to full capacity in the first

quarter of 2003. The expansion project for the aluminium plant in Sunndal, Norway, has completed the start up the first two sections of the new capacity and will phase in the remainder, with completion expected in the autumn of 2004. As a result of the Sunndal and Sørøra expansions Hydro's annual primary aluminium production will increase by approximately 190,000 tonnes per year in 2005 when both plants are at full production compared with 2001.

The first expansion of Alunorte, a low cost alumina refinery located in Brazil, was completed in early April 2003. An important strategic step for Hydro Aluminium in 2003 was the decision to participate in the second expansion of Alunorte. The expansion will provide Hydro with an additional 610,000 tonnes of alumina annually beginning from the second quarter of 2006. The expansion will increase Hydro Aluminium's raw material supply secured by equity investments.

An investment in a greenfield plant for Automotive precision tubing products was approved. The plant will be built in the strategically important market of China with a start up in 2005. Total investment is estimated to be NOK 150 million.

**Divestment:** Aluminium disposed of its interest in the aluminium recycling plant, VAW-IMCO in Germany. The disposal had no material income statement effect. Hydro has also entered into an agreement to sell its German based alumina business including Aluminium Oxid Stade GmbH an alumina refinery located in Stade, near Hamburg in Northern Germany. About half of Hydro's share of alumina from this facility is chemical grade alumina used in a variety of applications in the chemical and other industries, which are non-core to Hydro's aluminium activities. The transaction will not result in any significant gain or loss for Hydro.

**Contracts:** Hydro Aluminium's alumina balance was strengthened with a long-term supply contract with Comalco Aluminium Limited, a wholly owned subsidiary of Rio Tinto, entered into in 2003. Starting in 2005, Comalco will supply 300,000 tonnes of alumina annually to Hydro's Australian smelter operations. This increases to 500,000 tonnes annually from 2006 to 2030. The contract improves Hydro Aluminium's competitive position by securing the long-term availability of alumina in line with industrial long-term market prices.

A new long-term agreement with Talum in Slovenia will supply Hydro Aluminium with 70,000 tonnes of foundry alloy products per year starting in 2004 through 2010. The agreement enhances Hydro Aluminium's metal supplier concept built on a combination of equity primary aluminium production, recycling and remelt facilities and third party supply contracts.

Aluminium's Automotive segment strengthened its position by concluding important sales contracts. Beginning in 2006, rear bumper components will be delivered for the Citroen Picasso with

an expected volume of 300,000 parts annually. In addition, Hydro will deliver an estimated volume of 1.2 million parts per year related to the front and rear bumper beams, including crash boxes on the rear bumper, for Audi's redesigned A4 model starting in 2004.

Technal, one of Extrusion's three primary building system's brands, has been selected as the supplier of aluminium building solutions for several new sports stadiums in Portugal. Portugal is hosting the 2004 European Football Championship and is in process of building a number of state-of-the-art football stadiums for the event.

The change in operating income for 2003 compared to the prior year and the most important items affecting the change are included in the table below:

Amounts in NOK million

Operating income 2003	2,456
Operating income 2002	1,698
<b>Change in Operating Income</b>	<b>758</b>
Margin	(560)
Hedging	325
Volume	860
Fixed costs	(345)
Depreciation	(515)
Infrequent items and restructuring costs	615
Trading	460
Unrealized LME-effects	(310)
New / disposed business	285
Other	(57)
<b>Total change in Operating Income</b>	<b>758</b>

#### Variance Analysis

Aluminium's operating income for 2003 was NOK 2,456 million compared to NOK 1,698 million in the prior year. The higher result was due to the inclusion of VAW and Technal (new business) for the entire first quarter of 2003 and lower infrequent items compared to 2002. Excluding the variance for new business for the first quarter and infrequent items, operating income declined approximately NOK 143 million. The largest single variable explaining the decrease was lower aluminium prices measured in Norwegian kroner. This was marginally offset by translation effects on operating income of the strengthening of subsidiary currencies (mainly EUR) to Norwegian kroner.

Margins, excluding the effect of hedge programs, were lower and negatively impacted results by approximately NOK 560 million compared with 2002. Margins improved for Rolled Products and Extrusion but were weaker for Metals and Automotive. During 2003, aluminium prices measured in Norwegian kroner fell by seven percent compared with 2002 as a result of a lower average USD to NOK exchange rate. As a result, margins were substantially weaker in Metals compared to 2002 reducing results by approximately NOK 760 million. Realized effects of hedge programs in Metals positively impacted the results by NOK 323 million compared to 2002.

Higher volumes contributed an additional NOK 860 million to operating income compared to 2002. With the exception of North American activities, volumes increased for all sub-segments. The ramp up of new capacity in Metals, Automotive and, to a lesser extent, in Rolled Products was the fundamental reason for the improvement.

During 2003, new production capacity was also the major reason for higher fixed cost and depreciation that more than offset the savings from improvement programs. Fixed costs measured in NOK for European subsidiaries were negatively impacted by a stronger EUR to NOK. However, for operating income as a whole this currency translation effect was positive.

Metals realized results of trading activities were higher mainly due to currency gains on EUR denominated revenues measured in NOK. This was largely offset by lower unrealized results from the mark to market adjustments on Aluminium's LME derivative portfolio compared with 2002.

In order to better understand Hydro Aluminium's underlying performance, operating income has been adjusted for certain items referred to as infrequent items (see discussion under Non-recurring or infrequent items included in the Financial Review).

Net infrequent charges<sup>1)</sup> (including restructuring) impacting operating income for 2003 were NOK 94 million compared with NOK 708 million for 2002<sup>2)</sup>.

EBITDA for 2003 was NOK 2,164 million higher in the year largely due to the inclusion of VAW for the entire period of 2003 and due to lower infrequent and restructuring items. Results from non-consolidated investees included unrealized currency gains on USD-denominated loans held by a Brazilian company, Alunorte, of NOK 218 million for 2003 compared to a loss of NOK 461 million for 2002. Excluding the new business, the currency effects on Alunorte and infrequent items, EBITDA increased NOK 288 million reflecting higher pre-tax cash flows from new capacity and higher trading results.

- 1) The major infrequent items for 2003 were NOK 140 million (USD 20 million) related to the loan loss provision on a subordinated loan provided to Goldendale Aluminium Inc., demanning and rationalization costs of approximately NOK 90 million, the reversal of an environmental accrual of NOK 59 million and the reversal of an accrual on a litigation settlement of NOK 77 million. Infrequent charges split by segment for 2003 were: Metals a gain of NOK 19 million; Rolled Products a charge of NOK 71 million; and Extrusion and Automotive a charge of NOK 42 million.
- 2) Infrequent charges (including restructuring) for 2002 mainly relate to manning reductions in connection with the improvement programs, VAW integration cost and higher cost of goods sold from VAW inventories due to the fair value adjustment as of the acquisition date. Metals downwardly revised restructuring accruals related to Magnesium by NOK by 10 million. Infrequent charges split by segment for 2002 were: Metals NOK 348 million; Rolled Products NOK 223 million and Extrusion and Automotive NOK 137 million.

## Outlook

Economic indicators are increasingly positive for 2004, however, they continued to lead physical indicators (such as increased order and shipment levels) early in 2004. European market sentiment is positive but to a lesser degree than US indicators. The outlook for Asia remains strong.

Hydro's management expects that Western World shipments of primary aluminium will increase about five percent, equivalent to an estimated 1,000,000 tonnes in 2004 compared to 2003. Western World production, net of announced closures, is expected to increase by 500,000 tonnes in 2004. This is expected to improve the market balance. In the beginning of 2004, there has been a tight supply relative to demand for alumina which has resulted in a substantial increase in alumina prices in the spot market. In addition, electricity prices in the North Western US also remain relatively high. Due to both of these factors, the likelihood of significant restarts in closed production in the North Western US is reduced. Furthermore, if alumina spot prices remain at levels similar to those in early 2004, this may reduce incentives for starting up additional new capacity in China. China is dependent upon imports of this raw material. In addition, Chinese authorities announced a reduction of available credit for industrial development in China during the first quarter of 2004.

According to CRU International Ltd. (CRU), consumption of flat rolled products, extruded and automotive products is expected to grow compared to 2003. Growth projections for 2004 vary both by product and market, but range between 2 to 3.5 percent for North America and Western Europe.

Hydro obtains most of its alumina from companies in which it has an equity investment and through long-term contracts, usually based upon an LME price formula. Kaiser Aluminum filed motions at the end of January, 2004 in a US bankruptcy court seeking to reject or nullify certain alumina supply agreements. Neither Hydro nor any of its subsidiaries were named in this process. However, one of Hydro's Australian subsidiaries has an alumina supply agreement with Kaiser through 2005. Should Kaiser fail to deliver under contract terms, the alumina costs for the subsidiary could increase. In recent rulings by the US bankruptcy court, Kaiser has failed to obtain authorization for the rejection of certain alumina supply agreements. Accordingly, the risk of non-performance for Hydro's agreement is perceived as limited. In order to retain and improve its competitive position, Hydro's strategy has been to improve the relative cost position of its smelter system through continuous improvements and reduced cost within its existing capacity and expanding capacity at low cost smelters. Hydro's Norwegian smelters face challenges in reaching acceptable cost levels. Approximately 30 percent of production cost relates to direct and indirect labor. A combination of higher wages, social benefits, shift schedules, higher manning for support functions and higher prices for purchased services in Norway result in a cost disadvantage for these smelters. As a result, on May 7, 2004, the Board of Directors decided to recommend to the Corporate Assembly a plan aimed at reducing annual costs by NOK 350 to NOK 400 million. The plan will require a reduction of manning by about 800 employees in the Norwegian plants. The total estimated cost of the program, including manning reductions, is expected to be approximately NOK 800 million. The reduction in manning is expected to be completed by the end of the first quarter of 2005.

Due to low volume and declining profitability at the Casting plant in Leeds, UK, Aluminium's automotive sector entered into a consultation period starting September 18 with employees to evaluate a potential closure of the plant. The consultation period ended in December with a conclusion that the future of the plant was unlikely to be secured. A final decision was made June 2004 to close the plant in late 2004 or early 2005 with resulting closure costs of about NOK 265 million (GBP 22 million). This is net of expected proceeds from the sale of property and equipment. In addition, the plant is expected to show a negative EBITDA for 2004 of approximately NOK 44 million (GBP 3.6 million). Most of the plant staff of around 580 people will leave during the second half of 2004.

Production of turbo cylinder heads for GM will be relocated to Hydro's plant in Győr, Hungary.

## Metals

Amounts in NOK million	2003	2002	2001
Operating Revenues	<b>39,923</b>	39,646	31,475
Operating Income	<b>2,293</b>	1,690	372
EBITDA	<b>4,298</b>	2,703	1,766
Gross Investment	<b>38,896</b>	34,905	26,330
CROGI	<b>9.8%</b>	7.1%	6.0%
Number of employees	<b>6,276</b>	6,284	4,561

## Market conditions

Western World shipments of primary metal grew an estimated 4.6 percent for 2003 compared to the same period of the prior year. This was an increase from 2.6 percent in 2002 versus 2001 when industrial activity was at a low level. For 2003, most of the shipment growth is believed to have been attributable to strong demand in Asia while growth in Western Europe and North America were modest for the year. China's internal consumption continued to grow rapidly in 2003. However, new Chinese capacity coming on stream outpaced internal consumption. China increased its net primary exports to the Western World by an estimated 100,000 tonnes in 2003 to a total of about 350,000 tonnes. China continued to have net imports of scrap, aluminium semi-finished products (mainly rolled and extruded products) and finished products of approximately 600,000 tonnes in 2003.

Western World Production increased approximately 3.0 percent (520,000 tonnes) due to new capacity net of closures. In 2003, Alcoa reported the closure of 95,000 tonnes of production in its West Ferndale smelter in the US.

Reported inventories at the end of the year were about three percent (100,000 tonnes) higher than at the end of 2002. There is uncertainty in the trends for unreported inventories, however, indica-



tions are that they increased more than reported inventories. The average market price for aluminium (LME 3 monthly average) was USD 1,428 per tonne for 2003, which was USD 63 per tonne higher compared with 2002.

#### Revenues

Metals revenues were positively impacted by the consolidation of VAW for the full first quarter of 2003 compared with 15 days in the first quarter of 2002. Volumes for Hydro Aluminium's primary metal increased 18 percent to a total of 1,473,000 tonnes in 2003 compared to the same period of 2002. This reflected both the inclusion of VAW for the entire first quarter of 2003 as well as new capacity from Sunndal.

Excluding the variance for VAW for the first quarter, operating revenues declined approximately 10 percent or NOK 4 billion. Lower realized prices measured in Norwegian kroner more than offset higher volumes from the Sunndal expansion.

Hydro realized an aluminium price of USD 1,440 per tonne for 2003 compared to USD 1,372 per tonne for the same period of 2002. Measured in Norwegian kroner, however, the realized aluminium price declined by over seven percent. The realized NOK/USD exchange rate was NOK 7.25 for 2003 (NOK 8.21 in 2002). The realized price includes the effect of hedges.

Realized effects of hedge programs<sup>3)</sup>, which are comprised of LME future contracts and US dollar forward contracts, positively impacted the results by about NOK 476 million in 2003 (NOK 153 million in 2002) of which about NOK 240 million related to Sunndal in 2003. LME future contracts relating to the Sunndal program are spread evenly over the quarters while the amount of US dollar forward contracts vary by quarter.

Product premiums (particularly for extrusion ingot) were noticeably higher in USD but less pronounced stated in Norwegian kroner.

#### Operating costs

Excluding the VAW variance for the first quarter, raw material and energy cost (variable costs) declined in spite of higher volumes from new capacity mainly due to the effect of reduced alumina cost (measured in NOK) and a one-off positive adjustment to tolling fees for raw materials of NOK 34 million. Fixed cost<sup>4)</sup> and depreciation rose compared to 2002 reflecting the new capacity. Depreciation also included a write down of assets of NOK 20 million.

#### Operating income

Operating income for 2003 amounted to NOK 2,293 million compared to NOK 1,690 million in the prior year. Excluding VAW activities for the first quarter, restructuring and infrequent items, operating income weakened NOK 69 million. Changes in product prices and currency rates resulted in a reduction in margins of about NOK 760 million compared with 2002. However, this was mitigated by positive effects from certain hedge programs (NOK 323 million) and improved trading results (NOK 460 million). Trading results improved mainly due to currency gains. Improvement resulting from higher sales volumes was offset by higher fixed cost and depreciation.

#### EBITDA

EBITDA for 2003 was NOK 4,298 million. Excluding VAW activities for the first quarter, infrequent items and currency effects for Alunorte, EBITDA was NOK 139 million higher than the corresponding period of 2002. Improved volumes, results of hedging programs and trading more than offset the fall in margins and higher fixed cost.

- 3) Both the LME and currency hedges related to the Sunndal program are designated as cash flow hedges against production. Changes in the fair value of the contracts are included in Other Comprehensive Income while the realized amounts are included in revenues. Sunndal accounts for the largest part of the hedge program. In addition, Metals economically hedges certain revenues and raw materials in terms of LME prices with the purpose of locking in margins on such transactions. These positions referred to as price hedges do not qualify for hedge accounting. Realized aluminium price hedges are included in revenues or raw material costs while unrealized effects are included at the Hydro Aluminium level under Other and eliminations. Related currency effects are classified as financial items and excluded from operating income. Price hedges are excluded from the numbers for the hedge programs disclosed above.
- 4) Fixed cost excludes variable production inputs (such as raw materials & energy), depreciation and miscellaneous gains & losses on disposals of assets.

## Rolled Products

Amounts in NOK million	2003	2002	2001
Operating Revenues	<b>18,377</b>	14,790	4,228
Operating Income	<b>132</b>	(295)	58
EBITDA	<b>835</b>	258	162
Gross Investment	<b>12,645</b>	11,937	2,626
CROGI	<b>6.4%</b>	3.5%	5.8%
Number of employees	<b>4,259</b>	4,306	766

## Market conditions

Difficult market conditions continued in Europe in 2003. According to CRU, consumption of flat rolled products in Europe was almost unchanged compared to 2002. Average capacity utilization for the European industry improved marginally but remained relatively low at about 83 percent.

The North American market had an increase in consumption of about one percent for the year as a whole compared to 2002. Capacity utilization for the US industry improved about two percent to approximately 74 percent. The stronger EURO compared to USD was a disadvantage to producers outside the US for export sales. The EUR/USD exchange rate impacts export pricing of flat rolled products in Asia, South and North America which are typically based on a USD formula and put pressure on margins.

Litho and foil are higher margin products. Automotive flat rolled products, especially body-in white parts, are important to the industry as these products are expected to have attractive growth rates. Many flat rolled products are relatively mature in European and North American markets.

## Revenues

Rolled Products' revenues included consolidation of VAW for an additional 2<sup>1/2</sup> months in 2003 compared with 2002. External shipments<sup>5)</sup>, on a proforma basis including comparable VAW figures for the full year of 2002, increased around seven percent to 893,000 tonnes. Higher volumes were in part due to the ramp up of new capacity. The total growth in shipments for 2003 over 2002 was distributed between Hydro's product groups as follows: Litho (2 percent), Foil (1 percent), Automotive (1 percent) and Strip (3 percent).

Operating revenues, excluding the VAW variance for the first quarter, increased approximately three percent or about NOK 450 million. This was mainly due to a volume increase of around five percent that was partially offset by the impact of lower EUR revenues for USD denominated export sales. Rolled Products exports about 19 percent of its sales to Asia, South and North America. The EUR strengthened 20 percent to the USD in 2003.

Rolled Products' major activities are denominated in EUR and all sales revenues are price hedged in terms of aluminium prices and foreign currency using commodity and financial instruments. Realized gains related to aluminium price hedges are included in revenues while currency effects are included in financial items.

## Operating costs

Excluding the VAW variance for the first quarter and infrequent items, Rolled Products variable cost, fixed cost and depreciation increased in 2003 primarily as a result of increased volumes.

Rolled Products cost structure varies with changes in the aluminium price and its product mix. On average, the metal price comprised about 60 percent of total cost while other materials and energy account for about 20 percent of the total. Higher variable costs due to increased sales volumes were largely offset by lower aluminium prices stated in EUR and lower losses on inventory.

Rolled Products sales prices are based on a margin over the metal price. The production process requires a long lead time of between two to three months. Therefore, cost of goods sold (and margins) are impacted by variances in inventory values resulting from changing aluminium prices. Falling prices in EUR increase cost (reduce margins) while increasing prices have the opposite effect. In 2003, the loss on inventory was approximately NOK 120 million compared with approximately NOK 200 million in 2002.

Fixed cost and depreciation rose compared to 2002 reflecting the new capacity (automotive line in Germany) and investment in Malaysia) which more than offset savings from improvement programs and the reversal of an accrual for a resolved claim of NOK 52 million.

#### Operating income

Operating income for 2003 was NOK 132 million compared to a loss of NOK 295 million in the previous year. Approximately NOK 10 million of the increase in operating income resulted from the inclusion of the activities of the former VAW, which were not consolidated for the entire year of 2002. Excluding infrequent items, operating income was NOK 203 million, an improvement of NOK 275 million. Improved margins positively impacted results by approximately NOK 240 million compared with 2002. Increased shipments contributed around NOK 195 million to results but this was largely offset by increased fixed cost and depreciation.

#### EBITDA

EBITDA for Rolled Products for 2003 was NOK 835 million compared to NOK 258 million for 2002. Excluding infrequent items, EBITDA was NOK 906 million (NOK 481 million in 2002), an improvement of NOK 425 million. Approximately NOK 112 million of this improvement resulted from the inclusion of the activities of the former VAW, which were not consolidated for the entire period of 2002. The remainder of the improvement was principally due to higher margins and shipments.

- 5) Excludes wire rod shipments.

## Extrusion and Automotive

Amounts in NOK million	2003	2002	2001
Operating Revenues	<b>24,529</b>	24,245	22,487
Operating Income	<b>98</b>	14	(228)
EBITDA	<b>1,432</b>	1,084	632
Gross Investment	<b>18,737</b>	16,846	14,011
CROGI	<b>7.9%</b>	7.0%	4.5%
Number of employees	<b>16,193</b>	16,520	10,917

## Market conditions

The overall market for general extrusion in Europe showed improvement towards the end of 2003 but apparent consumption was a modest increase of one percent for 2003 as a whole (CRU). The building and construction market in Germany remained difficult resulting in pressure on volumes. For extruded products in North America, CRU reported a reduction in apparent consumption in 2003 of about one percent. Global light vehicle sales were reported to be approximately 0.5 percent higher than in 2002. However, Western European and North American automotive markets, which are the most relevant to Hydro, lagged behind the global averages with a reduction in light vehicle sales of two and one half percent, respectively.

## Revenues

Operating revenues included the consolidation of VAW and Technal for the full year of 2003 compared with the period after the acquisition dates in the first quarter of 2002.

Excluding the variance in the first quarter from VAW and Technal (new business), revenues declined about three percent (NOK 700 million). This was due in part to negative translation effects. North American revenues fell in NOK as a result of the 12 percent lower NOK / USD exchange rate in 2003 compared to 2002. This was largely offset by the opposite translation effect on revenues of a stronger EUR to NOK for European subsidiaries. Automotive revenues and sales volumes increased compared to 2002, principally due to the ramp up of shipments on new contracts. Higher volumes offset the lower revenues from price pressure on heat transfer and crash management components, although margins were negatively affected. Extrusion s revenues were somewhat lower. Although European extrusion shipments were somewhat higher, shipments declined for Hydro s Building systems operations due to low demand in the European construction industry. In North America, revenues fell as shipment volumes declined from own production (lower demand) and third party trading (which was largely discontinued) in 2003 compared to the same period last year.

## Operating costs

Excluding new business and infrequent items, variable costs declined while fixed cost and depreciation increased. In total, cost development in 2003 benefited from movement in currencies in translation (the opposite effect as variance for revenues) compared with 2002.

Variable costs increased for Automotive, driven by higher volumes, but declined for Extrusion and North America. Fixed costs increased in 2003 due to higher activity in Automotive and net translation effects that were partially offset by cost reduction from improvement programs in North America. Depreciation expense increased due to start up of new automotive production lines and North American remelt operations and write downs of NOK 79 million relating to Automotive fixed assets.

#### Operating income

Operating income for 2003 was NOK 98 million compared to NOK 14 million in the prior year. Excluding the variance relating to VAW and Technal, for the first quarter of 2003 and infrequent items, operating income was NOK 148 million (NOK 151 million). Slightly higher margins and improved volumes contributed positively to results. This positive effect was offset by the higher fixed costs and depreciation expense. Operating income benefited somewhat from translation effects compared with 2002.

Operating income for Extrusion improved in a difficult market. North American operations have made substantial improvements in press productivity (11% improvement compared to the previous year from the transfer of best practices from the European extrusion system), on time delivery and cost control measures which have compensated for the decline in results in 2003 from lower demand. Despite a substantial contribution to operating income from new volumes, Automotive's operating income declined in 2003 as a result of weaker margins, higher fixed cost and increased depreciation. Programs are on-going to reduce costs and improve or exit under-performing units (also see Outlook).

#### EBITDA

EBITDA for Extrusion and Automotive for 2003 was NOK 1,432 million compared to NOK 1,084 million for 2002. Excluding new business in the first quarter and infrequent items, EBITDA was NOK 1,390 million an improvement of NOK 191 million. Higher volumes and margins more than offset the impact of higher fixed cost. Extrusion activities and higher cash flows from Automotive's new capacity were the main contributors.

## Hydro Agri

Amounts in NOK million	2003	2002	2001
Operating Revenues	<b>38,174</b>	33,348	37,407
Operating Income	<b>2,800</b>	2,207	2,114
EBITDA	<b>4,748</b>	3,945	4,402
Gross Investment	<b>35,049</b>	30,739	36,513
CROGI	<b>11.7%</b>	9.4%	9.6%
Number of employees	<b>7,338</b>	7,371	7,841

## Summary of Key Developments

Agri's operating income increased by approximately 27 percent from 2002 to 2003. Operating results were positively influenced by substantial price increases on most fertilizers products and ammonia. The effects of higher prices more than compensated for negative effects relating to currency developments and high energy costs. Both urea and ammonia prices increased, reflecting an improved global market balance. European fertilizer prices for all major nitrogen products were strongly influenced by a high international urea price.

In 2003, sales volumes were relatively unchanged compared to the prior year, despite the termination of the Farmland/Hydro marketing agreement in conjunction with the sale of Agri's interest in Farmland/Hydro. Sales volume in Europe increased by 4 percent, while volumes outside Europe improved slightly excluding the effects of the divestment of Farmland/Hydro.

The industrial gas and chemicals operations experienced volume growth in all core segments in 2003. Strongest improvements were achieved within technical nitrates and nitrogen chemicals. As a result of record high ammonia prices margins were put under pressure and the operating result decreased.

Much of Agri's business is denominated in or heavily influenced by the USD. As a result, currency changes have a direct impact on revenues and costs. The pricing of the majority of Agri's products (including its European operations) is directly linked to the USD. Fixed costs in Europe are, to a large extent, linked to NOK and the EUR. Excluding cost saving and efficiency programs, this implies that an appreciation of the European currencies against the USD could reduce the competitiveness of the European fertilizer business.

The analyses of variances between 2003 and 2002 discussed below, include certain assumptions with regard to currencies, prices, volumes, gas costs and other factors, primarily to isolate effects of currency movements, and thereby, contribute to better understanding of the development in the business. These assumptions are actively used by management to follow up the business.

Amounts in NOK million	
Operating income 2003	2,800
Operating income 2002	2,207

Change in Operating Income	593
Margin	645
Volume	150
Fixed costs	(190)
Depreciation	40
Other	(52)
Total change in Operating income	593
Variance affecting EBITDA	210
Change in EBITDA	803
Currency effect <sup>1)</sup>	850
Total change in EBITDA calculated with stable currency rates	1,653
Volume	150
Prices/ Margins including effects on share of net income of non-consolidated investees <sup>2)</sup>	2,600
Price effect from natural long position <sup>3)</sup>	300
Energy cost	(1,200)
Pension cost	(100)
Interest income and other financial items	(50)
Other	(47)
Total change in EBITDA calculated with stable currency rates	1,653

The strengthening of European currencies against the US dollar affected operating income negatively for 2003 by approximately NOK 750 million and EBITDA by approximately NOK 850 million compared to the prior year.

Increased nitrogen prices in US dollars improved operating income by approximately NOK 2600 million and EBITDA by approximately NOK 2,900 million. Part of the positive price effect on EBITDA and operating income, estimated at NOK 300 million, resulted from Agri's natural long position (own produced products) in a rising market.

Price gains were partially offset by the negative effects of increased raw materials and energy costs of approximately NOK 1,200 million and predominantly related to operations in Europe. Higher oil prices during the first several months of 2003 resulted in an increase of approximately 40 percent in the cost of ammonia production for 2003 compared to the previous year. Other raw material costs were stable.

- 1) Currency effects on all line items in the table have been isolated by applying constant exchange rates (i.e. 2003 exchange rates) on 2002 financial figures
- 2)



Includes the net effect of price fluctuations on non-consolidated investees where the variable cost is directly linked to the price development for urea and ammonia

- 3) Increased margins from long positions and timing of trade related to the natural long position in a rising market

## Market conditions

Both urea and ammonia prices increased, reflecting an improved global market balance. The urea price increase was supported by increasing global consumption, continued production capacity cutbacks in the United States because of high natural gas prices, and production stoppages caused by production problems in Indonesia, Algeria, Venezuela and Alaska. The increasing nitrogen fertilizer price trend also affected European nitrate prices, which continued to rise through the second half of 2003.

The closure of manufacturing capacity in Europe in 2000 and 2001, together with European producers' further capacity reductions in 2002, contributed positively to the supply/demand balance in key European markets in 2003, resulting in improved prices for key products in these markets.

In 2003, the average price for ammonia was USD 203 per tonne (fob Caribbean), up approximately 85 percent compared to 2002. Ammonia prices reached an average fourth quarter price of USD 240 (fob Caribbean) an historically high level, for many of the same reasons as the urea price increase discussed above.

Total nitrogen deliveries from industry and importers in West Europe were up approximately 7 percent from 2002 to 2003. The annual increase in volumes for 2003 compared to 2002 should be viewed in connection with low sales in the second half of 2002, when some sales were delayed into 2003. In addition, due to the strong increase in prices at the end of 2003, many customers made their purchases early in 2003/2004 season.

West European fertilizer imports increased as a result of the increased relative attractiveness of the West European market. The import market share in West Europe reached a level of approximately 26 percent close to the situation two years ago.

## Revenues

Operating revenues increased by 14 percent from 2002 to 2003, primarily as a result of increased prices for most fertilizer products and also as a result of increased ammonia trading.

An analysis of the operating revenues for each of the principal geographical areas and other key business units in Agri is presented in the table below:

Amounts in NOK million	2003	2002
Fertilizer activities		
Europe	13,654	12,179
Outside Europe	14,843	14,165
Ammonia Trade and Shipping	5,240	2,926
Industrial Gas and Chemicals	4,437	4,078
<b>Total</b>	<b>38,174</b>	<b>33,348</b>

## Fertilizer Europe

Total nitrogen deliveries in West Europe were up approximately 6 percent for the full year. There were positive sales volume developments for Agri in the UK and Ireland, helped by the closure of the IFI fertilizer plant in Ireland (autumn 2002).

#### Fertilizer outside Europe

Outside Europe, Agri's sales volume increased slightly for the year as a whole excluding the effect of the Farmland/Hydro divestment in 2002. During 2003, Brazil became, for the first time, Agri's largest country in terms of revenues and fertilizer sales volume with sales of more than 2 million tonnes. Agri's ability to import products into the US market improved as a result of increased gas costs for the domestic industry. Africa experienced a volume decline as a result of a difficult political situation in some key markets.

Sales of own produced products in markets outside of Europe is important as it allows for better capacity utilization of Agri's distribution and production system. It also smoothens seasonal demands as overseas markets often take products outside of the European fertilizer season. This provides optimization opportunities between geographic markets enabling Agri to prioritize markets based on overall profitability. Growing Agri's third party product (TPP) business (including joint ventures and blending operations) and the continued positive development of key strategic alliances enables Agri to better utilize the capacity of its extensive overseas marketing and distribution network.

#### Ammonia trade and shipping

Average ammonia prices increased by approximately 85 percent from 2002 reflecting higher natural gas prices in the US. Ammonia prices are strongly influenced by the natural gas price in the US with lower gas prices normally resulting in higher production of ammonia. Agri's ammonia production and consumption in Europe is largely balanced. However, significant volumes are traded, partly to optimize logistics and partly to benefit from market opportunities. Price changes relating to ammonia sold from Agri's plants in Trinidad and Qatar are not reflected in operating revenues because these operations are included in results from non-consolidated investees. Volumes sold in these areas in 2003 were in line with 2002.

#### Industrial gases and chemicals

Revenues from industrial gas and chemicals activities increased approximately 8 percent in 2003. The main improvements were achieved within activities related to environmental products, nitrogen chemicals and technical ammonium nitrates. Volumes of technical ammonium nitrates for civil explosives increased by approximately 19 percent compared to the prior year mainly due to increased market share in Europe and higher sales in Africa and Latin America. Volumes of environmental process chemicals (i.e., Nutriox for water treatment and Reduktan for removal of NO<sub>x</sub> emission) increased by

approximately 10 percent. The increase related primarily to higher coal consumption for power generation in Europe, increasing the demand for Reduktan and the abnormal hot summer in Central and South Europe growing the demand for Nutriox.

#### Operating Costs

Natural gas is the most important raw material used in the production of ammonia, nitrogen fertilizer and technical products. Most of Agri's natural gas requirements in 2003 were purchased from external suppliers. A significant part of the gas used was purchased under long-term contracts with pricing mechanisms linked to the development in market prices for gas. Natural gas prices are closely linked to developments of the crude oil price. However, due to contract terms and Agri's distribution system, gas price changes in Europe are normally reflected in reported earnings with a time lag of approximately 4-5 months. Higher oil prices during the first several months of 2003 (and the consequent increase in gas and oil product costs for Agri's ammonia plants) resulted in an increase of approximately 40 percent in the cost of raw materials for ammonia production for 2003 compared to the prior year in U.S. dollar terms. In Norwegian kroner, the increase was in excess of 20 percent. Other raw material costs were stable.

Productivity in Agri increased as a result of improvements in the European production system, increasing production by almost 600 kilo tonnes of finished fertilizers compared to 2002. The improvement contributed to a 6 percent reduction in fixed costs per tonne for the year. Total fixed costs for Agri were unchanged in nominal terms on a comparable basis despite a substantial increase in pension costs. An increase in net operating capital in 2003 of NOK 913 million resulted from significantly higher prices. Net operating capital days was reduced by approximately 13 percent through completion of several improvement projects in addition to an extraordinary low level of stocks in Europe during the spring of 2003.

#### Operating Income

Operating income was NOK 2,800 million, compared to NOK 2,207 million in 2002, an increase of approximately 27 percent. The positive development in nitrogen fertilizer prices led to strong results despite negative currency effects and higher energy costs.

EBITDA for 2003 was NOK 4,748 million compared to NOK 3,945 million in the prior year

#### Outlook

Market indicators suggest a continued growth in world demand for fertilizer in 2004. This trend is expected to continue with growth outside Europe, mainly in Asia and Latin America.

The fertilizer industry expects consumption in West Europe to show a moderate declining trend for the coming years. This mainly relates to increased efficiency in the application of fertilizer, economic uncertainty relating to the farmers' economy, environmental pressure to reduce the usage of mineral fertilizers and developments with the European Union's (EU) Common Agricultural Policy (CAP). Since 1999, changes in the CAP have led to reduced price supports within the EU, but higher area payments. The economic consequence of this policy change may result in a reduction of agricultural input factors such as fertilizer. Other factors, such as increased focus on the protein content of grain and improved prices for agricultural products may have positive effects.

For nitrogen fertilizer, it is difficult to estimate whether the utilization rate will increase or decrease in 2004 and 2005. More capacity will come on stream, and higher than average consumption growth rates are required to increase the utilization rate. It is expected that oil prices will remain at a high level, resulting in high gas costs in Europe. Due to the time lag discussed above, Agri's energy costs in the first half of 2004 is expected to be on the same level as in

the first half of 2003.

Ammonia prices correlated strongly with US natural gas prices from 1999 through first half of 2003. Since then, the correlation ceased as continued production curtailments in the USA have supported the ammonia market. The correlation may be restored if and when currently idle capacity in the USA is brought back into production, or if/when expected new ammonia capacity begins production in 2005.

The price level for nitrates and other fertilizers in West Europe is expected to continue to correlate strongly with the movements in international fertilizer prices.

Grain prices, particularly in the USA, but also elsewhere, increased substantially through 2002 and 2003. Global production of grain lags consumption and this may not yet be fully reflected in price developments. In 2003, grain inventories were also reduced. The expected need for increased grain production is positive for the demand outlook for fertilizer.

Other activities

Petrochemicals

Petrochemicals operating revenues increased by 3 percent in 2003 compared to 2002. The increase was primarily due to somewhat higher product prices in NOK and higher volumes. Hydro's average realized price for caustic soda and S-PVC was approximately 3 and 7 percent higher, respectively, in 2003 than in 2002.

In 2003, Petrochemicals incurred an operating loss in the amount of NOK 8 million, representing an improvement of NOK 27 million compared with 2002. EBITDA was NOK 401 million, an improvement of NOK 81 million compared to 2002. The positive development mainly resulted from higher volumes and somewhat improved product prices in Norwegian kroner for S-PVC and caustic soda, partly offset by higher purchased raw material costs. Results from non-consolidated investees were approximately NOK 60 million higher compared to the same period of 2002, mainly due to higher

product prices in Asia, which is the main market for the Qatar Vinyl Company.

In March 2003 Norsk Hydro's Board of Directors approved the construction of a new chlorine plant at Rafnes in Norway. The investment is estimated to cost approximately NOK 1 billion. The expansion project started in May, and is progressing according to plan. Start-up is expected in the autumn of 2005.

After seven years of poor financial performance, the global petrochemical industry is expected to improve. Poor financial performance has resulted in a lack of reinvestment in petrochemical facilities. Additionally, significant industry consolidation has occurred as producers searched for ways to reduce cost, and rationalize inefficient facilities. Global economic recovery is in its early stages and increased demand for petrochemicals is expected to follow. The average growth rate for the industry as a whole was around 4 percent at the beginning of 2004 which is also the expected average growth for the year. Growth in Europe is expected to be 2 percent for 2004. Growth in demand is expected to improve the market balance and result in higher prices and margins.

#### Treka

Treka consists solely of the fish feed producer Biomar. Difficult conditions in the fish farming industry resulted in losses on bad debts during the year. During 2003 approximately NOK 570 million relating to losses on bad debts and write downs of goodwill and intangible assets were charged to results.

#### Pronova

During 2003, Pronova sold their Swedish subsidiary Carmeda AB resulting in a gain of NOK 139 million. Pronova also signed an agreement in the fourth quarter to sell 80.1 percent in Pronova Biocare for NOK 165 million. The sale resulted in a gain of NOK 110 million which was included in Other items in the first quarter of 2004.

#### Liquidity and capital resources

Amounts in NOK million	2003	2002	2001
Cash flow provided by (used for):			
Operations	<b>24,578</b>	21,785	26,172
Investments	<b>(7,840)</b>	(36,446)	(14,681)
Financing	<b>(8,233)</b>	(5,995)	(5,990)
Increase (decrease) in cash and cash equivalents	<b>9,284</b>	(21,183)	5,382
Return on Shareholders' equity	<b>13.4%</b>	11.6%	10.8%
CROGI	<b>9.8%</b>	8.5%	9.4%
Net interest-bearing debt/equity ratio <sup>1)</sup>	<b>0.38</b>	0.60	0.34

- 1) Net interest-bearing debt divided by shareholders' equity plus minority interest, adjusted for unfunded pension obligation and present value of future obligations on operating leases, both after tax.

#### Cash flow

Hydro has historically financed its operations primarily through cash generated by operating activities. In 2003, net cash generated by the Company's operations of approximately NOK 24.6 billion was more than sufficient to fund the

net cash used in investing activities of approximately NOK 7.8 billion. Of the residual, approximately NOK 5 billion was used to repay interest bearing debt and approximately NOK 3.2 billion was used for dividends and share repurchases, leaving approximately NOK 9.3 billion (including foreign currency effects on cash flows) to increase the Company's cash balance reducing the Company's net interest bearing debt.

#### Cash from Operations

Cash provided by operating activities of NOK 24,578 million for the year represented an increase of 13 percent from 2002. The improvement was mainly due to higher earnings resulting from the significant increase in oil and gas production together with higher oil and gas prices. Higher product prices in Agri's fertilizer business as well as productivity gains in both the Aluminium and the Agri fertilizer businesses, also contributed to the improvement in cash generated from operating activities.

#### Investing Activities

Net cash used in investing activities in 2003 was NOK 7,840 million compared to NOK 36,446 million in 2002. The decline in cash used for investing activities for the year was primarily due to decreased spending on purchases of other long-term investments of NOK 17,087 million, lower purchases of property, plant and equipment of NOK 4,106 million, and higher proceeds from the sale of long-term assets of NOK 5,084 million. The sizeable reduction in purchases of long-term investments from 2002 to 2003 reflected the significant acquisitions that took place in 2002, principally the VAW and Technal acquisitions, and the purchase of assets from the Norwegian State's Direct Financial Interest (SDFI). See the Capital Expenditures section below for an analysis of expenditures for property, plant and equipment and long-term investments.

#### Financing Activities

In 2003, NOK 8,233 million was used in financing activities, compared to NOK 5,995 million in 2002. Principal repayments of NOK 5,342 million in 2003, including repayments of debt relating to VAW and Treka, were NOK 1,146 million higher than in 2002. In addition, repurchase of ordinary shares of NOK 555 million and dividends of NOK 2,711 million together were NOK 690 million higher than in 2002. In January 2004, an extraordinary General Meeting approved a capital reduction by cancellation of 1,484,300 treasury shares acquired in 2003 as part of a share buyback program approved by the 2003 Annual General Meeting. The extraordinary General Meeting also authorized the redemption of 1,157,922 shares owned by the Norwegian State for an amount of NOK 445 million payable in

March 2004. There was no repurchase of shares in 2002.

Cash and cash equivalents was NOK 15,249 million at the end of 2003 compared to NOK 5,965 million for 2002. The main reasons for the increase are described above.

Hydro anticipates that cash from operations, its cash holdings and proceeds from Yara's debt repayment will be sufficient to meet its planned capital expenditures and operational requirements in 2004. Hydro's capital expenditures for 2004 are estimated to be approximately NOK 19 billion (excluding exploration activities).

#### Short and long-term borrowings

At year-end 2003, short-term bank loans and the current portion of long-term debt in Hydro amounted to NOK 6.8 billion, down from the 2002 level of 9.3 billion.

Hydro's long-term interest bearing debt at the end of 2003 was NOK 28.6 billion, compared to NOK 30.9 billion at the end of 2002. During 2003, an early repayment of USD 195 million (NOK 1.4 billion) of long-term debt was made and NOK 1.2 billion became current and was reclassified to short-term liabilities. Hydro repaid maturing loans of GBP 100 million (NOK 1.2 billion) and NOK 500 million during the year. No new loans were issued in 2003. As of December 31, 2003 the fair value of Hydro's long-term debt, including the current portion, was NOK 34.9 billion, and the carrying value was NOK 29.8 billion.

Approximately two-thirds of Hydro's long-term debt as of year-end 2003 was denominated in US dollars. Substantially all of Hydro's long-term debt carry fixed interest rates. The weighted average interest rate on all long-term debt was approximately 6.9 percent at year-end 2003. The average maturity of the Company's outstanding long-term debt was approximately 14 years, with approximately 13 percent of the long-term debt falling due within the next five years and the remainder thereafter. (See Note 19 in Notes to the Consolidated Financial Statements for more comprehensive information on the composition of long-term debt).

Following the demerger of Agri, Hydro may consider some adjustments to its debt portfolio through early repayments or repurchases of parts of the outstanding loans. During the first quarter of 2004 Hydro has provided for the prepayment of loans with an original maturity in 2005 - 08 of approximately NOK 2 billion.

Substantially all of Hydro's indebtedness is situated in the parent company, Norsk Hydro ASA. In general, the terms of each of the debt agreements and indentures governing the indebtedness contain cross-default provisions under which a default under any other loan, indebtedness or other obligation for borrowed money on the part of Hydro would trigger a default under that debt agreement or indenture. The cross-default provisions are generally limited to borrowing obligations of Norsk Hydro ASA or any of its Principal Subsidiaries (defined to mean a company or other entity (i) which is fully consolidated in the consolidated balance sheet of the Company or in which the Company owns more than 50 percent of the issued share capital, (ii) the gross assets of which represent more than 10 percent of the consolidated gross assets of the Company and its subsidiaries (taken as a whole) and (iii) which is incorporated in the Kingdom of Norway, and require that the indebtedness in default under another agreement or indenture be greater than USD 25 million.

Substantially all of Hydro's debt is unsecured. However, the agreements and indentures contain provisions restricting the pledging of assets to secure future borrowings without granting equivalent status to existing lenders. The debt agreements and indentures contain no financial ratio covenants and no provisions connected to Hydro's credit rating or value of underlying assets. None of the agreements give the lenders a right to put the loan and demand repayment prior to its scheduled maturity. However, certain agreements allow for Hydro's early redemption or repayment of the indebtedness at certain specified premiums, plus accrued and unpaid interest.



At December 31, 2003, Hydro's senior unsecured debt was rated A2 by Moody's and A with negative outlook from Standard & Poors. In determining the rating, the rating agencies have not factored in the Norwegian State's 43.8 percent equity interest in the Company. The factors given significant weight in determining Hydro's current credit rating include: the diversification of the Company's portfolio; the cash flow generated from the oil and gas activities; the strong position in aluminum products; and a sound financial profile. The ratings also, however, reflect the commodity characteristics of most of the Company's products, and consequently, the exposure to market price fluctuations and economic cyclicality.

Hydro announced its intention to demerge Hydro Agri in June 2003, which resulted in Moody's amending Hydro's rating outlook from negative to stable. On November 28, 2003, following Hydro's announcement regarding the then proposed Agri transaction, Moody's reaffirmed Hydro's A2 rating with stable outlook, and Standard & Poor's stated that the ratings and outlook on Hydro (A with negative outlook) remained unchanged following clarification of the Company's plans to divest from its agricultural business.

Net interest bearing debt (short- and long-term interest bearing debt, including the current portion of long-term debt, less cash and cash equivalents and other liquid assets) at the end of 2003 was NOK 18.5 billion, compared to NOK 31.5 billion at the end of 2002. The Company's net interest bearing debt to equity (including minority interests) ratio was 0.21 at year-end 2003. Including net unfunded pension obligations, after tax, and the present value of operating leasing obligations, net interest bearing debt divided by equity was 0.38, which was well within the stated target of 0.5.

As part of the demerger of the Agri business, Yara had assumed a liability to pay to Hydro a net interest bearing debt which at year end 2003 amounted to approximately NOK 7.5 billion. Yara's repay-

ment of this debt was made on completion of the demerger from the proceeds of debt financing arranged through financial institutions prior to the consummation of the demerger. In addition, Hydro also sold its 20 percent share holding in Yara, as part of the demerger process. As a consequence of these transactions, Hydro's net interest bearing debt has been further reduced from the year-end 2003 level.

As of December 31, 2003, Hydro had unused short-term credit facilities totaling approximately NOK 3.2 billion. The Company also had committed agreements for long-term stand-by credit facilities totaling approximately USD 2 billion (NOK 13.5 billion). There were no borrowings under these agreements as of December 31, 2003. Hydro also has in place a shelf registration in the US under which it may raise up to an aggregate of USD 1.5 billion in debt securities. There are no substantial restrictions on the use of borrowed funds under Hydro's material credit and debt facilities.

#### Employee retirement plans

As of December 31, 2003, the projected benefit obligation (PBO) associated with Hydro's defined benefit plans was NOK 29.2 billion. The fair value of pension plan assets was NOK 18.7 billion, resulting in a net unfunded obligation relating to the plans of NOK 10.5 billion. In addition, termination benefit obligations and other pension obligations amounted to NOK 1.5 billion, resulting in a total net unfunded pension obligation of NOK 12 billion. For further information see note 20 included in the notes to the Consolidated Financial Statements.

In 2003, the net unfunded pension obligation increased by NOK 1.9 billion. Unrecognized net losses and prior service costs increased by NOK 1 billion from NOK 8.3 billion at the end of 2002 to NOK 9.3 billion at the end of 2003. The increase included NOK 600 million relating to certain plans reported in the line item Termination benefits and other in prior periods. The remaining increase was mainly attributable to remeasurement of obligations at year-end applying a lower discount rate.

Hydro's net pension cost for 2003 amounted to NOK 2.5 billion. Cash outflows from operating activities in 2003 regarding pensions amounted to NOK 2 billion.

The discount rate used for determining pension obligations and pension cost is based on the yield from a portfolio of long-term corporate bonds having one of the two highest ratings given by a recognized rating agency. Hydro provides defined benefit plans in several countries and in various economic environments that will affect the actual discount rate applied. Almost two-thirds of Hydro's projected benefit obligation relates to Norway. The discount rate applied for Norwegian plans as of December 31, 2003 is six percent.

#### Contractual obligations, Commitments and Off Balance Sheet Arrangements

A summary of Hydro's total contractual obligations and commercial commitments to make future payments is presented below. For further details see Notes 7, 19, 22 and 23 in the Notes to the Consolidated Financial Statements.

Amounts in NOK million	Total	Payments due by Period			
		Less than 1 year	1-3 years	4-5 years	Thereafter
Long-term debt <sup>1)</sup>	29,658	1,201	2,084	1,087	25,286
Capital lease obligations <sup>1)</sup>	152	40	46	20	46

Edgar Filing: NORSK HYDRO A S A - Form 20-F

Operating lease obligations <sup>2)</sup>	7,257	1,188	1,980	1,573	2,516
Unconditional purchase obligations <sup>2)</sup>	55,717	7,310	10,819	7,900	29,688
<hr/>					
Total contractual cash obligations	92,784	9,739	14,929	10,580	57,536
<hr/>					

Comprised of the following:

Liabilities recorded on the balance	
1) sheet	NOK 29,810 million
Commitments not recorded on the	
2) balance sheet	NOK 62,974 million

In addition, Hydro is contingently liable for guarantees made directly by the parent company or made on behalf of subsidiaries in the normal course of business (see Note 22 to the Consolidated Financial Statements). Hydro grants guarantees at approximate market based fees to enable subsidiary companies to obtain credit or engage in contracts of a greater magnitude than would otherwise be possible without such guarantees. Hydro makes such guarantees to facilitate transactions which are considered necessary to reach its business objectives.

The following describes guarantees outstanding as of 31 December 2003:

Hydro has guaranteed NOK 54 million of debt issued on behalf of non-consolidated investees and is contingently liable for NOK 85 million of discounted bills.

Hydro is also contingently liable to various tax authorities for NOK 1,352 million relating to the non-taxable treatment of gains on internal sales of non-current assets and subsidiaries. Gains on such sales could become taxable if certain assets were sold outside the Group. Hydro controls whether such assets are offered for sale outside of the Group.

Guarantees in connection with the sale or divestment of companies amounted to NOK 7,900 million. The amount reflects the maximum contractual amount that Hydro could be liable for in the event of certain defaults or the realization of specific uncertainties. Hydro

has, in addition to this amount, certain guarantees relating to sales or divestment of companies that are unspecified in amount. Hydro believes that the likelihood of any material liability arising from guarantees relating to sales of companies is remote. Historically, we have not made any significant indemnification payments under such guarantees and no amount has been accrued in the accompanying Consolidated Financial Statements.

In addition to guarantees relating to the sale or divestment of companies, Hydro has guaranteed certain recoverable reserves of crude oil in the Veslefrikk field as part of an asset exchange between Hydro and Petro Canada. In 1996, Hydro entered into a strategic alliance with Petro-Canada that entailed a swap of certain Hydro interests in licenses on the NCS in exchange for the right to participate in oil production from proven fields and explore for further oil discoveries on the Grand Bank.

Under the guarantee, Hydro is obligated to deliver indemnity reserves to Petro Canada in the event that recoverable reserves are evaluated to be lower than a specified amount. An evaluation of the recoverable reserves was completed in 2002 in accordance with the agreement which resulted in a compensation by Hydro to Petro Canada. The agreement with Petro Canada was renegotiated in 2002 with the possibility of making a new evaluation of the reserves in 2008, 2014 and the end of the field's productive lifetime. The agreement includes the possibility of recovery by Hydro of earlier compensation if new evaluations indicate improvements in the estimated recoverability. The guarantee is not applicable in cases of force majeure, the failure of the field operator to comply with appropriate field practices and other instances. As of 31 December 2003, the remaining volume covered under the guarantee was 1.2 million Sm<sup>3</sup> of crude oil, equivalent to approximately NOK 1,465 million calculated at current market prices.

Outstanding commercial guarantees made on behalf of subsidiaries amounted to NOK 10,545 million. Such guarantees include advance payment guarantees, bid bonds, performance bonds, stand-by letters of credit and payment guarantees. Certain of these guarantees are obtained from external banks and covered by Hydro by a counter indemnity to such banks. Hydro's contingent liability relating to commercial guarantees is linked to the performance of its subsidiaries under various contracts. However, a certain portion of the guarantees are payable on demand. Therefore, there is a certain amount of litigation risk in the event of unfair calls relating to such guarantees.

Because the payment of commercial guarantees is related to events directly or indirectly controlled by Hydro, the Company considers its risk related to such instruments to be limited. As a result, these guarantees do not pose material risk to the Company's future liquidity, capital resources and results of operations. Since Hydro is, in effect, guaranteeing its own performance relating to commercial guarantees, they are not considered off balance sheet arrangements as defined by SEC regulations.

None of the contingent amounts described above are recorded on the balance sheet as of 31 December 2003.

Contractual commitments for investments in property, plant and equipment, and other future investments as of December 31, 2003 amounted to NOK 17.7 billion.

#### Minority interest and Shareholders' equity

Minority interest decreased by approximately 42 percent to NOK 660 million in 2003. The divestment of Flexible Packaging in 2003 contributed to a sizeable reduction in minority interest. Shareholders' equity was NOK 88,080 million at the end of 2003, an increase of around 16 percent compared to 2002. Net income in 2003 of NOK 10,968 million contributed substantially to higher shareholders' equity. Foreign currency translation adjustments of NOK 4,856 million in 2003 also contributed to higher shareholders' equity. The depreciation of the Norwegian kroner against a majority of currencies during 2003 resulted in translation gains.

#### Investments

Investments in 2003 amounted to NOK 18.9 billion. The amount includes NOK 1.9 billion resulting from Hydro's adoption of Financial Accounting Standard No. 143, relating to asset retirement obligations. The amount has no cash effect. Excluding this effect, investments were NOK 17 billion for 2003. Just over half of the investment amount related to oil and gas operations. Investments were slightly lower than planned partly because of savings in development projects.

Investments in Exploration and Production in 2003 were NOK 10,270 million. The largest investments for Exploration and Production related to new and existing fields; of which Grane, Kristin and Snøhvit were the most important. The major investments in Aluminium in 2003 included the expansion activities pertaining to the smelters in Sunndal, Norway, where phase II was completed and phase III is under construction, and in Alouette in Canada. An expansion of the alumina refinery, Alunorte, in Brazil was also completed during the year. The investments in Extrusion and Automotive related to the construction of a new casting line in Dillingen in Germany.

Investments in Exploration and Production in 2002 were NOK 14,074 million. The purchase of assets from SDFI and investments related to new and existing fields, mainly the development of the Grane field, were the most important investment projects for Exploration and Production in 2002. The largest investments for Hydro Aluminium included the VAW acquisition, the acquisition of Technal and the expansion activities relating to the aluminium smelter in Sunndal, Norway and the alumina refinery, Alunorte, in Brazil.

Investments, including new and existing fields, in Exploration and Production in 2001 were NOK 9,533 million. Grane, Tune, Snorre Phase 2 and Terra Nova were the four most important development projects for Exploration and Production in 2001.

Investments<sup>1)</sup>

Amounts in NOK million	2003 <sup>2)</sup>	%	2002	%	2001	%
Exploration and Production	<b>10,270</b>	54	14,074	31	9,533	58
Energy and Oil Marketing	<b>989</b>	5	622	1	557	3
Eliminations						
<b>Hydro Oil &amp; Energy</b>	<b>11,259</b>	60	14,696	32	10,090	62
Metals	<b>3,572</b>	19	12,728	28	1,872	11
Rolled Products	<b>466</b>	2	7,437	16	201	1
Extrusion and Automotive	<b>1,543</b>	8	5,153	11	1,454	9
Other and eliminations						
<b>Hydro Aluminium</b>	<b>5,581</b>	30	25,318	55	3,527	22
<b>Hydro Agri</b>	<b>1,127</b>	6	1,543	3	797	5
Other Activities	<b>852</b>	5	3,115	7	1,372	8
Corporate and eliminations	<b>81</b>	0	1,044	2	542	3
<b>Total</b>	<b>18,900</b>	100	45,716	100	16,328	100

1) Additions to property, plant and equipment (capital expenditures) plus long-term securities, intangibles, long-term advances and investments in non-consolidated investees.

2) Includes non-cash increase in investment from effect of change in accounting principle (FAS143), of NOK 1,932 million.

The largest investments for Metals in 2001 included the expansion activities relating to the alumina refinery and ownership interest in Alunorte in Brazil, the construction activities related to the remelt plant in Azuqueca, Spain and the modernization and expansion activities relating to the Company's aluminum smelter in Sunndal. Investments for Extrusion and Automotive related primarily to the acquisition of Aldural in Argentina and rationalizing existing business activities including a new press in Italy.

## Material commitments for capital expenditures

Contractual commitments for investments in property, plant and equipment relating to land-based activities and oil and gas field activities and transport systems at the end of 2003 were NOK 2,756 million and NOK 13,555 million,

respectively. Additional authorized future investments representing projects formally approved by the Board of Directors or management were NOK 1,908 million relating to land-based activities and NOK 12,453 million relating to oil and gas field activities and transport systems.

Hydro's long-term committed stand-by facilities of approximately USD 2 billion as well as cash holdings and expected cash flow from operations are expected to provide adequate reserves to fund these expenditures.

#### Research and development

Hydro engages in research and development (R&D) in order to maintain its competitive position and to develop new products and processes. Hydro spent approximately NOK 850 million, NOK 815 million and NOK 796 million during 2003, 2002 and 2001 respectively, on such activities. As part of its R&D activities, Hydro continues to focus on ecological issues including life cycle analyses and energy efficiency studies relating to products produced by the Company.

Hydro maintains major research centers in Porsgrunn and Bergen in Norway, with a combined staff of 379 as well as smaller research groups in several other locations. The Bergen facility is dedicated to the Group's oil and gas activities. Research centers for Hydro Aluminium are located in Karmøy, Årdal, Raufoss Sunndal and Porsgrunn in Norway; in Bonn and Ulm in Germany; in Tønder, Denmark and in Michigan, US.

The following highlights major contributors to total R&D costs incurred in 2003.

Hydro Oil and Energy incurred R&D costs in 2003 totaling approximately NOK 194 million compared to NOK 143 million in the previous year. Exploration and Production accounted for most of this amount. R&D expenditures were primarily dedicated to exploration technology, virtual reality, increased oil recovery, multiphase transportation, well technology, deepwater technology, subsea solutions and health, safety and environmental issues, all with the purpose of reducing field development and operating costs. Hydrogen as future energy carrier, renewable energy and reduction of emissions of carbon dioxide were also part of Hydro Oil and Energy's R&D programs in 2003.

Hydro Aluminium's R&D is oriented toward the core activities of its business. Hydro Aluminium incurred a total of NOK 459 million in 2003 in R&D cost compared with NOK 408 million in R&D costs in

2002. Metals, Extrusion and Automotive, and Rolled Products incurred NOK 168 million (NOK 99 million in 2002), NOK 240 million (NOK 265 million) and NOK 51 million (NOK 44 million), respectively. R&D activities are strongly focused on core products and production processes. Hydro Aluminium's R&D organization consists of an international network covering Europe, North America and Asia.

Hydro Agri engages in R&D in order to maintain its competitive position and to develop new products and processes. Hydro Agri spent approximately NOK 118 million in 2003 compared to NOK 152 million in the prior year. R&D activities in 2003 relating to fertilizer operations included process and technology developments aimed at optimization and cost reduction, and product R&D targeting new, innovative products and strategies for customers in selected markets. R&D activities relating to industrial products have focused on application and product development, including projects relating to environmental issues.

#### Risk management

##### Indicative price and currency sensitivities

The development of Hydro's operating results are primarily affected by price developments of Hydro's main products oil and aluminium in addition to foreign currency fluctuation of the most significant currency, the US dollar, against the Norwegian krone. For an indication of the sensitivity regarding prices and foreign currency fluctuation for 2004, please refer to the table below. The sensitivity analysis is based on 2004 expected production volumes as well as normalized prices indicated below. The table illustrates the Income Statement's sensitivity before and after tax.

Oil price 18 US dollar per barrel

Aluminium price (London Metal Exchange) 1,500 US dollar per tonne

US dollar Norwegian kroner exchange rate 8.00

Euro Norwegian kroner exchange rate 7.60 (8.00 from 2004)

##### Indicative price and currency sensitivities

Price sensitivity <sup>1)</sup>	Pre tax	After tax	Change
Oil price (bbl)	1,450	390	1USD
Aluminium price (tonne)	875	615	100USD
<hr/>			
USD sensitivity <sup>1)2)</sup>			
USD sensitivity Oil & Energy	2,900	785	1 NOK
USD sensitivity Aluminium	2,100	1,475	1 NOK
<hr/>			
USD sensitivity before financial items	5,000	2,260	1 NOK
USD sensitivity financial items <sup>3)</sup>	(2,500)	(1,400)	1 NOK
<hr/>			
USD sensitivity, NET	2,500	860	1 NOK



- 1) Reference prices: Oil 18 USD/bbl, Aluminium 1,500 USD/tonne and NOK/USD exchange rate 8.0.
- 2) USD sensitivity estimates assuming USD/NOK changes, all other currencies fixed against NOK.
- 3) Excluding cash flow and equity hedge total exposure USD 1,100 million and USD 350 million debt in USD-based subsidiaries

#### Risk Management

Risk management in Hydro is based on the principle that risk evaluation is an integral part of all business activities. Therefore responsibility for risk management is placed within the Company's business areas. Each business area has policies and procedures in place for monitoring risks, assessing appropriate risk levels, and mitigating risk.

However, overall and aggregated risk positions are also assessed at the Group level, most notably in the following categories:

- Business Strategy and Management including events that may impact the Company's reputation and brand;
- Financial Risks including events that may have impact on net interest-bearing debt/equity ratio, liquidity and credit rating;
- Commercial Risks mainly comprising fluctuations in commodity prices, currencies and interest rates;
- Operational and Human Resource Risks comprises continuity risk and risks related to non-performance of employees;
- Health, security, safety, environmental issues and potential impact on communities.

The discussion below is limited to financial and commercial risks with a focus on commodity prices, foreign exchange rates and interest rates.

**Financial and Commercial Risk Management** A Commercial Risk Board headed by the Company's Chief Financial Officer meets regularly to assess and monitor the financial and commercial risks of the Group. The execution of the management approach to these risks includes establishing and maintaining policies and procedures as well as monitoring risk exposures and positions.

The overall objective of financial and commercial risk management is to safeguard Hydro's ability to continuously meet its cash commitments. Shortfalls in operational cash flow due to unfavorable developments in prices of main products, raw materials and/or exchange rates could substantially impact Hydro's financial position. Cash commitments are risk evaluated against cash flow from operations. Probabilities of not meeting set financial targets are monitored. Simulations of cash flow scenarios, using a 3-year rolling horizon, are carried out for this purpose. The outcome of this analysis is reported to management on a quarterly basis.

The primary focus in managing financial and commercial risk includes identifying and monitoring the Company's main risk exposures, quantifying the potential impact on key financial ratios and proposing corrective actions when deemed appropriate.

The overall management of Hydro's financial and commercial risk profile is therefore to a large extent focused on financial policies. This implies prioritizing maintaining the financial strength of the Group including establishing a debt to equity ratio target of 0.5; maintaining satisfactory liquid reserves, and maintaining a good overall credit standing.

**Use of Derivatives** Mitigating financial and commercial risk exposures through the use of derivative instruments is done only to a limited extent. For this purpose, Hydro utilizes financial derivatives as well as commodity derivatives for crude and other oil and gas products, aluminium, and electricity. The most common use of derivatives relates to currency and aluminium forwards as part of day-to-day operational hedging of the Company's aluminium operations.

**Accounting for Derivative Contracts** For accounting purposes, unless otherwise indicated below, derivative financial and commodity instruments are evaluated against current market values (marked-to-market) with the resulting gain or loss reflected in earnings. This is because the manner in which derivative instruments are used does not meet the criteria for hedge accounting treatment established by Statement of Financial Accounting Standards (SFAS) No. 133 Accounting for Derivative Instruments and Hedging Activities. This can result in volatility in earnings since the associated gain or loss on the related physical transactions may be reported in earnings in different periods.

#### Commodity price risk

A substantial portion of Hydro's revenue is derived from the sale of commodities such as crude oil and aluminium. Hydro also produces, purchases and sells natural gas, electricity and petrochemical products. The prices of these commodities can be volatile, creating fluctuations in Hydro's earnings. As described above, the Company's main strategy to manage this exposure relates to maintaining a strong financial position to be able to meet fluctuations in prices and earnings. Natural hedging positions are established to the extent possible and economically viable.

However derivatives are used in special situations to mitigate price movements and to participate in limited speculative trading within strict guidelines defined by management. The following highlights Hydro's main commodity price risks.

#### Oil

Hydro produces and sells crude oil and gas liquids. Hydro utilizes futures and swaps to mitigate unwanted price exposure for a portion of its crude oil portfolio production. From time to time financial options are used for the same purpose.

For the purpose of protecting against the risk of low oil prices, in 2002 Hydro purchased average rate put options (Asian options) to sell 10 million barrels of oil in the first half of 2003 for an average strike price of US dollar 17 per

barrel. The options expired on June 30, 2003. At the end of 2003 Hydro had no hedging program in place for the purpose of protecting against the risk of low oil prices.

#### Natural gas

Hydro is a producer, consumer, buyer and seller of natural gas. The internal consumption of natural gas has decreased significantly with the demerger of the Agri activity.

The majority of Hydro's equity gas production is sold to European counterparties based on long-term gas supply contracts. Contract prices are mainly indexed to oil prices. Hydro is also participating in limited speculative trading as described above.

In order to reduce the risk in the natural gas portfolio against unfavorable fluctuations in gas and oil prices, Hydro utilizes instruments such as forwards and swaps to mitigate unwanted price exposures for a portion of its natural gas portfolio.

#### Electricity

Hydro is a producer and consumer of electricity. Hydro's consumption of electricity exceeds its production both in Norway and in Continental Europe. The deficit is principally covered through long-term purchase contracts with other producers and suppliers to secure electricity in the market for Hydro's own consumption and delivery commitments.

In order to manage and hedge the risks of unfavorable fluctuations in electricity prices and production volume, Hydro utilizes both physical contracts and financial derivative instruments such as futures, forwards and options. These are traded either bilaterally or over electricity exchanges such as the Nordic power exchange ( Nord Pool ). Hydro also engages in third party trading by offering power portfolio management services and participating in limited speculative trading.

#### Aluminium

Hydro produces primary aluminium and fabricated aluminium products. The primary aluminium smelters are located in Norway, Germany, Australia, Slovakia and Canada. Downstream activities are

mainly located in Europe, the Americas and Asia. To support the metal supplier concept, Hydro also engages in trading of aluminium and related raw material.

Aluminium Production is based on two basic raw materials, aluminium oxide (alumina) and electricity. Hydro is producing alumina in joint venture plants in Brazil and Jamaica, covering approximately 50 % of required volumes. The remaining needs are covered through long-term contracts. Availability of electricity is secured through own production and contracts with external suppliers.

The main purpose of Hydro's sourcing and trading activity is to obtain raw materials for Hydro's smelters. A natural extension of this is to also be an external supplier of raw materials used in the aluminium production process and aluminium metal products. In addition the trading contributes to optimize capacity utilization and to reduce logistical costs, as well as strengthening market positions by providing customers with flexibility in pricing and sourcing. Hydro also has considerable activities relating to remelting and long-term commercial agreements to secure sourcing of casthouse products. When considering the risk profile of Hydro's aluminium activities, the significant external volumes of physical aluminium and raw materials sourced and traded are also taken into consideration.

LME future contracts: Hydro enters future contracts with the LME mainly for two purposes. The first is to achieve an average aluminium price on smelter production. Secondly, because the Company's downstream business and the sale of third party products are margin businesses, Hydro hedges metal prices when entering into customer and supplier contracts with corresponding future contracts at fixed prices (back-to-back hedging).

The majority of these contracts mature within one year. Hydro manages these hedging activities on a portfolio basis, taking LME positions based upon net exposures. Accordingly, it is difficult to meet certain hedge accounting criteria. As a result, aluminium price volatility can result in significant fluctuations in the marked-to-market adjustments for LME positions recorded to operating income.

Sunnal hedging program: The expansion project at the Sunndal metal plant increased Hydro's exposure to commodity prices and foreign currency exchange rates. Accordingly, Hydro has entered into short positions using LME future contracts and US dollar forward contracts to secure an average aluminium price of approximately NOK 14,000 per tonne of a portion of the forecasted sales of primary metal production per year for the period 2003 to 2007. This hedging strategy meets certain hedging criteria in accordance with SFAS 133, and has therefore been designated as a cash flow hedge.

Hydro also has a commitment through 2009 with Aluvale to purchase a fixed tonnage of remelt ingot per year. At the end of 2002, Hydro entered into short positions using LME futures to hedge against the fluctuations in the fair value of the purchase commitment due to changes in the LME price of aluminium over the period of 2003 - 2006.

#### Foreign currency exchange rate risk

Prices of many of Hydro's most important products, mainly crude oil, aluminium, natural gas and magnesium, are either denominated in US dollars or are influenced by movements in the value of other currencies against the US dollar.

The cost of raw materials, including natural gas, NGLs and alumina, are affected by the US dollar price of crude oil, and variations in the US dollar exchange rates against local currencies. Hydro's primary foreign currency risk is therefore linked to fluctuations in the value of the US dollar.

Hydro also incurs cost related to production, distribution and marketing of products in a number of different currencies related to the countries of operation. As a result, the effects of changes in currency rates on the translation

of local currencies into Norwegian kroner for subsidiaries outside of Norway can influence comparative results of operations.

Normally, Hydro's operating income will increase when the US dollar appreciates against European currencies and decline when the value of the US dollar falls. To reduce the long-term effects of fluctuations in the US dollar exchange rates, Hydro has issued most of its debt in US dollars (as of 31 December, 2003, approximately two thirds of Hydro's long-term debt was denominated in US dollars). When the dollar weakens, the decline in operating income is offset by unrealized currency gains and lower interest expense relating to the dollar denominated debt. Conversely, a stronger US dollar improves operating income but also results in unrealized currency losses and higher interest expense.

The remaining long-term debt was denominated in Norwegian kroner, Euro, Swedish kroner, and British pounds.

Hydro also employs foreign currency swaps and forward currency contracts to modify the currency exposures for Hydro's long-term debt portfolio. Foreign currency swaps allow Hydro to raise long-term borrowings in one currency and swap them into another with lower funding costs rather than borrowing directly in the second currency.

Forward currency contracts are entered into to safeguard cash flows for forecasted future transactions or to cover short-term liquidity needs in one currency through excess liquidity available in another currency. Using short-term forward currency swaps reduce funding costs, as it is alternative to drawing a short-term loan in one currency and investing short-term in another.

In order to reduce effects of foreign exchange rate fluctuations on reported results, Hydro has designated a portion of its foreign denominated long-term debt, including certain related balances in currencies arising from foreign currency swaps and forwards, as hedges of net foreign investments in subsidiary companies. The foreign exchange gains and losses on this debt are recorded as a separate component of shareholders' equity. The same applies to certain foreign exchange contracts designated as cash flow hedges.

### Interest rate risk

Hydro is exposed to changes in interest rates primarily as a result of borrowing and investing activities used to maintain liquidity and fund its business operations in different currencies. Hydro maintains a high ratio of long-term, fixed-rate debt, as a proportion of its total interest bearing debt, with an even debt repayment schedule.

Hydro uses foreign exchange and interest rate swaps from time to time and other derivatives to optimize currency and interest rate exposure.

### Credit risk

Internal policies limit credit risk by setting counterparty risk limits, requiring insurance of risks, and establishing procedures for monitoring exposures and settlement of accounts. The overall risk level of the Group is reduced through a diversified customer base representing various industries and geographic areas. Follow-up of timely payments of accounts receivables has been given high priority in the Hydro Group.

Credit risk arising from the inability of a counterparty to meet the terms of derivative financial instrument contracts is generally limited to amounts by which the counterparty's obligations exceed the obligations of Hydro. It is Hydro's policy to enter into derivative financial instruments only with banks with pre-approved exposure limits. Hydro's policy also requires pre-approved exposure limits for financial institutions relating to current accounts, deposits and other obligations. Therefore, counter party risk related to use of derivative financial instruments and financial operations is regarded as limited.

Hydro also has exposure to credit risk related to derivative commodity instruments. However, this risk is substantially limited since most instruments are settled through commodity exchanges. Hydro limits credit risks relating to derivative commodity contracts that not traded on exchanges by setting policies for credit ratings and limits for counterparties.

### Sensitivity analysis

The indicative income statement sensitivities for Hydro's main exposures are included in the introduction to Risk Management above. The sensitivities presented for aluminium and crude oil, and the US dollar sensitivity for the Business areas exclude the effects of any hedges. The sensitivity related to outstanding derivatives as of December 31, 2003 is analyzed in following section.

In accordance with applicable requirements of the US Securities and Exchange Commission (SEC), Hydro has chosen to provide information about market risk and potential exposure to hypothetical loss from its use of derivative financial instruments and other financial instruments and derivative commodity instruments through sensitivity analysis disclosures. Such disclosures are intended to express the potential loss in fair values of market risk sensitive instruments resulting from one or more selected hypothetical changes in interest rates, foreign currency exchange rates, commodity prices and other relevant market rates or prices over a selected period of time.

The sensitivity analysis depicted in the tables below reflects the hypothetical loss in fair values assuming a 10 percent change in rates or prices and no changes in the portfolio of instruments as of December 31, 2003 and December 31, 2002, respectively. Hydro's management cautions against relying on the information presented. This is due to the arbitrary nature of assumptions involved, the inability of such a simple analysis to model reality, continuous changes to Hydro's portfolio and the exclusion of certain of Hydro's positions necessary to reflect the net market risk of the Group. Accordingly, the information does not represent management's expectations about probable future effects on results. The most significant limitations on the figures provided are as follows:

The tables only include the effects of the derivative instruments discussed above and of certain financial instruments (see Footnote 3 below). It does not include any related physical positions, contracts, and anticipated transactions that many of the derivatives instruments are meant to secure. A rate or price change of 10 percent will often result in a corresponding effect to the fair value of the physical or underlying position such that the resulting gains and losses would offset.

As allowed by the SEC regulations, Hydro has excluded accounts payable and accounts receivable from the presentation which may have had a significant effect on the foreign exchange risk figures provided.

The computations, which provide the most negative effect to Hydro of either a 10 percent increase or decrease in each rate or price, do not take into account correlations which would be expected to occur between the risk exposure categories. For example, the effect that a change in a foreign exchange rate may have on a commodity price is not reflected in the tables.

It is not likely that all rates or prices would simultaneously move in directions that would have negative effects on Hydro's portfolio of instruments.

The effects of these limitations on the estimates may be material.

The overall use of derivatives related to commodities has been relatively stable compared to 2002 in the business areas. Exceptions are the oil and gas area where there is currently no hedging of oil prices. However, other derivatives in oil and gas trading are used more frequently. Use of derivatives within the electricity area has decreased from year end 2002 due to the special market situation in the Nordic region at that time.

Use of financial derivatives, mainly foreign exchange forward contracts has been stable. The reduced negative fair value of finan-

cial instruments includes the effects of increased cash positions and reduction of long-term debt in various currencies.

The year-end fair values and sensitivities of derivatives are influenced by the price at which contracts are entered into and the market prices at year-end. As commodity markets, currency markets and interest rates are volatile, effects on the value of derivatives measured at year-end may be substantial. However, as explained above the underlying positions offset the effects of derivatives. When evaluating fair value and sensitivity effects on financial instruments, the long-term nature and the underlying values and exposures must be taken into consideration ( see note 3 to the table below).

**As of 31 December, 2003** Hypothetical loss from +/- 10% change in:

Amounts in NOK million (unaudited)	Fair value as of 31 December, 2003 <sup>1)</sup>	Interest rates	Foreign currency exchange rates	Commodity prices	Volatility	Other
Derivative instruments related to:						
Commodities	719	3	79	264		
Other <sup>2)</sup>	2,410	30	823			
Financial instruments <sup>3)</sup>	(19,880)	1,870	2,261			57

**As of 31 December, 2002** Hypothetical loss from +/- 10% change in:

NOK million (unaudited)	Fair value as of 31 December, 2002 <sup>1)</sup>	Interest rates	Foreign currency exchange rates	Commodity prices	Volatility	Other
Derivative instruments related to:						
Commodities	1,419	4	123	684	6	
Other <sup>2)</sup>	1,520	59	705		7	
Financial instruments <sup>3)</sup>	(32,155)	1,353	3,197			57

1. The change in fair value due to price changes is calculated based upon pricing formulas for certain derivatives, the Black-Scholes model for options and the net present value of cash flows for certain financial instruments or derivatives. Discount rates used vary as appropriate for the individual instruments.
2. Other mainly includes forward currency contracts and currency swaps.
3. Financial instruments include cash and cash equivalents, investments in marketable securities, bank loans and other interest bearing short-term debt and long-term debt. A substantial portion of the hypothetical loss in fair value for changes in interest rates relates to Hydro's long-term fixed rate debt. As Hydro expects to



hold this debt until maturity, changes in the fair value of debt would not be expected to affect earnings. The above discussion about Hydro's risk management policies and the estimated amounts generated from the sensitivity analyses are forward-looking statements that involve risks and uncertainties. Actual results could differ materially from those projected due to actual developments in the global markets. Information related to the fair values for the commodity and financial instruments and hedge accounting strategies as of December 31, 2003 can be found in Note 24 in Notes to the Consolidated Financial Statements.

The methods used by Hydro to analyze risks discussed above should not be considered projections of future events or losses.

## 2002 Compared with 2001

### Summary

Hydro's net income after tax was NOK 8,765 million (NOK 34 per share) in 2002, an improvement of approximately 11 percent compared to the previous year. The improvement was primarily due to the significant increase in Hydro's oil and gas production, Hydro's more extensive aluminium operations (following the acquisition of VAW in the first quarter of 2002), unrealized gains in connection with energy contracts and unrealized gains associated with the Company's debt due to changes in currency exchange rates. Lower oil and gas prices, stated in Norwegian kroner (NOK), difficult market conditions for the aluminium industry, and the strengthening of the Norwegian kroner against the US dollar (USD) negatively impacted the operating results.

### Operating Results

Operating revenues in 2002 were NOK 167,040 million, an increase of approximately 9 percent compared to the previous year. The increase mainly reflected the effect of the VAW acquisition.

Operating income of NOK 19,841 million in 2002 reflected a decline of NOK 1,242 million (approximately 6%) compared to NOK 21,083 million in the prior year. The decline primarily resulted from the higher level of oil and gas exploration costs expensed in 2002 compared to the previous year. This was partly offset by the increased operating income resulting from the inclusion of the VAW activities in the consolidated results as of March 15, 2002.

Earnings from non-consolidated investees were NOK 33 million in 2002 compared to NOK 566 million in 2001. Currency losses of NOK 460 million in a non-consolidated investee in Brazil, which produces alumina, were expensed in 2002, compared to NOK 159 million in 2001.

Net financial income for 2002 was NOK 1,935 million compared to net financial expense of NOK 762 in the previous year. During 2002, the US dollar and currencies closely linked to the US dollar, such as the Canadian dollar, weakened considerably against the Norwegian kroner, the euro and the Australian dollar, resulting in unrealized currency gains on loans and currency forwards, but also currency losses on receivables. Net unrealized currency gains included in 2002 amounted to NOK 3,262 million. In addition, Hydro started the year with an unusually high cash level that was subsequently used for funding the VAW acquisition early in the year. As a result, interest income was lower in 2002 than in the preceding year.

The provision for current and deferred taxes for 2002 amounted to NOK 13,278 million, approximately 60 percent of income before tax. This amount was mainly comprised of current taxes. The equivalent figures for 2001 were NOK 13,750 million and 64 percent.

## **HYDRO OIL AND ENERGY**

From 2003, Hydro's gas transportation activities are reported as part of Hydro Oil and Energy's Energy and Oil Marketing sub-segment. Such activities had previously been included within the Exploration and Production sub-segment. Prior period figures have been reclassified for comparative purposes.

### **Revenues and Market Conditions**

Operating revenues in 2002 were NOK 55,845 million compared to NOK 52,180 million in the previous year.

Exploration and Production's operating revenues in 2002 were NOK 32,970 million compared to NOK 32,426 million in 2001. Average total production of oil and gas in 2002 was 480,000 boed, an increase of approximately 14% over the prior year level of 421,000 boed. Hydro experienced strong production growth from both Norwegian and international fields in 2002. Production from Norwegian fields increased partly as a result of the purchase of SDFI assets, which increased Hydro's interests in the Hydro-operated Oseberg, Tune and Grane fields, and partly due to increased production from the Snorre B and Åsgard fields. Outside the NCS, increased production came from the Girassol field in Angola (production started in December 2001) and the Terra Nova field in Canada (production started in January 2002). Oil production accounted for 77 percent of the total production in 2002, approximately the same percentage as in 2001.

The effect of the increased production on 2002 operating revenues and income was offset, to a large extent, by the lower oil prices, stated in Norwegian kroner, as a result of the appreciation of the Norwegian kroner against the US dollar. In addition, realized gas prices were lower in 2002 compared to 2001. The average realized oil price in Norwegian kroner was NOK 194 (USD 24.70) per barrel in 2002, compared with NOK 217 (USD 24.20) in 2001. Hydro realized an average gas price in 2002 of NOK 0.95 per standard cubic meter, compared to an average realized gas price in 2001 of NOK 1.21 per standard cubic meter.

Energy and Oil Marketing's operating revenues in 2002 were NOK 45,915 million, compared to NOK 45,824 million in 2001. Operating revenues from oil trading and refining and oil marketing declined primarily as a result of a reduction in refined product prices. Higher revenues from gas sourcing and marketing activities reflected increased gas trading volumes. Revenues from power sourcing and marketing activities declined due to the unusual situation in the Nordic electricity market, described below under Operating Income.

### **Operating Costs**

Operating costs relating to exploration and production activities increased in 2002 primarily as a result of increased exploration costs. Hydro's total exploration costs and cost of appraisal of discoveries amounted to NOK 3,558 million in 2002, compared to NOK 1,400 million in 2001. In 2002, a major part (74 percent) of Hydro's exploration activity was dedicated to areas outside the NCS, mainly in Angola, Canada, Iran and the US Gulf of Mexico. In 2002, total exploration costs were higher than the cost relating to exploration activity due to expensing of previously capitalized costs of exploration wells and acquisition costs in the amount of NOK 1,492 million. This included acquisition costs paid for accessing prospective exploration areas such as Block 34 in Angola and in the US Gulf of Mexico that were capitalized in 2001. As a result of disappointing exploration results, mainly in Angola and the US Gulf of Mexico, such costs totaling NOK 1,118 million, together with the well costs, were expensed during 2002.



Hydro's average production cost was NOK 23 per boe in 2002, compared to NOK 24 per boe in 2001. Total depreciation cost increased in 2002 as a result of the higher production levels. Depreciation, including accruals for abandonment and well closure costs and write-downs (but excluding depreciation on transportation systems), averaged NOK 46 per boe in 2002, the same level as in 2001. Net transportation costs were NOK 9 per boe in 2002, the same level as in 2001.

Energy and Oil Marketing's operating costs in 2002 were 10% lower than in 2001, primarily reflecting the unusual situation in the Nordic electricity market experienced at the end of 2002. Refining costs per barrel, comprised of both fixed and variable processing costs, decreased to NOK 11.4 in 2002 from NOK 13.0 in 2001. Power plant operating costs of NOK 610 million in 2002 remained virtually unchanged compared to the prior year. Energy's fixed costs in 2002 increased by NOK 88 million compared to the prior year, primarily as a result of planned organizational development to better position Hydro to capture business opportunities in the changing, increasingly liberalized European gas market.

### **Operating Income**

Operating income of NOK 15,947 million in 2002 declined by NOK 3,230 million (approximately 17%) from NOK 19,177 million in the prior year.

Exploration and Production's operating income of NOK 13,137 million in 2002 reflected a decrease of NOK 3,773 million (or 22%) from the prior year. The main contributor to the decrease was the high exploration cost expensed in 2002. The effect of lower oil and gas prices in Norwegian kroner was offset by higher oil and gas production.

Energy and Oil Marketing's operating income was NOK 2,784 million, an increase of NOK 517 million (or 23%) compared to the prior year operating income of NOK 2,267 million. Operating income from the power sourcing and marketing activities was NOK 1,185 million in 2002, an increase of approximately 48% compared to the prior year. The increase reflected, to a large extent, the substantial net increase in the fair value of the derivative electricity contracts portfolio at year-end 2002 due to unusually high prices in the Nordic electricity market as a result of very low reservoir levels resulting from exceptionally low precipitation and increased consumption due to cold weather. Operating income for the oil trading and refining activities was NOK 388 million in 2002, a decline of 32% from the previous year. Average refining margins in 2002 were US\$ 2.21 per barrel, approximately 41% lower than in 2001, as a result of lower global demand for refined products in 2002. Operating income from the gas sourcing and marketing activities decreased to NOK 81 million in 2002, primarily as a result of costs related to planned organizational developments to capture business opportunities in the changing European gas market. Operating income for the oil marketing activities increased to NOK 68 million in 2002 from a loss of NOK 32 million in 2001, reflecting improved margins mainly due to lower inventory losses.

## **HYDRO ALUMINIUM**

### **Revenues and Market Conditions**

Operating revenues in 2002 were NOK 65,051 million, an increase of approximately 27% over the prior year figure of NOK 51,083 million. During the first quarter of 2002, Hydro acquired VAW and the French building systems company, Technal. Hydro's consolidated results included the operating results of VAW as of March 15, 2002, and Technal, as of January 26, 2002. Excluding the VAW and Technal contributions, operating revenues declined. Hydro Aluminium's results reflected the difficult market conditions that affected all of its sub-segments during 2002. In response to the economic conditions, customers, in general, reduced their inventories, leading to a decline in demand for metal products. As a result, overcapacity put pressure on both LME prices and product margins. In 2002,

the average LME three-month price for primary aluminium declined approximately 6 percent compared to the prior year. The US dollar Norwegian kroner exchange rate declined approximately 11 percent.

Metals' operating revenues increased by NOK 8,171 million (26%) in 2002 compared to the prior year, mainly as a result of the VAW acquisition. VAW's contribution to 2002 operating revenues amounted to NOK 12,919 million. Excluding the revenues generated from VAW's smelter and remelting production, there was a year over year decrease in operating revenues, attributable primarily to a decline of more than 15 percent in realized prices, measured in Norwegian kroner, for the smelters' sales volumes.

Rolled Products' operating revenues in 2002 were NOK 14.8 billion, compared to NOK 4.2 billion in 2001. The increase resulted mainly from the inclusion of VAW in the consolidated results from March 15, 2002. Rolled Products increased its sales volume in 2002 by over 5% for flat rolled products in 2002 while maintaining a stable average product margin compared to the prior year. Although industry shipments increased by 4% in 2002 for foil and were stable for the litho market, Rolled Products' 2002 sales volume in the West European market increased by 11% and 8% for foil and litho products, respectively, compared to 2001.

Extrusion and Automotive's operating revenues in 2002 increased 8 percent to NOK 24,245 million, compared to NOK 22,487 million in the previous year. Excluding the contributions of the new businesses acquired, operating revenues were NOK 18,657 million in 2002. A breakdown of the percentage of 2002 operating revenues generated by each sector within the Extrusion and Automotive sub-segment is as follows:

Extrusion	49 %
Automotive	28 %
North America	23 %

Operating revenues from European activities reflected a 2 percent increase in shipments of general extrusions, while the shipments in building systems increased by 4 percent. Despite a relatively flat demand for extrusion products in Europe, Hydro's extrusion activities increased sales volumes while maintaining margins stated in euro. Operating revenues from the extrusion (including remelting) activities in North America declined from 2001, due to lower demand in the general extrusion and trucking sectors. Automotive revenues grew slightly due to the start up of a new production line for crash management, but this effect was more than offset by the reduction in revenues due to lower prices in precision tubing. North America's activities were affected by poor economic conditions, which weakened demand throughout the entire year. However, margins for extruded products remained relatively stable.

## Operating Costs

Hydro Aluminium's cost and manning reduction targets related to improvement programs were met in 2002, resulting in cost savings of approximately NOK 1 billion compared to the combined cost level of the Hydro Aluminium and VAW businesses in 2001. Cumulative costs incurred related to the implementation of the improvement programs amounted to approximately NOK 990 million at the end of 2002. Total costs incurred during 2002 related to these programs amounted to approximately NOK 300 million.

For the Metals sub-segment, total operating costs in 2002 reflected an increase of more than 25 percent compared to the prior year, mainly due to the VAW acquisition. Excluding VAW activities, operating costs were down approximately 14 percent due to lower variable costs principally for raw materials and energy for the primary aluminium production. During 2002, electricity prices remained more or less unchanged for the Norwegian smelters as a result of long-term fixed price contracts. For the former VAW smelters, electricity costs decreased since power prices of the German and Canadian smelters are linked to the LME price. Cast house costs per tonne for the Norwegian smelters and remelter costs decreased approximately 11 percent and 7 percent, respectively, in 2002 from the prior year. This was due to a 3 percent higher output, lower alloy costs, and the successful implementation of the improvement programs. Fixed costs (excluding higher fixed costs due to the VAW acquisition and integration) decreased by approximately 5 percent in 2002 compared to the prior year. The closure of





the magnesium plant in Norway and fixed costs reductions related to the smelter improvement programs were the reason for the lower fixed costs. This more than offset additional fixed costs related the new remelter in Spain and start-up costs for the new potline in Sunndal.

Rolled Products' cost structures vary with the aluminium price and its product mix. The metal price comprises about 60 percent of total costs. Compared with 2001, metal prices were lower reflecting the lower LME price.

For Extrusion and Automotive, operating cost development was affected by the acquisition of VAW and Technal, a lower LME, the change in the US dollar Norwegian kroner exchange rate, and productivity and cost improvements. Operating cost per tonne declined for the Extrusion sector as a result of higher productivity, while for the Automotive sector it was due to higher volumes in 2002 compared to 2001. In the North America sector, higher operating cost per tonne followed the lower production volume and increased costs from the start up of the new greenfield remelter. In total, there was a reduction in staffing of about 430 employees within the Extrusion and Automotive sub-segment in 2002. This was the main reason for the reduction of fixed costs of approximately NOK 85 million in 2002 compared to 2001.

## **Operating Income**

Hydro Aluminium's operating income for 2002 was NOK 1,698 million, an increase of NOK 1,513 million compared with 2001. Operating income for 2001 included restructuring charges for magnesium of NOK 921 million, of which NOK 261 million related to an impairment loss on plant facilities, and losses on aluminium options and futures of NOK 545 million. The contribution of VAW and Technal to Hydro Aluminium's operating income in 2002 was NOK 1,159 million. Excluding these items, Hydro Aluminium's operating income declined by NOK 1,152 million.

Metals' operating income in 2002 was NOK 1,690 million, compared to NOK 372 million in the prior year, including NOK 1,015 million for the VAW activities. Results for 2001 were negatively influenced by the accrual of NOK 660 million for the closure of the Norwegian magnesium plant. Operating income in 2001 was also impacted by magnesium impairment write-downs of NOK 261 million. Operating income, adjusted for the results from the VAW activities (including fair value of inventory and integration costs), restructuring costs and impairment write-downs, decreased by NOK 508 million from 2001. Results fell mainly due to lower LME prices and a strong Norwegian kroner exchange rate. In addition, the market premiums, especially for billets used for extrusion products, were down approximately 20 percent (in US dollars) due to the weak market situation. Operating income benefited from lower depreciation of approximately NOK 115 million principally due to the closure of the magnesium plant.

Rolled Products' operating income in 2002 decreased by NOK 353 million from a profit of NOK 58 million in 2001 to a loss of NOK 295 million in 2002. Adjusting for one-time items (fair value of inventory and integration/improvement costs), the restated operating level results would have been an operating loss of NOK 72 million. Weak results were attributable in part to the negative impact on margins of approximately NOK 200 million due to the variance in inventory values resulting from falling metal prices. In addition, Rolled Products results were significantly influenced by the loss in 2002 in the Norwegian rolling mill in Holmestrand, Norway. Holmestrand's major source of aluminium is the European scrap market, which historically has provided the plant with a margin comparable to that of primary metal. In 2002, European scrap prices increased relative to the LME price, reducing the scrap margin in Holmestrand. Furthermore, the ongoing ramp-up of the new thin gauge mill resulted in low productivity in 2002. Due to the strengthening of the Norwegian kroner against the euro, revenues declined since Holmestrand exports most of its production to other European countries.

Extrusion and Automotive's operating income in 2002 was NOK 14 million, compared with a loss of NOK 228 million in the prior year. Adjusted for the contribution made by VAW and Technal, operating income was NOK

108 million higher than the prior year. The main reasons for the improvement were lower depreciation and amortization and lower impairment costs than in 2001.

Starting in 2002, amortization of goodwill was discontinued, which positively impacted amortization between the periods. The Extrusion and Automotive business units improved their performance in 2002. Improvements in Extrusion's results were principally due to higher volumes and improved productivity. For Automotive, the better results were largely attributable to slightly higher volumes and cost reduction programs.

## **HYDRO AGRI**

### **Revenues and Market Conditions**

Agri's total operating revenues were NOK 33,348 million in 2002, representing a decline of approximately 11 percent compared to the prior year. The decline primarily resulted from the significant weakening of the US dollar relative to the Norwegian kroner and the euro during 2002. Much of Agri's business is denominated in or heavily influenced by the US dollar. As a result, currency changes have a direct impact on revenues and costs. The pricing of the majority of Agri's products (including its European operations) is directly linked to the US dollar. The depreciation of the US dollar in 2002 had significant negative effects on revenues. At the same time, variable cost in the European plants (mainly energy) also declined as a result of the weak US dollar partly offsetting the reduction in revenues. However, fixed costs in Europe are, to a large extent, linked to the Norwegian kroner and the euro. Excluding cost savings and efficiency programs, this implies that an appreciation of the European currencies against the USD tends to reduce the competitiveness of the European fertilizer business.

The global fertilizer industry continued to experience difficult markets throughout most of 2002 as a result of low international prices of commodity products such as urea. In 2002, European fertilizer prices for all major nitrogen products were strongly influenced by a low international urea price. Average prices for 2002 remained at USD 109 per metric tonne (fob Middle East), considered low on a historical basis. European nitrate prices decreased by approximately 7% in 2002, reducing the nitrate margin to a more normal historical level. The average price for ammonia was USD 110 per metric tonne (fob Caribbean), down approximately 20% compared to 2001, reflecting the lower natural gas prices in the U.S. Total sales of fertilizer increased by 1.2 million tonnes in 2002, an increase of approximately 6% compared to the previous year.

Revenues from industrial gases and chemicals activities declined by approximately 11% in 2002 due to the strengthening of the Norwegian kroner and divestment of low performing, non-core activities. Nearly all core activities experienced volume growth and improvement in 2002. Strong improvements were achieved within activities relating to environmental products, nitrogen chemicals and technical ammonium nitrates. Volume of technical ammonium nitrates for civil explosives increased by approximately 7% compared to the prior year. Lower global coal production, which represents approximately 70% of the technical ammonium nitrate market, reduced the demand for explosives. However, this was offset by increased market share and growth in demand from other mining industries. Volumes of environmental process chemicals (i.e., Nutriox for water treatment and Reduktan for removal of NOX emission) increased by approximately 9%. The increase related primarily to higher coal consumption for power generation in Europe (due to lower coal prices), increasing the demand for Reduktan and new installations at existing customers both for Nutriox and Reduktan. Sales volumes for industrial gases, a regional business focusing mainly on Europe, increased approximately 3 percent due to higher sales of CO2 to the end user and wholesale markets for food processing.

### **Operating Costs**

Total energy costs declined by approximately NOK 400 million (excluding currency effects) in 2002 compared to the previous year. Natural gas is the most important raw material used in the production of ammonia, nitrogen fertilizer and technical products. Most of Agri's natural gas requirements are purchased from external suppliers. A significant part of the gas used is purchased under long-term contracts with pricing mechanisms linked to the

development in market prices for gas. Natural gas prices are closely linked to developments in the crude oil price. However, due to contract terms and Agri's distribution system, gas price changes in Europe are normally reflected in reported earnings with a time lag of approximately 4-5 months.

After the completion of the Agri turnaround program in 2001 (which yielded manning and fixed cost reductions of approximately 35 percent), efforts to achieve further productivity improvements continued. In addition to the approximately NOK 2,400 million in fixed cost reductions realized through this program, further cost savings (excluding the effects of exchange rates) amounted to approximately NOK 350 million in 2002.

### **Operating Income**

Operating income was NOK 2,207 in 2002 compared to NOK 2,114 in the previous year, an increase of approximately 4 percent. The increase was primarily the result of lower depreciation charges in 2002, as well as the charges associated with the write-down of assets in 2001.

### **OTHER ACTIVITIES**

#### **Petrochemicals**

Petrochemicals operating revenues decreased by 21 percent in 2002 compared to 2001. The reduction was primarily due to lower average product prices, particularly caustic soda and suspension polyvinyl chloride (S-PVC) prices. Hydro's average realized price for caustic soda and S-PVC was approximately 49 and 6 percent lower, respectively, in 2002 than in 2001. Operating revenues in 2002 decreased by approximately NOK 290 million as a result of the sale of Hydro's share in Singapore Polymer Corporation (SPC) in October 2001.

Petrochemicals operating loss for 2002 was NOK 35 million compared with an operating loss of NOK 101 million in 2001. Contributing to the lower operating loss in 2002 compared to the prior year was the lower purchased raw material costs, particularly natural gas liquids and ethylene.

### **ITEM 6. DIRECTORS, SENIOR MANAGERS AND EMPLOYEES**

#### **ITEM 6.A. DIRECTORS, CORPORATE ASSEMBLY AND CORPORATE MANAGEMENT BOARD**

The Company is a public limited company organized under Norwegian law and the Group's governance structure is based on Norwegian corporate law. Norwegian corporate law has been revised in recent years to, among other things, clarify areas of responsibility of the board of directors of a Norwegian company.

#### **Corporate Assembly**

In accordance with Norwegian law, Hydro has established a Corporate Assembly. Hydro's Corporate Assembly currently consists of 18 members, of which the annual general meeting of shareholders has elected 12 members and, according to Norwegian legislation, the employees of Hydro's Norwegian companies have elected six members (i.e., one-third of the Corporate Assembly's members). In addition, the employees have elected alternates and three observers.

Under Norwegian companies' law, the members of the Corporate Assembly have a fiduciary duty to the Company and the Company's shareholders. Such fiduciary duty requires that the Corporate Assembly act in the Company's best interests when exercising their functions and exercise a general duty of loyalty and care towards the Company.

The Corporate Assembly communicates to the annual general meeting its recommendations concerning the Board of Directors' proposals about Hydro's yearly accounts, and dividend distribution. The Corporate Assembly elects the members of the Company's Board of Directors and nominates the external auditor. Upon the recommendation of the Board, the Corporate Assembly adopts resolutions in matters concerning investments that are substantial in relation to Hydro's resources, or concerning such rationalization of, or changes in, operations as will entail a major change in or redeployment of the labor force.

The Corporate Assembly met four times in 2003. Each member or deputy member and observer of the Corporate Assembly was paid NOK 4,000 per meeting attended. The Chairperson and the Vice Chairperson of the Corporate Assembly were paid an additional NOK 65,000 and NOK 32,500, respectively, for serving in such capacities in 2003. The names of the current members of Hydro's Corporate Assembly, as well as the deputy members and observers, are listed in Exhibit 99.1 to this annual report.

### **Nomination Committee**

The Company's articles of association (the **Articles of Association**) provide for a nomination committee (the **Nomination Committee**). The Nomination Committee consists of the Chairperson of the Corporate Assembly, two members elected directly by the shareholders and one member elected by and among the shareholders' representatives in the Corporate Assembly. The Nomination Committee nominates candidates to the Corporate Assembly to be elected by the shareholders at the annual general meeting, and candidates to the Company's Board of Directors to be elected by the shareholder-elected members of the Corporate Assembly. The Nomination Committee operates under a charter established by the shareholders' representatives in the Corporate Assembly. The Nomination Committee held eight meetings in 2003. The Nomination Committee currently consists of four members: Svein Steen Thomassen (Chairperson), Westye Høegh, Reier Sjøberg, and Siri Teigum.

### **Board of Directors**

The Company's management is vested in its Board of Directors and its President and Chief Executive Officer. In accordance with Norwegian corporate law, the Board of Directors has the overall responsibility for management of the Company, while the President and CEO is responsible for day-to-day management. The Board supervises day-to-day management as carried out by the President and CEO and the activities of the Company in general, as well as ensuring that appropriate steering and control systems are in place. The Board's internal rules of procedure were amended in 2001, and further revised in 2003, to clarify the Board's role in relation to the management of the Company as well as the other corporate bodies. The President and CEO's authority and responsibilities were defined in greater detail to allow the Board of Directors to concentrate on the Company's strategy and organization, while Board committees have been established to prepare matters for which the Board is responsible.

The Company's Articles of Association require that the Board consist of nine members who are nominated and elected by the Corporate Assembly. The shareholder representatives in the Corporate Assembly elect six Board members; the employee representatives in the Corporate Assembly, three Board members. Neither the President and CEO nor any other member of the Company's executive management is a member of the Company's Board. The Board of Directors held thirteen meetings in 2003.

Information about each member of the Board of Directors, his or her place of residence, age, position on the Board and Board committees, year in which his or her term expires, the period during which the Board member has served as such, and business experience outside of the Company (including directorships in other companies) is presented in the table below or in the biographical information which follows:

Name	Place of Residence	Age	Position	Term Expires
Jan Reinås <sup>(1)</sup>	Oslo, Norway	59	Chairperson	2006
Borger A. Lenth	Koppang, Norway	66	Deputy Chairperson	2006
Elisabeth Grieg	Oslo, Norway	45	Director	2006
Håkan Mogren	Stockholm, Sweden	59	Director	2006
Ingvild R. Myhre	Oslo, Norway	46	Director	2006
Kurt Anker Nielsen <sup>(4)</sup>	Copenhagen, Denmark	58	Director	2006
Geir Nilsen <sup>(2)</sup>	Skien, Norway	48	Director	2005
Odd Semstrøm <sup>(2)</sup>	Øvre Årdal, Norway	59	Director	2005
Terje Friestad <sup>(2),(3)</sup>	Skudeneshavn, Norway	51	Director	2005

<sup>(1)</sup> The Corporate Assembly elected Mr. Reinås to the Board and appointed him as Chairperson on March 16, 2004, with effect from March 25, 2004. Mr. Reinås succeeded Egil Myklebust, who announced in November 2003 that he would not stand for re-election to Hydro's Board of Directors when his term expired in 2004.

<sup>(2)</sup> Elected by the employee representatives in the Corporate Assembly.

<sup>(3)</sup> The Corporate Assembly elected Mr. Friestad to the Board on March 16, 2004, with effect from March 25, 2004. Mr. Friestad succeeded Steinar Skarstein, who stepped down from the Board at the time of completion of the Demerger.

<sup>(4)</sup> Elected by the Corporate Assembly May 13, 2004 to succeed Anne Cathrine Høeg Rasmussen.

**Jan Reinås.** Mr. Reinås has served as Chairperson of the Board since March 25, 2004. Mr. Reinås served as the Chief Executive Officer of the paper group, Norske Skog, from 1994 until the end of 2003. He had previously served as the Chief Executive Officer of Scandinavian Airlines. Mr. Reinås currently serves on the Board of Directors of the media group, Schibsted ASA, and Swiss International Air Lines. Mr. Reinås serves as the Chairperson of the Board's Compensation Committee.

**Borger A. Lenth.** Mr. Lenth served as a director from 1990 to 1992, has served as a director from 1998, and has been the Deputy Chairperson of the Board since May 2, 2001. Mr. Lenth practices as a lawyer in Oslo, Norway. Previously, from 1991 to 1997, Mr. Lenth was Chief Executive Officer of Christiania Bank. He has also had the position of Permanent Secretary in the Ministry of Development Corporation. Mr. Lenth is currently also Chairman of the Board of Treschow Fritzøe AS and Bolig og Naeringsbanken ASA, and Deputy Chairman of the Board of Directors of Kommunal Landspensjonskasse (KLP) and Norfund. Mr. Lenth serves as the Chairperson of the Board's Audit Committee.

**Elisabeth Grieg.** Ms. Grieg has served as a director since 2001. Ms. Grieg, who is the co-owner of the Grieg Group, is the Chief Executive Officer of Grieg International AS. She is also a member of the Board of Directors of the Norwegian Shipowners' Association and of the DnV Council and a member of the corporate assembly of Orkla ASA. Ms. Grieg serves on the Board's Audit Committee.

**Håkan Mogren.** Mr. Mogren has served as a director since 2001. Mr. Mogren is also Chairman of Affibody AB and the Swedish-American Foundation, Deputy Chairman of AstraZeneca PLC, and of Gambro AB, a member of the Board of Directors of Investor AB, Remy/Cointreau and the Group Danone and a director for the Marianne and Marcus Wallenberg Foundation. Mr. Mogren serves on the Board's Compensation Committee.

**Ingvild R. Myhre.** Ms. Myhre has served as a director since 2001. Ms. Myhre is currently Chief Executive Officer of the Norwegian Red Cross. She is also the Deputy Chairperson of the Norwegian Defense Research Establishment, a member of the Board of Directors of Flytoget AS, the Research Park in Narvik, Norges Handels- og Sjøfartstidende, and the business newspaper, Dagens Naeringsliv. Ms. Myhre serves on the Board's Compensation Committee.



**Kurt Anker Nielsen.** Mr. Nielsen has served as a director since May 13, 2004. Mr. Nielsen served as co-Chief Executive Officer of Novo Nordisk A/S, a focused healthcare company and a world leader in diabetes care, and Novo A/S from 2000 to 2003 and as Chief Financial Officer from 1989 to 2000. Mr. Nielsen is a member of the Board of Directors of Novo Nordisk A/S, Novozymes A/S, Novo A/S, DakoCytomation A/S, ZymoGenetics Inc, Coloplast A/S and TDC A/S. Mr. Nielsen is a Danish national. Mr. Nielsen serves on the Board's Audit Committee.

**Geir Nilsen.** Mr. Nilsen has served as a director since 2003. He is currently employed by Hydro as a maintenance supervisor. He represents the employees' union, LO, where he is a full time union official.

**Odd Semstrøm.** Mr. Semstrøm has served as a director since 1997. Mr. Semstrøm represents the employees' union, LO, where he is a full time union official. Mr. Semstrøm is an electrician and is based at Hydro's aluminium plant in Årdal.

**Terje Friestad.** Mr. Friestad has served as a director since March 25, 2004. Mr. Friestad represents the employees' union, NITO, and he is currently employed as a Senior Engineer in Hydro Aluminium, Karmøy. Mr. Friestad serves on the Board's Audit Committee.

### President and CEO and Corporate Management Board

The President and CEO constitutes a formal corporate body according to Norwegian corporate law. The President and CEO is responsible for day-to-day management of Hydro in accordance with legislation and the instructions, policies and operating guidelines set out by Hydro's Board of Directors.

A corporate management board is not required under Norwegian corporate law, but Hydro's President and CEO has, in accordance with rules of procedure established by Hydro's Board of Directors, established a corporate management board (the **Corporate Management Board**) to assist him in discharging specialized management tasks. The Corporate Management Board consists of the Executive Vice Presidents for Oil and Energy, and Aluminium, in addition to the Executive Vice President and Chief Financial Officer, and the Executive Vice President Leadership and Culture. The members of the Corporate Management Board have a collective duty to promote Hydro's strategic, financial and other objectives, as well as to safeguard Hydro's assets, organization and reputation. The Corporate Management Board convenes at least once a week.

No member of Hydro's Board of Directors or the Corporate Management Board has any family relationship with any other director or member of the Corporate Management Board.

Information concerning each member of the Corporate Management Board, as of June 7, 2004, including his or her age and position, and brief background information regarding his or her business experience is presented below:

Name	Place of residence	Age	Position
Eivind Reiten	Oslo, Norway	51	President and Chief Executive Officer
John Ove Ottestad	Lierskogen, Norway	54	Executive Vice President and Chief Financial Officer
Alexandra Bech Gjørsvik	Oslo, Norway	38	Executive Vice President
Tore Torvund	Oslo, Norway	52	Executive Vice President
Jon-Harald Nilsen	Oslo, Norway	53	Executive Vice President

**Eivind Reiten.** Mr. Reiten succeeded Egil Myklebust as President and Chief Executive Officer of Hydro, effective from May 2, 2001. From 1999 to the date of his appointment as President and CEO, Mr. Reiten served as Executive Vice President for Hydro's Light Metals business area. From 1996 to 1998, he served as President of Hydro

Aluminium Metal Products. From 1992 to 1996, he served as President of Hydro's Refining and Marketing Division. From 1991 to 1992, he served as Senior Vice President, Special Projects. From 1988 to 1990, he served as President of the Energy Division, following a two-year period as manager, and later Vice President for Hydro Agri. From 1990 to 1991,

he had the position of Minister of Petroleum and Energy in the Norwegian government. During the seven-year period from 1979 to 1986, Mr. Reiten held several governmental posts including Junior Executive Officer in the Ministry of Fisheries and Secretary to the Center Party's Parliamentary Group and State Secretary, Ministry of Finance and Minister of Fisheries. Mr. Reiten graduated from the University of Oslo in 1978 with a degree in Economics.

**John Ove Ottestad.** Mr. Ottestad has served as Executive Vice President and Chief Financial Officer since March 1, 2002. Employed at Hydro since 1975, Mr. Ottestad has held numerous positions. Mr. Ottestad served as Senior Vice President for Mergers and Acquisitions from 1999 to 2002, as President of Hydro's Refining and Marketing Division from 1996 to 1999, as President of Hydro's Magnesium Division from 1988 to 1996, and as President of Hydro Innovation from 1985 to 1987. Between 1975 and 1985, Mr. Ottestad served as Director for Corporate Strategic Planning, as a manager in Corporate Financial Planning and as an engineer in the Oil and Gas Division. Mr. Ottestad also served two years as an EDP scientist with the Norwegian Research Foundation, SINTEF. Mr. Ottestad graduated from the Norwegian Institute of Technology in 1973 with a degree in Physics.

**Alexandra Bech Gjørsv.** Ms. Gjørsv has served as Executive Vice President since January 15, 2002. Ms. Gjørsv joined Hydro in New York in 1993 as the legal counsel for Hydro's U.S. subsidiaries. Since then, she has served as Company Secretary from 1995 to 1998 and as Vice President of Strategy and Organization in Hydro's Automotive Structures division from 1998 to 2000 and Senior Vice President of Corporate Human Resources from 2000 to 2002. Ms. Gjørsv received a Bachelor of Law degree from the University of Oslo and a diploma in Legal Studies from Oxford University. She is admitted to the bar in the State of New York, United States.

**Tore Torvund.** Mr. Torvund has served as Executive Vice President for Hydro's Oil and Energy area since January 2000. From 1996 to the date of his appointment as Executive Vice President, Mr. Torvund served as Senior Vice President with responsibility for all Exploration and Production activities in Norway, and from 1992 to 1996, he had responsibility for Hydro's operations in the Norwegian Continental Shelf. Between 1990 and 1992, he served as Vice President for drilling operations, and from 1982-1990 he held different management positions within the Exploration & Production Division related to a North Sea field development project. From 1977 to 1982, Mr. Torvund worked for the French oil company, Elf Aquitaine, where he was involved with oil and gas projects. Mr. Torvund received an MSc in Petroleum Engineering from the Norwegian Institute of Technology in 1976.

**Jon-Harald Nilsen.** Mr. Nilsen has served as Executive Vice President of Hydro Aluminium since February 15, 2001. Mr. Nilsen had previously served as President of Hydro Aluminium Metal Products from 1999 to 2001, following seven years as Senior Vice President of various areas within the Hydro Aluminium Metal Products group. From 1985 to 1988, Mr. Nilsen was Hydro's Market/Product Director and held various managerial positions in financial planning and control for the Oseberg project from 1982 to 1985, and financial and market projects in Hydro's Aluminium from 1977 to 1982, and as an Assistant Export Manager for Bergensmeieriet from 1975 to 1977. Mr. Nilsen graduated from the Norwegian School of Economics and Business Administration in 1975.

## ITEM 6.B. COMPENSATION

In 2003, total remuneration of NOK 2,557,000 was paid to the members of Hydro's Board of Directors, NOK 457,500 to the members of the Corporate Assembly, NOK 60,000 to the members of the Nomination Committee, NOK 50,000 to the members of the Board's Compensation Committee and NOK 167,000 to the members of the Board's Audit Committee. See Item 6.C. Board Practices for a discussion of the Compensation and Audit Committees. The remuneration of the Corporate Assembly is determined by the annual general meeting, while the Corporate Assembly determines the remuneration to the Board and the Nomination Committee.

## **Director Compensation Arrangements**

### ***Compensation for Employee Directors***

In 2003, each of the employee directors (other than Mr. Myklebust) received, in addition to compensation as an employee, fees of NOK 220,000 for serving on the Board. Mr. Myklebust, who served as Chairperson of the Board, received NOK 430,000 for serving on the Board and his salary from Hydro was reduced correspondingly. Mr. Myklebust received total compensation in 2003 of NOK 3,792,000. In May 2001, Mr. Myklebust retired as President and Chief Executive Officer of Hydro and continued to be employed by Hydro in accordance with his employment contract of 1991.

### ***General Compensation Rules for Non-Employee Directors***

In 2003, each of the directors who are not employees of Hydro received fees of NOK 220,000 for serving on the Board, except the Deputy Chairperson, who received NOK 330,000.

## **Compensation of the Chief Executive Officer**

Mr. Reiten, Hydro's President and Chief Executive Officer, received a salary and other remuneration of NOK 5,123,000 in 2003, including a bonus for 2002 in the amount of NOK 630,000. The Board of Directors decided in its meeting on June 17, 2004 to increase Mr. Reiten's base salary to NOK 4,330,000 effective January 1, 2004.

All employees based in Norway are eligible for a bonus linked to performance targets for the various business units. Mr. Reiten has a bonus potential of six months salary as part of this plan. The Board also determined in its meeting on June 17, 2004, that Mr. Reiten was entitled to a bonus for 2003 of NOK 1,190,000 in accordance with the bonus plan and targets established earlier.

Under Mr. Reiten's current employment contract, he is entitled to retire at 62 years of age with a pension benefit representing 65 percent of his salary. In the event his employment terminates, he has the right to salary and the accrual of pension rights for a three-year period. Hydro's obligation can be reduced by salary received or pension rights accrued from other sources. Mr. Reiten's employment can, under certain conditions, continue after his retirement as President and Chief Executive Officer.

## **Grants of Share Options in Last Fiscal Year**

### ***Employee Incentive Plan    Share-Based Compensation Plans***

Approximately 30 people in the Company's senior management, including the President and Chief Executive Officer and members of the Corporate Management Board, are eligible to participate in Hydro's share-based compensation plans, currently the 2003 and 2002 Executive Share Option Plans. The President and Chief Executive Officer receives options granted under the plans on an annual basis. Options issued under those plans may be exercised within a five-year period, but not before the expiry of three years from the date of grant, their exercise being conditional on the development of the price of the underlying shares (including dividends paid) in the three-year period from the date of grant. If the average increase in share price is less than 12 percent per year, none of the options vest. If the increase is between 12 percent and 20 percent, the corresponding percentage of options that vest increases linearly between 20 percent and 100 percent. Upon exercise of an option granted under either of the Executive Share Option Plans, the Company fulfills its obligation toward the option holder by way of a cash bonus payment equal to the economic value of the option, representing the difference between the market value of the underlying Company share (the average of the closing price during the last five days of trading before the option is exercised) and the

exercise price of the option. The option holder is liable for any tax or employee social security contributions arising from the grant or exercise of options. In addition, the option holder must undertake to acquire and hold a set number of the Company's shares from this bonus payment.

Eligible participants have been granted options relating to a total of 99,500 Company shares with an exercise price of NOK 351.50 per share under the 2003 Executive Share Option Plan, and a total of 111,000 shares with an exercise price of NOK 361.90 per share under the 2002 Executive Share Option Plan. The exercise prices of the options granted under each of the plans have been adjusted downward by 8.5% (to NOK 321.62 per share under the 2003 plan and NOK 331.14 per share under the 2002 plan) as a result of the Demerger.

The total number of Company shares underlying options which members of senior management are eligible to receive in any year under the Executive Share Option Plans are presented below:

<b>Recipient</b>	<b>Number of Shares Underlying Option Grants</b>
President and Chief Executive Officer	10,000
Other members of the Corporate Management Board	7,000
Other Plan participants	2,000-3,500

Options for all the shares authorized under each of the 2003 and 2002 Executive Share Option Plans have been granted. See Note 4 to the Consolidated Financial Statements.

Administration of the Executive Share Option Plans is delegated by the Board to its Compensation Committee, which has responsibility to interpret, construe and administer each of the plans and to determine the number, terms, conditions and duration of any grant in accordance with the terms of the applicable plan. In case of a change in the Company's share capital, the exercise price may be adjusted in such a manner as the Compensation Committee considers fair and reasonable. The performance objectives shall only be changed if the Compensation Committee considers this to be necessary. In connection with the Demerger, the Compensation Committee determined that the exercise price and the base share price for calculation of performance would be adjusted in accordance with the Demerger share split ratio. As a result, the exercise price of outstanding options at the time of consummation of the Demerger and the base share price for calculation of performance was reduced by 8.5 percent, effective as of the Completion Date (i.e., March 24, 2004).

An option holder may exercise his or her options within six months if such holder's employing company or unit exits the Hydro Group. In connection with the Demerger, the Compensation Committee decided that options held by employees being transferred to Yara may be exercised within 6 months from the Completion Date (i.e., March 24, 2004). On March 24, 2004, members of Yara's management exercised 20.1% of their options under the now terminated 2001 Executive Share Option Plan, 76.1% of their options granted under the 2002 Executive Share Option Plan and 100% of their options granted under the 2003 Executive Share Option Plan.

### **All Employee Share Purchase Plan**

In 2000, the Board decided that the Company would, on an annual basis, offer its employees in Norway (and employees of Norwegian subsidiaries in which the Company has an ownership interest of more than 90 percent) the opportunity to purchase the Company's shares on favorable terms. The amount of the discount from the traded price of the shares is dependent on the development of the Company's share price (including dividends paid) during the applicable performance period (i.e., the 12-month period beginning on January 1 of the preceding year). Eligible employees are offered the opportunity to buy shares for NOK 6,000 at a 20 percent discount to the market price if the share price has increased by less than 12 percent, and a 50 percent discount to the market price if the share price has increased by more than 12 percent, during the performance period. Interest-free loans are granted to employees in connection with their share purchases.

### **ITEM 6.C. BOARD PRACTICES**

The Company adheres to requirements applicable in the countries where its shares are listed and also implements corporate governance initiatives deemed beneficial to the Company's development. The Company

continuously reviews its corporate governance structure in order to develop and align it with international best practices.

The Company's primary share listing is on the Oslo Stock Exchange (OSE). The OSE listing is governed by Norwegian securities legislation. The Company's shares are also listed on Düsseldorf, Frankfurt, Hamburg, London and Paris stock exchanges, and its American Depositary Shares are listed on the New York Stock Exchange (the **NYSE** ).

Beginning in 2002 and on a continuing basis since, the Company has monitored closely the development of regulations issued or proposed by the SEC to implement provisions of the US Sarbanes-Oxley Act of 2002 (the "**Sarbanes-Oxley Act**"), as well as proposed and adopted changes to NYSE listing standards. Hydro is complying with the new corporate governance requirements and listing standards that apply to non-U.S. companies, including the Chief Executive Officer and Chief Financial Officer certifications that are required to be included in its annual reports on Form 20-F. In light of the required certifications, the Company has, among other things, established a disclosure committee (the **Disclosure Committee**) comprised of members of senior management. The Disclosure Committee is responsible for reviewing financial and related information before it is made public.

Board members are elected for a two-year period. See the biographical information for each of the Board members, included in Item 6.A. Directors and Corporate Management Board Board of Directors, for the period during which each Board member has served as such.

Except as noted in the next sentence, none of the Company's non-employee Board members have any other service contractual agreements with the Company. Elisabeth Grieg, who is a member of the Board of Directors and serves on the Board's Audit Committee, is part owner of a family owned company, Grieg Maturitas AS, which indirectly holds 30 percent of the ownership of Aon Grieg. Aon Grieg provided agent services in relation to offshore insurance for Hydro in 2003 and received NOK 7,415,000 in broker fees from Hydro for such services. Employee directors have no other service contractual agreements with the Company outside of their employee contracts, though they are subject to their duties as Board members.

### **Committees of the Board of Directors**

The Board of Directors has established two Board committees: a compensation committee (the **Compensation Committee**) and an audit committee (the **Audit Committee**). The Board of Directors has approved mandates or charters for both committees.

#### ***Compensation Committee***

On October 12, 2001, the Board of Directors constituted the Compensation Committee, to consist of not fewer than three members of the Board of Directors who are not officers of the Company. The members of the Compensation Committee, who are elected by the full Board, are to serve in such capacity for the two-year term of their service on the Board, but are subject to removal at any time by a majority of the Board of Directors.

The mandate or charter of the Compensation Committee provides that the committee is, on an annual basis, to:

review the performance of the Company's President and Chief Executive Officer and other members of senior management;

prepare and recommend to the Board proposals for compensation for the President and Chief Executive Officer, including base salary adjustments, awards under incentive plans and other benefits;

review and advise the President and Chief Executive Officer on the compensation of the other members of senior management; and



determine eligible participants in the Company's share incentive plans, and approve the participants in, and the types of awards and number of shares covered under, each such plan.

125

---

The Compensation Committee held six meetings in 2003. As of June 17, 2004 the members of the Compensation Committee are Jan Reinås (Chairperson), Håkan Mogren and Ingvild Myhre. The Board has determined that each of the members of the Compensation Committee is independent under the recently adopted NYSE listing standards.

#### *Audit Committee*

On November 1, 2001, the Board of Directors established the Audit Committee. The Audit Committee's mandate or charter provides that the Audit Committee is to consist of at least three members of the Board of Directors, each to be appointed by the full Board and to serve in such capacity for the two-year term of their service on the Board, subject to removal at any time by a majority of the Board of Directors.

The Audit Committee held nine meetings in 2003. As of June 17, 2004 the members of the Audit Committee are Borger A. Lenth (Chairperson), Elisabeth Grieg, Kurt Anker Nielsen and Terje Friestad, an employee representative who was elected to serve on the Board as of March 16, 2004, with effect from March 25, 2004. Messrs. Lenth and Nielsen, and Ms. Grieg, are each considered independent under the SEC's regulations adopted to implement the provisions of Section 301 of the Sarbanes-Oxley Act. As a non-management employee of Hydro elected to the Board in accordance with Norwegian law, Mr. Friestad is exempt from the SEC's independence requirement. The Board has assessed whether reliance on the exemption in the case of Mr. Friestad would materially adversely affect the ability of the Audit Committee to act independently and satisfy the other requirements of Rule 10A-3 under the Exchange Act, and has concluded that it would not.

In accordance with applicable NYSE listing standards, the Board is of the opinion that each of the current members of the Audit Committee fulfills the NYSE's listing standard with respect to being financially literate, as such qualification is interpreted by the Board in its business judgment. In addition, the Board has determined that Kurt Anker Nielsen, elected to the Board as of May 13, 2004, is an audit committee financial expert, as that term is defined in SEC rules.

The Audit Committee operates in accordance with a mandate approved by the entire Board. The mandate was revised in June 2003 to meet the new requirements under the SEC's rules to implement relevant provisions of the Sarbanes-Oxley Act and the then-proposed NYSE listing standards. The Audit Committee mandate can be found at Exhibit 99.3 to this annual report. The mandate establishes that the Audit Committee acts as a preparatory body related to the Board's supervisory role with respect to the Company's financial controls, disclosures and external audit, consistent with Norwegian law. The primary function of the Audit Committee is to assist the Board with respect to:

the integrity of the Company's financial statements;

the qualifications, independence and performance of the external auditors; and

the performance of the Company's internal audit function.

The Audit Committee mandate provides the Audit Committee with the authority to engage independent counsel and other advisers, as it deems necessary to carry out its duties. Management is responsible for the Company's financial reporting process, the preparation of the Company's consolidated financial statements in accordance with generally accepted accounting principles, and the design and operation of the Company's system of internal control over financial reporting to ensure compliance with accounting standards and applicable laws and regulations. The Company's external auditors, Deloitte Statsautoriserede Revisorer AS, are responsible for performing an independent audit of the Company's consolidated financial statements in accordance with generally accepted auditing standards and issuing a report on such financial statements. The Audit Committee's responsibility is, in an oversight role, to monitor, oversee and review these processes.



In connection with the Audit Committee's responsibilities, the Audit Committee reviewed and discussed the Consolidated Financial Statements and discussed these financial statements with the Company's management and external auditors. Management and the external auditors advised the Audit Committee that the Consolidated Financial Statements were fairly stated in accordance with U.S. GAAP. In addition, the Audit Committee also reviewed and discussed with the Company's external auditors the matters required by Statement on Auditing Standards No. 61 (Codification of Statements on Auditing Standards, AU §380), as amended (Communication with Audit Committees).

The Company's external auditors provided the Audit Committee with the written disclosures and the letter required by Independence Standards Board Standard No. 1 (Independence Discussions with Audit Committee). Independence Standards Board Standard No. 1 requires auditors annually to disclose in writing all relationships that in their professional opinion may reasonably be thought to bear on independence, to confirm their independence and to engage in a discussion of independence. The Audit Committee did, in fact, discuss with the Company's external auditors the external auditors' independence, a discussion that encompassed, among other things, whether the external auditors' provision of non-audit related services to the Company is compatible with maintaining such auditors' independence.

In accordance with Section 204 of the Sarbanes-Oxley Act and the SEC's rules to implement its provisions, the Company's external auditors also communicated with the Audit Committee, prior to filing of the external auditors' audit report with the SEC with respect to the Consolidated Financial Statements, regarding all critical accounting policies and practices, alternative accounting treatments, and other written material communications between the external auditors and the Company's management.

In reliance on the reviews and discussions referred to above, the Audit Committee informed the Board that it was not aware of any matters weighing against the Board's approval of the Consolidated Financial Statements to be included in this annual report on Form 20-F for the year ended December 31, 2003 for filing with the SEC.

As noted above, the Company established a Disclosure Committee to strengthen the Company's disclosure controls and procedures as part of its efforts to ensure the quality and reliability of Hydro's financial reporting and disclosure. Issues considered by the Disclosure Committee are reviewed and evaluated by the Audit Committee.

The Audit Committee reviews the Company's external financial reports and the disclosures in such reports in separate meetings prior to the Board's review and approval.

In accordance with the SEC rules to implement Section 202 of the Sarbanes-Oxley Act, an Audit Committee pre-approval policy was prepared during March-April 2003 and communicated to the Company's external auditors on May 2, 2003. The policy was subsequently approved by the Audit Committee. As explained more fully below, the pre-approval policy governs the engagement of the Company's primary and other external auditors to provide audit and permissible non-audit services for or on behalf of the Company or any entity within the Hydro Group. The pre-approval policy is intended to safeguard the continued independence of such auditors, ensuring that: (1) the auditors are not functioning in the role of management; (2) the auditors are not auditing their own work; and (3) the auditors are not serving in an advocacy role for the Company and/or its affiliates.

Under the pre-approval policy, the Audit Committee has defined and pre-approved subcategories of audit and non-audit services, such non-audit services being limited to services permissible to be provided by the Company's primary external auditors under SEC regulations. The Audit Committee's pre-approval includes annual monetary frames for each of the following categories of services:

audit-related;

tax; and

non-audit related.

The Audit Committee chairperson is authorized to approve changes to the subcategories of the services and/or any increase in the monetary frames between regular meetings of the Audit Committee. Any such change is to be disclosed to the full Audit Committee on an annual basis.

The Audit Committee's pre-approval policy also applies to auditors, other than the Company's primary external auditors, which, in the aggregate, audit more than 5% of Hydro's consolidated assets or income from continuing operations before tax. For such auditors, the pre-approval policy applies only to services provided to the Hydro subsidiary or subsidiaries under audit.

In December 2003, the Audit Committee established and implemented a channel for handling of concerns and complaints. All Hydro employees may, confidentially and anonymously, raise any concerns, including concerns about accounting, internal accounting controls or auditing matters, directly with the head of Internal Audit, who acts in this capacity as, in essence, a secretary for the Audit Committee. Alternatively, employees may raise any concerns or questions regarding such matters directly with the Chairperson of the Audit Committee.

The Audit Committee has reviewed and evaluated the operational audit reports prepared by the Company's internal audit department. Separate and independent sessions were held between the Audit Committee and the external and internal auditors.

#### ITEM 6.D. EMPLOYEES

As of December 31, 2003, the Group employed approximately 42,900 people, compared with approximately 49,700 people in 2002, and approximately 35,600 people in 2001. Approximately 29,200 of the Group's employees were located outside Norway as of December 31, 2003, compared to approximately 35,100 at the end of 2002 and 20,000 at the end of 2001. The number of people employed in each segment as of December 31, 2003 is as follows:

<b>Business Segment</b>	<b>Number of Employees</b>
Exploration & Production	2,800
Energy and Oil Marketing	665
Metals	6,276
Rolled Products	4,259
Extrusion and Automotive	16,193
Agri <sup>(1)</sup>	7,338
Other Activities <sup>(2)</sup>	5,380

<sup>(1)</sup> The Agri employees have since been transferred to Yara in connection with the Demerger.

<sup>(2)</sup> Other Activities consists of the following: Petrochemicals, Treka AS (previously A/S Korn- og Foderstof Kompagniet, or KFK), Pronova, the industrial insurance company, Industriforsikring, Hydro Business Partner, and other Corporate staff.

Production workers and certain staff categories in Norway are generally organized on a national basis with annual or bi-annual contract negotiations held between employee organizations and the national employers association. Norwegian employees are represented in Hydro's Corporate Assembly and Board of Directors. The Company considers its relationship with the Norwegian employee organizations to be good. Outside Norway, the degree of worker organizations and the form of negotiations with such organizations varies from one country to another. Generally, Hydro seeks to achieve terms of employment comparable to that negotiated with the Norwegian employee organizations.



**ITEM 6.E. SHARE OWNERSHIP**

The following table sets forth the beneficial ownership of ordinary shares as of June 11, 2004 by (i) each director and member of senior management, and (ii) all directors and members of the Corporate Management Board of the Company as a group.

Name of Beneficial Owner	Shares Beneficially Owned
Jan Reinås	None
Borger A. Lenth	144
Elisabeth Grieg	6,080
Håkan Mogren	0
Ingvild R. Myhre	0
Kurt Anker Nielsen	0
Geir Nilsen	55
Odd Semstrøm	129
Terje Friestad	236
Eivind Reiten	7,841 <sup>(1)</sup>
Alexandra Bech Gjørsv	900
John Ove Ottestad	8,238
Jon-Harald Nilsen	270
Tore Torvund	3,640 <sup>(2)</sup>
Total number of ordinary shares owned by all directors and members of Corporate Management Board as a group (consisting of 14 persons)	27,533

<sup>(1)</sup> Includes 200 shares held by a close family member.

<sup>(2)</sup> Includes 360 shares held by a close family member.

The total number of authorized and issued ordinary shares of the Company as of December 31, 2003 was 266,596,650. Excluding shares held in treasury as of December 31, 2003 of 9,884,650, the total number of issued and outstanding shares was 256,712,000. The percentage beneficial ownership of the total number of ordinary shares owned by all directors and members of Corporate Management Board as a group was approximately 0.011%.

The percentage of outstanding shares held by residents of different countries as of June 11, 2004, are presented below:

Norway	65.5%
United Kingdom	13.7%
United States	12.8%
Other	8.0%



## Option Ownership

The following table sets forth the beneficial ownership of options to acquire ordinary shares as of June 7, 2004 by (i) each director and member of Corporate Management Board who has served in either of such capacities at any time since January 1, 2003, and (ii) all such directors and members of the Corporate Management Board as a group:

Name	Number of Shares Underlying Options Granted		Exercise Price (NOK/Share)		Expiration Date	
	2002	2003	2002	2003	2002	2003
Eivind Reiten	10,000	10,000	331.14	321.62	June 30, 2007	June 30, 2008
John Ove Ottestad <sup>(1)</sup>	7,000	7,000	331.14	321.62	June 30, 2007	June 30, 2008
Tore Torvund	7,000	7,000	331.14	321.62	June 30, 2007	June 30, 2008
Jon-Harald Nilsen	7,000	7,000	331.14	321.62	June 30, 2007	June 30, 2008
Alexandra Bech Gjørsv	7,000	7,000	331.14	321.62	June 30, 2007	June 30, 2008
All directors and members of the Corporate Management Board as a group	38,000	38,000				

<sup>(1)</sup> John Ove Ottestad assumed the position of Executive Vice President and Chief Financial Officer on March 1, 2002.

## ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

### ITEM 7.A. MAJOR SHAREHOLDERS

The Kingdom of Norway is the only person or entity known to the Company to own beneficially, directly or indirectly, more than 5 percent of the Company's ordinary shares. As of June 11, 2004, the Kingdom owned 115,674,848 ordinary shares, representing 45.2 percent of the total number of ordinary shares issued and outstanding as of such date. There are no different voting rights associated with the ordinary shares held by the Kingdom. As of June 11, 2004, there were a total of 40,700 registered holders of Hydro's shares resident in Norway.

The Kingdom acquired most of its interest in the Company in 1945. From that time and until July 1999, the Kingdom owned 51 percent of the total number of ordinary shares issued and outstanding. Ordinary shares issued in connection with the acquisition of Saga Petroleum in July 1999 increased the total number of shares issued and outstanding with a corresponding decrease in the Kingdom's percentage ownership interest.

Since 1945, the Kingdom has not disposed of any of the Company's ordinary shares owned by it. However, there can be no assurance that the Kingdom will not do so in the future. The Norwegian Ministry of Trade and Industry represents the Norwegian government in exercising the Kingdom's voting rights. Acting through the Norwegian government, the Kingdom, in its capacity as a shareholder of the Company, has never taken an active role in the day-to-day management of the Company.

As of June 11, 2004, JPMorgan Chase Bank, as depositary of the ADSs (the "**Depositary**"), through its nominee company, Morgan Guaranty Nominees Limited, held interests in 15,834,815 ordinary shares (approximately 6.2 percent of the issued and outstanding ordinary shares as of such date) on behalf of 568 registered and an estimated 6,600 beneficial holders of American depositary receipts ( **ADRs** ), evidencing ADSs. There were 330 holders of ordinary shares with addresses in the United States (not including the Depositary) as of the same date. These shareholders held 16,915,102 ordinary shares, equal to approximately 6.6 percent of the issued and outstanding ordinary shares.

**ITEM 7.B. RELATED PARTY TRANSACTIONS**

The following table sets forth information regarding loans extended by Hydro to individuals who have served on the Board of Directors or the Corporate Management Board since January 1, 2003:

<b>Name of Loan Recipient</b>	<b>Largest Amount Outstanding During 2003 (in thousands of NOK)</b>	<b>Amount Outstanding as of April 23, 2004 (in thousands of NOK)</b>	<b>Nature of Loan</b>	<b>Interest Rate<sup>(1)</sup></b>	<b>Remaining Repayment Term<sup>(2)</sup></b>
Odd Semstrøm <sup>(3)</sup>	53	44	Consumer	4.0%	3 years-Upon termination
Geir Nilsen	162	107	Consumer	4.0%	3 years
John O. Ottestad	667	566	Consumer/Mortgage	3.25-4.00%	3 13 years
Tore Torvund	460	398	Consumer/Mortgage	3.25-4.00%	4 13 years
Jon-Harald Nilsen	227	188	Mortgage	3.25%	8 years
Alexandra Bech Gjörv	269	0	Consumer/Mortgage		26.5 years Upon termination
Egil Myklebust <sup>(4)</sup>	4,596	4,562	Mortgage	2.75-3.25%	
Thorleif Enger	690	0	Consumer		
Terje Friestad	17	6	Consumer	4.0%	8 months

(1) Interest rate as of April 23, 2004. All of the above loans bear interest rates that reflect market rates. The interest rates are variable and are adjusted periodically by the Company.

(2) Amortized on a monthly basis.

(3) Includes an interest-free loan of NOK 20,000, which is repayable upon the termination of Mr. Semstrøm's employment with the Company.

(4) As of April 23, 2004, Mr. Myklebust had several mortgage loans, including an interest-only loan of NOK 2,200,000 bearing interest at 2.75 percent and repayable upon his leaving the Company, a mortgage loan of NOK 2,115,000 bearing interest at 3.25 percent with a remaining payment period of 26.5 years and other mortgage loans totaling NOK 247,000 bearing interest at 3.25 percent repayable upon his leaving the Company. All of these loans are secured by Mr. Myklebust's principal residence.

Except as described in the notes to the above table, the loans included in the above table have been extended to members of the Board of Directors or the Corporate Management Board under terms and conditions that are equivalent to those made available to all Norway-based employees of the Company. All loans to directors and executive officers (i.e., members of the Corporate Management Board) of the Company were entered into prior to July 30, 2002. The Company has not materially modified or renewed any of these loans since that date.

**ITEM 7.C. INTERESTS OF EXPERTS AND COUNSEL**

In accordance with the instructions to Form 20-F, the Company does not need to provide the information called for by Item 7.C. if, as is the case in this instance, the Form 20-F is being filed as an annual report under the Exchange Act.

## **ITEM 8. FINANCIAL INFORMATION**

### **ITEM 8.A. CONSOLIDATED FINANCIAL STATEMENTS AND OTHER FINANCIAL INFORMATION**

The Consolidated Financial Statements are included in Exhibit 10 to this annual report on Form 20-F. Reference is made to Item 19. Financial Statements and Exhibits for a list of all financial statements included in this annual report.

#### **Export Sales**

See Note 5 to the Consolidated Financial Statements for a listing of the operating revenues by country of customer for export sales information.

#### **Legal Proceedings**

##### ***Tax Claim Relating to Kharyaga Field***

Total, the operator for the Kharyaga field located in Northwest Russia, has received from the Ministry of Taxes and Revenues of the Russian Federation, a claim for tax and the Russian State's share of the revenues from oil extracted under the Petroleum Sharing Agreement for this field. Hydro's share of the claim is approximately USD 30 million. The claim stems from the unwillingness of the joint committee for the Kharyaga project to approve audited accounts relating to the field for 2001 and 2002, and the work program and budget for 2002, submitted by Total, as the field operator. The Russian tax authorities have taken the position that all revenues from the project technically represented profit, and thus could not be included in the PSA's cost recovery category. The joint committee has also been unwilling to approve the work programs and budgets for 2003 and 2004, but no claim has been made related to these periods. Total has filed a lawsuit with an international arbitration court in Stockholm to have spending on the development of the Kharyaga field recognized. The case is expected to be heard by the Stockholm Arbitration Court in July 2005. See Item 4.B. Business Overview Hydro Oil and Energy Production, for a description of Hydro's interest in the Kharyaga field.

##### ***Zero-Rate Electricity Tax***

The European Free Trade Association (EFTA) Surveillance Authority (ESA) has commenced a formal investigation procedure against the Norwegian State to determine if the former zero-rate electricity tax applicable to Norwegian industry is in accordance with state aid rules included in the European Area Agreement (the EEA Agreement). The zero-rate tax was extended to all Norwegian businesses from January 1, 2004. ESA has advised the Norwegian government that the Norwegian government may be required to recover asserted state aid from recipient companies if the rules are determined to be incompatible with the EEA Agreement. The Norwegian government has claimed that the electricity tax system is of a general nature and not covered by the EEA state aid rules. A decision by the ESA to require the Norwegian government to recover the value of the zero-rate tax for the years in question may be appealed to the EFTA court. Hydro will vigorously oppose any unfavorable decision related to past years and believes that the Norwegian government will also vigorously oppose such a decision. Hydro intends to make use of all remedies available, both at the EFTA and the Norwegian national level. Although no assurances can be provided as to the ultimate outcome of this matter, Hydro's management does not believe that resolution will have a material adverse effect on results of operations or financial position.

##### ***Joint Sale of Natural Gas by NCS Producers***

In 2001, the European Union competition authorities issued a statement of objections to Hydro and all other gas producers on the Norwegian Continental Shelf. The authorities claimed that the joint sale of natural gas by producers on the Norwegian Continental Shelf, through the Gas Negotiating Committee (GFU), contravened EU legislation related to competition. The GFU system was abolished by the Norwegian government on June 1, 2001. Effective July 17, 2002, Hydro and the European Commission settled the dispute related to the previous marketing of gas through the GFU.

The settlement of the case did not involve any monetary consideration but required that Hydro make available on commercially competitive terms a total of 2.2 bcm of gas to new customers in the period from June 1, 2001 to September 30, 2005. This is in accordance with the Company's commercial policy and does not have any adverse affect on operating results. Compliance with the terms of this settlement arrangement is supervised by an external auditor. Statements issued by the auditor for the period June 1, 2001 – September 30, 2002 demonstrate that the Company sold at least 0.9 bcm of gas to new customers and an additional 1.2 bcm in the period October 1, 2002 September 30, 2003. In total, the Company has now fulfilled most of its settlement obligations. All of the gas has been sold at current market prices.

The effective date for closing the case was July 17, 2002. There is no court ruling of the settlement. European Union law does not require a settlement in competition cases to be approved by a court in order to be valid. The Commission simply decides to close a case on the basis of undertakings agreed by the companies involved. The fact that the case was settled did not amount to an admittance that Hydro actually had infringed on any EC competition rules.

### ***Dispute as to Allocation of Pension Liabilities***

As of January 1, 2001, the system for the charging or allocation of pension costs by operators of oil and gas fields on the NCS to other companies with interests in such fields was changed. Prior to that date, the costs of funded pensions were charged based upon pension premiums and the costs of unfunded pensions were charged when pensions were paid. With effect from January 1, 2001, pension costs are charged as a percentage of pensionable salary.

In transitioning to the current system, Hydro, as an operator of oil and gas fields on the NCS, recorded pension costs of approximately NOK 796 million in the fourth quarter of 2000, of which NOK 205 million was for Hydro's own account. The balance of the increased pension obligation was charged for the account of the other companies with interests in the Hydro-operated fields. Most of the other companies did not accept this allocation. After negotiations with these companies, Hydro was able to reach an agreement with certain of them. However, on February 17, 2004, the companies with which Hydro was not able to reach an agreement notified Hydro of the initiation of an arbitration proceeding over this matter.

Hydro has charged the companies which are parties to the arbitration an aggregate amount of approximately NOK 456 million. In the negotiations that preceded the initiation of the arbitration proceeding, these companies agreed to cover a portion of this amount. Their primary basis for not accepting the total charge is their interpretation of guidelines adopted by the Norwegian Oil Industry Association (referred to as the OLF), which have been effective since January 1, 2001. Hydro disagrees with their interpretation of these guidelines. Further, Hydro's position is that the OLF guidelines cannot alter the accounting provisions in the joint ventures and accounting agreements between and among Hydro and the other companies who are parties to the agreements. Hydro believes that its charging of pension costs to these other companies is in accordance with the no gain/no loss principle in such accounting agreements.

Although no assurance can be provided as to the ultimate outcome of this matter, Hydro's management does not believe that it will have a material adverse effect on Hydro's results of operations or financial position.

### ***Other Legal Proceedings***

Hydro is involved in or threatened with various other legal, tax and environmental matters arising in the ordinary course of business. Hydro is of the opinion that resulting liabilities, if any, will not have a material adverse effect on its consolidated results of operations, liquidity or financial position.





## Dividend Policy

The Board of Directors believes that long-term returns to shareholders should reflect the value created in the Company in the form of dividends and a higher share price. The Board's policy is that dividends paid should increase steadily in line with the growth in Hydro's results, while taking into consideration opportunities for adding value through profitable new investments. Over time, the value added will be reflected to a greater extent by a higher share price than through dividend distributions. The Board considers it appropriate that dividends over a period of several years average roughly 30 percent of Hydro's net income. Future dividends will be dependent on Hydro's future earnings, financial condition and cash flow, as well as other factors affecting Hydro.

Hydro pays a dividend once a year. The dividend is linked to the previous year's results of operations and is paid to those who are registered as shareholders at the time of the annual general meeting, usually held in May. Payment is made approximately two weeks later.

In order to achieve the greatest possible value creation over time and to strike a balance with Hydro's operational risk exposure, it is necessary to have adequate access to financial resources. This requires Hydro to maintain a position that will allow it to be able to access the necessary loan capital with attractive conditions. As of December 31, 2003, the Company's senior unsecured debt was rated A2 by Moody's and A with negative outlook from Standard & Poor's. To assist the Company in maintaining its credit ratings, the Company intends its net interest-bearing debt over time to be equivalent to half of the Company's equity capital, including minority interests. When calculating this ratio, consideration is given to off-balance sheet pension obligations and operational leasing commitments.

## Share Repurchases

In periods of high earnings, the Company will consider a share buy-back in addition to ordinary dividend payments. Such consideration will be made in light of alternative investment opportunities available to the Company and its financial situation. On the basis of these considerations, the Board may propose to the Corporate Assembly that authorization be given for a repurchase of shares. An agreement has been signed with the Norwegian State, represented by the Ministry of Trade and Industry, to take appropriate action ensuring that the State's ownership interest will remain unchanged if the aim of a repurchase is to cancel the shares.

In 2003, the annual general meeting authorized the buy-back of up to 2,808,810 of the Company's shares in the market with the intention to cancel the shares through a capital reduction. The Norwegian State agreed to participate in the redemption and cancellation of a proportional number of shares. During 2003, the Company purchased 1,484,300 of its shares at an average price of NOK 373.85 per share. In January of 2004, an extraordinary general meeting approved a capital reduction by cancellation of the 1,484,300 treasury shares acquired in 2003. The extraordinary general meeting also authorized the redemption of 1,157,922 shares owned by the Norwegian State for an aggregate amount of approximately NOK 445 million, corresponding to approximately NOK 374 per share. These shares were redeemed and cancelled on March 17, 2004. The per share redemption price was based on the volume-weighted average of the price paid for the 1,484,300 shares purchased in the market. The Company also paid the Norwegian State an interest equivalent of NIBOR plus one percent to compensate the State for receiving payment for its shares at a later date than those selling shares in the market.

The annual general meeting held in May 2004 approved the Board's proposal to replace the remaining part of the existing share buy-back authorization with a new authorization (such authorization being effective for a period of 18 months) to buy-back up to 2,808,810 of the Company's shares in the market, with the intention to cancel the shares through a capital reduction. The Norwegian State has agreed to participate in the redemption and cancellation of a proportional number of shares on the same basis as agreed in 2003. The State's ownership share will, therefore, remain unaffected by the buyback and cancellation. In total, up to 5 million shares may be cancelled, equivalent to approximately two percent of the outstanding shares. Final decisions on cancellation will require the approval of two-thirds of the votes cast at a future general meeting at which such approval is sought. In accordance with the new authorization Hydro initiated the share buy-back program and, on June 8, 2004, purchased 80,000 of its shares at an average price of NOK 431.72 per share.

The Company has also previously purchased its own shares with the intention of using them in connection with possible business transactions and employee incentive plans. At the end of 2003, the Company held 8,400,350 of such shares in treasury. The total number of treasury shares at the end of 2003, including the shares bought with the purpose of cancellation, was 9,884,650. Following the purchase of 653,000 shares during June 2004, Hydro holds 8,768,198 treasury shares.

#### **ITEM 8.B. SIGNIFICANT CHANGES**

There have been no significant changes in Hydro's results of operations, financial condition or business prospects since December 31, 2003, other than as a result of the Demerger.

**ITEM 9. THE OFFER AND LISTING****ITEM 9.A. OFFER AND LISTING DETAILS**

The following table gives, for the periods indicated, adjusted high and low prices for the Company's ordinary shares on the Oslo Stock Exchange and the ADSs on the New York Stock Exchange Composite Tape.

**Five Most Recent Fiscal Years**

Year	Oslo Stock Exchange		New York Stock Exchange	
	High (in NOK)	Low (in NOK)	High (in US Dollars)	Low (in US Dollars)
1999	371.00	245.00	465/8	323/4
2000	415.00	296.50	453/8	351/2
2001	404.00	310.00	44.90	35.00
2002	441.00	273.00	52.30	37.05
2003	415.00	262.00	62.09	35.90

**Quarterly Data for Two Most Recent Fiscal Years**

Quarterly Period	Oslo Stock Exchange		New York Stock Exchange	
	High (in NOK)	Low (in NOK)	High (in US Dollars)	Low (in US Dollars)
First quarter 2002	432.00	364.00	48.50	40.60
Second quarter 2002	441.00	346.00	52.30	46.60
Third quarter 2002	367.00	276.00	48.54	37.10
Fourth quarter 2002	316.00	273.00	45.25	37.05
First quarter 2003	317.50	262.00	45.83	35.90
Second quarter 2003	376.00	270.00	51.90	37.55
Third quarter 2003	397.50	339.00	53.94	45.90
Fourth quarter 2003	415.00	359.50	62.09	52.10
First quarter 2004	472.65	367.71	66.84	54.19

**Most Recent Six Months**

Month	Oslo Stock Exchange		New York Stock Exchange	
	High (in NOK)	Low (in NOK)	High (in US Dollars)	Low (in US Dollars)

Edgar Filing: NORSK HYDRO A S A - Form 20-F

December 2003	415.00	384.50	62.09	57.13
January 2004	456.50	410.00	67.85	61.07
February 2004	506.50	427.50	73.73	60.61
March 2004	527.00	429.50	74.75	68.32
April 2004	467.00	402.50	70.67	54.92
May 2004	426.00	395.00	63.08	56.11

Source: Bloomberg

There were 330 holders of ordinary shares with addresses in the United States (not including the Depositary) as of June 11, 2004. These shareholders held 16,915,102 ordinary shares, equal to approximately 6.6 percent of the issued and outstanding ordinary shares. As of June 11, 2004, a total of 15,834,815 ADSs (representing approximately 6.2 percent of the issued and outstanding ordinary shares) were held by 568 registered and approximately 6,600 beneficial holders of ADSs.

## **ITEM 9.B. PLAN OF DISTRIBUTION**

In accordance with the instructions to Form 20-F, the Company does not need to provide the information called for by Item 9.B if, as is the case in this instance, the Form 20-F is being filed as an annual report under the Exchange Act.

## **ITEM 9.C. MARKETS**

The Company's ordinary shares are listed on the stock exchanges in Oslo, Düsseldorf, Frankfurt, Hamburg, London and Paris. The Board of Directors approved delisting of the Company's shares from the Stockholm stock exchange effective March 25, 2004. The Company's ADSs are listed on the New York Stock Exchange.

## **ITEM 9.D. SELLING SHAREHOLDERS**

In accordance with the instructions to Form 20-F, the Company does not need to provide the information called for by Item 9.D. if, as is the case in this instance, the Form 20-F is being filed as an annual report under the Exchange Act.

## **ITEM 9.E. DILUTION**

In accordance with the instructions to Form 20-F, the Company does not need to provide the information called for by Item 9.E. if, as is the case in this instance, the Form 20-F is being filed as an annual report under the Exchange Act.

## **ITEM 9.F. EXPENSES OF THE ISSUE**

In accordance with the instructions to Form 20-F, the Company does not need to provide the information called for by Item 9.F. if, as is the case in this instance, the Form 20-F is being filed as an annual report under the Exchange Act.

## **ITEM 10. ADDITIONAL INFORMATION**

### **ITEM 10.A. SHARE CAPITAL**

In accordance with the instructions to Form 20-F, the Company does not need to provide the information called for by Item 10.A. if, as is the case in this instance, the Form 20-F is being filed as an annual report under the Exchange Act.

### **ITEM 10.B. ARTICLES OF ASSOCIATION**

Norsk Hydro ASA is a public limited company organized under the laws of Norway. Its registration number in the Norwegian Register of Business Enterprises is 914 778 271. Norsk Hydro ASA was incorporated on December 2, 1905 and registered with the Norwegian Register of Business Enterprises in 1906.

Section 2 of the Company's Articles of Association provides that the Company's objects or purposes are to engage in industry, commerce and transport, to utilize energy resources and raw materials, and to engage in other activities connected with the above-mentioned objects. The Company's operations may be conducted through participation in or in cooperation with other enterprises.



## **Board of Directors**

Section 5 of the Articles of Association provides that the Board of Directors shall be composed of nine members who are elected by the Corporate Assembly to serve for a term of two years, such term to expire at the conclusion of the annual general meeting of shareholders in the year in which the period of service ends. The Corporate Assembly also elects the Chairman and the Vice-Chairman of the Board. In the event a director retires, is removed or is disqualified as a result of personal bankruptcy prior to the end of his or her period of service and there is no alternate Board member, the rest of the Board of Directors must arrange for the election by the Corporate Assembly of a new member of the Board of Directors for the remainder of the period of service.

There are no requirements for a Board member's being qualified to serve in such capacity other than a requirement under Norwegian law that at least half of the members of the Board of Directors must reside in the Kingdom of Norway or another country that is a member of the European Economic Community (absent the grant of an exemption by the King of Norway in an individual case). Section 9 of the Articles of Association requires a director to retire the year he or she reaches the age of 70.

Under Norwegian law and the Rules of Procedure for the Board of Directors, a member of the Board of Directors may not participate in the discussion or in the decision on any matter in which the Board member (or any person affiliated with such Board member) has a major personal or financial interest. The rest of the Board may decide whether the Board member has such an interest in the decision or matter. In addition, no member of the Board may participate in any matter concerning a loan or other credit to such Board member or with respect to the pledge of security for such member's debt to the Company.

Under Norwegian law, the Company's directors have no power to vote compensation to themselves or any member of their body. Instead, the Corporate Assembly fixes the remuneration to be received by members of the Board of Directors, alternate members and observers. Norwegian law also stipulates that members of the Board of Directors are not to receive any remuneration from parties other than the Company in connection with their services for the Company. However, a Board member who does not participate in the day-to-day management of the Company is not precluded from acting as an agent on behalf of a business carried on by the Board member and receiving a standard agency fee in such capacity, provided that such member does not also represent the Company in the transaction.

## **Liability of Directors**

The members of the Board of Directors and the members of the Corporate Assembly owe a fiduciary duty to the Company and its shareholders. Their principal obligation is to safeguard the interests of the shareholders. In addition, they may also have duties to other third parties, such as employees and creditors. The Company's directors and members of the Corporate Assembly can be held liable for any damage they negligently or intentionally cause the Company. Norwegian law permits shareholders to exempt any such persons from liability, but the exemption is not binding if substantially correct and complete information was not provided to the shareholders at the general meeting at which the shareholder action to exempt the person(s) from liability was taken. If a resolution to grant such exemption from liability or not to pursue claims against such a person has been passed by a general meeting with a smaller majority than that required to amend the Articles of Association, shareholders representing at least ten percent of the share capital or, if there are more than 100 shareholders, more than ten percent of the shareholders may pursue the claim on the Company's behalf and in its name. The cost of any such action is not the Company's responsibility, but can be recovered from any proceeds the Company receives as a result of the action. If the decision to grant an exemption from liability or not to pursue claims is made by such a majority as is necessary to amend the Articles of Association, the minority shareholders cannot pursue the claim in the Company's name.

**Indemnification of Directors and Officers**

Neither Norwegian law nor the Articles of Association contains any provision concerning indemnification by the Company of the members of the Board of Directors.



## Description of Ordinary Shares

The following is a summary of material information relating to the share capital and the ordinary shares of the Company, including summaries of certain provisions of the Articles of Association and applicable Norwegian law (including the Norwegian Public Limited Companies Act) in effect as of the date of filing of this annual report.

### *General*

The authorized share capital of the Company consists of one class of shares: 266,596,650 ordinary shares, nominal value NOK 20 per share, of which 256,712,000 ordinary shares were outstanding as of December 31, 2003. All outstanding ordinary shares are validly issued, fully paid and nonassessable. In January 2004, an extraordinary General Meeting approved a capital reduction by cancellation of 1,484,300 treasury shares acquired in 2003 as part of a buy-back program approved by the 2003 annual general meeting. The general meeting also authorized the redemption of 1,157,922 shares owned by the Norwegian State. The cancellation of the shares took place on March 17, 2004. See Item 8.A. Consolidated Financial Statements and Other Financial Information Share Repurchases.

In addition, the general meeting approved the Demerger Plan for the separation of the Agri business. The Demerger was accomplished on March 24, 2004, which resulted in a reduction of the nominal share value to NOK 18.30 per share.

### *The VPS System*

The ordinary shares are registered in the Norwegian Verdipapirsentralen (the Norwegian Central Securities Depository), referred to as the VPS. The VPS is Norway's paperless centralized registry. The VPS is owned by a public company and operates under a license from the Ministry of Finance. The ownership of, and all transactions relating to, Norwegian listed shares must be recorded in a licensed securities registry. The Company's share register is operated through the VPS.

All transactions relating to securities registered with the VPS are made through computerized book-entries. No physical share certificates are or can be issued. The VPS confirms each entry by sending a transcript to the registered shareholder, regardless of beneficial ownership. To effect these entries, the individual shareholder must establish a securities account with a Norwegian account operator unless the individual's shares are registered in the name of a nominee. Norwegian banks, the Central Bank of Norway, authorized investment firms in Norway, bond issuing mortgage companies, management companies for securities funds (insofar as units in securities funds they manage are concerned), and Norwegian branches of credit institutions established within the European Economic Area (EEA) are allowed to act as account operators.

If a security holder does not establish such an account, an account agent will be appointed on the security holder's behalf by the issuer of the security in question.

The entry of a transaction in the VPS will generally be decisive in determining the legal rights of parties as against the issuing company or a third party claiming an interest in a security. The VPS is strictly liable for any loss resulting from an error in connection with registering, altering or canceling a right, except in the event of contributory negligence, in which event compensation owed by the VPS may be reduced or withdrawn.

A transferee or assignee of the Company's ordinary shares may not exercise the rights of a shareholder with respect to his or her shares unless the transferee or assignee has registered his or her shareholding or has reported and shown evidence of such share acquisition and the acquisition of such shares is not prevented by law, the Articles of

Association or otherwise.

### ***Shareholder Meetings***

Under Norwegian law, a company's shareholders are to exercise supreme authority in the company through the general meeting.

In accordance with Norwegian law, the Company is required to hold its annual general meeting of shareholders within six months following the end of the fiscal year. In accordance with Norwegian law and Section 11 of the Articles of Association, the following business must be transacted at the annual general meeting:

approval of the annual accounts and annual report for the prior fiscal year, including the distribution of any dividend;

election of the shareholders' members and deputy members to the Corporate Assembly (if subject to election at the annual general meeting); and

any other business to be transacted at the general meeting by law or in accordance with the Articles of Association (i.e., matters listed in the notice convening the meeting).

In addition to the annual general meeting, extraordinary general meetings of shareholders may be held if deemed necessary by the Board of Directors, the Corporate Assembly or the Chairman of the Corporate Assembly. An extraordinary general meeting must also be convened for the consideration of specific matters at the written demand of the Company's auditors or shareholders representing a total of at least five percent of the share capital of the Company.

The Board of Directors is to convene a general meeting of shareholders, including any extraordinary general meeting. A general meeting must be convened by written notice to all shareholders, sent at least 14 days in advance of the meeting date. Shareholders have the right to have an issue discussed at a general meeting. In order to exercise this right, shareholders must deliver written notice to the Board of Directors in sufficient time so that the issue can be included in the notice convening the general meeting. If the Company's notice of the general meeting has already been sent, a new notice as to the convening of the general meeting must be sent if at least two weeks remain before the general meeting is to be held.

Neither Norwegian law nor the Articles of Association provides for any quorum requirement (i.e., a minimum level of voting power to be present, either in person or by proxy, in order to conduct business at any general meeting).

Under Norwegian law, shareholders are entitled to attend and vote at a general meeting, either in person or by a proxy appointed at their own discretion. The right to attend a general meeting cannot be restricted in the Articles of Association. Under Section 10 of the Articles of Association, shareholders or their procurators (proxies) are entitled to attend and to vote at an annual general meeting provided they have informed the Company of their intended attendance at least five days in advance of the meeting date.

### ***Voting Rights***

Subject to the terms of a company's articles of association to the contrary, Norwegian law provides that each outstanding share shall represent a right to one vote. All of the Company's shares (other than shares held by the Company itself or any of its subsidiaries) have an equal right to vote at general meetings and are entitled to one vote per share.

Generally, all matters to be voted on by shareholders must be approved by a majority of the votes cast by all ordinary shares that are present in person or represented by proxy at the general meeting at which such matters are considered. In the case of elections (for example, of members of the Corporate Assembly), the persons who receive the most votes cast are elected. However, certain decisions, including resolutions to:

amend the Articles of Association;

approve a merger or demerger;

authorize an increase or reduction in the Company's share capital; or

waive preferential rights in connection with an increase in share capital must be approved by at least two-thirds of the aggregate number of votes cast at the general meeting at which any such action is before the shareholders for approval.

Any resolution which has the effect of reducing shareholders' rights to a dividend or to the assets of the Company requires the approval of shareholders representing more than 90 percent of the share capital represented at the general meeting at which such action is considered as well as at least two-thirds of the votes cast at that meeting.

Under Norwegian law, certain matters require the unanimous approval of the Company's shareholders, including the taking of any action that would:

increase shareholders' obligations to the Company;

restrict the right to transfer, acquire or own shares in the Company;

subject the shares to compulsory redemption; or

change the legal relationship among previously equal shares.

If any such action would affect less than all shareholders, such action would require the unanimous approval of all affected shareholders as well as at least two-thirds of the votes cast and at least two-thirds of the share capital represented at the general meeting at which such action is considered.

Under Norwegian law, shareholders may not take action by written consent.

The beneficial owners of shares which are registered in the name of a nominee are generally not entitled to vote under Norwegian law, nor are any persons who are designated in the share register as holding such shares as nominees.

### ***Dividends***

Under Norwegian law, any proposal to pay dividends must be made by the Board of Directors and approved by the shareholders at the annual general meeting of shareholders. The dividend cannot exceed the amount proposed or consented to by the Board of Directors. Dividends in respect of a fiscal year are normally determined at the annual general meeting held in the following year. Any dividend approved at a general meeting accrues to those shareholders who are shareholders at the time of shareholder approval, unless otherwise stated in the resolution with respect to such dividend distribution.



Dividends may be paid in cash or in kind. The Norwegian Public Limited Companies Act provides several constraints on the distribution of dividends:

Dividends are payable only out of distributable reserves. Section 8-1 of the Norwegian Public Limited Companies Act provides that distributable reserves consist of the profit for the prior fiscal year (as reflected in the income statement approved by the annual general meeting of shareholders) and the retained profit from previous years (adjusted for any reclassification of equity), less (i) uncovered losses, (ii) the book value of research and development, goodwill and net deferred tax assets (as recorded in the balance sheet, as of the prior fiscal year end, approved by the annual general meeting of shareholders), (iii) the total nominal value of treasury shares which the Company has acquired for ownership or as security in previous fiscal years, and credit and security which, pursuant to Sections 8-7 to 8-9 of the Norwegian Public Limited Companies Act, fall within the limits of distributable equity, and (iv) that part of the profit for the prior fiscal year which, by law or pursuant to the Articles of Association, must be allocated to the undistributable reserve or cannot be distributed as a dividend. Distributable reserves are to be calculated in accordance with Norwegian GAAP.

Dividends cannot be distributed if the Company's equity amounts to less than 10 percent of the total assets, measured with reference to the Company's unconsolidated balance sheet as of the prior fiscal year end, except if the Company follows a creditor notice procedure provided for under the Norwegian Public Limited Companies Act in relation to reductions of share capital.

Dividends can only be distributed to the extent compatible with good and careful business practice, with due regard to any losses which the Company may have incurred since the balance sheet date (i.e., the prior fiscal year end) or which the Company may expect to incur.

The amount of dividends the Company can distribute is calculated on the basis of its unconsolidated financial statements.

Norwegian law does not permit the payment of dividends based on interim results of operations.

Because the Company pays dividends in Norwegian kroner, exchange rate fluctuations will affect the US dollar amounts received by holders of ADSs upon the conversion of cash dividends into US dollars by the Depositary.

### ***Limitations on the Right to Own Ordinary Shares***

There are no restrictions affecting the right of non-Norwegian residents or citizens to own or exercise voting rights with respect to the Company's ordinary shares. However, based on a 1917 law as amended in 1994, which applies to Norwegian companies engaged in hydropower, mining and real estate, no person or entity may acquire more than 20 percent (or the right to vote more than 20 percent) of the share capital of the Company, and no group of two or more persons may, whether by mutual agreement or by family relationship, jointly or separately acquire an aggregate of more than 20 percent of the share capital of the Company or 20 percent of its voting rights unless such person or persons obtain the consent of the Norwegian government. The Depositary and The Depositary Trust Company have been granted a concession from the Norwegian government to hold up to 25 percent of the Company's ordinary shares in their respective capacities as depositaries.

### ***Restrictions on Transfer***

Except in certain circumstances, no acquirer of ordinary shares is entitled to any of the rights of a shareholder unless and until he has registered the transfer in the Company's share registry in the VPS. Under Norwegian law, the transferor must ensure that the VPS is notified of any change of ownership immediately after it has taken place.



The Articles of Association do not contain any provisions restricting the transferability of ordinary shares other than that the Board of Directors may refuse to consent to the transfer of ordinary shares and may take such other steps as may be necessary to prevent ordinary shares from being transferred if in contravention of the restrictions, if any, then provided by applicable Norwegian law. If the Board of Directors refuses to consent to a transfer of ordinary shares, the Board must, without delay, notify the transferee of the decision as well as the reasons for such refusal and what is required in order to remedy the matter. If the transferee has not been notified of a refusal to grant consent within two months of the date of the VPS's receipt of notice of the acquisition, the Board's consent shall be regarded as having been granted. If the Board refuses to grant its consent to the acquisition of the ordinary shares, the transferee may (i) rescind the purchase agreement with the transferor (unless otherwise provided in such agreement), (ii) dispose of the shares, or (iii) bring a legal action against the Company with respect to the refusal to grant consent. Any of the foregoing actions must be taken within two months from when the transferee receives notice of the Board's refusal of consent to the transfer. If the transferee fails to act in a timely manner, the Board of Directors may demand that the shares be sold.

### ***Additional Issuances and Preferential Rights***

All issuances of ordinary shares by the Company, including bonus issues (share dividends), require an amendment of the Articles of Association (which specifies the Company's share capital) and, thus, shareholder approval. In connection with an increase in the Company's share capital by a subscription for shares against cash contributions, Norwegian law provides the Company's shareholders with a preferential right to subscribe for the new shares on a *pro rata* basis in accordance with their then-current shareholdings in the Company. The preferential rights to subscribe to an issue may be waived by a resolution in a general meeting passed by the same vote required to approve amendments to the Articles of Association.

The general meeting may, with a vote as described above, authorize the Board of Directors to issue new shares. Such authorization may be effective for a maximum of two years, and the nominal or par value of the shares to be issued may not exceed 50 percent of the nominal share capital when the authorization was granted. Under Norwegian law, the general meeting must also approve the waiver of the preferential rights of shareholders in connection with such issuances.

Shareholders' preferential rights, if any, are *pro rata* in accordance with their relative holdings in the Company's ordinary shares at the time of such issuance. If not all shareholders exercise their preferential rights (or not all shareholders exercise such rights in full), shareholders who have exercised their preferential rights and want to acquire additional shares may subscribe for those shares which have not been subscribed for, generally on a *pro rata* basis based on the number of shares for which preferential rights have been exercised. Under Norwegian law, preferential rights cannot be set aside in the Articles of Association.

The Company's Articles of Association provide that if the share capital is increased, and provided the Norwegian law then in effect so permits, preferential subscription rights shall be reserved in connection with each such capital increase, on the conditions stipulated by the Board of Directors, for up to:

0.83 percent of the increase for holders of the 83 unredeemed founder certificates, and

2.79 percent of the increase for holders of the 4,343 unredeemed subscription certificates.

These preferential rights shall not apply if the increase is made in order to allot shares to third parties as compensation for their transfer of assets to the Company.

Under Norwegian law, bonus issues (share dividends) of the Company's ordinary shares may be distributed, subject to shareholder approval, from amounts which (i) could otherwise be distributed as dividends, or (ii) may be



created by transferring funds from the Company's share premium reserve or from retained earnings available for dividends. Such bonus issues (share dividends) may be effected either by issuing new ordinary shares, allotted to the Company's shareholders on a *pro rata* basis, or by increasing the nominal value of the ordinary shares outstanding.

### ***Redemption of the Ordinary Shares***

The Articles of Association do not currently contain any provisions regarding the redemption of the Company's ordinary shares. Under Norwegian law, a company may, upon a motion by its board of directors and subject to obtaining shareholder approval, reduce its share capital to:

cover a loss which cannot be covered in any other way;

effect a distribution to shareholders;

effect a stock repurchase plan by the company; or

allocate amounts from share capital to reserves to be used in accordance with the resolution adopted by the shareholders.

The reduction in share capital may be implemented by a redemption of ordinary shares or by a reduction in the nominal value of the shares.

### ***Related Party Transactions***

Under Norwegian law, an agreement to acquire assets or services from a shareholder or connected person (e.g., a spouse or significant other, and other family members) of such shareholder or which involves consideration from the Company in excess of 1/20th of the Company's share capital at the time of such acquisition is not binding on the Company unless the agreement has been approved by a general meeting. Business agreements in the normal course of the Company's business containing pricing and other terms and conditions which are normal for such agreements, as well as the purchase of securities at a price which is in accordance with the official quotation, do not require such approval. Any performance of an agreement which is not binding on the Company must be reversed.

### ***Minority Rights***

Norwegian law contains a number of protections for minority shareholders against oppression by the majority. Any shareholder may petition the courts to have a decision of the Board of Directors or general meeting declared invalid on the grounds that it unreasonably favors certain shareholders or third parties to the detriment of other shareholders or the Company itself. In certain grave circumstances, shareholders may require the courts to dissolve the Company as a result of such decisions. Shareholders holding in the aggregate five percent or more of the Company's share capital have a right to demand that the Company hold an extraordinary general meeting to discuss or resolve specific matters. In addition, any shareholder may demand that the Company place an item on the agenda for any general meeting if the Company is notified in time for such item to be included in the notice of the meeting.

### ***Rights Upon Dissolution and Winding Up***

Any decision by a Norwegian company to dissolve generally requires the approval of two-thirds of the votes cast by its shareholders, as well as two-thirds of the share capital represented at the general meeting called to vote on the issue. If any conditions have occurred which, in accordance with a company's articles of association, must result in the dissolution of the company, or if the company must be dissolved as a result of a statutory provision, the shareholder proposal with respect to the company's dissolution requires approval of the majority of votes cast at the general meeting called to vote on the proposal. In the event of a dissolution, liquidation or winding up of the Company, the holders of ordinary shares are entitled to share ratably in all assets remaining after payment of all liabilities of the Company.

***Obligations upon Acquiring Certain Percentages of the Company's Shares***

Norwegian law requires any person, entity or group acting in concert that acquires more than 40 percent of the voting rights of a Norwegian company listed on the Oslo Stock Exchange (OSE) to make an unconditional general offer to acquire the whole of the outstanding share capital of that company. The offer is subject to approval by the OSE before submission of the offer to the shareholders. The offer must be in cash or contain a cash alternative at least equivalent to any other consideration offered. The offering price per share must be at least as high as the highest price paid by the offeror in the six-month period prior to the date the 40 percent threshold was exceeded, but equal to the market price if the market price was higher when the 40 percent threshold was exceeded. A shareholder who fails to make the required offer must, within four weeks, dispose of sufficient shares so that the obligation ceases to apply. Otherwise, the OSE may cause the shares exceeding the 40 percent limit to be sold by public auction. A shareholder who fails to make such offer cannot, as long as the mandatory offer requirement remains in force, vote the portion of his shares that exceed the 40 percent limit or exercise any rights of share ownership in respect of such shares, unless a majority of the remaining shareholders

approve. However, such shareholder retains the right to receive dividends and preferential rights in the event of a share capital increase. In addition, the OSE may impose a daily fine upon a shareholder who fails to make the required offer.

If a shareholder, directly or via subsidiaries, acquires shares representing more than 90 percent of the total number of issued shares as well as more than 90 percent of the total voting rights attached to those shares, then the majority shareholder has the right (and each remaining minority shareholder of that company has the right to require the majority shareholder) to effect a compulsory acquisition for cash of any shares not already owned by the majority shareholder. A compulsory acquisition results in the majority shareholder becoming the owner of the shares of the minority shareholders with immediate effect. Upon effecting the compulsory acquisition, the majority shareholder must offer the minority shareholders a specific price per share and to pay the consideration offered to a separate bank account for the benefit of the minority shareholders. The determination of the price per share would be at the discretion of the majority shareholder. If any minority shareholder does not accept the offered price, such minority shareholder may, within a specified period of not less than two months, request that the price be set by the Norwegian courts. The cost of the court procedure would normally be charged to the account of the majority shareholder, and the courts would have full discretion in determining the consideration due the minority shareholder as a result of the compulsory acquisition.

### **Transfers and Other Changes in Ownership of the Company's Shares by Directors and Officers**

Under Norwegian law, the individual members of the Board of Directors, the President and Chief Executive Officer, and other key employees must immediately notify the Board of Directors of both their own and their personal connected persons' sale or acquisition of the Company's shares or other securities. Such sale or acquisition must also be reported to the OSE, which will promptly publish the notice through its information system.

### **Insider Trading Legislation**

Under Norwegian law, the subscription, purchase, sale or exchange of securities that are listed must not be undertaken by anyone who has information about the securities, the issuer thereof, or other factors which may influence the price of the securities, and which is not publicly available or generally known in the market. No member of the board or auditor associated with the company issuing securities may subscribe for, or incite anyone to subscribe for, purchase, sell or exchange financial instruments connected to the issuing company without properly investigating whether there exists such information. This applies correspondingly to deputy members and observers of the board of directors, senior employees of the company and senior employees and board members of a company in the same group who can normally be expected to have access to such information. The same restrictions apply to entering into the purchase, sale or exchange of derivative rights connected to such securities.

### **Description of American Depositary Receipts**

The following is a summary of certain provisions of the Amended and Restated Deposit Agreement, dated as of October 1, 1987, as amended by Amendment No. 1, dated May 27, 1999 (the **Deposit Agreement**), among the Company, JPMorgan Chase Bank (as successor in interest to Morgan Guaranty Trust Company of New York), as Depositary and holders from time to time of the ADRs issued by the Depositary under the Deposit Agreement. An ADR is the physical certificate that evidences any number of American depositary shares (ADSs). Subject to the terms of the Deposit Agreement, each ADS represents rights attributable to one ordinary share of the Company.

This summary is not intended to be a complete description of the Deposit Agreement. Copies of the Deposit Agreement are available for inspection at the Depositary's office located at 60 Wall Street, New York, New York 10260 (the **"Depositary's Office"**) and at the principal Oslo office of Den norske Bank (the **"Custodian"**) or any

successor or additional custodian.

The Deposit Agreement and the ADRs are governed by New York law.

### ***Deposit of Ordinary Shares***

A person or entity may register ordinary shares of the Company in the VPS System in the name of the Depository (as a nominee of such person or entity and not as a beneficial owner of such shares). Ordinary shares (or evidence of rights to receive ordinary shares) may be deposited through:

electronic transfer of such shares to the account of the Depository in the Company's share registry on the VPS System, or

evidence, satisfactory to the Custodian, of irrevocable instructions to cause the ordinary shares to be transferred to the Depository's account, together with related documentation specified in the Deposit Agreement.

Subject to the terms and conditions of the Deposit Agreement, upon each deposit of ordinary shares, receipt of related delivery documentation and compliance with the other provisions of the Deposit Agreement, including the payment of the fees and charges of the Depository and any taxes or other fees or charges owing, the Depository will issue an ADR or ADRs in the name of the person or entity entitled to such ADR(s) evidencing the number of ADSs to which such person or entity is entitled. Certificated ADRs will be delivered at the Depository's Office.

The Depository may issue ADRs prior to the deposit of ordinary shares (or rights to receive ordinary shares), referred to in the Deposit Agreement as a pre-release, only if: (i) the ADRs are fully collateralized (marked to market daily) with cash or U.S. government securities until the ordinary shares are deposited in the Depository's name; (ii) the applicant for the ADRs represents in writing that it owns the ordinary shares, has assigned all beneficial right, title and interest in such ordinary shares to the Depository, and will not dispose of such ordinary shares other than in satisfaction of the pre-release; and (iii) all such ADRs represent not more than 20 percent of all ADSs (excluding those evidenced by pre-released ADRs). The collateral shall be held for the benefit of the ADR holders. The Depository may retain for its own account any compensation for the issuance of ADRs in connection with a pre-release, including any earnings on the held collateral.

### ***Transfer of ADRs***

The ADRs are transferable on the books of the Depository; provided, however, that the Depository may close the transfer books at any time or from time to time when deemed expedient by it in its reasonable judgment in connection with the performance of its duties. As a condition precedent to the execution and delivery, registration of transfer, split-up, or combination or surrender of, any ADR, or transfer and withdrawal of ordinary shares, the Depository or the Custodian may require payment from the person presenting the ADR or the depositor of the ordinary shares of a sum sufficient to reimburse it for any taxes or other governmental charges and any stock transfer or registration fees with respect the ADR or ordinary shares and payment of any applicable fees payable by the holders of ADRs. The Depository may refuse to deliver an ADR, register the transfer of any ADR or make any distribution of, or related to, ordinary shares until it or the Custodian has received such proof of citizenship, residence, exchange control approval, legal or beneficial ownership or other information as it may deem necessary or proper or as the Company may require by written request to the Depository or the Custodian. The delivery, transfer and surrender of ADRs generally may be suspended during any period when the transfer books of the Depository are closed, or if any such action is deemed necessary or advisable by the Depository or the Company at any time or from time to time because of any requirement of law or of any government or governmental body or commission, or under any provision of the Deposit Agreement, or for any other reason.

### ***Surrender of ADRs for purposes of Receiving Ordinary Shares and Other Deposited Securities***

An ADR holder may surrender its ADRs at the Depository's Office for the purpose of withdrawal of the ordinary shares represented thereby, together with all securities, property and cash



received by the Depositary or the Custodian in respect of or in lieu of such ordinary shares (collectively, the **Deposited Securities** ). Upon such surrender, the payment of applicable fees, charges and taxes, and delivery of proper instructions, the holder is entitled to have the ordinary shares relating to the surrendered ADRs registered in the name of the holder (or such other name as the holder may request) in the VPS System. The holder is also entitled to delivery, at the Depositary's Office or at the office of the Custodian, of a certificate or certificates for, or other documents of title to, the Deposited Securities, if any, not registered in the VPS System that are then represented by the surrendered ADRs. At the Depositary's discretion, the Depositary may make delivery of any cash, dividends, distributions or rights with respect to the amount of the Deposited Securities evidenced by the surrendered ADRs, or any proceeds of sale of such cash, dividends, distributions or rights held by the Depositary.

Under the terms of the Deposit Agreement, the Depositary may refuse or suspend the surrender of outstanding ADRs only in connection with:

temporary delays caused by closing the transfer books of the Depositary or the Company, the deposit of ordinary shares in connection with voting at a shareholders' meeting, or the payment of dividends;

the payment of fees, taxes and similar charges; or

compliance with any laws or governmental regulations relating to the ADRs or to the withdrawal of Deposited Securities.

#### ***Dividends and Other Distributions***

The Company may make various types of distributions with respect to its ordinary shares. Under the terms of the Deposit Agreement, the Depositary has agreed to pay ADR holders the cash dividends and other distributions received by the Custodian on any Deposited Securities. ADR holders shall receive these distributions, in proportion to the number of ADSs held by them, in the following manner:

#### **Cash Distributions**

Whenever the Depositary receives any cash dividend or other cash distribution by the Company on any Deposited Securities, the Depositary is to convert such dividend or distribution into US dollars and remit the amount received, net of applicable taxes and governmental charges, to the ADR holders, net of any amounts required to be withheld by the Company, the Custodian or the Depositary on account of taxes or other governmental charges and reasonable and customary expenses incurred by the Depositary, if any, in the conversion of currency.

The Depositary will distribute only such amount of the net cash dividend or other cash distribution as can be distributed without attributing to any ADR holder a fraction of one cent. Any balance not distributable on that basis will be held by the Depositary (without liability for interest on such balance) and added to the next sum received by the Depositary for distribution to holders of then outstanding ADRs.

If the Depositary receives any currency other than US dollars, the Depositary is required, to the extent that in its judgment it can convert such currency on a reasonable basis into US dollars and transfer the resulting US dollars to the United States, to convert all cash dividends and other cash distributions which it receives in respect of the Deposited Securities into US dollars. If the Depositary determines, in its judgment, that such other currency received by it cannot be so converted or transferred (or if any approval or license of a governmental authority or agency of the United States required for such conversion is denied or is not obtainable or is not obtained within a reasonable period as determined by the Depositary), the Depositary may distribute such other currency (or documentation evidencing the right to receive the same) or, in its discretion, hold such currency for the respective





accounts of the ADR holders entitled to receive the same. If any conversion of currency, in whole or in part, cannot be effected for distribution in US dollars to some of the ADR holders, the Depositary may, in its discretion, convert the currency into US dollars and distribute the same to ADR holders for whom such conversion and distribution is practicable and distribute the balance of such currency to, or hold such balance for, the accounts of the ADR holders for whom such conversion and distribution is not practicable.

#### Distributions of Ordinary Shares

If a distribution by the Company consists of a dividend in, or distribution of, ordinary shares, the Depositary may, with the Company's approval, and shall, if the Company so requests, distribute to the ADR holders additional ADRs for an aggregate number of ADSs representing the number of ordinary shares received as such dividend or distribution. In lieu of delivering ADRs for fractional ADSs, the Depositary may sell the amount of ordinary shares represented by the aggregate of such fractions and distribute the net proceeds in the manner described with respect to cash distributions. If additional ADRs are not so distributed (other than with respect to fractional ADSs), each ADS will then represent the additional ordinary shares distributed upon the Deposited Securities represented thereby.

#### Distributions other than Cash or Ordinary Shares

If the Depositary receives any distribution upon the Deposited Securities in a form other than cash or the Company's ordinary shares (e.g., other securities or property), the Depositary is to distribute the same in any manner that the Depositary deems equitable and practicable. If, in the opinion of the Depositary, it cannot distribute such distribution (for example, because of its determination that such distribution in the United States would be unlawful) or cannot do so proportionately among the ADR holders, the Depositary may, with the Company's approval, adopt such method as it deems equitable and practicable to effect the distribution, including the sale (at public or private sale) of the securities or other property distributed, or any part of the distribution, and then distribute the net proceeds of any such sale in the manner described with respect to cash distributions.

#### ***Subscription Rights***

In the event that the Company offers (or causes to be offered) to the holders of any Deposited Securities any rights to subscribe for additional ordinary shares or any rights of any other nature, the Depositary, after consultation with the Company, has discretion to (i) follow a procedure to make such rights available to the ADR holders, or (ii) dispose of such rights and make the net proceeds available in US dollars to such holders. However, if requested by the Company, the Depositary is to either:

- (a) if lawful and feasible at the time of the rights offering, make such rights available to ADR holders by means of warrants or other instruments, or employ another method deemed feasible to facilitate the exercise, sale or transfer of the rights by the ADR holders; or
- (b) if not then lawful and feasible by means of warrants or other instruments (or if the rights represented by such warrants or other instruments are not exercised and appear to be about to lapse), sell such rights or such warrants or other instruments at public or private sale on terms the Depositary deems proper, and allocate the proceeds of any such sale for the accounts of the ADR holders, upon an averaged or other practicable basis without regard to distinctions among ADR holders because of the application of exchange restrictions applicable to any particular ADR holder(s), the date of delivery of ADRs or otherwise.

#### ***Record Dates***

Whenever any cash dividend or other cash distribution, if any, becomes payable or any distribution other than cash is made, or rights are issued, with respect to the Deposited Securities, or whenever the Depositary receives notice

of any meeting of holders of ordinary shares or other Deposited Securities, the Depositary will, after consultation with the Company, if the Company so

requests, fix a record date for the determination of the ADR holders who will be entitled to receive such dividend, distribution or rights, or the net proceeds of the sale of the dividend, distribution or rights, to give instructions for the exercise of voting rights at any such meeting.

***Voting of the Underlying Ordinary Shares***

Upon receipt of notice of any meeting of holders of ordinary shares or other Deposited Securities, the Depositary is obligated, as soon as practicable thereafter, to mail to ADR holders (i) a notice containing a summary of such information as is contained in such notice of meeting and a statement that ADR holders at the close of business on a specified record date will be entitled, subject to applicable Norwegian law and the Company's articles of association, to instruct the Depositary as to the exercise of voting rights, if any, pertaining to the ordinary shares or other Deposited Securities underlying their ADSs, and (ii) a statement as to the manner in which such instructions may be given, including an express indication that instructions may be given to the Depositary to give a discretionary proxy to a person designated by the Company. Upon the written request of an ADR holder on such record date, received on or before the date established by the Depositary for such purpose, the Depositary will endeavor insofar as practicable to vote or cause to be voted the ordinary shares or other Deposited Securities under the ADSs evidenced by the holder's ADRs in accordance with any non-discretionary instructions set forth in such request. Under the Company's articles of association, notice of shareholders' meeting must be given at least 14 days in advance of the meeting. Unless notification of a meeting is given in sufficient time to permit the Depositary to notify ADR holders of the proposed meeting and to allow holders to take the steps described above, ADR holders will not be able to exercise voting rights with respect to the ordinary shares underlying their ADRs.

The Depositary will not, under any circumstances, exercise any discretion as to voting. Further, the Depositary will not vote the ordinary shares or other Deposited Securities represented by ADRs other than in accordance with the written instructions received from ADR holders.

***Reports and Notices***

The Depositary will make available for inspection by ADR holders at the Depositary's Office any reports and communications received from the Company which are both (a) received by the Depositary or its nominee or nominees as the holder of the Deposited Securities, and (b) made generally available to the holders of such Deposited Securities by the Company. The Depositary will mail to ADR holders copies of notices of shareholder meetings (or adjournments thereof) furnished by the Company to the Custodian, the taking of any action in respect of cash or other distributions, or any rights offering.

***Amendment and Termination of the Deposit Agreement***

The form of the ADRs and the Deposit Agreement may at any time be amended by agreement between the Company and the Depositary. Any amendment which imposes or increases any fees or charges (other than stock transfer or other taxes and other governmental charges, transfer or registration fees, cable, telex or facsimile transmission costs, delivery costs, and expenses of the Depositary in connection with conversion of any currency into US dollars) or which otherwise prejudices any substantial existing right of ADR holders, will not take effect as to outstanding ADRs until the expiration of three months after the Depositary has given notice of such amendment to the ADR holders. Every ADR holder at the time such amendment becomes effective will be deemed, by continuing to hold such ADR(s), to consent and agree to such amendment and to be bound by the Deposit Agreement as amended thereby. In no event may any amendment impair the rights of any ADR holder to surrender its ADRs and receive the Deposited Securities represented thereby.

Whenever so directed by the Company, the Depositary has agreed to terminate the Deposit Agreement by mailing notice of such termination to the holders of the ADRs then outstanding at least 60 days prior to the date fixed

in such notice for such termination. The Depositary may likewise terminate the Deposit Agreement at any time 60 days after the Depositary has delivered to the Company

a notice of its election to resign if a successor depositary has not, within the 60-day period, been appointed and accepted its appointment as provided in the Deposit Agreement. If any ADRs remain outstanding after the termination date, the Depositary will then discontinue the registration of transfer of ADRs, suspend the distribution of dividends to the holders and not give any further notices or perform any further acts under the Deposit Agreement. The Depositary will continue to collect dividends and other distributions pertaining to the Deposited Securities, sell rights as provided in the Deposit Agreement, deliver ordinary shares and other property represented by ADRs and the net proceeds of the sale of any rights or other property, in exchange for surrendered ADRs. At any time after the expiration of two years from the termination date, the Depositary may sell the Deposited Securities and hold the net proceeds, together with any other cash then held, without liability for interest, for the *pro rata* benefit of the holders of ADRs which have not previously been surrendered.

### ***Charges of Depositary***

The Depositary will charge the party to whom ADRs are delivered against deposits, and the party surrendering ADRs for delivery of ordinary shares or other deposited securities, property and cash, \$5.00 for each 100 ADSs (or fraction thereof) represented by the ADRs issued or surrendered. The Company will pay all other charges of the Depositary and those of any registrar or co-registrar under the Deposit Agreement, except for taxes and other governmental charges, any applicable share transfer or registration fees on deposits or withdrawals of ordinary shares, certain cable, telex, facsimile transmission and delivery charges and such expenses as are incurred by the Depositary in the conversion of foreign currency into US dollars. The Company will pay all charges and expenses of the Depositary in connection with the initial issuance of ADRs payable as a dividend or distribution to shareholders and in connection with any rights offering to shareholders. The charges and expenses of the Custodian are for the sole account of the Depositary.

### ***Limitations on Obligations and Liability to ADR Holders***

Neither the Depositary nor the Company will be liable to the holders of ADRs if prevented or delayed by law, governmental authority, any provision of the Company's articles of association or any circumstances beyond its control in performing its obligations under the Deposit Agreement or if obliged to do or perform any act or thing inconsistent with the provisions of the Deposit Agreement. The obligations of the Company and the Depositary under the Deposit Agreement are expressly limited to using their best judgment and good faith in performing their respective duties specified in the Deposit Agreement.

Neither the Depositary nor the Company has any obligation to appear in, prosecute or defend any action, suit or other proceeding in respect of any Deposited Securities or the ADRs which, in its opinion, may involve it in expense or liability, unless indemnity satisfactory to it against all expense (including fees and disbursements of counsel) and liability is furnished as often as may be required.

The Depositary will not be responsible for any failure to carry out any instructions to vote any of the Deposited Securities, or for the manner in which any vote is cast or the effect of any such vote, provided that any such action or failure to act is in good faith.

The Depositary, subject to the laws of Norway, the Company's articles of association and the terms of the Deposit Agreement, may own and deal in any class of the Company's securities and in ADRs.

## **ITEM 10.C. MATERIAL CONTRACTS**

Item 10.C. of Form 20-F requires a summary of each material contract, other than contracts entered into in the ordinary course of business, to which the Company or any member of the Group is a party, for the two years

immediately preceding publication of the Form 20-F. Hydro is of the view that, with the exception of the Demerger Plan, all material contracts entered into by the Company or any member of the Group during this time period have been entered into in the ordinary course of business.

## ITEM 10.D. EXCHANGE CONTROLS

Under Norwegian foreign exchange controls currently in effect, transfers of capital to and from Norway are not subject to prior government approval except for the physical transfer of payments in currency, which is restricted to licensed banks. Thus, non-Norwegian resident shareholders may receive dividend payments without a Norwegian exchange control consent as long as the payments are made through a licensed bank.

## ITEM 10.E. TAXATION

### United States Federal Income Tax Consequences

The following discussion outlines certain potential United States federal income tax consequences of the acquisition, ownership and disposition of the Company's ordinary shares or ADSs. The discussion generally applies to a U.S. holder (as defined below) of ordinary shares or ADSs that holds the same as capital assets for tax purposes. This discussion does not apply to certain U.S. holders subject to special rules, such as dealers in securities, traders in securities that elect to use a mark-to-market method of accounting for their securities holdings, tax-exempt entities (including pension plans), life insurance companies, persons liable for alternative minimum tax, persons that hold ordinary shares or ADSs through a partnership or other pass-through entity, persons that hold shares or ADSs as part of a straddle or a hedging or conversion transaction or persons whose functional currency is not the US dollar.

This discussion is based on the Internal Revenue Code of 1986, as amended (the **Code**), its legislative history, existing and proposed regulations, published rulings and court decisions, and the Convention between the United States and the Kingdom of Norway for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and Property (the "**Treaty**"). These authorities are subject to change at any time, possibly on a retroactive basis. In addition, this discussion is based in part upon the representations of the Depositary and the assumption that each obligation in the Deposit Agreement and any related agreement will be performed in accordance with its terms.

A holder of ordinary shares or ADSs is a **U.S. holder** if the holder is a beneficial owner of such shares or ADSs and is (i) a citizen or resident of the United States, (ii) a corporation created or organized in or under the laws of the United States or any political subdivision thereof, (iii) an estate whose income is subject to United States federal income tax regardless of its source, or (iv) a trust, if a court in the United States can exercise primary supervision over the trust's administration and one or more United States persons are authorized to control all substantial decisions of the trust.

A **non-U.S. holder** is a beneficial owner of ordinary shares or ADSs that is not a U.S. holder.

The Company recommends that you consult your own tax advisor regarding the U.S. federal, state, local and other tax consequences of acquiring, owning and disposing of ordinary shares and ADSs in your particular circumstances.

Taking into account the above assumptions, for U.S. federal income tax purposes, if you hold ADRs evidencing ADSs, you generally will be treated as the owner of the ordinary shares represented by those ADSs.

### *Taxation of Dividends*

A non-Norwegian shareholder is generally subject to a withholding tax at a rate of 25 percent on dividends distributed by Norwegian companies, unless the non-Norwegian shareholder is carrying on business activities in Norway and such shares are effectively connected with such activities. The withholding tax of 25 percent may be



lower pursuant to tax treaties between Norway and the country in

which the shareholder is resident. The Treaty rate is generally 15 percent. The Treaty withholding tax rate will generally apply to dividends paid on shares held directly by U.S. holders that are residents of the United States within the meaning of the Treaty.

Dividends paid to the Depositary for redistribution to U.S. holders will generally be subject to a withholding tax of 15 percent. If you are a U.S. holder, you must generally include in your gross income for United States federal income tax purposes as a dividend the gross amount of any distribution made by the Company out of its current or accumulated earnings and profits (as determined for United States federal income tax purposes). You must include in gross income any Norwegian tax withheld from any dividend even though you do not, in fact, receive the amount withheld as tax. You must include any dividend in income when you (in the case of shares) or the Depositary (in the case of ADSs) receive the dividend, actually or constructively. The dividend will not be eligible for the dividends-received deduction generally allowed to United States corporations in respect of dividends received from other United States corporations.

For taxable years beginning after December 31, 2002, and before January 1, 2009, dividends received by U.S. holders that are individuals, estates or trusts from qualified foreign corporations, as defined in Section 1(h)(11) of the Code, generally are taxed at the preferential tax rates applicable to long-term capital gains. Section 1(h)(11) of the Code defines a qualified foreign corporation as a foreign corporation the stock of which is readily tradable on an established securities market in the United States (including through ADRs) or a foreign corporation that is eligible for the benefits of one of certain comprehensive income tax treaties with the United States that include an exchange of information program. The Company expects that it will constitute a qualified foreign corporation provided that it is not treated as a Foreign Personal Holding Company, Foreign Investment Company, or Passive Foreign Investment Company, which it believes will be the case. There can be no assurance, however, that the Company will not be treated as a Foreign Personal Holding Company, Foreign Investment Company, or Passive Foreign Investment Company in the current or future taxable years. Dividends received in a taxable year when the Company does not constitute a qualified foreign corporation, or in a taxable year immediately after one in which the Company did not constitute a qualified foreign corporation, will be subject to U.S. federal income tax at ordinary income tax rates.

The U.S. Department of the Treasury and the Internal Revenue Service expect to issue regulations providing procedures for a foreign corporation to certify that it is a qualified foreign corporation. It is expected that these regulations will require persons required to file information returns to report a distribution with respect to a foreign security issued by a foreign corporation as a dividend from a qualified foreign corporation if the foreign corporation has, among other things, certified under penalties of perjury that the foreign corporation is not, in the taxable year of the corporation in which the distribution was paid, and was not in the preceding taxable year, a Foreign Personal Holding Company, Foreign Investment Company, or Passive Foreign Investment Company.

The Company anticipates certifying that it is a qualified foreign corporation for the year ending December 31, 2004.

In addition to the foregoing requirements, a dividend received by a U.S. holder is taxed at the rate applicable to long-term capital gains only if the U.S. holder satisfies certain holding period requirements. Thus, a dividend on ordinary shares or ADSs is taxed at preferential rates only if the U.S. holder receiving the dividend has held such ordinary shares or ADSs for at least 61 days during the 121-day period beginning 60 days before the first date when such ordinary shares or ADSs could be sold without an entitlement to the dividend (the ex-dividend date). The dividend rules are complex and the Company recommends that a U.S. holder consult his or her own tax advisor regarding the dividend rules and how these rules may affect his or her U.S. federal, state, local and other income tax situation.



The amount of the dividend that any U.S. holder must include in income is the US dollar value of the gross amount of the Norwegian kroner dividend, determined at the spot Norwegian kroner/US dollar exchange rate on the date the dividend distribution is included in your income, regardless of whether the payment is, in fact, converted into US dollars.

Distributions to a U.S. holder in excess of such holder's pro rata share of the Company's current and accumulated earnings and profits, as determined for United States federal income tax purposes, will be treated as a nontaxable return of capital to the extent of your tax basis in the ordinary shares or ADSs and, to the extent such distribution exceeds your tax basis, the distribution will be treated as capital gain.

Subject to certain limitations, the 15 percent Norwegian tax withheld in accordance with the Treaty and paid over to Norway will be creditable against your United States federal income tax liability. Dividends will be income from sources outside the United States, but generally will be passive income or financial services income, which is treated separately from other types of income, for purposes of computing the foreign tax credit allowable to you. Alternatively, you may elect to claim a U.S. tax deduction, instead of a foreign tax credit, for such Norwegian tax, but only for a year in which you elect to do so with respect to all foreign income taxes.

Any gain or loss resulting from currency exchange fluctuations during the period from the date you include the dividend payment in income to the date you convert the payment into US dollars generally will be treated as ordinary income or loss. Such gain or loss generally will be income or loss from sources within the United States for foreign tax credit limitation purposes.

If you are a non-U.S. holder, dividends paid to you in respect of ordinary shares or ADSs will not generally be subject to United States federal income tax unless the dividends are effectively connected with the conduct of a trade or business within the United States or are attributable to a permanent establishment or fixed base that you maintain in the United States (if that is required by an applicable income tax treaty as a condition for subjecting you to United States taxation on a net income basis). In such cases, you will generally be taxed in the same manner as a U.S. holder. If you are a corporate non-U.S. holder, effectively connected dividends may, under certain circumstances, be subject to an additional branch profits tax at a 30 percent rate or at a lower rate if you are eligible for the benefits of an income tax treaty that provides for a lower rate.

### ***Taxation of Capital Gains***

If you are a U.S. holder and you sell or otherwise dispose of your ordinary shares or ADSs, you will generally recognize capital gain or loss for United States federal income tax purposes equal to the difference between the US dollar value of the amount that you realize and your tax basis, determined in US dollars, in your ordinary shares or ADSs. Capital gain of a non-corporate U.S. holder is generally taxed at a maximum rate of 15 percent where the property has been held for more than one year. The gain or loss will generally be income or loss from sources within the United States for foreign tax credit limitation purposes. If you receive any foreign currency on the sale of ordinary shares or ADSs, you may recognize U.S.-source ordinary income or loss as a result of currency fluctuations between the date of the sale of the ordinary shares or ADSs and the date the sales proceeds are converted into US dollars.

If you are a non-U.S. holder, you will not be subject to United States federal income tax on gain recognized on the sale or other disposition of your ordinary shares or ADSs unless: (i) the gain is effectively connected with a trade or business in the United States, or the gain is attributable to a permanent establishment or fixed base in the United States (if that is required by an applicable income tax treaty), or (ii) if you are an individual, you are present in the United States for at least 183 days in the taxable year of the sale, and certain other conditions exist. If you are a corporate non-U.S. holder, effectively connected gains that you recognize may also, under certain circumstances, be subject to an additional branch profits tax at a rate of 30 percent or at a lower rate if you are eligible for the benefits of

an income tax treaty that provides for a lower rate.

### ***Passive Foreign Investment Company (PFIC) Rules***

The Company believes that its ordinary shares and ADSs should not be treated as shares of a passive foreign investment company, or PFIC, for United States federal income tax purposes. However, this conclusion is a factual determination that is made annually and may, therefore, be subject to change.

A PFIC is defined as a corporation that is not formed in the United States and, for any taxable year, either (i) 75% or more of its gross income is passive income or (ii) the average percentage, by fair market value (or, if the corporation is not publicly traded and either is a controlled foreign corporation or makes an election, by adjusted tax basis), of its assets that produce or are held for the production of passive income is 50% or more. Passive income generally includes dividends, interest, certain rents and royalties, certain gains from the sale of stock and securities, and certain gains from commodities transactions.

For purposes of the PFIC income test and the assets test, if a foreign corporation owns (directly or indirectly) at least 25% by value of the stock of another corporation, such foreign corporation shall be treated as if it (a) held a proportionate share of the assets of such other corporation, and (b) received directly its proportionate share of the income of such other corporation. Also, for purposes of such PFIC tests, passive income does not include any interest, dividends, rents or royalties that are received or accrued from a related person to the extent such amount is properly allocable to the income of such related person which is not passive income.

U.S. holders owning shares of a PFIC are subject to the highest rate of tax on ordinary income in effect for the applicable taxable year and to an interest charge based on the value of deferral of tax for the period during which the shares of the PFIC are owned with respect to certain excess distributions on and certain dispositions of PFIC stock. However, if the U.S. holder makes a timely election to treat a PFIC as a qualified electing fund ( QEF ) with respect to such shareholder's interest therein, the above-described rules generally will not apply. Instead, the electing U.S. holder would include annually in his gross income his pro rata share of the PFIC's ordinary earnings and net capital gain regardless of whether such income or gain was actually distributed. A U.S. holder of a QEF may, however, elect to defer the payment of U.S. federal income tax on such income inclusions. In addition, subject to certain limitations, U.S. holders owning, actually or constructively, marketable stock (as specifically defined) in a PFIC will be permitted to elect to mark that stock to market annually, rather than be subject to the tax regime described above. Amounts included in or deducted from income under this alternative (and actual gains and losses realized upon disposition, subject to certain limitations) will be treated as ordinary gains or losses.

The Company believes that it was not a PFIC for its fiscal year ended December 31, 2003. However, there can be no assurance that the Company will not be considered a PFIC for the current or any future taxable year. There can be no assurance that the Company's determination concerning its PFIC status will not be challenged by the IRS, or that it will be able to satisfy record keeping requirements that will be imposed on QEFs in the event that it qualifies as a PFIC.

If you are a U.S. holder and you own shares or ADSs during any year that the Company is a PFIC, you must generally file Internal Revenue Service Form 8621.

### ***Backup Withholding and Information Reporting***

Dividend payments, or other taxable distributions, made within the United States to a noncorporate U.S. resident generally will be subject to information reporting requirements and backup withholding tax at a rate of 28 percent if the resident (i) fails to provide an accurate taxpayer identification number, (ii) is notified by the Internal Revenue Service that the resident has failed to report all interest or dividends required to be shown on federal income tax returns, or (iii) in certain circumstances, fails to comply with applicable certification requirements.



Persons that are not United States persons may be required to establish their exemption from information reporting and backup withholding by certifying their status on an appropriate Internal Revenue Service Form W-8.

If you sell your ordinary shares or ADSs to or through a United States office of a broker, the payment of the proceeds is subject to both United States backup withholding and information reporting unless you certify, under penalties of perjury, that you are a non-U.S. person or you otherwise establish an exemption. If you sell your ordinary shares or ADSs outside the United States through a non-U.S. office of a non-U.S. broker, and the sale proceeds are paid to you outside the United States, then United States backup withholding and information reporting requirements generally will not apply to that payment. However, U.S. information reporting, but not backup withholding, will apply to a payment of sales proceeds, even if that payment is made outside of the United States, if you sell your ordinary shares or ADSs through a non-U.S. office of a broker that:

is a U.S. person,

derives 50 percent or more of its gross income for a specified three-year period from the conduct of a trade or business in the United States,

is a controlled foreign corporation as to the United States, or

is a foreign partnership, if at any time during its tax year: (i) one or more of its partners are U.S. persons, as defined in U.S. Treasury regulations, who in the aggregate hold more than 50 percent of the income or capital interest in the partnership, or (ii) at any time during its tax year the foreign partnership is engaged in a U.S. trade or business,

unless the broker has documentary evidence in its records that you are a non-U.S. person and does not have actual knowledge that you are a U.S. person or you otherwise establish an exemption.

You generally may obtain a refund of any amount withheld under the backup withholding rules that exceeds your income tax liability by filing a timely refund claim with the U.S. Internal Revenue Service.

#### **ITEM 10.F. DIVIDENDS AND PAYING AGENTS**

In accordance with the instructions to Form 20-F, the Company does not need to provide the information called for by Item 10.F. if, as is the case in this instance, the Form 20-F is being filed as an annual report under the Exchange Act.

#### **ITEM 10.G. STATEMENT BY EXPERTS**

In accordance with the instructions to Form 20-F, the Company does not need to provide the information called for by Item 10.G. if, as is the case in this instance, the Form 20-F is being filed as an annual report under the Exchange Act.

#### **ITEM 10.H. DOCUMENTS ON DISPLAY**

The English translation of the Articles of Association has been filed as an exhibit to this annual report. See the Index to Exhibits.

#### **ITEM 10.I. SUBSIDIARY INFORMATION**



In accordance with the instructions to Form 20-F, the Company does not need to provide the information called for by Item 10.I. if, as is the case in this instance, the Form 20-F is being filed in the United States.

**ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

Quantitative and qualitative information about market risk as of December 31, 2003 is included in the section titled Risk Management in Item 5 of this annual report. All statements other than historical information included in the Risk Management section are forward-looking statements. The actual impact of future market changes could differ materially due to, among other things, the risk factors discussed in the annual report.

**ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES**

In accordance with the instructions to Form 20-F, the Company does not need to provide the information called for by Item 12 if, as is the case in this instance, the Form 20-F is being filed as an annual report under the Exchange Act.

## PART II

### ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

Item 13 of Form 20-F requires information with respect to (i) any material default in the payment of principal, interest, a sinking or purchase fund installment, or any other material default not cured within 30 days, relating to indebtedness of the Company or any of its significant subsidiaries, (ii) the payment of dividends if in arrears, (iii) any other material delinquency not cured within 30 days, relating to any class of preferred stock. There is nothing to report by the Company within the scope of this Item requirement.

### ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

None.

### ITEM 15. CONTROLS AND PROCEDURES; CEO AND CFO CERTIFICATIONS

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, the Company has evaluated (as required by Exchange Act Rules 13a-15(b) and 15d-15(b)) the effectiveness of the design and operation of its disclosure controls and procedures (as defined in the Exchange Act Rules 13a-15(e) and 15d-15(e)) as of the end of the period covered by this annual report.

In designing and evaluating the Company's disclosure controls and procedures, management, including the Chief Executive Officer and Chief Financial Officer, recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. Management was also necessarily required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Based on their evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that the Company's disclosure controls and procedures are designed to provide reasonable assurance of achieving the Company's desired control objectives and that these disclosure controls and procedures are, in fact, effective at a reasonable assurance level.

There has been no change in the Company's internal control over financial reporting that occurred during the period covered by this annual report on Form 20-F that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

## ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT

The Board of Directors has determined that Hydro has at least one audit committee financial expert (as that term is defined in SEC rules) serving on its Audit Committee: Kurt Anker Nielsen. The SEC rules define an audit committee financial expert as a person who has the following attributes:

an understanding of generally accepted accounting principles (in the Company's case, this refers to US GAAP) and financial statements;

the ability to assess the general application of such principles in connection with the accounting for estimates, accruals and reserves;

experience preparing, auditing, analyzing or evaluating financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by the registrant's financial statements, or experience actively supervising one or more persons engaged in such activities;

an understanding of internal controls over financial reporting; and

an understanding of audit committee functions.

The SEC's rules provides that an audit committee financial expert shall have acquired the above attributes through, among other things, education and experience as a principal financial officer, principal accounting officer, controller, public accountant or experience in one or more positions that involve the performance of similar functions. As noted in Mr. Nielsen's biographical information included in Item 6.A, Mr. Nielsen served as the Chief Financial Officer of Novo Nordisk A/S and Novo A/S from 1989 to 2000.

The Board has further determined that Mr. Nielsen is independent within the parameters set forth in Exchange Act Rule 10A-3.

## ITEM 16B. CODE OF ETHICS

In July 2003, the Board of Directors approved a new code of conduct (the "**Code of Conduct**") that applies to all Hydro employees (including the Company's President and Chief Executive Officer, Senior Vice President and Chief Financial Officer, and Senior Vice President, Corporate Accounting and Consolidation) throughout the world, as well as to Board members of the Company and its subsidiaries. The main purpose of the Code of Conduct is to ensure that all persons acting on behalf of Hydro perform their activities in an ethical matter and in accordance with Hydro standards. The Code of Conduct provides channels for complaints, for instance over questionable accounting or auditing matters. It also addresses requirements regarding personal conduct, integrity, compliance with laws and other matters such as handling of conflicts of interest and a commitment to equal opportunities for all employees. The Code of Conduct has been filed as Exhibit 11 to this annual report. In addition, the Code of Conduct has been posted on Hydro's website ([www.hydro.com](http://www.hydro.com)).

**ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

Deloitte Statsautoriserte Revisorer AS (Deloitte) is the principal auditor of Norsk Hydro ASA. Certain portions of audits are performed by Ernst & Young and other firms. The following table shows total audit and non-audit fees for the fiscal years ended December 31, 2003 and 2002.

**Year ended December 31, 2003**

<b>Amounts in NOK thousand</b>	<b>Audit fees</b>	<b>Audit related Fees<sup>(2)</sup></b>	<b>Other non-audit Fees<sup>(3)</sup></b>	<b>Tax fees<sup>(4)</sup></b>	<b>Total</b>
Deloitte Norway <sup>(1)</sup>	26,257	1,839	8,069	400	36,565
Deloitte Abroad	32,728	2,911	1,863	3,828	41,330
Total Deloitte	58,985	4,750	9,932	4,228	77,895
Ernst & Young	16,998	1,797	7,808	5,198	31,801
Others	11,096	2,941	1,296	2,677	18,010
Total fees	87,079	9,488	19,036	12,103	127,706

**Year ended December 31, 2002**

<b>Amounts in NOK thousand</b>	<b>Audit fees</b>	<b>Audit related Fees<sup>(2)</sup></b>	<b>Other non-audit Fees<sup>(3)</sup></b>	<b>Tax fees<sup>(4)</sup></b>	<b>Total</b>
Deloitte Norway	19,366	5,092	10,157	485	35,100
Deloitte Abroad	27,588	9,505	14,419	8,915	60,427
Total Deloitte	46,954	14,597	24,576	9,400	95,527
Ernst & Young	15,682	405	4,213	842	21,142
Others	3,735	6,812	554	200	11,301
Total fees	66,371	21,814	29,343	10,442	127,970

(1) Approximately NOK 4 million related to the Demerger.

(2) Audit related fees primarily consist of consultations for financial accounting reporting standards, SEC filings and compliance with new SEC rules and regulations, as well as audit and agreed-upon procedures in connection with acquisitions and divestments. In addition, there are other miscellaneous audit related projects at subsidiaries throughout the world.

(3) Other non-audit fees primarily consist of consulting projects that were covered under the grandfather clauses of the relevant SEC regulations and agreed-upon procedures associated with the Company's environmental and sustainability reporting.

(4) Tax fees are made up of various tax services such as: tax planning and support, tax controversy assistance, expatriate taxes, employee benefit taxes, tax compliance and support, tax opinions, tax-only valuations, and transfer-pricing evaluations.



**PART III****ITEM 17. FINANCIAL STATEMENTS**

Not applicable.

**ITEM 18. FINANCIAL STATEMENTS**

The Company's Consolidated Financial Statements as of and for the year ended December 31, 2003 and the related notes thereto, which are included in Exhibit 10 of this Annual Report, as well as the schedule to the Consolidated Financial Statements listed in Item 19(a), have been audited by Deloitte Statsautoriserete Revisorer AS, independent public accountants, as indicated in their report. Reference is made to Item 19 for a list of all financial statements included in Exhibit 10 or filed herewith.

**ITEM 19. FINANCIAL STATEMENTS AND EXHIBITS****a. Financial Statements**

**The following are filed as part of this annual report on Form 20-F:**

Schedule VIII Valuation and qualifying accounts and reserves page 162

**The following is included in Exhibit 10 to this annual report on Form 20-F:**

	<b>Pages *</b>
Independent Auditors Report	
Consolidated income statements for the years ended December 31, 2003, 2002, and 2001	88
Consolidated statements of comprehensive income for the years ended December 31, 2003, 2002, and 2001	88
Consolidated balance sheets at December 31, 2003 and 2002	89
Consolidated statements of cash flows for the years ended December 31, 2003, 2002, and 2001	90
Notes to the Consolidated Financial Statements	93-128

\* Page references are to the page numbering in Exhibit 10

**b. Exhibits**

<b>Exhibit No.</b>	<b>Description</b>
1.	The Company's Articles of Association (as amended and currently in effect)
8.	Significant Subsidiaries of the Company
10.	Consolidated Financial Statements (including the notes thereto)
11.	Code of Conduct
12.1	Certification of Eivind Reiten, President and Chief Executive Officer of Norsk Hydro ASA, pursuant to Exchange Act Rule 13a-14(a) or Rule 15d-14(a)
12.2	Certification of John Ove Ottestad, Executive Vice President and Chief Financial Officer of Norsk Hydro ASA, pursuant to Exchange Act Rule 13a-14(a) or Rule 15d-14(a)
13.	Certifications furnished pursuant to Rule 13a-14(b) or Rule 15d-14(b)
99.1	Information regarding the Corporate Assembly Members, Deputy Members and Observers
99.2	Operational Data
99.3	Audit Committee Mandate
99.4	The Demerger Plan (incorporated by reference to Exhibit 1 to the Company's report on Form 6-K dated December 1, 2003)



## Norsk Hydro ASA and Subsidiaries

## Schedule VIII Valuation and Qualifying Accounts and Reserves

(Amount in NOK million)

Description	Balance at beginning of period	Additions			Balance at end of period
		Charged to costs and expenses	Charged to other accounts <sup>1)</sup>	Deductions <sup>2)</sup>	
Year-end December 31, 2003					
Allowance for doubtful accounts	1,102	909	165	(692)	1,484
Restructuring allowance	304		1	(157)	148
Environment accruals <sup>3)</sup>	5,344	654	127	(414)	5,711
Year-end December 31, 2002					
Allowance for doubtful accounts	1,138	463	(131)	(368)	1,102
Restructuring allowance	724	(10)	(36)	(374)	304
Environment accruals	2,379	348	497	(298)	2,926
Year-end December 31, 2001					1,138
Allowance for doubtful accounts	970	413	(31)	(214)	1,138
Restructuring allowance	117	700	(3)	(90)	724
Environment accruals	2,228	424	(12)	(261)	2,379

- 1) Includes amounts recognized in business combinations and foreign currency translation adjustments.
- 2) Deductions primarily represent uncollectible accounts charged against the allowance for doubtful accounts and expenditures related to and reductions of restructuring allowances and environmental accruals.
- 3) Hydro implemented the new accounting standard for asset retirement obligations, such as decommissioning and abandonment of oil and gas production platforms, facilities and pipelines [SFAS 143] beginning January 1, 2003. The new accounting standard requires that the fair value of future asset retirement obligations be recorded in Hydro's balance sheet in the period it is incurred; accordingly, obligations for oil and gas installations should be recognized at the start of production. Asset retirement costs are capitalized as part of the asset's original cost and depreciated over the asset's useful life, while changes to the present value of the obligations are charged to earnings. As a result of the new accounting standard, a positive after-tax effect of NOK 310 million was recorded as cumulative effect of change in accounting principles in Hydro's results for the first quarter of 2003. The changes also resulted in an increase in the capitalized value of fixed assets by NOK 1,101 million. The increase in the original cost of fixed assets was NOK 1,932 million and related accumulated depreciation was NOK 831 million. In addition, liabilities for asset retirement obligations increased NOK 2,418 million to NOK 4,549 million, and the deferred tax obligation increased NOK 465 million. The Norwegian State's share of abandonment costs is equivalent to the corresponding taxation rate during the asset's production period. This was accounted for as a long-term receivable of NOK 2,092 million. Provision for abandonment obligations in previous periods was recorded net of the Norwegian State's share. In accordance with SFAS 143, the abandonment obligation is recorded on a gross basis, and the Norwegian State's

share is recorded as a receivable in the balance sheet.

162

---

**SIGNATURES**

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

Date: June 30, 2004

NORSK HYDRO ASA

/s/ John O. Ottestad

---

John O. Ottestad  
Executive Vice President and  
Chief Financial Officer

## Glossary

### Terms Relating to the Group's Businesses and Operations

Term	Definition
ADRs	American Depositary Receipts, evidencing a specified number of ADSs
ADSs	American Depositary Shares, each ADS representing one deposited ordinary share
AluNorf	Aluminium Norf GmbH
Articles of Association	The articles of association of the Company, as amended and currently in effect
Audit Committee	The audit committee of the Company's Board of Directors
Automotive	The Automotive sector of Hydro Aluminium, comprising precision tubing, structures and shape casting businesses worldwide
BAT	Best Available Techniques for pollution prevention and control
Code	The U.S. Internal Revenue Code of 1986, as amended.
Company	Norsk Hydro ASA, a Norwegian public company limited by shares, or Norsk Hydro ASA and its consolidated subsidiaries, as the context requires
Compensation Committee	The compensation committee of the Company's Board of Directors
Completion Date	The date the Demerger was consummated by registration in the Register of Business Enterprises (i.e., March 24, 2004)
Consolidated Financial Statements	The consolidated financial statements and notes included in the Company's annual report to shareholders for the year ended December 31, 2003, included in Exhibit 10 to this annual report on Form 20-F
Corporate Assembly	The corporate assembly, a body contemplated by Norwegian companies' law, with responsibility, among other things, for the election of the members of the Company's Board of Directors and nomination of the external auditor
Corporate Management Board	The corporate management board established by the Company's President and Chief Executive Officer to assist him in discharging his responsibilities
CRU	CRU International Limited
Custodian	Den norske Bank, the custodian in connection with the Company's ADR facility
Demerger	The Company's demerger of its Agri business



<b>Term</b>	<b>Definition</b>
Demerger Plan	The plan approved by the Boards of Directors of Norsk Hydro ASA and Yara International ASA on November 28, 2003 relating to the demerger by the Company of its Agri business
Deposit Agreement	Deposit Agreement, dated as of January 3, 1986, as amended and restated as of October 1, 1987, and as further amended by Amendment No. 1 thereto, dated May 27, 1999, among the Company, the Depositary and the holders from time to time of the ADRs
Depositary	JPMorgan Chase Bank, as depositary of the ADSs
Depositary's Office	The Depositary's office located at [60 Wall Street, New York, New York 10260]
Deposited Securities	ADRs, together with all securities, property and cash received by the Depositary or the Custodian in respect of or in lieu of the Company's ordinary shares
Disclosure Committee	The disclosure committee of the Company, comprised of members of senior management, which is responsible for reviewing financial and related information before it is made public
EEA	European Economic Area
EEA Agreement	The European Economic Area Agreement
EFTA	European Free Trade Association
Exchange Act	The U.S. Securities Exchange Act of 1934, as amended
Extrusion	The Extrusion sector of Hydro Aluminium
EU	European Union
GFU	The Gas Negotiation Committee ( <i>Gassforhandlingsutvalget</i> )
Global Offering	The Company's offering of half of the Yara shares held by the Company following the completion of the Demerger
Group	Norsk Hydro ASA and its consolidated subsidiaries
HBP	Hydro Business Partner, a business unit of Norsk Hydro ASA and Norsk Hydro Produksjon AS
HSE	Health, safety and environment
Hydro	Norsk Hydro ASA and its consolidated subsidiaries

Hydro Agri	That part of Hydro's business that was a core business area prior to the transfer to Yara International ASA of the assets, rights and liabilities primarily related to Hydro's fertilizer activities in the Demerger
Hydro Aluminium	The aluminium business of Hydro, comprising the sub-segments Metals, Rolled Products, and Extrusion and Automotive

<b>Term</b>	<b>Definition</b>
Hydro Oil and Energy	The oil and energy business of Hydro, comprising two sub-segments, Exploration and Production, and Energy and Oil Marketing
kWh	Kilowatt hour
LME	London Metals Exchange
Metals	Hydro Aluminium's Metals sub-segment, which comprises the Primary Metal sector and the Metals Products sector
Ministry	The Norwegian Ministry of Petroleum and Energy
mm	millimeter
NCS	Norwegian Continental Shelf
NOC	The National Oil Company of Libya
NOK	Norwegian kroner
Nomination Committee	The nomination committee provided for in the Company's Articles of Association and operating under a charter established by the shareholders' representatives in the Corporate Assembly
Noon Buying Rate	The noon buying rate in the City of New York for cable transfers in foreign currencies, as announced by the Federal Reserve Bank of New York for customs purposes
North America	The North America sector of Hydro Aluminium
NYSE	New York Stock Exchange
Offer Price	The offer price for the Yara shares offered in the Global Offering (i.e., NOK 41 per share)
OPEC	Organization of the Petroleum Exporting Countries
Over-Allotment Option	The option, granted by the Company to the managers of the Global Offering, to purchase some or all of the remaining shares of Yara held by the Company following the completion of the Demerger
ordinary share	Ordinary share, par value NOK 18.30 per share, of the Company
OSE	Oslo Stock Exchange
PVC	Polyvinyl chloride, a plastic raw material



P-PVC

Paste PVC

S-PVC

Suspension PVC

Rolled Products

Hydro Aluminium's Rolled Products sub-segment

Sanctions Act

The Iran and Libya Sanctions Act of 1996, adopted by the United States  
166

---

<b>Term</b>	<b>Definition</b>
Sarbanes-Oxley Act	The U.S. Sarbanes-Oxley Act of 2002
SDFI	The Norwegian State's Direct Financial Interest
SEC	The United States Securities and Exchange Commission
Securities Act	The U.S. Securities Act of 1933, as amended
tonne	One metric tonne (approximately 1,000 kilograms or 2,205 pounds)
TWh	Terawatt hour (one billion kilowatt hours)
US GAAP	Generally accepted accounting principles in the United States
VAW	VAW Aluminium AG
VCM	Vinyl chloride monomer, the main raw material for PVC
VPS or VPS System	The Norwegian Central Securities Depository, Verdipapirsentralen.
WTO	World Trade Organization
Yara	Yara International ASA