

## ALUMINIUM METAL

Beginning with this annual report, we are presenting our Aluminium metal business operations on a segmented basis in order to provide a better understanding of this business for our key stakeholders. We will discuss our business and results of operations for the following three sub-segments: Bauxite and Alumina; Primary Aluminium; and Commercial.

- *Bauxite and Alumina* is comprised of Hydro's long-term alumina sourcing arrangements as well as our 34 percent investment in the Brazilian alumina refinery, Alunorte, and our 35 percent interest in the Alpart refinery in Jamaica. Bauxite and Alumina also include our interest in the Brazilian bauxite company Mineracao Rio de Norte (MRN).
- *Primary Aluminium* consists of our primary aluminium production, remelting and casting activities at our wholly-owned smelters located in Norway, Germany and Australia, and Hydro's share of the primary production in partly-owned companies located in Norway, Slovakia, Australia, and Canada. Primary Aluminium also includes the new Qatalum primary aluminium plant presently under construction in Qatar.
- *Commercial* includes all sales and distribution activities relating to products from our primary metal plants and all activities relating to our stand-alone remelters located in

most major European markets and the US. Most of our aluminium is sold in the form of value-added products such as extrusion ingot, sheet ingot, wire rod and foundry alloys. Commercial includes sourcing and trading activities to secure a competitive supply of aluminium standard ingots to Hydro's global production system and manage risks through hedging activities. Short-term sourcing of alumina is also handled by Commercial.

### Introduction

Hydro is one of the world's largest primary aluminium producers. We are the leading worldwide supplier of value-added casthouse products such as extrusion ingots, sheet ingots, wire rod and foundry alloys. Our 2007 operating revenues were approximately NOK 62 billion, generated by around 5,000 employees in 20 countries.

Alumina is one of the most important cost elements in the production of aluminium metal. We have ownership interests in alumina refineries that provided approximately 61 percent of our alumina needs in 2007 (Alunorte in Brazil and Alpart in Jamaica). The most important of these interests, Alunorte, is the world's largest alumina refinery with one of the lowest conversion costs in the industry. Our remaining alumina supply requirements are covered through medium to long-term contracts. We source bauxite for Alunorte from MRN, in

### Aluminium Metal production facilities





Hydro holds a 34 percent investment in the Brazilian alumina refinery, Alunorte.

which Hydro has an equity participation of 5 percent and partly by long-term contracts. Alpart has its own captive bauxite supplies.

We produced 1.7 million metric tons (mt) of primary metal during the year at plants located in Australia, Canada, Germany, Norway and Slovakia. 2007 marks the completion of a major program to reposition our primary smelter capacity towards modern, cost-efficient production facilities, and we are well positioned on the industry's cost curve. We also finalized the decision to build Qatalum, a new major primary metal facility in Qatar based on Hydro's proprietary reduction technology. Our 50 percent ownership share is expected to add additional production capacity of approximately 290,000 mt per year of highly competitive metal by the end of 2010. Our ambition is to reach a total of 2 million mt of primary aluminium per year by 2011, the first year of full production from Qatalum.

We have access to substantial self-generated power capacity based on hydropower production in Norway and a planned

captive gas-fired power plant for Qatalum. We have negotiated long-term power contracts for the vast majority of our worldwide production with the exception of our plant in Neuss, Germany.

In 2007, we delivered a total of 3.2 million mt of casthouse products to internal and external customers, including 1.1 million mt of remelted and recycled metal and 0.3 million mt of third party metal. More than 90 percent of this was in the form of casthouse products sourced from casthouses which are integrated with our primary aluminium plants and specialized remelt and/or recycling facilities close to our customers in Europe and the US.

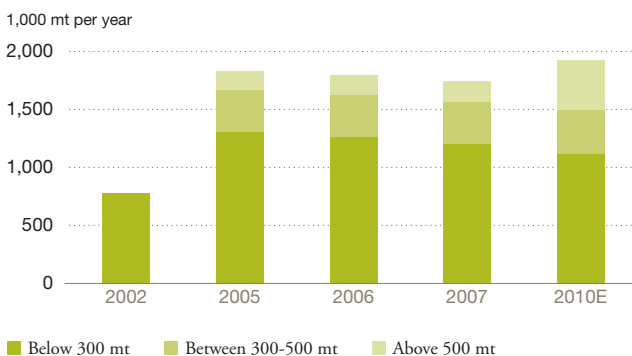
### Strategy

Our strategy is to maximize value creation by developing a highly competitive portfolio of bauxite, alumina and primary production assets. In order to improve and secure sufficient returns on capital employed, we focus on operational excellence and on pursuing competitive growth opportunities within bauxite, alumina and primary metal production and continue to build stronger market positions.

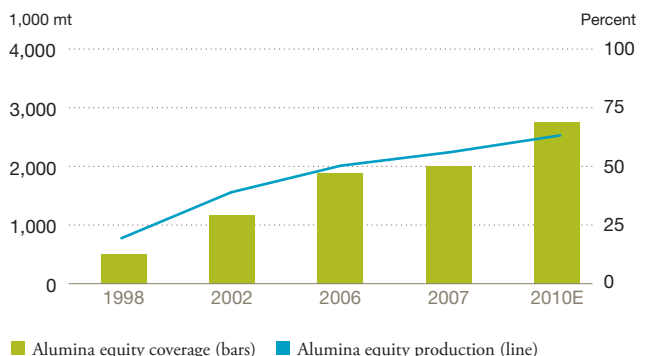
### *Repositioning and operational excellence*

We continually strive to improve our competitive position by increasing the efficiency of our smelter system. During 2007, we completed a major program aimed at repositioning our primary aluminium capacity by closing less competitive production in our European system and replacing it with new capacity in larger and more efficient smelters. We have increased our share of production at smelters having a capacity of 300,000 mt per year or higher from none in 2000 to approximately 31 percent of our total production capacity in 2007 and plan to reach 42 percent in 2010. Operational excellence within our existing portfolio of production assets is the foundation for realizing further performance improvements within our upstream business. Our AMPS program (Aluminium Metal Production System) is designed to promote and deploy best

### Smelter size



### Alumina equity coverage



## Targets

### 2007 TARGETS

- Metal repositioning – final investment decision on Qatalum
- 1,730,000 mt primary aluminium after closures
- Successful advancement on Alunorte phase 3 alumina expansion
- No serious accidents. Total recordable incidents (TRI) per million hours down by 20 percent

### 2007 RESULTS

- Major repositioning program completed
- 1,742,000 mt primary aluminium production following completion of closure program
- Final investment decision on Qatalum taken
- Alunorte phase 3 expansion on schedule and on budget
- No serious accidents. TRI down 8 percent

### 2008

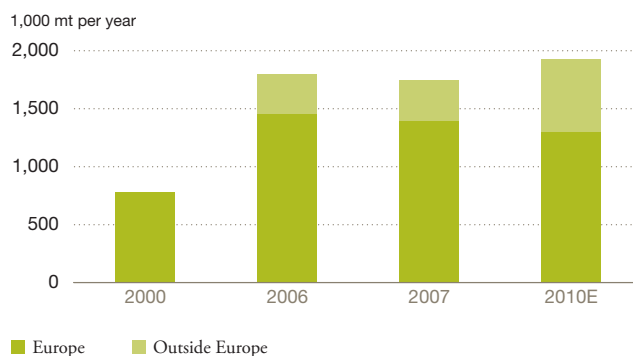
- Continued emphasis on safety/TRI – down by 20 percent
- Successful advancement of Qatalum
- Alunorte phase 3 expansion complete
- Finalize agreement with Vale (formerly CVRD) on new alumina refinery in northern Brazil
- AMPS implemented in all Norwegian smelters

### AMBITIONS

Our ambition is to reach a total of 2 million mt of primary aluminium per year by the end of 2011, the first year of full production from Qatalum. We plan to transfer project competence gained with Qatalum to new smelter projects. We aim to improve further our smelter cost position and to be ready to begin utilizing next-generation cell technology to improve our global competitive position and ambitious performance goals. Our goal is to increase our equity alumina production from 63 percent at the end of 2007 to 75 percent in 2011. We intend to maintain our focus on safety, aiming for no serious accidents.

practices and operating efficiencies across our assets. Pilot programs have been run during 2007 and we aim to complete the roll out of the program in all our Norwegian plants during 2008. We are also committed to improve our safety performance and believe that AMPS will make a valuable contribution to this effort. New proprietary smelting technology is under development to support our growth ambitions, enhance our cost competitiveness and further strengthen our environmental standards.

## Smelter geography



### Increase low cost equity alumina coverage

We continuously focus on securing low cost alumina to cover our needs and to support future smelter growth projects. We meet our existing alumina needs by a combination of equity investments in production facilities and a portfolio of medium- to long-term contracts. In 2007, approximately 61 percent of our alumina needs were covered by equity production. The ongoing expansion of the Alunorte alumina refinery in Brazil (Hydro share 34 percent) has been a key component in our strategy. The third expansion at Alunorte is planned to be completed in 2008 and is expected to reduce our average alumina costs and increase our equity alumina coverage to approximately 70 – 75 percent by 2011, the first year of full production from Qatalum. We have evaluated a number of new bauxite and alumina projects and are pursuing several opportunities globally with the intention of further developing these into profitable projects.

### Leverage the value of our commercial operations

A key priority for Hydro is to extract the full commercial potential from our extensive system of remelters, long-term commercial arrangements and sourcing and trading operations. We will focus on operational excellence in remelt production through continuous improvement programs, developing alternative metal sources through commercial alliances and other agreements and market driven growth from existing or new capacity.

## Overview 2007

Hydro's aluminium metal business delivered an underlying EBIT of NOK 8,041 million, only slightly lower than the record high underlying result of NOK 8,127 million for 2006.

During 2007, Qatar Petroleum and Hydro reached a final decision to proceed with the construction of the new Qatalum primary aluminium plant in Qatar (Hydro's share 50 percent). The plant is expected to begin production late in 2009 reaching full capacity of 585,000 mt in the second half of 2010. The develop-



In July 2007 Qatar Petroleum and Hydro reached a final decision to proceed with the construction of the new Qatalum primary aluminium plant in Qatar.

ment of the Qatalum plant is progressing on plan and was 9 percent complete at the end of 2007. Total investment costs are estimated at USD 5.6 billion (for the entire joint venture).

We have made good progress developing our alumina business during the year. The third expansion of Alunorte, our most important alumina equity interest, is expected to start up by the end of 2008 and increase total annual production capacity to 6.3 million mt (100 percent) by 2009. In September 2007 Hydro exercised an option under a long-term alumina agreement with Rio Tinto Alcan (formerly Comalco) to increase the volume supplied by Rio Tinto Alcan from 500,000 mt per year to 900,000 mt per year beginning 2011 and for the duration of the contract through 2030. In July 2007, Hydro signed a Memorandum of Understanding (MoU) with the Brazilian mining group Vale (formerly CVRD) with the intention of building a new alumina refinery close to the existing Alunorte refinery in Brazil. The new refinery is planned to be developed in four phases, each with an annual production capacity of 1.85 million mt of alumina. Hydro will have a 20 percent interest in the refinery.

New business development opportunities have been identified within bauxite/alumina and primary metal. In November 2007, Hydro entered into a joint venture agreement with United Minerals Corporation (UMC) with the intention of exploring for bauxite in Kimberley, Western Australia. The agreement gives Hydro a 75 percent interest in the partnership. We are evaluating other potential project opportunities within key bauxite-rich regions of the world as well as several smelter opportunities, including expansions of our primary metal operations in Norway (Karmøy), Australia (Kurri Kurri) and the possible doubling of the Qatalum capacity.

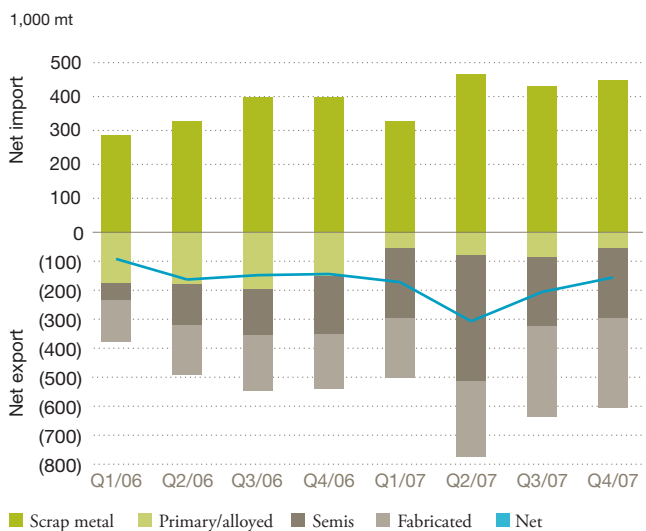
The significant increase in power costs in major aluminium producing regions such as Europe and the United States has been an important factor driving higher aluminium prices. Our long-term power contract portfolio should ensure continued competitive cost levels for Hydro through the next decade. However, identifying long-term power arrangements at competitive prices to enable further expansion in capacity is becoming increasingly difficult for the industry as a whole.

In June 2007, Hydro finalized the closure of the Söderberg line in Årdal. The closure concludes the rationalization program initiated in 2005 which, in addition, included the closure of the German metal plant in Hamburg and Stade and the Söderberg line in Høyanger, Norway. Total costs relating to the closures amounted to about NOK 900 million, roughly NOK 100 million lower than original estimates.

Developments in China continue to be a main driver of industry fundamentals. China has been a net exporter of primary aluminium during the past several years but is expected to discourage the export of energy in the form of primary aluminium while favoring the export of the more labour intensive fabricated products.

Chinese production of semi-fabricated aluminium products is increasing rapidly, up an estimated 45 percent in 2007 compared with 2006. This has led to a doubling of net exports of semi-fabricated products in 2007, compared with 2006.

### China striving for balance



Source: Hydro 2007 / Antaika