



HYDRO

# Annual Report 2015

**TO BE  
CONTINUED...**



## Key figures

Amounts in NOK million unless other unit indicated	2015	2014
Revenue	87 694	77 907
<i>Underlying EBIT : <sup>a</sup></i>		
Bauxite & Alumina	2 421	(55)
Primary Metal	4 628	3 937
Metal Markets	379	634
Rolled Products	1 142	698
Energy	1 105	1 197
Other and eliminations	(19)	(717)
Total	9 656	5 692
Net Income	2 333	1 228
Underlying return on average capital employed (RoACE), percent	9.1 %	5.2 %
Investments <sup>b</sup>	5 865	3 625
Total assets	122 544	126 273
Share price year-end, NOK	33.13	42.44
Dividend per share, NOK	1.00	1.00
Number of employees, year-end <sup>c</sup>	13 263	12 922
Recordable injuries, per million hours worked	3.0	3.2
Greenhouse gas emissions, million tonnes CO <sub>2</sub> e <sup>d</sup>	7.3	7.3

## Highlights



### WELL POSITIONED

Several years of significant improvements and continuous technological advancements have strengthened Hydro's ability to create value. By the end of 2015, Hydro's industry-leading improvement programs contributed NOK 4.5 billion of annual improvements compared to 2011. Following a year of improved market conditions, the global aluminium market deteriorated in 2015 due to over-supply in China driving increased exports of primary metal in the form of semi-fabricated products. These developments, together with lower industry costs, resulted in a decline in all-in metal prices and alumina prices during 2015. At the same time, a weakening of the Norwegian kroner and Brazilian real against the US dollar strengthened the company's competitive position.

### CREATING VALUE BY BECOMING BETTER, BIGGER, GREENER

A resource-rich, global aluminium company, Hydro intends to continue to drive the performance and profitability of its operation while securing safe, sustainable business practices. Hydro will continue to drive improvement, focusing on all aspects within the company's control, including health, safety, environment and compliance, operational excellence, technology, commercial expertise and customer satisfaction. Selective, profitable growth opportunities will be pursued including highgrading the products portfolio and maturing attractive growth projects when the time is right. Hydro aims to reduce its environmental footprint and enhance its social contribution through targeted initiatives within a range of areas.

<sup>a</sup>

#### Underlying EBIT

Underlying EBIT improved significantly to NOK 9,656 million from NOK 5,692 million. In 2015, Bauxite & Alumina and Rolled Products achieved the best underlying EBIT since Hydro became a pure aluminium company in 2007, while Sapa's underlying results more than doubled compared to the previous year.

<sup>b</sup>

#### Investments

During 2015, Hydro continued to focus on maintaining a solid financial position and capital discipline. In addition to sustaining investments such as the expansion and modernization of the red mud deposit area at Alunorte and new tailing dams at Paragominas, growth investments included a new production line in Grevenbroich for automotive body sheet.

<sup>c</sup>

#### Number of employees

The number of employees include about 430 employees in the rolling mill Slim, Italy, that was divested at year end.

<sup>d</sup>

#### Greenhouse gas emissions

Greenhouse gas (GHG) emissions from Hydro's current consolidated activities remained at the same level as in 2014 despite increased production of alumina and primary aluminium.

# Annual Report

## — 2015

### HYDRO'S REPORTING 2015

The enclosed Board of Directors' report, together with the Financial Statements and accompanying notes fulfills Hydro's Norwegian statutory requirements for annual reporting. The remainder of the Annual Report includes additional information about Hydro's business, viability performance, financial and operating performance, risk, shareholder information and corporate governance.

The "Annual report - 2015" is available in PDF-format on our website [www.hydro.com/reporting2015](http://www.hydro.com/reporting2015) in English. The "Board of Directors' report and Financial Statements - 2015" is also available in PDF-format as a separate document in both English and Norwegian. All parts of the reports can be downloaded and printed in PDF-format, together with additional, supplementary information. Paper copies of the reports can also be ordered on our website.

### SIGNIFICANT INCREASE IN OPERATING RESULTS

#### Ongoing improvements and positive currency effects more than offset lower realized LME prices and premiums.

Underlying EBIT for 2015 improved significantly to NOK 9,656 million from NOK 5,692 million in the previous year. Bauxite & Alumina and Rolled Products achieved the best underlying EBIT since Hydro became a pure aluminium company in 2007, while Sapa's underlying results more than doubled compared to the previous year. Negative effects from lower realized LME prices and premiums were more than offset by positive currency effects from the stronger USD and ongoing improvement efforts.

Bauxite production in Paragominas amounted to 10.1 million mt for the year while alumina production from Alunorte was 6.0 million mt. Production levels for both operations reached record levels in 2015. Primary aluminium production was about 2.0 million mt and we delivered 3.2 million mt of casthouse products and liquid metal to internal and external customers. Downstream, we shipped roughly 948 thousand mt of rolled products to the market. Our energy business produced around 10.9 TWh of hydroelectric power. Hydro's share of Sapa sales volumes were about 680 thousand mt.

### BOARD OF DIRECTORS' REPORT p.10

Hydro's Board of Directors' report including key developments.

### 01: BUSINESS DESCRIPTION p.29

Detailed strategy and operating information is provided for each of Hydro's business areas including an overview of industry developments. Key regulatory and taxation information is also included.

### 02: VIABILITY PERFORMANCE p.69

The Hydro Way forms the basis for our viability reporting. The first part describes our policy, strategy and main results. The viability performance statements include reporting principles and quantitative information, while the country by country report is prepared to fulfill Norwegian legal requirements to extractive industries..

### 03: FINANCIAL AND OPERATING PERFORMANCE p.129

Financial and operating results are discussed per business area as well as financial income/expense and income tax for Hydro. Information on items excluded from underlying EBIT is provided as well as disclosures covering liquidity and capital resources and return on capital.

### 04: RISK REVIEW p.149

Hydro's risks and mitigating actions are described including financial and commercial risks, operational risks, strategic risks, compliance risks and market risks..

### 05: SHAREHOLDER INFORMATION p.157

Shareholder information includes share price development, dividend policy, funding and credit rating policy, the Annual General Meeting and the financial calendar for 2016

### 06: CORPORATE GOVERNANCE p.163

Hydro's corporate governance practice is described in relation to regulatory compliance, corporate directives and code of conduct and our governance bodies..

### 07: FINANCIAL STATEMENTS p.F1

Hydro's consolidated financial statements prepared in accordance with International Financial Reporting Standards (IFRS) are provided, together with the financial statements for the parent company Norsk Hydro ASA prepared in accordance with Norwegian accounting principles..

### 08: APPENDIX p.A1

Terms and definitions

## Our Business

Hydro is a resource rich, fully integrated aluminium company with operations in all major activities along the aluminium industry's value chain. Our operations include one of the world's largest bauxite mines and the world's largest alumina refinery, both located in Brazil. We have primary metal production facilities in Europe, Canada, Australia, Brazil and Qatar. We are a leading worldwide supplier of value-added casthouse products, such as extrusion ingots, sheet ingots and foundry alloys. In 2015, we delivered about 3.2 million metric tons of products to internal and external customers, mainly from casthouses integrated with our primary smelters and from an extensive network of specialized remelt facilities close to customers in Europe and the U.S.

We are an industry leader as a supplier to a range of downstream markets, in particular the packaging, lithographic, building, automotive and transport sectors. We deliver high-quality, energy-saving aluminium products and solutions, and have strong positions in markets that provide opportunities for good financial returns. Through the Sapa joint venture transaction we have transformed our extrusion operations and generated substantial synergies.

With more than 100 years of experience in hydropower, Hydro is the second-largest operator of power production in Norway. We have substantial, self-generated power capacity to support our production of primary metal, and are engaged in a number of initiatives to secure competitive power supplies for our aluminium operations.

## The Hydro Way

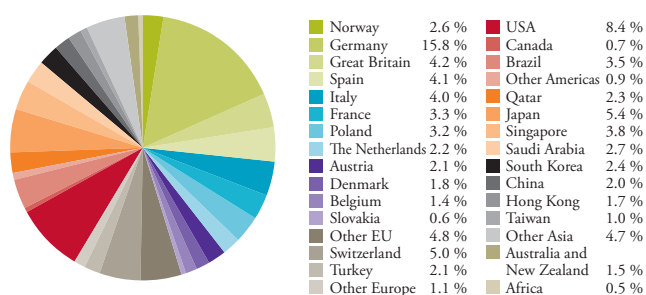
The Hydro Way is our approach to business, an approach that has existed within our company from the beginning and that has underpinned our success over the years. The Hydro Way defines our identity - our distinct set of characteristics - and constitutes a unique way of doing things that differentiates us from other companies. It also describes how we run our business in terms of our mission, values, talents, operating model and strategic direction.

## Employees

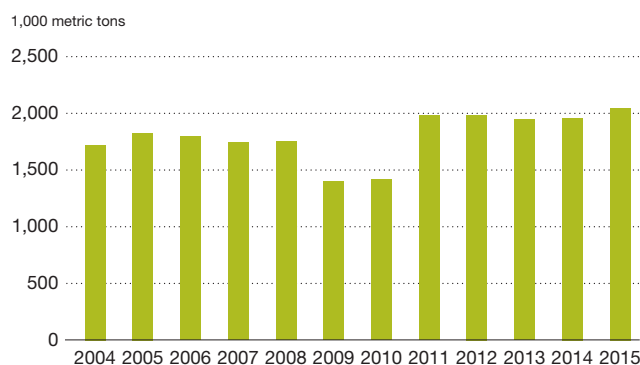
Hydro's organization is made up of about 13,000 employees involved in activities in 50 countries. These employees represent great diversity, in terms of competence, gender, age and cultural background. We see this diversity as a significant resource, not least to encourage innovation. To be able to pull together as a team we depend on an efficient organization with common values and goals. Good leadership, proper organizational structure and the right tools are all essential if we are to achieve this. This includes attracting - and retaining - the right employees.

### Geographical distribution of operating revenues

NOK million 87,694



### Primary aluminium production



## Key Developments

Underlying EBIT for 2015 improved significantly to NOK 9,656 million from NOK 5,692 million in the previous year. Bauxite & Alumina and Rolled Products achieved the best underlying EBIT since Hydro became a pure aluminium company in 2007, while Sapa's underlying results more than doubled compared to the previous year. Negative effects from lower realized LME prices and premiums were more than offset by positive currency effects from the stronger USD and ongoing improvement efforts.

After several years of significant operational and commercial improvements implemented throughout the value chain as well as continuous technological advancements, Hydro has strengthened its ability to create value and lifted the company's relative industry position in an environment of challenging market conditions. By the end of 2015, Hydro's industry-leading improvement programs have contributed NOK 4.5 billion of annual improvements compared to 2011 including NOK 0.8 billion realized in 2015.

After a year of improved market conditions in 2014, the global aluminium market deteriorated again in 2015 due to over-supply in China and increased exports of primary metal in the form of semi-fabricated products from China. These developments, together with lower industry costs, resulted in a continual decline in all-in metal prices and alumina prices during 2015. At the same time, a considerable weakening of the Norwegian kroner and Brazilian real against the US dollar, both major cost currencies for Hydro's operations, strengthened the company's competitive position.

The number of high risk incidents within Hydro's operations continued to fall in 2015, and Hydro's safety performance remains among the best in the industry. The company reduced its TRI rate (total recordable injuries per million

hours worked) by 6 percent to 3.0. Although this was one of the best results in the company's history, it was not sufficient to meet the target of 2.8 for the year.

## Strategic Direction

A resource-rich, global aluminium company, Hydro intends to continue to drive the performance and profitability of its operations while securing safe, sustainable business practices. Building on the momentum achieved in earlier years, Hydro has introduced a new ambitious target of NOK 2.9 billion of additional annual improvements for the period 2016 through 2019 including NOK 1.1 billion which is expected to be delivered in 2016.

Bauxite & Alumina will focus on higher productivity, lower manning and further optimization of the company's sales portfolio. In addition to further improving productivity and reducing costs, Primary Metal aims to lift production capacity at existing plants through proven technological developments. Recycling is an important element supporting Hydro's ambition to become carbon-neutral by 2020 and Hydro aims to be a leading player in this growing market segment. Hydro intends to improve margins through high-grading its product portfolio and differentiation through innovation, quality and reliability. Capturing the full value potential from Hydro's Norwegian hydropower assets and using its competence to secure competitive energy sourcing for the company's global activities are key elements of Energy's improvement strategy.

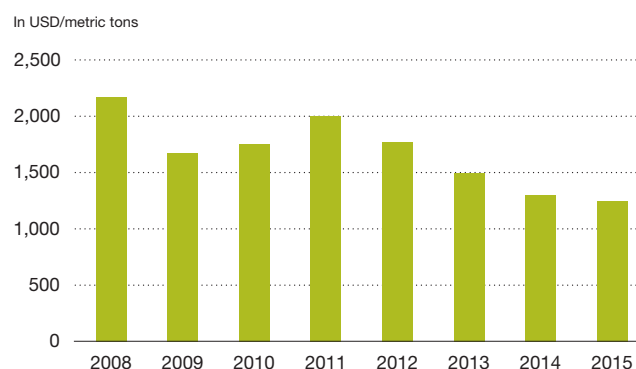
Hydro is intensifying its efforts to further improve its TRI rate for 2016 based on leadership, employee involvement and defined risk mitigating activities. Continued strengthening of the company's compliance activities is also an important objective for 2016, including further awareness training and stronger emphasis on integrity risk management in the supply chain.

The aluminium market price has continued to fall  
LME 3-month in USD/tonne (weekly average prices)



Source: Ecwin

Implied primary aluminium cost and margin



## *Poor weather, good mood*

Rough markets remind me of the classical Norwegian phrase, claiming that there is no such thing as bad weather as long as you are dressed to withstand it. There is little one can do about the weather – or the market fluctuations. The crucial task is to equip to endure it.

The world around us has shifted significantly and fast – again. A year ago, we experienced undersupply and record-high aluminium premiums. Shortly after, Chinese oversupply and rising exports pushed aluminium prices to 6-year lows.

I am happy to report that Hydro's improvement efforts has continued independently with undiminished intensity, giving benchmark results and improved ability to stay the course.

These are not primitive cost-cuts, but operational enhancements with lasting effects – and they are supplemented with new improvement ambitions. To renew is in our DNA. Continuous renewal has brought Hydro passed our 110-year milestone, and is our key to a bright future within the fast-developing world of global aluminium.

### **Steady demand growth**

There is nothing wrong with the demand for our products. Light, formable, corrosion resistant and infinitely recyclable, aluminium enters into ever-new applications and the demand continues to show steady growth.

Aluminium substitution in the auto industry is the obvious example, as advanced aluminium sheets take the place of welded steel, saving weight, emissions and process costs. But also within copper, and especially cabling, the potential is great. Within heating, ventilation, air-condition and refrigeration, aluminium solutions continue to make their way, and the light metal is also becoming a cost-efficient and preferred alternative in long-distance transmission lines.

The combination of tougher customer demands and stricter legislations on the back of global megatrends such as the drive for more climate friendly solutions, is paving the way for innovative solutions in aluminium.

The challenge is that the global supply has grown even more than demand over the last years. China has added new capacity even though domestic growth rates are leveling off. But lower costs, driven by lower energy prices and depreciating currencies, as well as improved efficiency enable us to live with a price level that would hurt just a couple of

years ago. And long-term demand forecasts continue to convince us that aluminium is still the metal for the future.

### **Better, Bigger, Greener**

Building on our platform of a solid asset base, superior products, a strong financial position, leading technology, customer satisfaction, commercial capabilities and a highly competent workforce, our aspiration is to realize our full potential by building a Better, Bigger and Greener Hydro for the future.

#### *Better*

A strong balance sheet is our best tool to respond to market volatility, in addition to continuously improving our relative industry position. Today, Hydro is a first quartile aluminium and alumina producer with a strong balance sheet. This allows us to offer a safe and reliable dividend to shareholders, and enable us to strategically utilize the lower parts of the cycle to increase our value creation potential.

We are improving our relative position by lifting bauxite production in Paragominas, by stabilizing and debottlenecking alumina production at Alunorte and in moving alumina sales over to index pricing.

Energy has made significant progress in replacing expiring power contract for our fully-owned aluminium plants in Norway, and by successfully completing the Rjukan upgrade project we are ensuring continued, and safe, power production from Rjukan for many decades to come.

In Primary Metal, we continue to strengthen our technology lead by realizing the Karmøy technology pilot. We have now started the construction to realize the world's most energy and climate efficient primary aluminium technology, with spin off effects for the rest of the portfolio.

«From B to A» and the «Climb» programs are successfully completed. We have in total delivered NOK 4.5 billion in improvements since 2011. That does not mean improvements have come to an end. We are always seeking the next milestone. On our Capital Markets Day in



December we launched a new ambition aiming to realize new improvements of another NOK 2.9 billion by 2019.

There is no “Better” aspiration without improving on safety. We believe in the close link between safety performance and operational performance, and are proud to be close to industry benchmark – yet, not content. The number of high-risk incidents continued to fall in 2015. Although Hydro reduced its rate of total recordable injuries (TRI) per million work hours by 6 percent to 3.0, one of our best results ever, we are still a little behind our own ambition. In addition, an esteemed Hydro colleague became victim of the Germanwings tragedy during business travel. Our goal is to be below 2.0 by 2020, setting a new industry standard on safety.

### *Bigger*

In Rolled Products we have been actively high-grading our portfolio through our growth projects in automotive and recycling, serving high margin segments and reducing our metal cost. We also acquired the world’s most advanced scrap sorting technology to strengthen our recycling position. In Primary Metal we are making a systematic approach to realize 200,000 t/y creep in our fully-owned and joint-venture smelters at a highly attractive cost per tonne. By considering to acquire Vale’s 40 percent stake in MRN, we may take an important step towards securing ownership of long-term bauxite supply.

### *Greener*

Two years ago, we announced our goal of becoming carbon-neutral from a life-cycle perspective by 2020. We are still alone in our industry with such an ambitious climate target – and we are on track. We are lifting our capacity for post-consumer scrap, and are aiming to rehabilitate as much forest

as we clear at a 1:1 ratio by 2017. We are doing this because it is the right thing to do, but also because we believe we are building a competitive advantage.

### **Committed to comply – eager to set standards**

Health, safety and environment, corporate social responsibility, compliance and anti-corruption are of critical importance to our performance. Much evidence back up our conviction that there is a strong correlation between financial and extra-financial performance. Hydro has been working on compliance for several decades, both in terms of culture and internal control systems, recognizing that we need to be alert in any environment at any time. This job is never completed.

Hydro has signed on to the UN Global Compact, takes part in the World Business Council for Sustainable Development and the International Council on Mining and Metals, and is included on the Dow Jones Sustainability Indices and FTSE4Good list. We recently asked for a third-party assessment on our position compared to global best-practice, and were happy to see that our corporate culture and tone from the top was ranked among the very best. Proposals to further reduce risks associated with compliance and to ensure that the system is working as intended, are followed up.

### **Belief in the future**

Tougher customer demands and stricter legislation inspire lighter, smarter and greener alternatives. We are ready to make aluminium a key part of the solution due to its superior design flexibility, usability and infinite recyclability. In combination with a highly competent work force – with the willingness and ability to improve every day – Hydro is equipped to endure bad weather. And if the weather changes, that will do no harm to our good mood.

“The drive for more climate friendly solutions is paving the way for innovations in aluminium.”



Svein Richard Brandtzæg  
President & CEO



# Board and Management

## Board of Directors

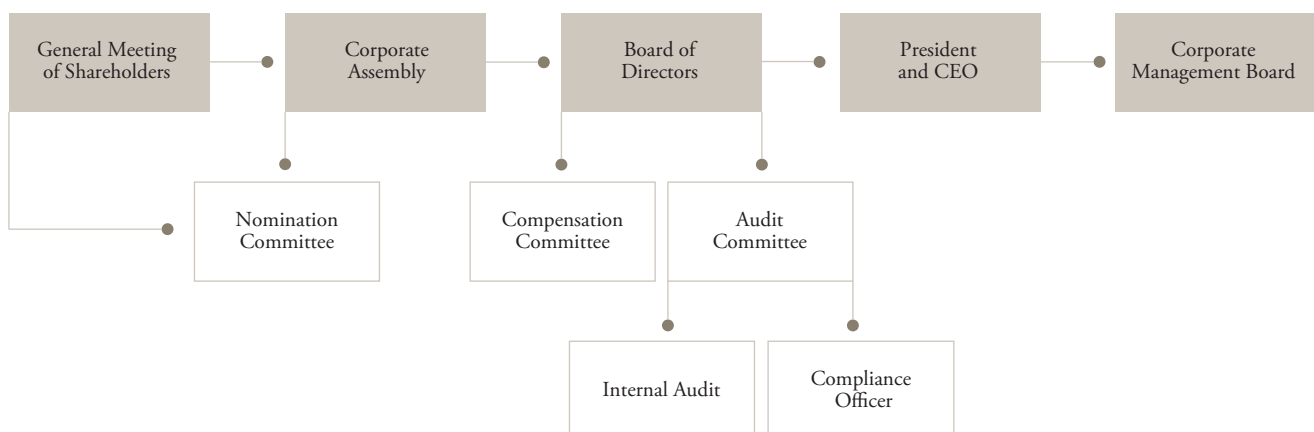
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From left to right: Ove Ellefsen, Eva Persson, Inge K Hansen, Dag Mejdell, Finn Jebsen, Liv Monica Bargem Stubholt, Sten Roar Martinsen, Pedro José Rodríguez and Billy Fredagsvik. Irene Rummelhoff was not present.

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## Governance bodies in Hydro

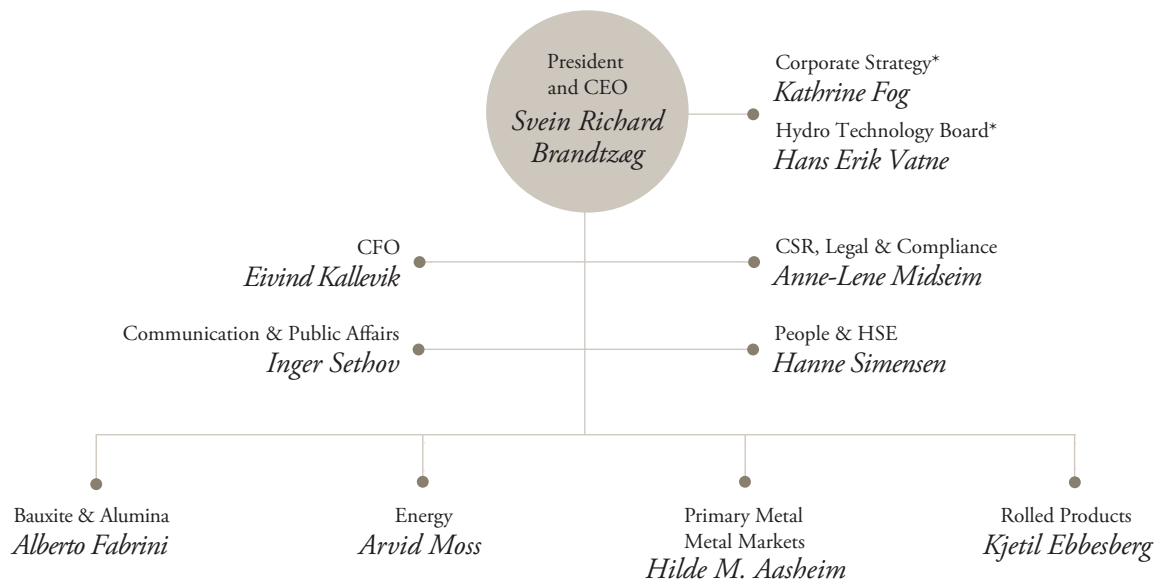




## Corporate Management Board



From left to right: Alberto Fabrini, Hilde Merete Aasheim, Hanne Simensen, Kjetil Ebbesberg, Svein Richard Brandtzæg, Arvid Moss, Inger Sethov, Eivind Kallevik and Anne-Lene Midseim.



\* Staff positions reporting directly to CEO

## Key developments and strategic direction

### Well positioned in challenging markets

After several years of significant operational and commercial improvements implemented throughout the value chain as well as continuous technological advancements, Hydro has strengthened its ability to create value and lifted the company's relative industry position in an environment of challenging market conditions.

By the end of 2015, Hydro's industry-leading improvement programs have contributed NOK 4.5 billion of annual improvements compared to 2011<sup>1)</sup> including NOK 0.8 billion realized in 2015. This includes the completion of the "From B to A" improvement program in Bauxite & Alumina, completion of the Rolled Products "Climb" program one year ahead of schedule, additional improvements in fully owned smelters beyond the "USD 300 per mt" program and further progress on the "USD 180 per mt" joint venture improvement program in Primary Metal which is progressing according to plan. On top of the NOK 4.5 billion of annual improvements, by the end of 2015 Sapa delivered targeted restructuring improvements and synergies of NOK 1 billion on an annual basis one year ahead of plan. Building on the momentum achieved in earlier years, Hydro has introduced a new ambition targeting NOK 2.9 billion of additional annual improvements for the period 2016 through 2019, including NOK 1.1 billion which is expected to be delivered in 2016.

During the year, Hydro made further progress in securing the robustness of its operations in Brazil. In 2015, a dialogue with the Para authorities resulted in a renewal of a deferral of ICMS taxes on certain goods and services for a 15 year period. In addition, both Paragominas and Alunorte achieved record production levels in 2015. Hydro also made progress towards securing and developing bauxite resources for the future. In October 2015, Hydro signed a Letter of Intent (LoI) for the possible acquisition of Vale's 40 percent ownership interest in MRN.

Technological leadership underpins Hydro's pursuit of operational excellence and the company's ambition of becoming carbon neutral from a life-cycle perspective by 2020. In February, 2016, Hydro decided to proceed with the construction of the 75,000 mt technology pilot at Karmøy utilizing Hydro's next-generation HAL4e technology. In 2015, the company acquired WMR Recycling GmbH which has the most advanced aluminium scrap sorting technology in the world.

Securing long-term competitive power sourcing has been of critical importance to sustain the viability of Hydro's smelter portfolio. In 2015, Hydro entered into long-term power agreements for the annual supply of energy totaling 1.05 TWh to its Norwegian smelters over a 10 year period from 2021 onwards. This was on top of 2.7 TWh sourced in the previous year. In addition, Alouette, Hydro's part-owned aluminium plant in Canada, agreed on new terms and conditions extending the existing supply of electricity for a 13 year period to 2029. Hydro also secured a new power contract for part of the energy requirement of its Neuss aluminium plant in Germany for the period 2018 to 2025.

After a year of improved market conditions in 2014, the global aluminium market deteriorated again in 2015 due to over-supply in China and increased exports of primary metal in the form of semi-fabricated products from China. These developments, together with lower industry costs, resulted in a continual decline in all-in metal prices and alumina prices during 2015. At the same time, a considerable weakening of the Norwegian kroner and Brazilian real against the US dollar, both major cost currencies for Hydro's operations, strengthened the company's competitive position.

### Creating value by becoming better, bigger and greener

Hydro is committed to a proactive, strategic business approach aimed at strengthening the company's ability to add value. This approach is reflected in Hydro's ambitious mid-term strategic goals reflecting the company's aspiration to become Better, Bigger, Greener.

Hydro will become Better by continuing to drive improvements focusing on all aspects within the company's control. These include health, safety, environment, corporate social responsibility and compliance, operational excellence, commercial expertise, customer satisfaction as well as product and process innovation, continuous technology advancements and the new NOK 2.9 billion improvement ambition. Tight capital discipline and competitive shareholder return will remain top priorities together with maintaining the company's robust financial position.

To become Bigger, selective, profitable growth opportunities will be evaluated to improve Hydro's relative industry position including investments in high-grading the products portfolio and strengthening recycling capabilities. Hydro is also maturing attractive growth projects for the future, mainly depending on developments in the balance between industry supply and market demand.

1) Except for the Primary Metal USD 300 per mt program which is compared to 2009.

Hydro believes that sustainable business practices will make the company Greener and improve the company's ability to create shareholder value while making a positive difference wherever it operates. Hydro aims to reduce its environmental footprint and to enhance its social contribution through targeted initiatives within a range of areas, including biodiversity, recycling and water management, stakeholder engagement, community investments and promoting corporate social responsibility in its supply chain.

### Operating performance

Underlying EBIT for 2015 improved significantly to NOK 9,656 million from NOK 5,692 million in the previous year. Bauxite & Alumina and Rolled Products achieved the best underlying EBIT since Hydro became a pure aluminium company in 2007, while Sapa's underlying results more than doubled compared to the previous year. Negative effects from lower realized LME prices and premiums were more than offset by positive currency effects from the stronger USD and ongoing improvement efforts. At the same time, Hydro further strengthened its financial position, ending the year with a net cash position of NOK 5.1 billion, compared to a net debt position of NOK 0.1 billion at the end of 2014.

The number of high risk incidents within Hydro's operations continued to fall in 2015, and Hydro's safety performance remains among the best in the industry. The company reduced its TRI rate (total recordable injuries per million hours worked) by 6 percent to 3.0. Although this was one of the best results in the company's history, it was not sufficient to meet the target of 2.8 for the year. In addition, one of Hydro's employees became a victim of the Germanwings flight crash during business travel.

Sapa Profiles Inc. Portland (SPI), a subsidiary of Sapa AS (owned 50 percent by Hydro) is under investigation by the United States Department of Justice (DOJ) Civil and Criminal Divisions regarding aluminum extrusions that SPI manufactured from 1996 to 2015 and delivered to a supplier to NASA. SPI is cooperating fully in these investigations. In response to these pending investigations, Sapa has performed audits of its quality assurance processes at all relevant extrusion operations in North America, and is in the process of finalizing audits of its extrusion operations in Europe. Quality issues identified in these audits have been, or are in the process of being, addressed with the affected customers and remediation actions are being undertaken. The investigations are currently ongoing, and, at this point, the outcome of the DOJ investigations and of the identified quality issues, including financial consequences on Sapa, is uncertain. Based on the information known to Hydro at this stage, Hydro does not expect any resulting liabilities to have a material adverse effect on its consolidated results of operations, liquidity or financial position. Hydro has also

initiated a review of all of its relevant sites which will continue through 2016. Preliminary results are being further evaluated and followed up.

### Priorities for 2016

Going forward, Hydro intends to continue to lift the performance and profitability of its operations while securing safe, sustainable business practices. Priorities in 2016 include:

- Continuing to strengthen performance within health, safety, security and environment (HSE), compliance and corporate social responsibility (CSR)
- Enhancing workforce performance, engagement and diversity
- Strengthening relative industry position through improvement ambitions and leading R&D
- Pursuing recycling opportunities to improve earnings and reduce environmental impact
- Further developing high-margin growth segments through innovative and differentiated products
- Securing long term access to raw materials including bauxite and energy
- Maintaining capital discipline, reliable dividend level and strong financial position

Hydro is intensifying its efforts to further improve its TRI rate for 2016 based on leadership, employee involvement and defined risk mitigating activities. This includes further efforts to improve the safety performance of the Rolled Products business area. Continued strengthening of the company's compliance activities is also an important objective for 2016, including further awareness training and stronger emphasis on integrity risk management in the supply chain. To further improve social conditions in Barcarena, Brazil, Hydro is developing an infrastructure project that aims to have significant impact on the social development of the municipality.

Hydro will update its people strategy in 2016 to ensure that it continues to support the company's strategic goals. This will include new projects and further embedding of key people processes such as the internal performance and development process, and the employee engagement survey.

Following completion of its ambitious "From B to A" improvement program, reducing cost and increasing efficiency continues to be a key priority for Bauxite & Alumina, together with further lifting alumina and bauxite production through stable and robust operations. Targeting NOK 500 million of the NOK 1 billion "Better Bauxite & Alumina" improvement ambition in the coming year, Hydro will also concentrate on higher productivity, lower manning and further optimization of the company's sales portfolio.

Hydro intends to continue increasing its share of alumina sales volumes at index pricing as old legacy LME-linked contracts gradually expire.

Hydro is committed to sustain realized improvements and to identify further potential as part of its "Better Primary Metal" ambition of NOK 1 billion by 2019. This includes savings and improvements of roughly NOK 400 million in 2016 comprised of NOK 100 million for the company's fully owned smelters and roughly NOK 300 million relating to the completion of the USD 180 per mt joint venture improvement program. In addition to further improving productivity and reducing costs, Primary Metal aims to lift production capacity at existing plants through proven technological developments. The 75,000 mt technology pilot at Karmøy, utilizing Hydro's next-generation HAL4e technology, is expected to contribute to reduced energy costs and lower greenhouse gas emissions. Experience gained from building and operating the plant will also enable further improvements in the productivity of the current smelter portfolio beyond lean operations.

Optimizing margins by focusing on high-premium products will continue to be high on the agenda for Hydro's Metal Markets operations. Implementation of new casting technology at the company's sheet ingot casthouses in Høyanger and Årdal, Norway, will also enable Hydro to target more advanced market segments including customers in the automotive segment.

Recycling is an important element supporting Hydro's ambition to become carbon-neutral by 2020. The company aims to be a leading player in this growing market segment to pursue commercial opportunities and reduce the environmental impact of its operations. Further increases in the capability and capacity to use post-consumer and other types of contaminated scrap are targeted together with increased sales of recycling friendly alloys. The most important projects currently include the ramp-up of a recently completed recycling line for used beverage cans at Hydro's smelter in Neuss, Germany, and the completion of a plant upgrade in the Clervaux, Luxembourg, remelter.

Hydro intends to improve margins through high-grading its product portfolio and differentiation through innovation, quality and reliability. Based on strong demand in the automotive Body-in-White market segment, Rolled Products is investing in a new production line to lift its nominal capacity for aluminium car body sheet to 200,000 mt per year by 2017. Following the completion of the "Climb" improvement program one year ahead of plan, the "Better Rolled Products" improvement ambition is targeting NOK 900 million by 2019. Hydro expects to generate roughly

NOK 200 million of this amount in 2016 through improved product mix, reduced metal cost due to increased recycling and further operational improvements.

Capturing the full value potential from Hydro's Norwegian hydropower assets and using its competence to secure competitive energy sourcing for the company's global activities are key elements of Energy's improvement strategy. Operational excellence will continue to be a priority to secure cost-effective, safe and reliable production. The Norwegian government has sent out a proposal on hearing relating to the organization of ownership of hydropower assets that would allow private entities physical hydropower offtake from ownership stakes below 33.4 percent in hydropower companies (ANS/DA model). If approved, this will enable Hydro to maintain access to physical power from RSK assets after reversion through restructuring the assets within a one-third ownership position in a company with liability.

Hydro aims to provide its shareholders with competitive returns compared to alternative investments in peer companies by lifting the cash flow generation potential in all of its business areas. The company will continue to focus on securing its financial position through exercising strong capital discipline while maintaining a sustainable level of capital expenditures to safeguard its operating portfolio. Offering a reliable dividend level to shareholders and preserving Hydro's investment grade credit rating continue to be key priorities.

Hydro is engaged in a systematic dialogue with local, state and federal politicians, industry associations and non-governmental organizations regarding the regulatory challenges facing its worldwide operations. In Brazil, the focus of the dialogue is on Hydro's contribution to a sustainable aluminium value chain in the state of Para and underlines the need for competitive and predictable framework conditions for Hydro's operations. Hydro is committed to support verticalization through the aluminium value chain, contribute to the development in the region and act as an enabler for sustainable growth in the state of Para.

### Improved position in an industry with attractive potential

Growth in aluminium demand remains firm, despite volatile economic conditions, driven by a general increase in consumption as well as the increasing substitution of aluminium for other materials. Aluminium products are important in all phases of economic development due to the diversified nature of applications such as capital investment in infrastructure and housing as well as consumer goods such as packaging, transportation, electrical and technical applications and household goods. Substitution effects are driving demand primarily in mature markets and in the



transportation segment, while investments in infrastructure and construction and increasing consumption are supporting demand growth in emerging economies.

Hydro has strong positions throughout the value chain and a highly attractive asset base. This includes high quality bauxite and alumina, captive hydropower, a competitive smelter portfolio, European leadership in rolling operations, strong position in recycling and a world leading extrusion position through its investment in the Sapa joint venture. Following years of depressed earnings and unsatisfactory returns for the industry as a whole, continual improvement and restructuring efforts have strengthened Hydro's position relative to its industry peers and improved the company's position to utilize opportunities as the global economy evolves.

Hydro has an attractive project portfolio, including the possibility for a new alumina refinery in Barcarena, close to Alunorte, a possible expansion of the Paragominas bauxite mine, the potential of doubling the capacity of the Qatalum smelter and the possibility to expand the part-owned Alouette smelter in Canada. Hydro is actively working on opportunities within recycling to expand the business and source more challenging scrap material. Partnerships and joint ventures across the value chain provide the potential for further developing Hydro's asset portfolio. Investments in these projects are, among other factors, dependent on ongoing developments in the balance between industry supply and market demand.

Climate, HSE, CSR and compliance remain high on Hydro's priority list and are considered key elements of the company's license to operate. Hydro is on track to deliver the industry's most ambitious climate target of becoming carbon neutral from a life-cycle perspective by 2020. The company's safety performance is among the best in the industry, and Hydro is aiming for further reductions to become the industry benchmark with a TRI below 2.0 by 2020. Hydro has been involved at all stages in the multi-stakeholder development of the Aluminium Stewardship Initiative's (ASI) standards and is participating to develop ASI's supporting systems for a credible and effective certification platform for responsible production, sourcing and stewardship of aluminium.

Hydro was highly ranked on corporate culture and tone from the top in a compliance comparison study undertaken on behalf of the company and plans further improvement to simplify, harmonize and strengthen its internal routines and controls.

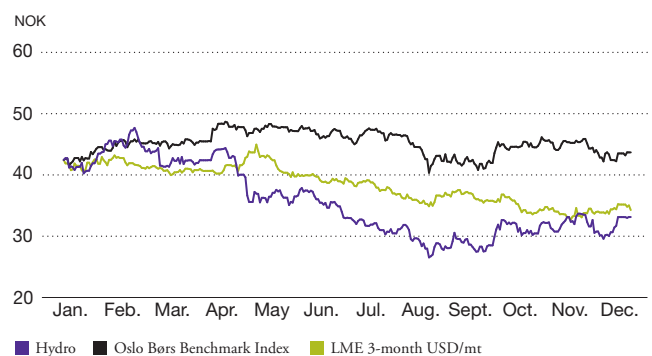
## Investor information

Hydro's share price closed at NOK 33.13 at the end of 2015.

For 2015, Hydro's Board of Directors proposes to pay a dividend of NOK 1 per share, demonstrating the company's commitment to provide a stable cash return to shareholders, and taking into account the uncertain market outlook. The proposed payment represents a 101 percent payout ratio for the year reflecting Hydro's operational performance for 2015 and strong financial position.

Hydro's policy is to pay out, on average, 40 percent of net income as ordinary dividend over the cycle to our shareholders. This policy was revised by Hydro's Board of Directors in 2015, from 30 percent to 40 percent of net income over the cycle.

### Share price development in 2015





## Financial results

### Underlying operating results

#### Key financial information

NOK million, except per share data	Year 2015	Year 2014
Revenue	87 694	77 907
Earnings before financial items and tax (EBIT)	8 258	5 674
Items excluded from underlying EBIT <sup>1)</sup>	1 398	18
Underlying EBIT	9 656	5 692
<i>Underlying EBIT :</i>		
Bauxite & Alumina	2 421	(55)
Primary Metal	4 628	3 937
Metal Markets	379	634
Rolled Products	1 142	698
Energy	1 105	1 197
Other and eliminations <sup>2)</sup>	(19)	(717)
Underlying EBIT	9 656	5 692
Underlying EBITDA	14 680	10 299
Net income (loss)	2 333	1 228
Underlying net income (loss)	6 709	3 728
Earnings per share <sup>3)</sup>	0.99	0.39
Underlying earnings per share <sup>3)</sup>	2.98	1.55
<i>Financial data:</i>		
Investments <sup>4)</sup>	5 865	3 625
Adjusted net debt <sup>5)</sup>	(8 173)	(13 587)

#### Key Operational information <sup>6)</sup>

	Year 2015	Year 2014	% change prior year
Bauxite production (kmt)	10 060	9 481	6 %
Alumina production (kmt)	5 962	5 933	-
Primary aluminium production (kmt)	2 046	1 958	4 %
Realized aluminium price LME (USD/mt)	1 737	1 850	(6) %
Realized aluminium price LME (NOK/mt) <sup>7)</sup>	13 813	11 624	19 %
Realized NOK/USD exchange rate <sup>7)</sup>	7.95	6.28	27 %
Metal products sales, total Hydro (kmt) <sup>8)</sup>	3 186	3 274	(3) %
Rolled Products sales volumes to external market (kmt)	948	946	-
Power production (GWh)	10 894	10 206	7 %

1) See section Items excluded from underlying EBIT and net income later in this section for more information on these items.

2) Other and eliminations includes Hydro's 50 percent share of underlying net income from Sapa.

3) Earnings per share and Underlying earnings per share are calculated using Net income and Underlying net income attributable to Hydro shareholders, and using the weighted average number of ordinary shares outstanding. There were no significant diluting elements.

4) Investments include non-cash elements relating to capitalized leases.

5) See note 40 Capital Management in Hydro's Financial statements - 2015 for a discussion of the definition of adjusted net debt.

6) Amounts include Hydro's proportionate share of production in equity accounted investments.

7) Including the effect of strategic hedges (hedge accounting applied).

8) Sales from casthouses (incl. Rheinwerk), remelters, third party sources and liquid metal. Sales volumes for 2014 have been restated.

To provide a better understanding of Hydro's underlying performance, the following discussion of operating performance excludes certain items from EBIT (earnings before financial items and tax) and net income, such as unrealized gains and losses on derivatives, impairment and rationalization charges, effects of disposals of businesses and operating assets, as well as other items that are of a special nature or are not expected to be incurred on an ongoing basis.

Underlying EBIT for Bauxite & Alumina improved significantly compared to 2014, influenced by positive currency developments and lower raw material costs, partly offset by lower realized alumina prices. Both Paragominas and Alunorte reached record production for 2015 amounting to 10.1 million mt and 6.0 million mt respectively. In 2015, Bauxite & Alumina also achieved the best underlying EBIT since Hydro acquired the business in 2011. Bauxite & Alumina completed the "From B to A" improvement program realizing NOK 300 million during the year and reached the overall targeted improvement of NOK 1 billion compared to 2011.

Primary Metal underlying EBIT improved for 2015 compared with the previous year despite lower realized LME and premiums due to significant positive effects from the stronger US dollar. Results from Qatalum declined compared with the previous year as a result of lower realized all-in metal prices. By the end of 2015, Primary Metal achieved USD 140 per mt (Hydro's share) under the global joint venture improvement program. Further improvements were also achieved for the fully owned smelters beyond the USD 300 per mt program which was concluded in 2013.<sup>9)</sup>

Underlying results for Metal Markets decreased compared with 2014 mainly due to substantial losses from sourcing and trading activities due to the decline in standard ingot premiums. This was partly offset by higher results from remelt operations. In addition, underlying results were influenced by negative currency and inventory valuation effects. Metal product sales excluding ingot trading was somewhat lower compared with 2014 mainly due to lower remelt production at our plants.

Rolled Products Underlying EBIT for 2015 improved significantly, mainly due to positive currency developments from the stronger USD.<sup>10)</sup> Margins improved somewhat, mainly for our general engineering segment. Shipments of automotive car body sheet, can beverage and general engineering products increased compared to the previous year while sales of packaging foil was stable. Sales of lithographic

sheet declined somewhat. In 2015, Rolled Products completed the "Climb" improvement program one year ahead of schedule achieving cumulative annual saving and improvements of NOK 800 million compared to 2011.

Underlying EBIT for Energy in 2015 declined compared to the previous year mainly due to lower spot prices partly offset by higher production. Energy produced 10.9 TWh of renewable hydroelectric power, which is above the normal annual production of 10 TWh.

Sapa delivered significantly improved underlying EBIT for 2015, supported by internal improvements in Europe and across the organization, as well as a strong performance in the North American business. Positive effects from a weakening Norwegian krone were offset by sharply falling metal premiums. The restructuring program initiated in 2013, targeting annual synergies of around NOK one billion by the end of 2016, reached its target in 2015, one year ahead of time.

## Reported results

Reported earnings before financial items and tax amounted to NOK 8,258 million in 2015, including net unrealized derivative gains and negative metal effects of negative NOK 454 million in total. Reported earnings also included charges of NOK 285 million relating to the termination of the Vækerø Park lease contract, net losses on divestments of NOK 365 million, including loss of NOK 434 million related to the sale of the Slim rolling mill and gains of NOK 69 million in total related to sale of other assets, as well as other positive effects amounting to NOK 37 million. In addition, reported earnings included a net charge of NOK 331 million for Sapa (Hydro's share net of tax), including NOK 256 million relating to restructuring charges, NOK 66 million relating to unrealized derivative losses, a net foreign exchange loss of NOK 23 million and other positive effects of NOK 14 million.

In the previous year, reported earnings before financial items and tax amounted to NOK 5,674 million including net unrealized derivative gains and positive metal effects of NOK 729 million in total. Reported earnings also included impairment charges of NOK 207 million, net charges of NOK 512 million in Sapa mainly relating to restructuring activities and impairments of fixed assets in China, and other items amounting to a net charge of NOK 28 million.

Net financial expense amounted to NOK 4,834 million in

9) Amounts relating to annual improvements achieved by the end of 2015 for the USD 180 per mt joint venture program are based on a comparison to cost and revenue levels in 2011. Amounts relating to the USD 300 per mt program are compared to 2009.

10) Rolled Products incurs currency gains and losses on export sales from its Euro based operations mainly denominated in US dollars. These gains and losses affect the value of the margin contribution to underlying EBIT and can be significant. Offsetting gains and losses on internal hedges are reported as financial items.

2015 compared to NOK 3,554 million in the previous year, both years affected by substantial currency losses.

In 2015 income before tax amounted to NOK 3,425 million including a net foreign exchange loss of NOK 4,397 million. The net exchange loss in 2015 was mainly comprised of unrealized currency losses on US dollar debt in Brazil and embedded derivatives in power contracts denominated in Euro, in addition to unrealized losses on US dollar debt in Norway. In the previous year income before tax amounted to NOK 2,121 million including a net foreign exchange loss of NOK 3,161 million. In 2014 the net exchange loss related mainly to debt denominated in US dollar and intercompany balances denominated in Euro, and also included unrealized losses on embedded derivatives in power contracts denominated in Euro.

Income taxes amounted to a charge of NOK 1,092 million in 2015, compared with a charge of NOK 892 million in 2014. The tax rate of 32 percent reflects the relatively high share of reported income before tax subject to power sur tax, partly offset by recognition of deferred tax assets previously not recognized.

Net income amounted to NOK 2,333 million in 2015, compared with NOK 1,228 million in 2014.

### Liquidity, financial position, investments

Hydro manages its liquidity at the corporate level, ensuring sufficient funds to cover group operational requirements.

In 2015, cash provided from continuing operating activities of NOK 14.3 billion was more than sufficient to cover investments net of sales proceeds amounting to NOK 5.3 billion and dividend payments to majority shareholders of NOK 2.0 billion. Net loan repayments amounted to NOK 5.0 billion, including repayment of short-term debt in Brazil of NOK 4.1 billion.

Hydro's net debt changed from net debt of NOK 0.1 billion at the end of 2014 to net cash of NOK 5.1 billion at the end of 2015. This is also reflected in a decrease in adjusted net debt excluding equity accounted investments. Hydro's adjusted net debt to equity ratio was 20 percent, well below its targeted maximum ratio of 55 percent. Our funds from operations/adjusted net debt ratio was 89 percent, well above the targeted minimum of 40 percent over the business cycle.

Norsk Hydro ASA has a USD 1.7 billion revolving multi-currency credit facility with a syndicate of international banks, maturing in November 2020 after being extended one year. There was no borrowing under the facility as of December 31, 2015. The facility will continue to serve

primarily as a back-up for unforeseen funding requirements. See note 35 to the consolidated financial statements for additional information.

## Market developments and outlook

### Upstream market developments

Three month LME prices started the year around USD 1,850 per mt and reached a level of USD 1,938 per mt in the second quarter before falling to USD 1,435 towards end of November. At the end of the year, prices increased again to around USD 1,515 per mt. Prices averaged USD 1,800 per mt in the first half of 2015 and declined to an average of roughly USD 1,565 per mt in the second half of the year.

Standard ingot and product premiums were at record levels at the beginning of 2015, but fell throughout the year, ending the year at more historical levels. Average North American standard ingot premiums decreased to around USD 280 per mt or around 38 percent lower than average premiums in 2014. Corresponding standard ingot premiums in Europe declined to USD 237 per mt or 44 percent lower than in 2014. Premium developments have been influenced by exports of semi-finished products from China and increased metal available from warehouses.

Global primary aluminium consumption increased by 4 percent to 56.3 million mt in 2015. Global supply increased by about 6 percent resulting in a surplus of around 1.2 million mt. For 2016, global primary aluminium demand is expected to increase by 3-4 percent while supply is expected to increase by about 1 percent, resulting in a largely balanced global market.

Demand for primary aluminium outside China increased to 27.2 million mt or around 1 percent, while corresponding production increased by 1.6 percent to 26.3 million mt. Demand for primary aluminium outside China is expected to grow around 2-4 percent in 2016. Corresponding production is expected to be largely stable, resulting in a larger deficit in the world outside China in 2016.

Demand for primary metal in China increased around 7 percent to 29.1 million mt in 2015. Corresponding production increased by around 10 percent, resulting in a surplus of around 2.1 million mt for the year. Chinese primary production growth is expected to moderate in 2016 to around 2 percent influenced by announced curtailments and closures while primary demand is estimated to increase by around 3-5 percent, resulting in a continued but reduced surplus.

LME stocks fell throughout the year from 4.2 million mt at the end of 2014 to 2.9 million mt at the end of 2015. Most of the metal in warehouses continues to be owned by financial investors. Total inventories, including unreported inventories, however, were estimated to have increased by about 1.2 million mt throughout 2015, amounting to around 14.7 million mt at the end of 2015.

Demand for foundry alloys and sheet ingot in Europe has been solid during 2015 and increased compared to the previous year. Developments in the European wire rod market were also positive, with increasing volumes compared to 2014. Consumption of extrusion ingot was stable. Consumption of extrusion ingot has been strong in the US in 2015 while the demand for primary foundry alloys increased moderately compared to 2014. In Asia (excluding China), the market for extrusion ingot and primary foundry alloys showed moderate growth, but flattened towards the end of the year.

The global alumina market was oversupplied at the end of 2015. Prices averaged USD 301 per mt for the year, a decrease of 9 percent compared to 2014, and ended the year at USD 201 per mt. Average prices as a percentage of LME increased and represented 17.8 percent for the year compared with 17.5 percent in 2014. Spot prices at the end of 2015 represented 13.3 percent of LME.

Chinese alumina imports amounted to 4.7 million mt in 2015, a decrease of 12 percent compared with 2014. Bauxite imports into China increased to 56.1 million mt, or 54 percent higher compared to 2014 driven by imports from Malaysia. In January 2016, Malaysia imposed a three month moratorium on bauxite mining to reduce environmental pollution caused by poorly controlled mining activities.

### Downstream market developments

The European market for flat rolled products increased by around 2 percent in 2015. The automotive segment continued to be the dominant market driver due to the growing substitution of steel by aluminium together with an increase in European car production of around 6 percent in 2015.

Demand for general extruded products was strong in North America compared to 2014, with an increase of more than 5 percent. European extrusion markets were stable with a continued weakening in the building systems market offset by positive developments in most other market segments.

### Energy market developments

In 2015, Nordic electricity prices declined further compared to the previous year. Developments were influenced by strong Nordic hydropower production in addition to high

continental solar and wind generation together with wet, mild and windy weather conditions towards the end of the year. Nordic consumption increased by 1.9 TWh to 377.6 TWh in 2015. Total power production increased by 6.2 TWh to 393.4 TWh.

The economic downturn in Brazil has had a negative influence on demand for power throughout the country compared with 2014. This, combined with other hydrological factors has resulted in a more balanced power market compared to the previous year which was significantly influenced by severe drought conditions.

## Risk

Hydro has developed and implemented an enterprise risk management model, approved by the company's board of directors. In accordance with this model, Hydro continuously identifies, analyzes, addresses and monitors risk factors relevant for the company's business. Risk management is an integral part of Hydro's business activities, and the business areas consequently have the main responsibility for managing risks arising from their business activities. Hydro's corporate staffs establish and develop policies and procedures for managing risk, and coordinate a semi-annual overall enterprise risk assessment. Major risks are followed up, on an ongoing basis, as part of our internal review meeting structure.

Below is a description of some of the principle risks identified that may affect Hydro's business operations, financial condition and results of operations and share price. The description also includes a summary of the actions taken to mitigate the risks. However, these efforts may fail or prove to be inadequate to mitigate the risks Hydro faces.

*Hydro is subject to a broad range of laws and regulations in the legal jurisdictions in which the company operates. These laws and regulations impose stringent standards and requirements and potential liabilities. Changes in the regulatory framework or political environment in which Hydro operates could have a material adverse effect on the company's operating results and financial position.*

Hydro's operations include extracting and refining bauxite resources and utilizing water resources for the generation of power. Such activities have increasingly been subject to local and regional tax regimes which are separate and in addition to national tax regimes such as corporate income tax.

In Brazil, the tax system is complex and volatile, with a broad range of direct and indirect taxes levied at the federal, state

and municipal levels. Over the past several years, state finances of Brazil have deteriorated, leading to mounting pressure to increase tax revenues.

Failure to comply with the requirements of the Brazilian Department of Mines with respect to exploration permits and mining concessions may result in a loss of title. Third parties (including, but not limited to, indigenous persons) may dispute title to mineral concessions or the right to conduct mining or exploration activities.

Hydro is engaged in a systematic dialogue with local, state and federal politicians, industry associations, non-governmental organizations and local communities regarding the regulatory challenges facing its operations. The focus of the dialogue is on Hydro's contribution to a sustainable aluminium value chain and underlines the need for competitive and predictable framework conditions for our operations.

Hydro is, directly and indirectly, exposed to increasingly demanding legislation on reducing greenhouse gas emissions. An increasing number of countries have introduced, or are likely to introduce legislation with the objective of reducing greenhouse gases emissions. This is expected to accelerate following the new climate accord reached at the Paris climate conference in December, 2015.

Hydro has been an active participant in the development of international frameworks on climate change and greenhouse gas emissions supporting the establishment of a level playing field for global aluminium production. Hydro engages in significant R&D activities focused on reducing energy consumption and improving electrolysis efficiency including anode consumption which is the main source of CO<sub>2</sub> emissions from our smelter operations. Hydro has an ambitious mid-term strategic goal to become carbon-neutral from a life-cycle perspective by 2020.

*Hydro is exposed to a risk of unfavorable macro-economic development, including risk of prolonged periods of low aluminium and alumina prices and oversupply in the global aluminium market. Macroeconomic development also drives changes in currency values, which has a significant effect on Hydro's cost and competitive position.*

*Our business is exposed to competition from China, which could have a significant negative impact on market prices and demand for our products.*

Global aluminium oversupply, in addition to high global stock levels, have had a negative effect on LME prices in recent years. Following improvements in 2014, market conditions deteriorated throughout 2015, impacted by oversupply in China leading to increased exports of primary metal in the form of semi-fabricated products. This

development, together with increased metal availability from warehouses and an overall downward shift of the industry cost curve, has resulted in a decline in all-in metal prices during 2015. The majority of Hydro's upstream capacity is located in countries that have experienced historically strong currencies and/or inflationary pressures. In 2015 the company's major cost currencies weakened substantially, having a significant positive impact on our cost level and competitive position. If our main cost currencies strengthen going forward, this will increase our operating cost and weaken our global competitive position.

Hydro's core strategy to reduce the risks related to weak economic conditions, unfavorable market developments and competition from China is the continuous improvement of the company's business in terms of operational efficiency, cost reductions, product high-grading and enhanced commercial strategies. In order to secure financial liquidity, we concentrate on maintaining a strong balance sheet, strong capital discipline and a continued focus on working capital.

*Hydro may be unable to achieve or maintain the operational targets necessary to secure the competitiveness of the company's business. Failure to develop or maintain a high performance culture throughout the organization will reduce the competitiveness of the company's business and result in the failure to meet our long-term financial targets.*

Since the acquisition from Vale in 2011, Hydro has been determined to lift the operating performance of the Bauxite & Alumina assets located in Brazil and the related global commercial operations. Substantial parts of the Brazilian operation are located in remote areas where it has been difficult to attract and retain the competence required to achieve our performance goals for these operations.

Operational performance may also be inhibited by other factors such as the inability to develop necessary technical solutions; changes or variations in geologic conditions, environmental hazards, weather and other natural phenomena; mining and processing equipment failures and unexpected maintenance problems and interruptions. Hydro's bauxite reserves in Brazil and the estimated quantities of bauxite that Hydro expects can be economically mined and processed are also subject to material uncertainties. In addition our operations are dependent upon large volumes of energy and our business could be materially adversely affected by the inability to replace, on competitive terms, our long-term energy supply contracts when they expire, or our own electricity production, to the extent that concessions revert to the Norwegian state.

A cornerstone in the company's work to reach operational targets and secure the competitiveness of its operations is the use of standardized business systems to structure and



formalize continuous improvement work. We are also engaged in a number of initiatives to identify and secure competitive energy supplies for our operations, and are actively involved in promoting a sustainable energy policy in the regions where we operate.

*Hydro makes significant capital investments and acquisitions as part of its business development, and may fail to realize the benefits expected from such transactions and projects. Major projects and acquisitions are subject to significant risk, and uncertainty. Acquisitions may also contain significant unidentified risks and liabilities.*

Hydro has decided to build the Karmøy Technology Pilot to operationalize “next generation” cell and smelter technology. We may fail to execute the project on time or on budget or to achieve the expected technical enhancements and benefits for the existing smelter portfolio.

Hydro has made major investments in emerging and transitioning markets and future investments may occur or may be more likely to occur in such places. Investing in emerging and transitioning markets is demanding, and subject to significant uncertainties, and Hydro may not be capable of succeeding in expanding its business in such markets.

At the end of 2015, around half of Hydro's smelter capacity was owned through interests in joint ventures and partly-owned subsidiaries, and the company's extrusion operations are owned through the 50/50 joint venture, Sapa. Investments as a minority partner in jointly owned entities reduces Hydro's ability to manage and control this part of its portfolio. Investments in jointly owned entities, including those in which Hydro holds a majority position, also entail the risk of diverging interests between business partners, which could impede the company's ability to realize its objectives, repatriate funds or achieve full compliance with Hydro's standards.

In order to mitigate the risk associated with the execution and implementation of major projects, all capital projects in Hydro, including M&A projects, are subject to a formal, comprehensive, internal review process prior to making any commitment. Hydro is continuously working to improve our project evaluation and execution processes.

*Hydro's business is subject to a number of risks and hazards which could result in disruptions to operations, damage to properties and production facilities, personal injury or death, environmental damages, monetary losses and possible legal liability.*

Some of our operations are located in close proximity to sizable communities. Major accidents could result in substantial claims, fines or significant damage to Hydro's reputation. Breakdown of equipment, power failures or other

events leading to production interruptions in our plants could have a material adverse effect on our financial results and cash flows. In addition, the potential physical impacts of climate change on our facilities and operations is highly uncertain and may cause disruptions in our operations.

In order to reduce the risk of disruptions of our operations and potential consequences, we perform regular risk assessments and engage in comprehensive emergency preparedness training. We have also focused on increasing our resilience against power outages. In addition, Hydro maintains insurance to protect against certain risks in such amounts as it considers reasonable and in accordance with market practice.

*Hydro could be negatively affected by investigations, legal proceedings, material CSR incidents or major non-compliance with internal or external regulations.*

Violation of applicable laws and regulations could result in substantial fines or penalties, costs of corrective work and, in rare instances, the suspension or shutdown of our operations and substantial damage to the company's reputation. In addition, Hydro is exposed to actual or perceived failures to behave in a socially responsible manner beyond regulatory requirements. Such failures could result in significant, negative publicity and potential serious harm to Hydro's reputation.

Hydro has significant operations in Barcarena, Brazil, including the Alunorte alumina refinery and Albras aluminium smelter. Local social conditions are challenging with high levels of unemployment and general poverty. Social unrest in Barcarena could result in operational instability and reduced performance of the affected operations. To improve social conditions in Barcarena, Hydro is developing infrastructure projects that aim to have significant impact on the social development of the municipality.

In 2015, Sapa, a joint venture owned 50 percent by Hydro, disclosed that quality test results at its fully owned subsidiary Sapa Portland Inc. (SPI) had been altered in certain instances by employees during the period between 1996 and 2015. Please see Key developments and strategic direction section in this report for further information.

Hydro has a comprehensive compliance system, including a Code of Conduct that applies to all employees, and regular and systematic compliance training. We are proactive in our interaction with counterparties and our supplier requirements regarding integrity and compliance form an integral part of our procurement process. Hydro is active in, and has a long tradition for, conducting dialogue with the relevant parties affected by our activities.

*Hydro is exposed to the threat of cyber attacks which may disrupt its business operations, and result in reputational harm and other negative consequences.*

Hydro's IS/IT infrastructure is a critical element in all parts of our operations. Cyber crime is increasing globally, and Hydro is exposed to threats to the integrity, availability and confidentiality of our systems.

Hydro has launched several initiatives to increase the robustness of the company's IS/IT infrastructure towards malicious attacks by improving system infrastructure and educating employees to develop and improve secure work processes and routines.

## Compliance, controls and procedures

Hydro's Code of Conduct requires adherence with external laws and regulations as well as internal steering documents and is systematically implemented and followed up through our compliance system. The compliance system is based on four pillars: prevention, detection, reporting and responding. In addition to financial compliance, priority areas are HSE, anti-corruption and competition law (see the section Society).

In the autumn of 2014, the board of directors initiated an independent external review of Hydro's compliance system. The review concluded that the business culture and tone from the top is at a level regarded as leading practice. Recommendations for improvements have been included in the management's continuous improvement work of the compliance system to secure that compliance risk is adequately controlled and works according to its intentions.

Hydro follows the Norwegian Code of Practice on Corporate Governance of October 2014. Details on Hydro's compliance with the code are in the section "Norwegian Code of Practice on Corporate Governance." Information on the company's shareholder policy is in the section "Shareholder information."

The board audit committee carries out a control function and arranges for the board to deal with the company's financial and extra-financial reporting.

## Research and development

In 2015, research and development costs recognized as an expense amounted to NOK 330 million compared to NOK 277 million in 2014. The increase is mainly due to increased R&D related to preparation for the Karmøy Technology Pilot, developing aluminium product solutions with

improved properties and environmental benefits, and increased R&D activities in Bauxite & Alumina. The greater part of our R&D expenses goes to our in-house research organization, while the remainder supports work carried out at external institutions. Our main R&D centers are in Årdal (smelter technology) and Sunndal (alloys and casting) in Norway and Bonn in Germany (Rolled Products). The 50/50 joint venture Sapa has its own research centers. A new research department for Bauxite & Alumina has been established at Alunorte in Barcarena, Brazil.

Our technology efforts are concentrated on:

- Making products that promote the use of aluminium and sustainable development
- Developing the world's best electrolysis technology
- Using R&D and technology to ensure optimal operations in existing assets

All business areas are responsible for their own technology development and execution of their technology strategies. A corporate technology office, reporting directly to Hydro's President and CEO, shall ensure a holistic and long-term approach to Hydro's technology strategy and agenda. The technology office leads an internal R&D network with representatives from the business areas, and supports the corporate management board in developing overall research and technology priorities and strategies.

A major advantage for Hydro is the knowledge and control of the entire value chain from bauxite mining, alumina refining, electrolysis of primary aluminium and alloy technology to finished products. Upstream R&D and other innovation efforts mainly emphasize technology development and operational efficiency. In downstream operations, new products and applications - largely in cooperation with our customers - are of utmost importance.

Our aluminium plants in Sunndal, Norway, and Qatalum, Qatar, utilize our enhanced HAL 300 technology with an energy consumption of about 13.5 kWh/kg aluminium compared to a global average of about 14 kWh/kg. Our next-generation technology, HAL4e, has been tested in a limited number of full-scale production cells delivering an energy consumption of 12.5 kWh/kg. A 75,000-metric-ton pilot plant with the aim of full-scale industrial testing of this proprietary technology is under construction at Karmøy, Norway, supported by a contribution of NOK 1.6 billion from Enova, a Norwegian public enterprise which supports new energy and climate-related technology.

An important part of Hydro's overall technology strategy is that our researchers cooperate closely with operators and experts in optimizing operations in existing plants. The

competence base in Hydro's technology environments is on a very high level and in core areas world-class. In recent years we have emphasized utilizing this competence in operational improvements.

## Society

As a global aluminium company with mining interests and about 13,000 suppliers, Hydro is at risk of being exposed to corruption and human rights violations. Hydro's approach is zero tolerance, and in the event of violations, our policy is first to correct, then act in a transparent manner, learn and implement corrective actions.

Our compliance system is based on prevention, detection, reporting and responding. Combating corruption and respecting human rights are integral to our supplier requirements. Some of the measures we pursue to ensure integrity and responsible behavior include:

- Ensuring a robust compliance environment
- Combating corruption
- Respecting human rights
- Promoting CSR in our supply chain

Hydro maintains a board sanctioned code of conduct that is regularly updated. The code of conduct requires adherence with external laws and regulations as well as internal steering documents and is systematically implemented and followed up through our compliance system. All employees are required to confirm that they have received, read and understood Hydro's Code of Conduct.

Compliance is a line responsibility in Hydro, supported by corporate staffs including Legal, HSE and CSR. Compliance officers coordinate processes and activities throughout the organization. The Chief Compliance Officer reports to the board of directors through the board audit committee at his own discretion and meets with the board of directors minimum twice per year.

Compliance is integrated with our business planning and follow-up process including relevant key performance indicators. Corporate responsibility issues are systematically addressed in activities relating to business development, investment programs and project execution. Compliance is addressed in the quarterly performance review meetings each business area has with the CEO, and an annual compliance report is submitted to the board of directors.

Employees are encouraged to discuss concerns and complaints with their superior. If the employee deems this

not to be appropriate, he or she may address any of his or her superiors, the local human resources or HSE staffs, a safety representative, the compliance officers or the Corporate Legal Department. If the employee is uncomfortable using any of the above channels for any reason, Hydro's whistle-blower channel, AlertLine, can be used. All employees and contractors have anonymous access in their own language at all times via toll-free phone numbers, Hydro's intranet or the Internet. In certain countries, e.g. Spain, there are, however, legal restrictions on such reporting lines. AlertLine is publicized throughout the organization. In 2015, 83 reports were filed through the AlertLine compared to 60 in 2014. All were investigated and nine cases lead to in total 23 dismissals.

Every quarter the head of Hydro's internal audit informs the board audit committee and the corporate management about matters reported through the AlertLine. The head of internal audit reports to the company's board of directors through the board audit committee. Hydro's internal audit has resources both in Norway and Brazil.

For information about alterations of certain test records in Sapa, please see Key developments and strategic direction in the Board of directors' report.

We recognize that our activities impact the societies in which we operate, and we have a long tradition of conducting a dialogue with the relevant parties affected by our activities. These include unions, works councils, customers, suppliers, business partners, local authorities and non-governmental organizations. We have established contact with local authorities and representatives for our neighbors. This includes dialog with traditional Quilombola groups in Brazil. We have developed a system for third party grievances for all operations in Brazil, which will work as a pilot for a systematic approach for all of Hydro. The system was implemented in Brazil in 2014, but there is still a need to make it better known. Social unrest in Barcarena in Brazil may cause a risk of operational instability and reduced performance. To improve social conditions, Hydro is developing infrastructure projects that aim to have significant impact on the social development of the municipality.

Since 2012 Hydro has cooperated with the Danish Institute of Human Rights (DIHR). In 2014, the work included further development of our human rights due diligence systems as well as CSR assessment of all of Hydro's Brazilian operations, and evaluation of the third party grievance mechanism in Brazil. DIHR's complete assessment report was published at [www.hydro.com](http://www.hydro.com) in 2015. DIHR is also one of several stakeholders involved in the ongoing updating of Hydro's human rights policy.

In 2015, Hydro spent NOK 30 million on community investments, charitable donations and sponsorships, of which 43 percent was related to community investments. Also in 2015, we implemented a new system for planning, monitoring and evaluating social projects in Brazil which was successfully tested for three different projects.

Hydro supports the principle of freedom of association and collective bargaining and has a long tradition in maintaining a good dialogue with employee organizations. As an employer, owner and purchaser, our most important role related to human rights is to secure decent working conditions in our own organization, in part-owned companies and with our suppliers. This is based on our commitment to ILO's eight core conventions. Hydro's position on freedom of association, child and forced labor is also anchored in its global directives. In addition, we have a corporate agreement with the main unions regarding the European Works Council. Almost all our production sites in Europe and Brazil are unionized. These sites represent 98 percent of Hydro's employees.

Hydro's Integrity Program is based on the Code of Conduct, and is an important tool to prevent corruption and human rights violations. The program is under revision and will be renamed Hydro Integrity Guidelines. Roll-out of the program is planned for 2016, including training for relevant employees.

It is essential for us to avoid the use of child labor and forced labor, both in Hydro's activities and in those of our suppliers and partners. While child and forced labor has very low risk within our own operations, the risk is higher in the supply chain.

Hydro's supplier requirements related to corporate responsibility are, as stated in our global directives, an integral part of all stages of the procurement process. The requirements cover issues related to environment, human rights, anti-corruption and working conditions, including work environment. Implementation is risk-based and takes into consideration contractual value, country risk, etc. The requirements include auditing rights and the suppliers' responsibility towards their suppliers and sub-suppliers. Totally 129 supplier audits took place in 2015.

During 2015, approximately 1,800 potential or existing counter-parties were screened for human rights violations, corruption, financing terrorists, money-laundering, politically exposed persons and violations relating to sanctions and export. This led to a number of issues which were further investigated. Regular transaction based screening of suppliers is also carried out.

Hydro is committed to the protection of people, environment and physical assets, anticipating and preparing for possibly adverse incidents with crisis potential in order to maintain business and operational continuity.

Hydro has been included in the Dow Jones Sustainability Indices each year since the index series started in 1999. We are also listed on the corresponding UK index, FTSE4Good, and the UN Global Compact 100 stock index.

We support the principles underlying the Universal Declaration of Human Rights, the UN Global Compact and ILO's eight core conventions. We are a member of the International Council on Mining and Metals (ICMM) and are committed to following their principles and position statements. We use the Global Reporting Initiative's G4 guidelines for voluntary reporting of sustainable development.

Hydro also supports the Extractive Industries Transparency Initiative (EITI) and complies with the Norwegian legal requirements on country by country reporting, see later in this report.

## Environment

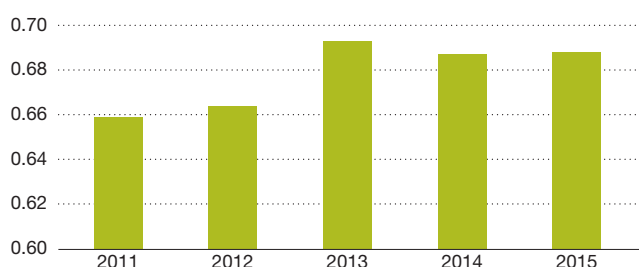
The most important environmental effects of Hydro's activities relate to climate change, biodiversity, recycling and waste management. The main resource inputs are bauxite, energy, water and land use.

Our climate strategy is an integral part of the overall business strategy, including reducing the environmental impact of our production activities as well as taking advantage of business opportunities by enabling our customers to do the same. Some of the measures include:

- Increasing production of renewable hydropower and primary aluminium in Norway
- Increasing energy efficiency and reducing emissions in production processes in our alumina refinery, aluminium plants and rolling mills
- Developing products and solutions, establishing partnerships with advanced customers
- Supporting global energy-efficiency goals by helping customers reduce energy consumption and emissions
- Reducing waste and increasing recycling of aluminium
- Utilizing advanced sorting technology and developing recycling-friendly alloys
- Increasing reforestation

## GHG emission intensity – alumina refining

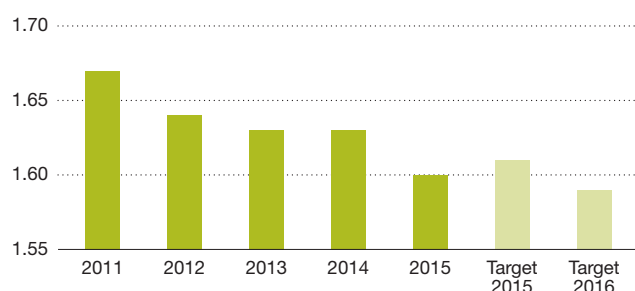
mt CO<sub>2</sub>e/mt aluminium



Includes greenhouse gas (GHG) emissions from alumina refining.

## GHG emission intensity – electrolysis

mt CO<sub>2</sub>e/mt aluminium



Includes greenhouse gas (GHG) emissions from electrolysis in primary aluminium production.

Hydro's ambition is to be climate neutral in a life cycle perspective by 2020 by reducing direct and indirect emissions, increasing the share of recycled metal in our production and delivering more aluminium to markets and products which contribute to CO<sub>2</sub> savings. The target includes the effects of forest clearing and rehabilitation in Paragominas.

Greenhouse gas (GHG) emissions from Hydro's current consolidated activities as well as emissions from our ownership equity - including indirect emissions from electricity generation - remained at the same level as in 2014 despite increased production of alumina and primary aluminium. From 2016, we will adjust our reporting of GHG emission data in the annual report to be in line with the EU Emissions Trading Scheme (ETS) requirements.

Our ambition is to take a strong position in aluminium recycling. In 2015, we recycled 1.1 million metric tons (mt) of aluminium which was the same level as in 2014. Of this, 134,000 mt was post-consumer scrap, an increase of 21 percent during the year. A new used beverage can line in Neuss, Germany, and increased recycling capacity in

Clervaux, Luxembourg, finalized at year-end will increase the capacity further. Our ambition is to recycle 250,000 mt post-consumer scrap by 2020.

Our environmental strategy also emphasizes:

- Ecosystems and biodiversity
- Waste and efficient resource use
- Water use
- Product stewardship

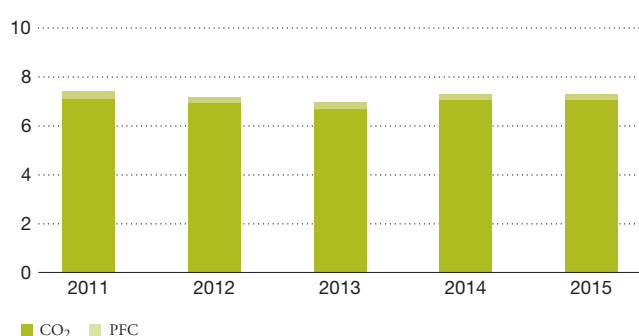
Biodiversity is an important issue in Pará and also to watersheds for our hydropower production in Norway. When developing new projects, we examine environmental issues in advance. The long-term aspiration is no net loss of biodiversity.

We have identified improvement potential in reforestation and wildlife management at the bauxite mine in Paragominas, and established a biodiversity strategy for Paragominas in 2013. Our top reforestation ambition is to achieve a balance of 1:1 in 2017 between rehabilitation and mined areas, and to close the existing reforestation gap by 2020. We cooperate with other mining companies and academic institutions to increase our knowledge and secure a science-based approach. This includes the formation of the Biodiversity Research Consortium Brazil-Norway (BRC), established in 2013. BRC was further strengthened in January 2016 through a new research collaboration agreement between the Research Council of Norway and the state of Pará.

In addition to land use and biodiversity, the main environmental issues in bauxite extraction and alumina refining include waste disposal and greenhouse gas emissions. Waste production includes significant amounts of mineral rejects (tailings) from the bauxite extraction process and

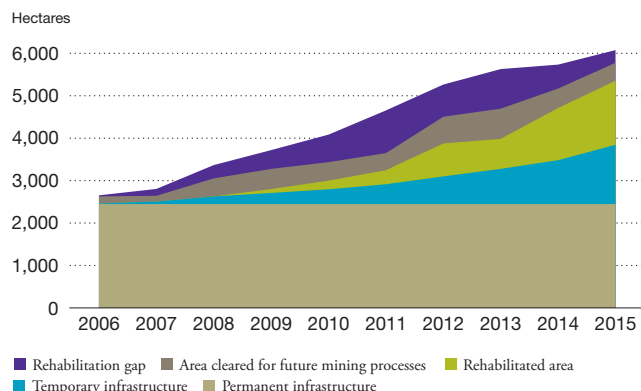
## Direct greenhouse gas emissions from Hydro's consolidated activities

Million metric tons CO<sub>2</sub>e





## Land use and rehabilitation – Paragominas



bauxite residue, also known as red mud, from the alumina refining process. Tailings are stored in settling ponds. Separated water is clarified and reused in the process.

The current tailing ponds, which are expected to be full by 2017, are constructed on a gradient slope. The new tailing dams will be situated on a plateau with an even safer construction. The dams are frequently inspected by Hydro and are also subject to external inspections, including by the Norwegian Geotechnical Institute (NGI), latest in November 2015. When full, the tailing ponds need to settle before reforestation can start.

Bauxite residue is a by-product of the alumina refining process. Its disposal is challenging due to large volumes and the alkaline nature of the liquid component of the residue, and we use state of the art dry stacking technology. The residue is washed with water to lower the alkalinity and recover caustic soda for reuse. Hydro has started construction

of a new bauxite residue deposit at Alunorte including conversion to a more advanced pressure filtration technology that will further reduce moisture content resulting in lower deposited volumes and reducing our environmental impact in the long term. The project is expected to be completed in 2016. We also participate in international collaboration projects investigating possibilities to use bauxite residue as a resource. Additions to cement and other construction materials are promising areas that will be pursued further.

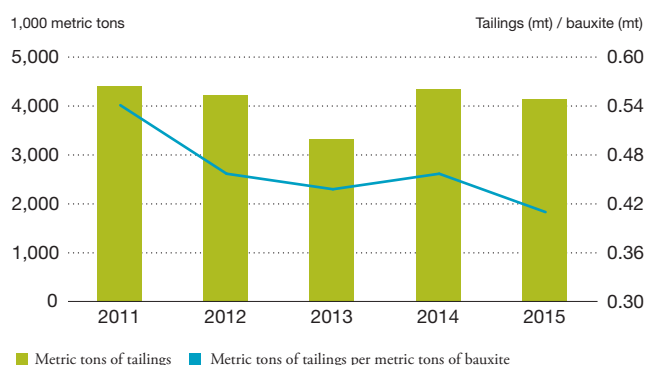
Spent potlining (SPL) from electrolytic cells used in primary aluminium production is defined as hazardous waste. We are working to find alternative use of SPL from our operations. Since 2012, we have delivered SPL and carbon waste from our Norwegian smelters to e.g. the cement industry.

An annual review of water use in 2015 revealed that 2.35 million m<sup>3</sup> of Hydro's overall fresh water input came from water-stressed areas, with regard to annual renewable water supply (according to WBCSD's definition). These areas include Germany and other parts of Europe, where water supply is well-regulated. Our ambition is to increase water efficiency by 15 percent in water-scarce areas within 2020, compared with a 2010 baseline. Qatalum in Qatar relies on public water supply produced by desalination. Sea water is used for wet cooling towers at the power plant.

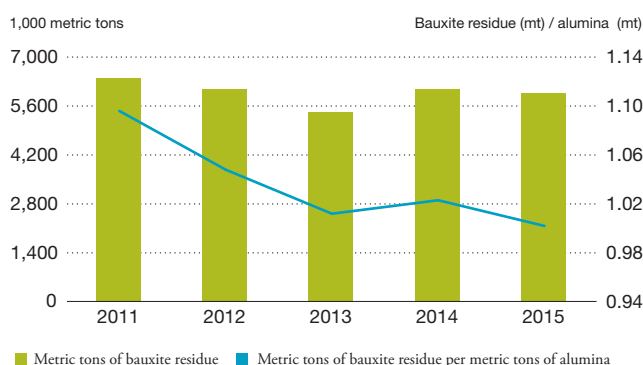
A review of the mercury balance at Alunorte was initiated in 2015. Further work will be made in 2016 including evaluating if any remediating actions will be needed.

Engagement with customers and other stakeholders on the environmental impact of our processes and products is an important element of our product stewardship. We perform life cycle assessments for all major product groups to identify improvement potential. We assess other aspects, such as energy and material consumption, toxicity and recyclability. Hydro is a member of the Aluminium Stewardship Initiative,

## Tailings from bauxite production



## Bauxite residue from alumina production



a multi-stakeholder process to set standards to improve environmental, social and governance performance across the aluminium value chain.

## People

Our ambition is to avoid all serious accidents. Internal independent investigations are routinely initiated after fatal accidents and other serious incidents to identify the causes and reduce risk for recurrences. It is important that our employees enjoy good health, and feel safe and appreciated. Healthy and motivated employees perform better and are more creative, and in that way contribute to increased profitability and better results.

The number of high-risk incidents within Hydro's operations continued to fall in 2015, and Hydro's safety performance remains among the best in the industry. The company reduced its TRI rate (total recordable injuries per million hours worked) by 6 percent to 3.0, while for own employees and contractor employees combined we reduced the TRI rate by almost 12 percent. Although this was one of the best results in the company's history, it was not sufficient to meet the target for the year of 2.8, and one of Hydro's employees became a victim of the Germanwings' crash during business travel. More than half the injuries in 2015 were related to hands, about 16 percent legs, 14 percent arms and shoulders and about 6 percent related to the face, eyes and ears.

Our approach to improving safety performance is based on risk management, leadership qualities and shop floor engagement. An example is one company-wide, harmonized high-risk incident investigation and communication tool.

A handbook for assessing physical and chemical work environment risks is used by the business areas to identify

potential health hazards and implement risk-reducing measures. We use our proactive tool for risk assessment of work environment to identify employees potentially at risk of developing occupational illnesses and implement risk-reducing measures. To encourage further improvement of the physical and chemical work environment, we have established a performance indicator based on the risk assessment. This is a proactive indicator driving improvement of the work environment reducing exposure to physical and chemical agents that has the potential of causing ill-health. The indicator is being used by all production sites, and the majority of these have established local targets and track the progress. The targets are tracked through a corporate reporting tool. In 2016, we will initiate a pilot in Rolled Products on further improving risk assessments of psychosocial work environment. The occupational illness rate in 2015 was 1.0 cases per million hours worked, down from 1.5 in 2014. Most of the reported cases are related to noise.

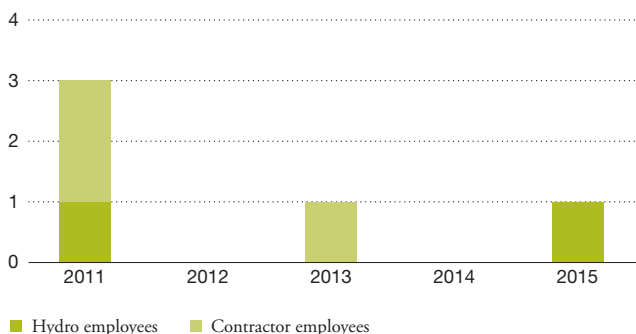
Sick leave in Hydro's global organization increased slightly from 3.8 percent in 2014 to 4.0 percent in 2015. In Norway, sick leave went down from 4.4 percent to 4.3 percent. The complete reduction was among women who still have a higher level than men, 4.9 percent compared to 4.2 percent.

Hydro had 13,263 permanent employees (including Slim that was divested at year-end) at the end of 2015, an increase from 12,922 in 2014. In addition, we had 1,144 temporary employees compared to 966 the year before. Contractor employees represented about 7,700 full-time equivalents during 2015, up from 6,600 in 2014. The large majority of employees are concentrated in Brazil, Germany and Norway.

In order to deliver on our strategic goals and remain competitive, Hydro needs to attract employees with the right competence. This means that Hydro is highly dedicated to attracting, developing and retaining competence to ensure our future success.

### Fatal accidents

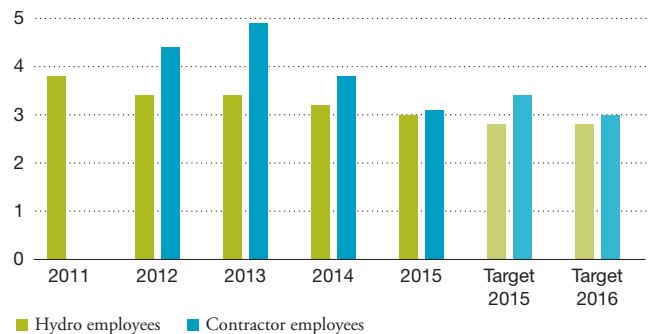
Number



A Hydro employee on business travel became victim of the Germanwings tragedy.

### Total recordable injuries

Per million hours worked



\* Contractor data not available before 2012.

Hydro's People Strategy shall ensure that the most critical people areas to deliver our business strategy are addressed. It is built on five pillars: performance culture, competence management, leadership pipeline, diversity and mobility.

Our common process for people performance and development, My Way, includes appraisal dialogue, individual development plan and follow-up, as well as talent planning and succession management. In 2015, 75 percent of employees had participated in My Way. Our ambition is that all employees should be included by the end of 2016.

Hydro Monitor is our global employee engagement process and is carried out for all employees every second year. Our strategic ambition is to be among the top 25 percent companies worldwide on the Employee Engagement Index (EEI, IBM External Norm) which is currently equivalent to 76 percent. Hydro scored 73 percent on the latest survey in 2014, in which 92 percent of all employees responded. The next survey is in 2016. The most important part of Hydro Monitor is follow-up. All units have action plans based on their survey results.

In order to have a healthy pipeline of leaders with the required breadth of experience, we emphasize rotating employees early in their careers so that they gain skills from different parts of the organization. This is also reflected in our diversity ambitions. Through the succession and career part of My Way, we work with the leadership pipeline and identify required development.

We see diversity as a source of competitive advantage for Hydro and emphasize diversity in nationality, culture, gender, age and competence when recruiting and when forming management teams and other working groups. In 2015, 13 percent of Hydro's employees globally were women, the same as in 2014. The share of women was 44 percent in Hydro's Corporate Management Board in 2015. With three women

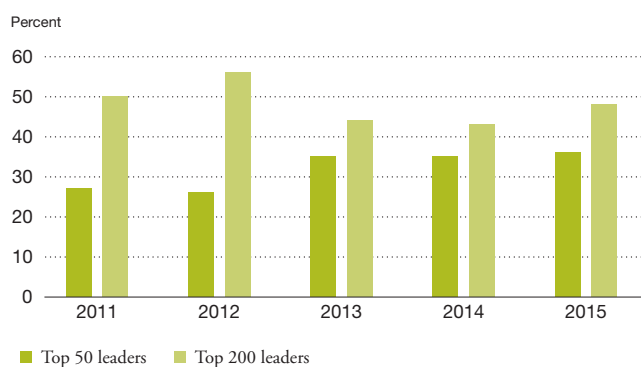
among the seven shareholder-elected members in the board of directors, Hydro complies with the Norwegian legal requirements on women representation. Hydro is making progress on the implementation of its diversity road maps and on integrating diversity in key people processes such as recruiting, leadership development, My Way and Hydro Monitor. Progress is being made towards the 2020 targets, although at a slower pace than we would like. We will therefore review the approach to diversity and run further diversity awareness trainings in 2016.

We are continually adjusting working conditions so that all employees, regardless of operability, have the same opportunities in their workplace. In Brazil, we are required to employ minimum 5 percent disabled people. The number of disabled employees in Paragominas was more than doubled in 2015 and reaching the requirement after a successful campaign. Alunorte had 3.4 percent disabled employees in 2015 and plans to reach the requirement in 2016.

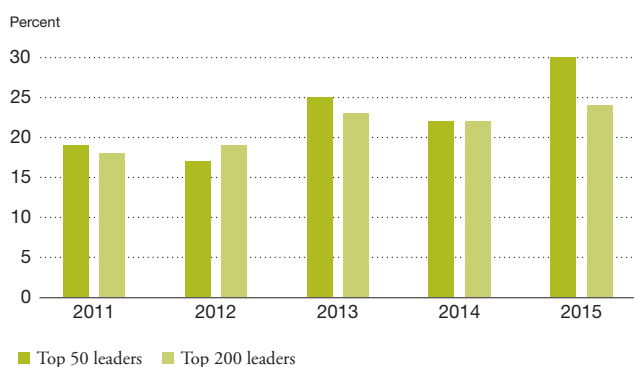
Restructuring and continuous improvement are essential elements of our business operations. Our aim is to involve employees in such processes at an early stage in order to achieve the best results for the individual and for the company.

All employees shall receive a total salary that is fair, competitive and in accordance with the local industry standard. There are no significant gender-pay differentials for employees earning collectively negotiated wages in Norway and Germany. Salary conditions in the Norwegian organization are reviewed on a regular basis. If significant differences are found at any level, we have a tradition for closing the gaps within a short time. We have also checked if gender-related salary differences exist in our operations in Brazil in 2015. The review indicates that women and men have equal salary at manager level and above. At the operator and technician level, women's average salary is higher than

### Share of non-Norwegian leaders



### Share of women leaders



The total share of women at all levels in Hydro was 13 percent in 2015

men's salary. The reported differences are not directly comparable as age and detailed position category are not included in the evaluation.

The annual bonus of Hydro executives shall reflect achievements in relation to pre-defined financial targets, and operational and organizational key performance indicators (KPIs). Targets relating to safety, environment and other issues within corporate responsibility, as well as compliance with and the promotion of Hydro's core values (The Hydro Way) constitute a substantial part of the KPIs. (See Note 8 and 9 to the consolidated financial statements for more information.)

The board of directors would like to emphasize the importance of the continuous improvement efforts implemented with stamina and determination by Hydro's employees over many years, and making visible impact also on the financial results. With the ability of transforming individual knowledge and experience into a systematic and lasting improvement culture, the Hydro workforce demonstrates its significance as Hydro's most valuable asset.

## Board developments

The board of directors has an annual plan for its work. It includes recurring topics such as strategy review, business planning, risk and compliance oversight, financial reporting, people strategy, succession planning as well as HSE and CSR. The board of directors is closely following the market and macro-economic developments relevant for the aluminium industry. In 2015, external specialist gave the board of directors two deep-dives related to aluminium production in China and Qatar's internal affairs and foreign policy. The board of directors also visited Qatar and Qatalum.

The board of directors conducts an annual self-assessment of its work, competence and cooperation with management and a separate assessment of the chairperson. Also the board audit committee performs a self-assessment. The reviews are facilitated by the corporate advisory firm Lintstock. The main conclusions of all assessments were submitted to the nomination committee in 2015, which in turn assessed the board's composition and competence.

The board of directors held 13 meetings in 2015 with an attendance of 96 percent. The compensation committee held seven meetings and the audit committee six meetings. There were no changes in board members during the year.

## Net income and dividend - Norsk Hydro ASA

Norsk Hydro ASA (the parent company) had net income of NOK 2,379 million in 2015 compared with NOK 630 million in 2014.

For 2015, Hydro's Board of Directors proposes to pay a dividend of NOK 1 per share, demonstrating the company's commitment to provide a stable cash return to shareholders, and taking into account the uncertain market outlook. The proposed payment represents a 101 percent payout ratio for the year reflecting Hydro's operational performance for 2015 and strong financial position

According to section 3-3 of the Norwegian Accounting Act, the board of directors confirms that the financial statements have been prepared on the assumption of a going concern.

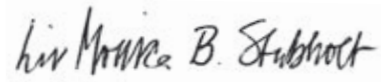
Oslo, March 10, 2016



**DAG MEJDELL**  
Chair



**INGE K. HANSEN**  
Deputy chair



**LIV MONICA BARGEM STUBHOLT**  
Board member



**OVE ELLEFSEN**  
Board member



**BILLY FREDAGSVIK**  
Board member



**FINN JEBSEN**  
Board member



**STEN ROAR MARTINSEN**  
Board member



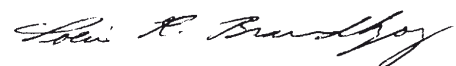
**EVA PERSSON**  
Board member



**PEDRO JOSÉ RODRIGUES**  
Board member



**IRENE RUMMELHOFF**  
Board member



**SVEIN RICHARD BRANDTZÆG**  
President and CEO



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### QUICK OVERVIEW

Hydro is a fully integrated, leading worldwide supplier of bauxite, alumina, primary aluminium, aluminium casthouse products and fabricated aluminium products.

We have substantial interests in bauxite and alumina including one of the world's largest bauxite mines and the world's largest alumina refiner, both located in Brazil. We operate or are partners in modern, cost-efficient primary metal production facilities in several countries in Europe, Canada, Australia, Brazil and Qatar, and in flexible smelting plants in a range of countries in Europe and the U.S.

We are an industry leader for a range of downstream products and markets, in particular the building, packaging, lithographic and automotive sectors. We supply high-quality, value-added aluminium products and solutions, and have strong positions in markets that provide opportunities for good financial returns.

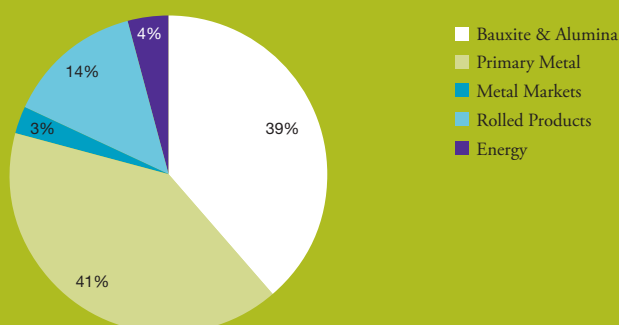
With more than 100 years of experience in hydropower, Hydro is the second-largest power producer in Norway, and the largest publicly owned producer.

### *Underlying EBIT 2015* NOK MILLION

# 9,656

### Capital employed – upstream focus

December 31, 2015: 75,583 MNOK



## History and development

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. Our history, spanning many industries and several continents, has been underpinned by three distinctive strengths: the spirit of entrepreneurship, a dedication to innovation and the careful nurturing of our talents and values.

An emphasis on industrial research and new business alliances enabled us to expand our fertilizer operations following the First World War. In 1928-29, improved fertilizer technology was introduced at Hydro's first industrial sites in Telemark in Southern Norway. Advancements in electricity transmission technology paved the way for the construction of a new fertilizer plant at Herøya, close to Porsgrunn. This provided us with easier access to important raw materials and ideal harbor conditions.

### An era of diversification

In the three decades following the Second World War, Hydro rebuilt itself into an industrial conglomerate, expanding into a number of new businesses in Norway. In 1951, we began producing magnesium metal and polyvinyl chloride at Porsgrunn. We constructed the Røldal-Suldal hydroelectric power plant to provide energy for our operations at Karmøy, and opened an aluminium reduction and semi-fabricating plant there in 1967.

In order to secure stable access to raw materials and energy for our fertilizer operations, we investigated opportunities to participate in oil and gas production in the middle of the 1960s. After several years, Hydro and its partners discovered oil and gas in the Ekofisk and Frigg fields on the Norwegian Continental Shelf. Our experience in the chemical process industry and abundant natural gas liquids resources provided the foundation for investments in the petrochemicals industry in Norway. In 1978, we commenced production of ethylene and vinyl chloride monomer.

During this time, we also pioneered new labor relations practices aimed at democratizing the workplace and increasing the cooperation between management and employees, leading to a spirit of collaboration which continues to define the company today.

### Decades of global expansion

Hydro expanded globally in the 1980s. We developed our fertilizer operations into one of the leading suppliers in Europe. We also entered a new era as an oil company, becoming operator of the Oseberg offshore oil field. Research continued to drive our development as we introduced new

technologies for deep-water oil and gas production and horizontal drilling. In 1986-87, we acquired the Norwegian state-owned aluminium company, Årdal og Sunndal Verk, and several European aluminium extrusion plants from Alcan and Alcoa, establishing Hydro Aluminium as a major business within Hydro and an important player in the European aluminium industry.

Later, we developed our businesses further through substantial acquisitions, including Saga Petroleum in 1999, VAW Aluminium in 2002 and Spinnaker Exploration Company in 2005. We also invested significant capital towards the expansion of existing alumina and aluminium production facilities, including our fully owned Sunndal primary metal plant in Norway, the part-owned Alouette smelter in Canada and three substantial expansions of the Alunorte alumina refinery in Brazil. This was followed by the decision to participate in the construction of the Qatalum smelter in Qatar. In 2007, Hydro completed the first phase of the giant Ormen Lange gas field, considered one of the largest industrial projects ever undertaken in Norway. A significant portion of the expansion of these businesses was financed through the sale of non-core operations.

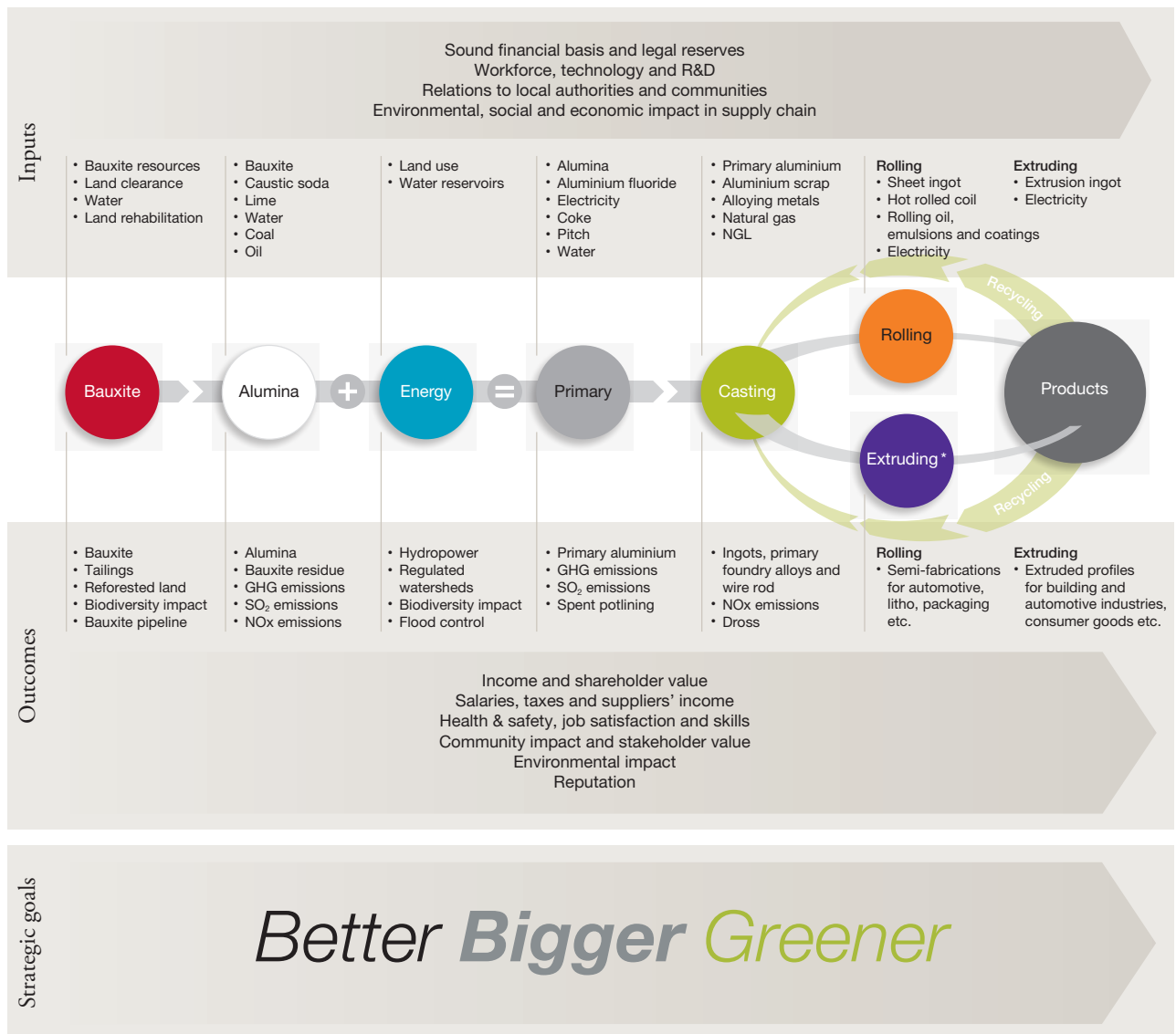
Throughout this period, we have focused on continuously improving the way we conduct our business. We have improved working conditions and reduced the number of accidents for own employees and contractors. We have also worked to reduce the negative impact of our activities on the communities where we operate and the broader society in general.

### Restructuring and concentration

The first decade of the new millennium also encompassed a major restructuring of our downstream operations, the closure of higher cost smelters, and ultimately, the transformation of Hydro into a focused aluminium and energy company. In 2004, we demerged our fertilizer business through the creation of Yara, and we merged Hydro's petroleum activities with Statoil to form StatoilHydro in 2007, now called Statoil.

During this period, Hydro also invested roughly NOK 18 billion in its aluminium and energy businesses in Norway, including NOK 11 billion in its Norwegian smelter system, NOK 2.2 billion upgrading and expanding its hydropower production operations and NOK 3 billion in research, development and production support relating to both its upstream and downstream aluminium operations. As a result, annual electrolysis production in Norway increased from 760,000 mt to about 900,000 mt, including the shutdown of roughly 250,000 mt of older, higher cost and higher emission capacity.

## Hydro's value chain and mid-term strategic goals



	Ambitions	Target	Timeframe	2015 progress	Status
<b>Better</b>	• Improve safety performance, strive for injury free environment	TRI<2	2020	3.0	●
	• Realize ongoing improvement efforts Better	BNOK 2.9	2016-2019	4.5 BNOK 2011-2015 **	●
	• Secure new competitive sourcing contracts in Norway	4-6 TWh	2020	1.05 TWh 2021-30	●
	• Lift Paragominas production	11 mill mt/year	2018	10.1 mill mt/year	●
	• Lift Alunorte production	6.6 mill mt/year	2018	6.0 mill mt/year	●
	• Shift alumina sales to PAX-based pricing	>85% PAX ***	2020	35% PAX ****	●
	• Extend technology lead with Karmøy technology pilot	Build decision	2016	Investment decision	●
<b>Bigger</b>	• Realize incremental technology-driven smelter capacity increase	200,000 mt/year	2025	On track	●
	• Lift equity bauxite production	19 mill mt/year *****	Long-term	MRN Letter of Intent	●
	• Increase nominal automotive Body-in-White capacity	200,000 mt/year	2017	On track	●
	• Complete ramp-up of UBC recycling line	>40,000 mt/year	2017	Start-up delayed till Feb. 2016	●
<b>Greener</b>	• Become carbon-neutral from a life-cycle perspective	Zero	2020	On track	●
	• Increase recycling of post-consumer scrap	>250,000 mt/year	2020	134,000 mt/year	●
	• Deliver on reforestation ambition	1:1	2017	On track	●

\* Hydro produces extrusion profiles through the 50/50 joint venture Sapa \*\* Includes USD 300 program from 2009-2011 \*\*\* Based on sourcing volume of app. 2.3 million mt per annum \*\*\*\* Based on sourcing volume of 2.8 million mt in 2015 \*\*\*\*\* Provided the acquisition of the 40 percent stake in MRN from Vale

### Transforming transactions

In 2011, Hydro transformed its business through the acquisition of the aluminium assets of Vale SA, securing its position in bauxite and alumina and lifting the company to the top tier in the aluminium industry. Combining Vale Aluminium with Hydro has resulted in a stronger company, fully integrated into bauxite, with a long alumina position which is a preferred position in a more consolidated market place.

In 2013, Hydro completed the agreement with Orkla ASA to combine their respective extrusion profile, building systems and tubing businesses within a new joint venture company owned 50 percent by each party. The new company, Sapa, includes all of Hydro's Extruded Products business activities and has significant operations in Europe, North America, South America and Asia. The agreement allows an initial public offering three years from closing, initiated by either party, where both have the option to retain a 34 percent interest in the company.

For further information, see [www.hydro.com/about-hydro/our-history](http://www.hydro.com/about-hydro/our-history)

### Operating segments

Hydro is a fully integrated aluminium company with attractive equity positions in bauxite, alumina and power, the most important raw materials in the production of primary metal. We are one of the world's largest producers and suppliers of alumina and primary aluminium. Substantial production of alumina in excess of own requirements gives us a favorable market position. Substantial self-generated hydroelectric capacity in Norway and a dedicated gas-fired plant in Qatalum, provides secure access to energy at competitive prices.

Downstream, Hydro is an industry leader for a range of rolled aluminium products and markets, in particular the building, packaging, lithographic and automotive sectors. Our ambition is to be recognized as the world's foremost aluminium solutions supplier, working in partnership with our customers and driving our business forward.

Hydro's business is divided into six operating segments including Bauxite & Alumina, Primary Metal, Metal Markets, Rolled Products, Energy and Other and eliminations:

Bauxite and Alumina includes our bauxite mining activities comprised of the Paragominas mine and a 5 percent interest in Mineracao Rio de Norte (MRN)<sup>1)</sup>, both located in Brazil, as well as our 92 percent interest in the Brazilian alumina refinery, Alunorte. These activities also include Hydro's long-term sourcing arrangements and alumina commercial operations, and its 81 percent interest in the joint venture partnership Companhia de Alumina do Para (CAP), for a new alumina refinery close to Alunorte.

Primary Metal consists of our primary aluminium production, remelting and casting activities at our wholly-owned smelters located in Norway, and Hydro's share of the primary production in partly-owned companies located in Slovakia, Qatar, Australia, Canada and Brazil.

Metal Markets includes all sales and distribution activities relating to products from our primary metal plants and operational responsibility for our stand-alone remelters. Metal Markets also includes metal sourcing and trading activities, which provides operational risk management through LME hedging activities.

Rolled Products consists of five European rolling mills including our 50 percent interest in the AluNorf rolling mill in Germany. Rolled Products also includes the Rheinwerk primary aluminium smelter in Neuss, Germany.

Energy is responsible for managing Hydro's captive hydropower production, external power sourcing arrangements to the aluminium business and identifying and developing competitive energy solutions for Hydro worldwide.

Other and eliminations includes Hydro's 50 percent share in Sapa, a global leader in extruded aluminium solutions with significant operations in Europe, North America, South America and Asia.

## Aluminium upstream production facilities



## Business and operating information

The following section includes a description of the industry developments impacting our business, our strategies and key performance targets and a description of operations for each of our business areas including key revenue and cost drivers. See section - Financial and operating review - later in this report for comparative production and sales volume information for our different business areas.

Hydro has zero tolerance for corruption or human rights violations and an ambition to avoid all serious accidents, in particular, in all our operations worldwide. Our compliance system requires adherence with external laws and regulations as well as internal steering documents and is based on prevention, detection, reporting and responding. We are proactive in securing that we interact with counterparties that also adhere with external laws and regulations. TRI rate (total recordable injuries per million hours worked) is a key metric we use for setting targets and monitoring our overall safety performance. See Viability performance section later in this report for more information on our approach, key performance targets and description of programs and activities relating to these issues.

## Bauxite & Alumina

### Industry overview

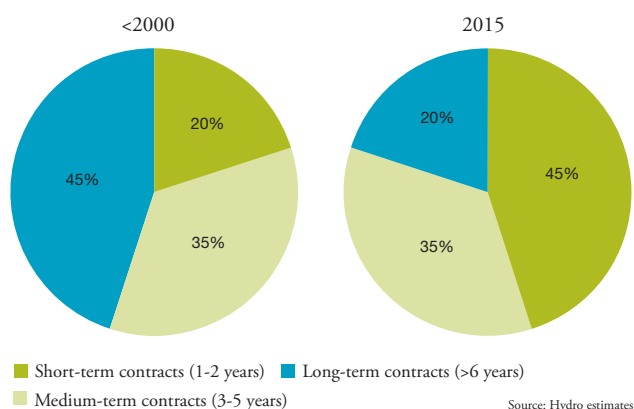
Bauxite rock is composed mainly of aluminium oxide and aluminium hydroxide containing minerals. There are three main qualities: gibbsite, boehmite and diaspore. The qualities determine the processing requirements, with corresponding influence on operating costs and the eventual quality of the resulting alumina. Gibbsite, the highest quality bauxite, is found mainly in Brazil. Bauxite is typically mined in open pits and either processed into alumina in close proximity to the mining operations or shipped to alumina refineries around the world for processing. Around 80 percent of global alumina refining, excluding China, is based on integrated bauxite sources. In China, about 30 percent of alumina refining is based on integrated sources.

China, Australia, Brazil and Guinea accounted for 31, 27, 11 and 7 percent of global bauxite production of around 300 million mt in 2015, respectively. Within the bauxite mining industry, the five largest mines outside China represented around 46 percent of the Western World bauxite production of 208 million mt.

Alumina is a significant cost element in the production of aluminium. The alumina market is competitive, but relatively



## Alumina contract durations



few players hold a long position. The global alumina market is approximately 120 million mt with an estimated global capacity utilization of around 80 percent. China is the largest producing country representing approximately 50 percent of the global demand and capacity.

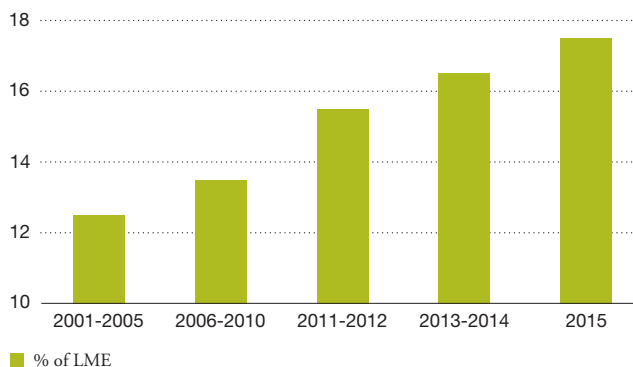
### Bauxite and alumina price developments

Following consolidation in the alumina industry and bauxite pricing moving away from “cost plus” mechanisms, the price of alumina has increased relative to aluminum. Since 1990, average annual contract prices have risen from a level of around 12 percent of LME reference prices to above 17 percent in 2015. However, towards the end of the year the Platts alumina price index was close to USD 200 per mt, or around 13 percent of LME reference prices. Introduced in 2010, the Platts alumina price index reflects the fundamental supply and demand balance of the alumina market. The index continues to gain support in the industry and represents the main reference for contracts of various durations.

Bauxite and alumina prices have been strongly influenced by developments in China, which is heavily dependent on imported bauxite. China's bauxite imports amounted to 56 million mt in 2015, 54 percent higher than the previous year driven by a significant increase of imports from Malaysia which has become the largest supplier of bauxite to China, ahead of Australia. Beginning January 15, 2016, Malaysia imposed a three month moratorium on bauxite mining to reduce the environmental pollution caused by the mining, transport and shipping of bauxite. In the previous year, bauxite imports to China decreased by 49 percent due to restrictions on Indonesian exports which became effective in January 2014. Previously, Indonesia was China's most important bauxite supplier, accounting for 66 percent of China's total bauxite imports between 2009 and 2014.

## Alumina price

% of LME per mt alumina for medium term contracts



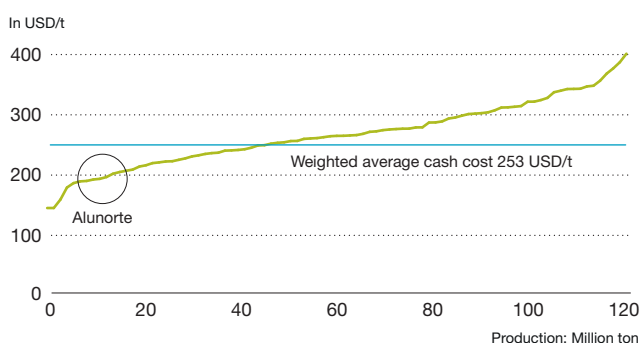
During 2015, the price of bauxite imported to China fluctuated based on the country of origin but trended downward on average. The December average CIF China bauxite price was USD 50 per mt, USD 9 per mt below the January average. However, bauxite prices declined less than alumina prices during 2015.

### Strategy and targets

Following the completion of its ambitious "from B to A" improvement program, reducing cost and increasing safety and efficiency continues to be key priorities for Bauxite & Alumina in the coming year together with improving alumina production volumes at Alunorte and further increasing bauxite production at Paragominas. We will also work towards securing and developing bauxite resources for future decades. Optimizing and enhancing the commercial value of our attractive sales portfolio will continue to be an important item on our agenda. We will also continue our proactive approach to regulatory challenges by ongoing systematic dialogue with key stakeholders in Brazil.

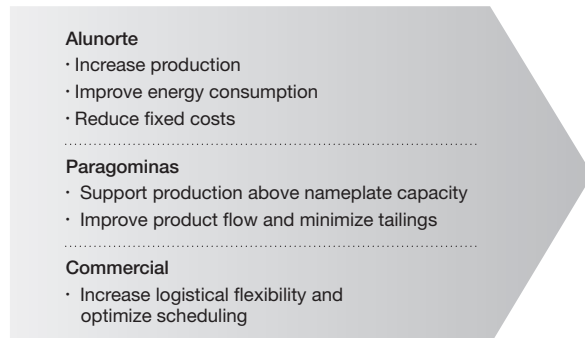
## World cash cost curve

Site cost curve 2015

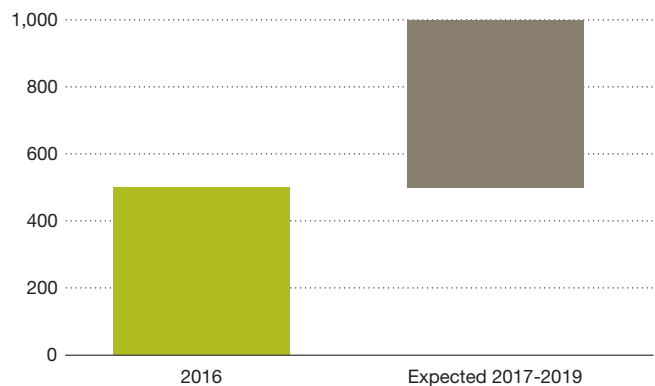


## Bauxite & Alumina improvement program

### Improvement categories



### Improvements in NOK billion



### *Further optimize operating costs and deliver significant cost savings*

During 2015, Bauxite & Alumina launched a new improvement ambition, "Better Bauxite & Alumina", targeting NOK 1 billion of annual improvements by the end of 2019. During the coming year we will continue to focus on increased production, higher productivity, lower operating costs, and manning reductions as well as procurement activities and commercial operations. Implementation of our Bauxite & Alumina Business System (BABS) ensures best practices and operating efficiencies across our portfolio.

### *Reinforce safe and sustainable business practices*

Important HSE initiatives for the coming year include process safety, increased risk awareness, safeguarding the environment, best practice sharing and improved training. Key actions for CSR include strengthening the dialog with all major stakeholders.

### *Improve the commercial value of our attractive product portfolio*

We will continue to optimize our global bauxite and alumina positions including sourcing arrangements aimed at reducing logistical costs and improving margins. We also intend to continue increasing our share of alumina sales volumes at index pricing as old legacy LME indexed contracts gradually expire.

### *Expand our bauxite and alumina capacity*

Hydro has attractive positions enabling the potential expansion of low-cost alumina refining. These include the CAP joint venture for a potential new alumina refinery and possible expansion of the Paragominas mine. Further development of this project is mainly dependent on ongoing developments in the balance between industry production capacity and market demand. In October 2015, Hydro signed a Letter of Intent (LoI) for the possible acquisition of

Vale's 40 percent ownership interest in MRN in order to secure an additional long-term source of high-quality bauxite resources.

### *2015 targets*

- Reduction in total recordable injuries per million hours (TRI) from 2.3 in 2014 to 2.0 in 2015 for own employees
- Increase annual production levels in Alunorte to 6.2 million mt and in Paragominas 9.9 million mt
- Deliver "from B to A" contribution of at least NOK 300 million
- No reportable environmental incidents
- Establish an enhanced system for monitoring and evaluation of social project portfolio
- Develop social indicators for Brazilian operations

### *2015 results*

- Reduction in TRI rate by 27 percent from 2.3 to 1.7 for own employees
- Annual production level in Alunorte was stabilized at 6.0 million mt which is a prerequisite for lifting the production further. Improved annual production at Paragominas by 0.6 million mt compared to 2014 to 10.1 million mt including several months of 11 million mt on an annualized basis
- Delivered "from B to A" contribution of NOK 300 million on an annual basis and completed the program realizing NOK 1 billion accumulated annual improvements
- Achieved no reportable environmental incidents
- Hydro's new system for planning, monitoring and evaluating social projects in Brazil implemented for three representative projects

### *2016 targets*

- Stabilize TRI with a target of 1.8 in 2016 for own employees and contractors

- Annual production levels of 6.2 million mt in Alunorte and 10.1 million mt in Paragominas
- Deliver "Better Bauxite & Alumina" contribution of at least NOK 500 million
- Increase index sales volumes up to 46 percent of total alumina sales volumes
- No reportable environmental incidents
- Achieve targeted rehabilitation area for Paragominas mining operations of 325 hectares
- Reduce the volume of waste sent for incineration by 1 percent for Alunorte and 2 percent for Paragominas
- Develop plan for approval of infrastructure projects with significant impact on the social development in Barcarena
- Completion of two major sustaining capital expenditure projects in Alunorte and Paragominas on time and on budget
- Maintain and comply with the ICMS regulatory framework renewed in 2015

#### *Ambitions going forward*

We are strongly committed to safety and to eliminating high-risk incidents in our operations. Going forward, we intend to capitalize on our strong position in bauxite and alumina in a resource constrained world. This will increase our attractiveness as a partner in new ventures and our ability to exploit other opportunities which may arise. Reducing our impact on the local environment is also an important objective going forward, including closing the gap between clearing for mining operations and rehabilitation.

#### *Strategic mid-term goals*

- Improve our safety performance and strive for an injury free environment (2020)
- Deliver on our new improvement ambition of NOK 1 billion (2019)
- Lift alumina production at Alunorte through stabilization and debottlenecking to 6.6 million mt (2018)
- Lift bauxite production at Paragominas through debottlenecking to 11 million mt (2018)
- Shift more than 85 percent of our alumina sales portfolio to index-based pricing (2020)
- Achieve a ratio of 1:1 on mine clearing and rehabilitation (2017) and eliminate the reforestation gap (2020)

#### **Operations**

Bauxite from Paragominas is mined in open pits and sorted and crushed into sizes suitable for transportation as slurry through the world's longest pipeline approximately 240 kilometers to Alunorte for refining into alumina. Bauxite from MRN is transported by vessel. Alumina processing begins by removing the water from the bauxite slurry, then mixing the bauxite with caustic soda at high temperature and

pressure. The resulting mixture is pumped into a digester, where a chemical reaction dissolves the alumina. This process produces a sodium aluminate solution, which is transferred into tanks to separate impurities through settling and filtration. The cooled sodium aluminate solution is then pumped into precipitators to grow alumina crystals, which are transferred to thickening tanks and further to fluid bed calciners to remove water, producing pure alumina.

#### *Cost and revenue drivers*

The main cost drivers for bauxite are labor, maintenance/consumables and fuel for excavation equipment, representing around 75 percent of the cash cost of mining activities. Labor, the largest cost factor, accounting for about 30 percent, is influenced by Brazilian wage levels and productivity developments. Maintenance/consumables are influenced by inflation and efficiency in operations.

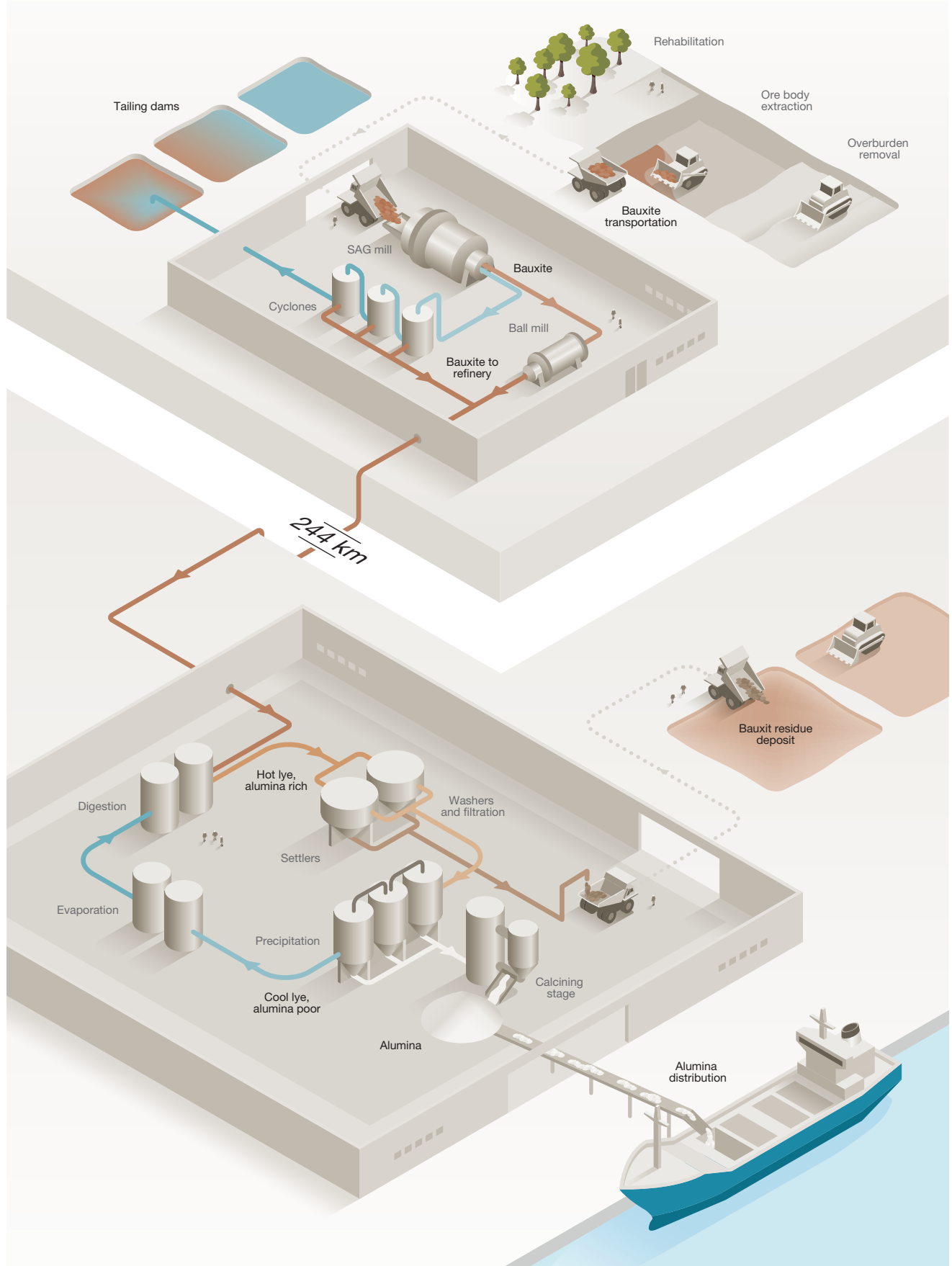
For alumina refining, bauxite, energy and caustic soda represent around 85 percent of cash costs. Energy costs are a mix of fuel, coal and electricity and represent around 35 percent of the total costs. Caustic soda represents 13 percent of cash costs. In 2015 fuel, coal and caustic soda prices declined. Bauxite purchases from Paragominas, and under off-take agreements from MRN, are based on prices partly linked to LME prices and alumina market prices. Optimization of the energy mix for Alunorte will be a major factor to achieve the targets related to the new "Better Bauxite & Alumina" improvement ambition.

Alumina has been primarily sold under medium and long-term contracts at prices referenced to the LME. Realized alumina prices, the key revenue driver, has been volatile during 2015 representing between 15.5 and 16.9 percent of LME reference prices for Hydro's combined internal and external sales portfolio. Hydro has been replacing expiring alumina sales contracts with increased sales volumes at index pricing and we intend to further increase our share of volumes at index pricing as old, legacy contracts continue to expire.

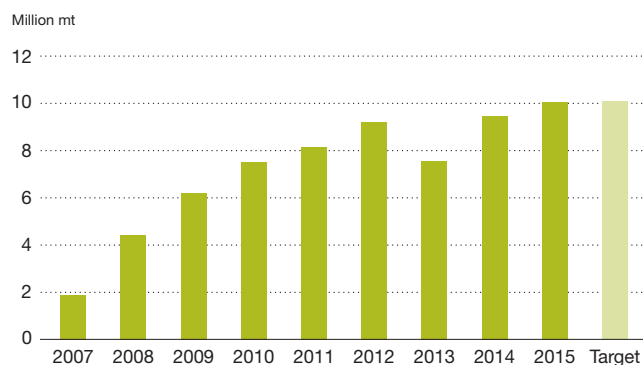
#### *Competitive strengths*

- Paragominas, one of the world's largest bauxite mines with a current reserve life of several decades
- Significant bauxite resources beyond current reserves
- High quality Gibbsite bauxite delivering refining benefits in the form of lower investment and operating costs
- Unique integrated pipeline generating increasing economies with higher production and potential expansions. Low environmental impact
- Alunorte, the world's largest alumina refinery, and one of the most cost effective on an integrated cash cost basis
- Consistent high quality alumina

## Bauxite extraction and alumina refining in Hydro



## Bauxite production



- Favorable long alumina position with shorter contract durations increasing potential for greater value creation as more volumes become available for pricing on index
- Substantial expansion opportunities for bauxite mining and alumina refining

### Bauxite mining

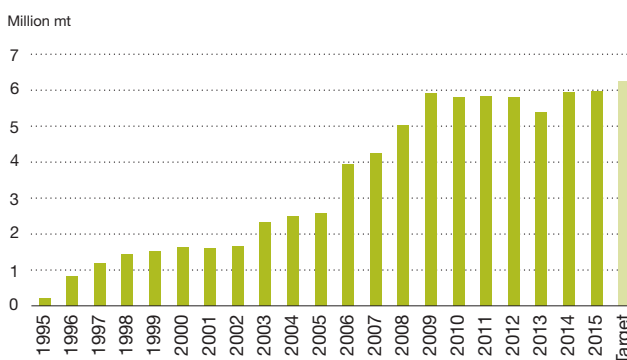
Paragominas is located in the Brazilian state of Pará. The mine has a nominal production capacity amounting to 10.1 million metric tons, 14-percent moisture bauxite on an annual basis, which represents about 4 percent of global capacity. Operations include a mining fleet of about 160 vehicles and 1,395 employees. We have effective ownership of 100 percent of Paragominas.<sup>2)</sup>

Operations at Paragominas commenced in the first quarter of 2007, and began supplying raw material to the Alunorte alumina refinery at the same time. An expansion - Paragominas II - was completed in the second quarter of 2008. The potential for further expansion is estimated to be 5 million mt per year and up to 15 million mt in total.

The site is connected to a 244-kilometer slurry pipeline with an annual capacity of 15 million mt. It is the only bauxite slurry pipeline in the world, and has significant integration advantages combined with a very low environmental impact.

Paragominas supplies all of its production to Alunorte. In 2015, Paragominas provided about 67 percent of Alunorte's bauxite requirements. The remainder was sourced from MRN, in which Hydro has a 5 percent ownership interest and off-take agreements with Vale for a further 40 percent of the volume produced by MRN.<sup>3)</sup> In October 2015, Hydro signed a Letter of Intent (LoI) for the possible acquisition of Vale's 40 percent ownership interest in MRN. The MRN mine is one of the three largest and most efficient bauxite mines world-wide and the largest in Brazil.

## Alumina production

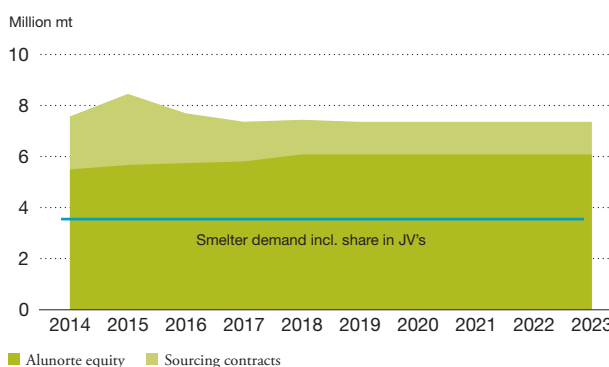


### Alumina refining

Hydro's major alumina asset is its 92 percent interest in the Alunorte alumina refinery. Alunorte has a nominal capacity of approximately 6.3 million mt of alumina. The Alunorte refinery is competitive due to the high quality of its alumina, advantages in scale and technology, relatively low energy consumption and labor costs. The plant has several cost advantages, including an efficient energy mix of heavy fuel oil and coal, competitive caustic soda consumption due to high quality bauxite and a potential for lower transport costs through higher pipeline throughput.

CAP, a potential new alumina refinery to be located in Barcarena, close to Alunorte, has been under evaluation for development in a joint venture between Hydro and Dubal Holding LLC (Hydro's share, 81 percent). The refinery is expected to have an initial annual capacity of 1.9 million mt, with the potential for expansions up to 7.4 million mt over four phases. Further progress in this project is mainly dependent on the balance between industry production capacity and market demand.

## Alumina position





### *Commercial operations*

Hydro has a long position in both bauxite and alumina of roughly 2 - 3 million mt. We are pricing bauxite on its own fundamentals to reflect the superior Brazilian quality. As mentioned above, in addition to our equity interests in the Paragominas and MRN bauxite mines, we have volume off-take agreements for Vale's 40 percent interest in MRN, which amounted to 7.7 million mt in 2015. The excess bauxite not consumed in Alunorte is sold to third parties.

In addition to Alunorte, we buy alumina from a number of external sources. The main external source is Hydro's contract with Rio Tinto Alcan (RTA) for the supply of 900,000 mt of alumina annually until 2030. In 2015, we entered into a new agreement with RTA for the supply of an additional 350,000 mt of alumina per year until 2024. We also enter into contracts to buy and sell alumina in order to optimize our physical alumina portfolio on a short and medium-term basis.

See section later in this report Financial review, Bauxite & Alumina for external volumes of bauxite and alumina purchased and volumes of alumina sold.

### *Technology and innovation*

Hydro is working to develop improved beneficiation and refinery processes allowing for the increased utilization of residual bauxite ores. An R&D program to develop solutions to minimize the economic impact of the relatively high kaolinite content of Amazon bauxites is underway. This is expected to allow a significant reduction in operating costs and incrementally increase the amount of economically viable resources.

The Paragominas mine is optimizing its continuous mining technology and improving productivity. The beneficiation plant is optimizing and simplifying its milling and size separation processes, leading to higher throughput and better overall recovery. These initiatives are supporting Paragominas' record production levels, above nameplate capacity, and reduced operating costs.

We are continuously working to reduce our energy usage and costs through process improvements, heat recovery and alternative energy sources. Improved energy efficiency also reduces our CO<sub>2</sub> emissions.

We use state of the art dry stacking technology for disposing of bauxite residue, also known as red mud, a by-product of alumina refining. In 2014 Hydro began the conversion to a more advanced pressure filtration technology that will reduce moisture content resulting in lower deposited volumes, reducing our environmental footprint in the long term. We also participate in international collaboration projects

investigating possibilities to use bauxite residue as a resource. Additions to cement and other construction materials, such as low density gravel, are promising areas that will be pursued further.

Alunorte is also collaborating with our aluminium smelting operations to evaluate the effects of alumina quality on smelter performance and identify opportunities for process and cost improvements.

A comprehensive technological revision of the CAP refinery project design is underway. This includes technology, operational setup, capital expenditure and operating costs of the project.

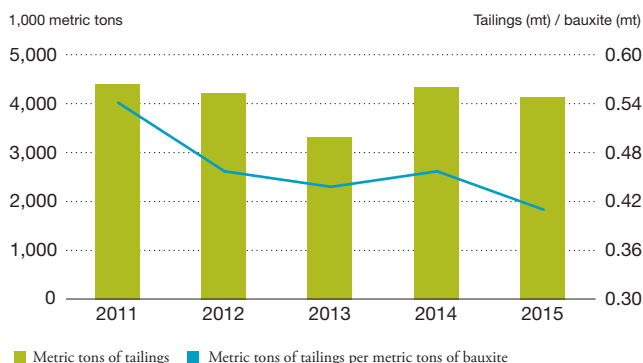
### *Environment*

The main environmental issues in Bauxite & Alumina relate to deforestation, waste disposal and greenhouse gas emissions.

Hydro's bauxite mining at Paragominas involves removing vegetation and a layer of topsoil and overburden to extract bauxite deposits eight to ten meters below the surface. As a result, mining operations disturb relatively large land areas. Hydro's Paragominas mine is located in an area that is normally recognized as the deforestation belt around the central Amazon region. The municipality of Paragominas has experienced a reduction of forest cover of more than 30 percent over a period of almost 20 years. Much of this occurred before the establishment of the Paragominas mine and the area had been exposed to selective logging and clear cutting before commencement of operations in 2007. Reforestation and wildlife management at Paragominas are core elements of our sustainability strategy. Our most important reforestation ambition is to achieve a balance of 1:1 in terms of rehabilitation and clearing for mining operations and to close the existing reforestation gap by 2020. To increase our knowledge and to secure a science-based approach, the Biodiversity Research Consortium Brazil-Norway (BRC) was established in 2013, please see Resource management under Viability Performance in this report.

Waste production includes significant amounts of mineral rejects (tailings) from the bauxite extraction process and bauxite residue, or red-mud, from the alumina refining process. Tailings are stored in ponds where the particles settle. Separated water is clarified and reused in the process. When full, reforestation can start. The dams are frequently inspected by Hydro and are also subject to external inspections including the Norwegian Geotechnical Institute (NGI) with the latest inspection completed in November 2015.

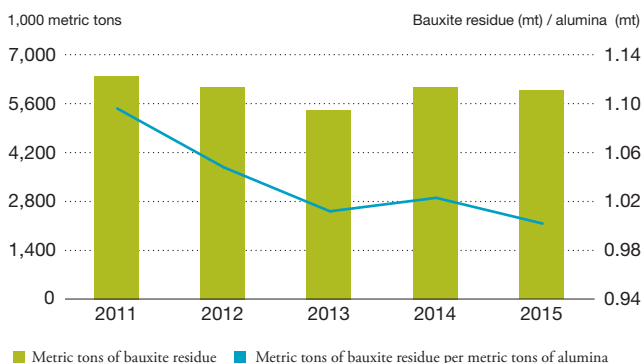
### Tailings from bauxite production



The current tailing ponds, which are expected to be full by 2017, are constructed on a gradient slope. The construction of new tailing ponds has started and will be situated on a plateau at an exhausted open pit area in an even safer location.

Disposal of bauxite residue is challenging due to large volumes and the alkaline nature of the liquid component of the residue. The residue is washed with water to lower the alkalinity and recover caustic soda for reuse. We use state of the art dry stacking technology for disposing of bauxite residue. Hydro has started construction of a new bauxite residue deposit including conversion to a more advanced pressure filtration technology that will reduce moisture content resulting in lower deposited volumes and reducing our environmental impact in the long term.

### Bauxite residue from alumina production



Emissions for Hydro's Alunorte refinery relate mainly to steam generation which relies on coal and heavy fuel oil. The plant emits about 3.8 million mt of CO<sub>2</sub> per year.

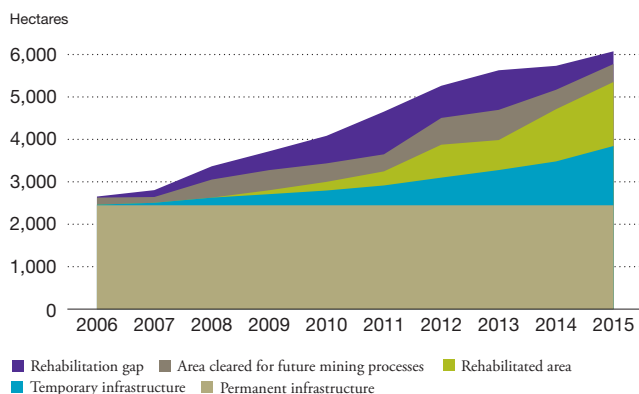
### People

Bauxite & Alumina had 3,632 permanent employees in its consolidated activities at the end of 2015, and 178 temporary employees including apprentices. We strive for a safe working environment as a fundamental right of all employees. We believe that this, together with an engaged workforce, improves efficiency and results in lower operating costs. Employee development is also an important factor. Our internal performance and development process, My Way, and employee engagement index Hydro Monitor, are important tools to enhance our people and organization performance and development. See the Viability performance section later in this report for more information. In 2015, 96 percent of all employees participated in My Way.

Our Bauxite & Alumina Business System (BABS) has been used as the basis for implementing a standardized production system in our operations. The system is based on Primary Metals AMBS system and promotes employee empowerment and development and facilitates the sharing of best practices throughout the organization. Implementation of BABS has been an important initiative underlying the From B to A program improvement program and will continue to support our new improvement ambitions. See Primary Metal later in this section for more information about AMBS.

Diversity in all its forms is appreciated and valued throughout our organization. We regularly assess the status of our diversity efforts and target areas for improvement to reach our 2020 diversity targets. Much progress has been made in areas related to competence and cultural background. We continuously strive to improve our representation of females at all levels in the organization

### Land use and rehabilitation – Paragominas



Permanent infrastructure includes areas related to administrative buildings, industrial facilities, current tailing ponds, the pipeline to Alunorte and permanent roads. Temporary infrastructure includes among other things temporary roads and areas dedicated for new tailing ponds. In 2015, we disturbed 393 hectares of land and rehabilitated 278 hectares.

through our recruiting strategies and efforts to create a workplace with opportunities that appeal to both genders.

### *Society*

Bauxite & Alumina's operations are located in the state of Pará, in northern Brazil, one of the least developed regions in the country. As one of the largest industrial companies in the state, Hydro is working to improve transparency and stakeholder dialogue with the local community. The bauxite pipeline from Paragominas to Alunorte crosses areas inhabited by traditional Quilombola groups in the Jambuacu Territory in Brazil. Hydro has established contact with representatives of the group and invested additional resources to improve and follow up dialog with the group. Still, there are potential conflicts related to certain Quilombola groups.

The current grievance mechanism for Hydro's activities in Brazil was introduced in 2014. The mechanism is serving as a pilot for a corporate-wide solution. However, further work is required to make the mechanism better known. In Barcarena, the location of the Alunorte alumina refinery and Hydro's Albras smelter, an inter-sectoral forum has been established to improve communications with the local community. Please see the Viability Performance section later in this report for further information.

Within Bauxite & Alumina's supply chain, the most important risks include corruption, fraud and inappropriate working conditions. Our sustainability metric is comprised of several elements including promoting local content, mitigating social risk in the supply chain and screening all suppliers as part of a qualification process. Our goal is to complete the qualification of all suppliers by 2020.

## Primary Metal

### *Industry overview*

The basic raw material for aluminium is bauxite which is refined into alumina. Aluminium smelting is a capital-intensive, technology-driven industry. Energy represents approximately 50 percent of the costs throughout the value chain. As the world's largest consumer and producer of aluminium, China has a significant impact on market fundamentals. In 2015, China represented 51 percent of worldwide aluminium consumption and 54 percent of corresponding production. India and the Middle East are also growing in importance in the production of aluminium.

Aluminium is also derived from remelting and recycling aluminium scrap. Scrap is generated both in the production (pre-consumed) and use (post-consumed) of aluminium products. Recycling of post-consumed scrap requires about 5 percent of the energy required for electrolysis metal. Globally more than 15 percent of aluminium products are made from

post-consumed scrap. Around 70-75 percent of all aluminium produced since the Hall-Heroult process was discovered in 1886 is still in use.<sup>4)</sup>

Aluminium is used in a variety of applications in several industries. The major consumer segments are transportation, building and construction, packaging and foil and electrical applications. The major consuming areas are China, North America, Western Europe, Japan and the rest of Asia.

Demand for aluminium products in mature markets like North America and Europe is normally in line with economic developments, although with greater volatility. However, substitution for steel and other metals by aluminium, in particular for automotive applications, contributes to higher growth levels and is a key fundamental driver underlying increasing demand in aluminium markets. In recent years total global demand has exceeded the growth in GDP and is expected to continue to do so in the medium term. Increased consumer demand and continued infrastructure investment in China are expected to drive global demand growth in primary metal in the range of 4 to 5 percent for 2016 and 3 to 4 percent over the coming 10 years, despite an expected lower pace of global economic development compared to the previous decade. Primary demand is expected to grow 2 to 4 percent in the world outside China in 2016, with North America leading the way driven by macroeconomic improvements and increasing market penetration of aluminium components within the transportation market segments.

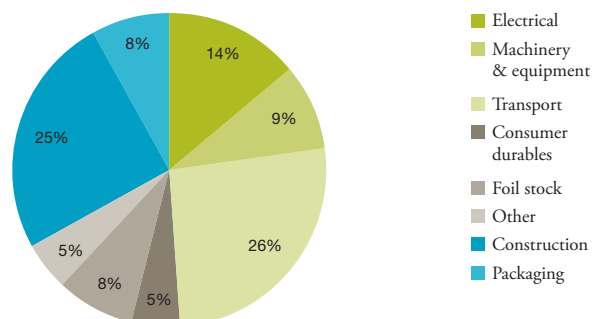
Although growth in the Chinese economy is slowing, the growth in aluminium consumption continues to outpace other commodities. However, continued capacity increases have resulted in an oversupply in China leading to exports of semi-fabricated products above historical levels.

### *Structural developments*

As a result of smelter production growth, in China in particular, the 10 largest aluminium companies represent more than 50 percent of global aluminium production that amounted to roughly 30 million mt in 2015. Private companies in China have grown significantly in the last several years, in particular the Hongqiao group, which has become the world's largest aluminium producer. Other private Chinese companies such as Xinfu and the East Hope group have also shown strong growth recently. Conversely, state owned companies in China, in particular Chalco and State Power Investment Company have reduced their size along with a decline in economic performance. Outside China, the strongest production growth has been among companies active in the Middle East, in particular the EGA group which was established by the merger of Dubal and EMAL in 2014.

## Global aluminium consumption\* by end use 2015

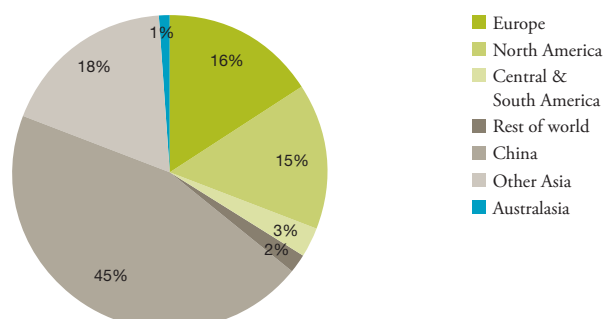
Total market 78.8 million mt



\* Consist of semi fabricated products (included recycled aluminium)  
Source: CRU LT 2015/Hydro

## Global aluminium consumption\* by region 2015

Total market 78.8 million mt



\* Consist of semi fabricated products (included recycled aluminium)  
Source: CRU LT 2015/Hydro

In Spring of 2015, BHP Billiton announced the demerger of South 32 Limited creating a new independent metals and mining company in the Southern Hemisphere focusing on the production of bauxite, alumina, aluminium, energy as well as metallurgical coal, manganese, nickel, silver, lead and zinc. Later in the year, Alcoa announced a plan to establish separate businesses for their upstream and downstream operations.

In 2015, Hydro maintained its position as the fifth largest producer outside of China, and ranked ninth globally in terms of annual primary aluminium production. The largest producer outside China continued to be Rusal followed by Rio Tinto Alcan and Alcoa. The ten largest producers worldwide include five operators in China which mainly focus on supplying the Chinese markets.

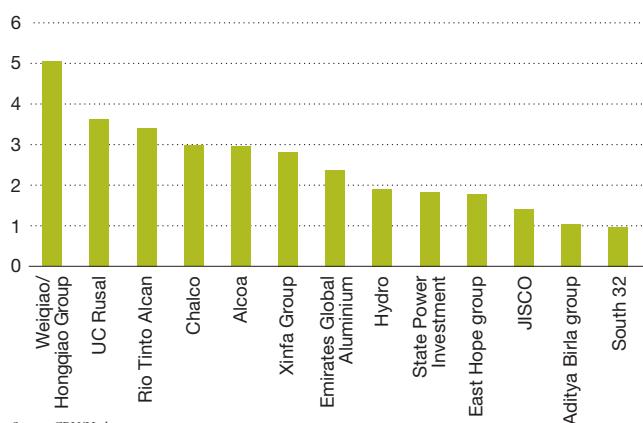
*Aluminium price developments*

Primary aluminium is traded on several metal exchanges, but primarily the London Metal Exchange (LME). The Shanghai Futures Exchange (SHFE) has grown in importance for international trade of standard ingots produced in China. Prices quoted on the SHFE include 17 percent value added tax and China has also had an export tax of 15 percent on primary aluminium for many years. China also has a 13 percent tax rebate on the export of semi-fabricated and finished aluminium products. In May 2015, the export tax was eliminated for several alloyed products while being maintained for pure primary aluminum ingots. This development implies that China intends to continue to discourage the export of pure primary aluminum while encouraging the export of higher value added products.

LME aluminium prices are heavily influenced by macroeconomic and market developments. Prices exhibited a

## Top world primary aluminium producers in 2015

Million metric tons



Source: CRU/Hydro

## Aluminium price in USD/mt



■ LME 3-month (quarterly average) ■ LME forward (January 29th)

historic decline during the financial crisis of 2008/2009 and began falling again during 2013 following a volatile period of improving prices. LME prices were further dampened by the significant accumulation of standard ingot inventories driven by financial investments. At the same time, standard ingot premiums increased significantly due to strong physical demand, partly compensating producers for the low LME prices. Product premiums also increased over this period. LME prices, including standard ingot premiums, peaked, however, towards end of 2014. In 2015, both LME prices and standard ingot premiums fell, influenced by surplus metal from China exported in the form of semi-fabricated products. Increased supply from LME warehouses, due to lower incentives for financial investments, together with a change in warehouse rules aimed at increasing the availability of metal in the market also put pressure on market prices. Prices have thereafter remained at a level that has resulted in closures, in particular in the US but also in China. See Market developments in the Financial and operating review section of this report for further information on price developments for 2015. The decline in premiums has reduced the incentive for Chinese exports which have declined from a peak at end of 2014. However, arbitrage opportunities are expected to continue to occur in the future, and will influence the magnitude of exports of semi-fabricated products from China and metal prices going forward. See section Risk Factors later in this report for a discussion on our exposure to competition from China.

### Cost developments

World average production costs (business operating costs) increased in 2015 compared to 2014 due to higher operating costs in China. Outside China, operating costs fell despite lower casthouse premiums<sup>3)</sup> due to lower costs for alumina, power, labor and carbon among others. Currency movements also affected the relative position of companies on the cost curve. Developments in China were influenced by very low casthouse premiums as a result of the over-supply of primary metal and strong competition within the Chinese market. This was partly offset by large reductions in energy cost.

### Strategy and targets

A key ongoing strategic focus for Primary Metal is the continuous improvement of the efficiency of our smelter system, while constantly addressing the cost challenges facing our business. We have a strong commitment to ensuring a safe work environment and a highly motivated and engaged work force. In order to secure the viability of our operations over time, we intend to focus on business opportunities that enhance our cost position. We will also maintain our technological leadership, which contributes to lower operating costs, reduced emissions, and ensures our attractiveness as a partner for world-class projects within an industry with sound long-term fundamentals.

### Further improve our average smelter-cost position

Our core strategy has been the continuous improvement of our smelter portfolio. Substantial savings were achieved for our fully-owned smelters on the completion of the USD 300 per mt improvement program in 2013 with additional savings achieved by the end of 2015. We also achieved savings and improvements of USD 140 per mt for our global joint venture smelters by the end of 2015. We are targeting additional annual savings for our entire smelter portfolio of NOK 1 billion<sup>6)</sup> under the "Better Primary Metal" improvement ambition by the end of 2019. This includes lifting production capacity at our existing smelters through proven technological developments in addition to continuous operational improvements.

### Optimize our position in alumina, power, carbon and other key raw material costs

We have a secure alumina equity position and an attractive captive power position with roughly two-thirds of our electricity usage based on hydro-power. We are continually working to secure competitive power arrangements as long-term contracts expire. We will also continue to focus on the procurement and supplier portfolio for carbon and other key raw material requirements.

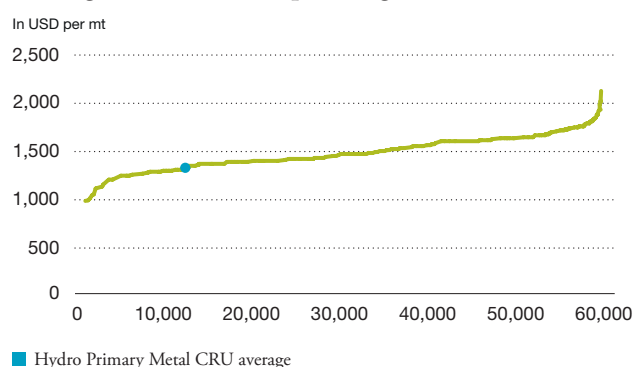
### Maintain our focus on safe, sustainable business operations

We focus on key activities to ensure safe and efficient operations including systematic HSE training of operators and managers, and regular risk assessment of operator tasks and the work environment. We monitor and continually strive to reduce greenhouse gas emissions and waste to landfill. As part of our strategic workforce planning, we aim to recruit competent resources to secure future requirements for managers and technical specialists.

### Advance our operational excellence and technological leadership

We focus on extracting measurable benefits from the application of our Aluminium Metal Business System

### First-quartile aluminium producer on 2016 global business operating cost curve

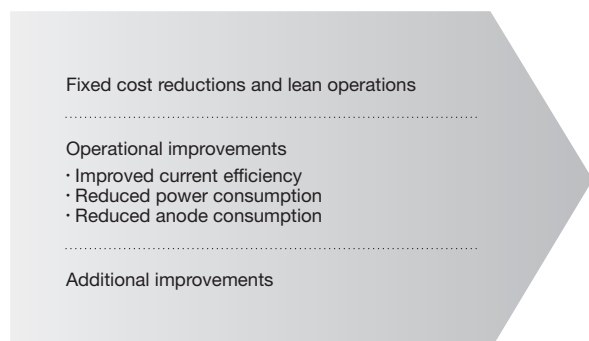


CRU 2016 assumptions: LME 1,500 USD, SHFE 10,300 RMB, USD/NOK 8.53, USD/BRL 4.04, EUR/USD 1.07

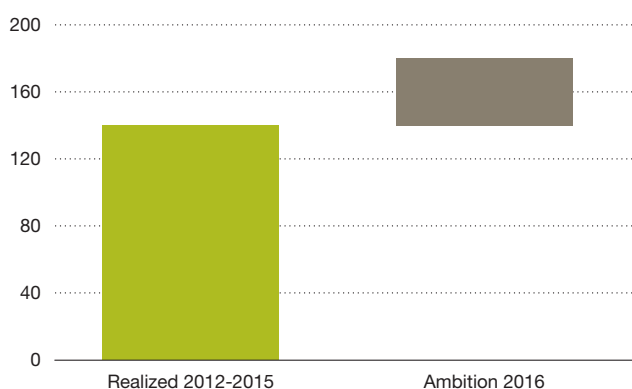


## Primary Metal joint ventures improvement program

Improvement categories



Improvements in USD per mt



(AMBS), a methodology designed to ensure best practices and operating efficiencies across our portfolio. AMBS is a key enabler underlying our improvement efforts and incremental increases in our production volumes. We are also developing new proprietary smelting technology with the aim to improve our cost competitiveness, strengthen our environmental standards and support our long-term growth ambitions. This includes the construction of a 75,000 mt pilot plant utilizing our next generation technology, HAL4e, targeting an energy consumption of 12.3 kWh/kg. Experience gained from the pilot is expected to contribute to further incremental capacity increases in our existing portfolio and productivity improvements beyond lean, efficient operations in addition to other spin-off benefits.

### Focus on selective growth projects

Our growth ambitions are directed toward projects with the potential to improve Hydro's cost position and smelter portfolio, and at the same time, maintain a strong focus on sustainable development. A second phase of the Qatalum smelter has the potential to increase the plant's annual capacity to 1.2-1.5 million mt (100 percent basis. Hydro share, 50 percent). There is also potential to expand the low-cost Alouette smelter in Canada from 600,000 mt to 950,000 mt (100 percent basis. Hydro share, 20 percent). Investments in these projects are dependent on ongoing developments in the balance between industry production capacity and market demand.

### 2015 targets

- Maintain total recordable injuries per million hours worked (TRI) of < 2.0<sup>7)</sup>
- Strong cost discipline with further targeted improvements for fully owned smelters
- Continue focus on operating capital
- Further progress on joint venture USD 180 per mt improvement program

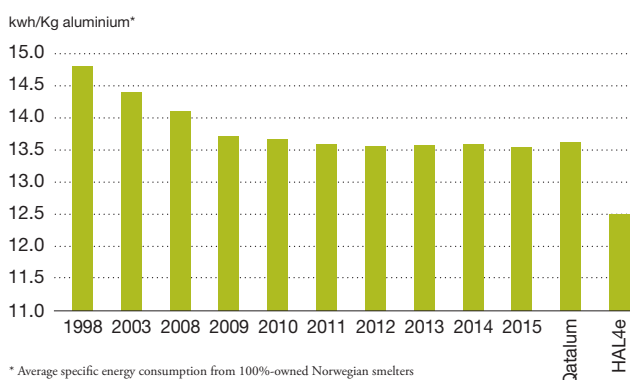
- Emissions of 1.61 mt CO<sub>2</sub>e/mt aluminium from electrolysis, down from 1.62 in 2014<sup>8)</sup>
- Continued employee participation rate of more than 96 percent in My Way, Hydro's enhanced people performance and development system
- Continued reduction of employee exposure to work place hazards

### 2015 results

- TRI rate increased slightly to 2.0 from a record low rate of 1.9 in 2014
- Further improvements achieved for fully owned smelters beyond USD 300 cost reduction program
- Continuous focus on net operating capital, however some increase during the year
- Global joint venture improvement program progressed further with USD 140 per mt achieved by the end of 2015
- Qatalum first decile business operating cash cost position maintained. Dividend of NOK 0.9 billion paid in 2015 (Hydro share)

## Strong performance culture

Reduced specific energy consumption



\* Average specific energy consumption from 100%-owned Norwegian smelters

- Emissions of 1.60 mt CO<sub>2</sub>e/mt aluminium from electrolysis, down from 1.62 in 2014<sup>8)</sup>
- Above 96 percent of all employees participated in My Way or another appraisal dialog tool
- Reduction of employee exposure to work place hazards by 5 percent or more at all production sites in 2015

#### 2016 targets

- Reduce TRI rate < 2.0
- Successfully execute the Karmøy Technology Pilot project
- Continue focus on operating capital
- Achieve roughly NOK 400 million of the "Better Primary Metal" ambition including NOK 300 million relating to the completion of the joint venture USD 180 per mt improvement program
- Emissions of 1.59 mt CO<sub>2</sub>e/mt aluminium from electrolysis<sup>9)</sup>, down from 1.60 in 2015
- Continued employee participation rate of more than 96 percent in My Way, Hydro's enhanced people performance and development system<sup>7)</sup>
- Continued reduction of employee exposure to work place hazards
- Further increase awareness of the importance of integrity in general and the risks of bribery and corruption in particular through training across the organization

#### Ambitions going forward

Hydro has the ambition to continuously strengthen its smelter portfolio maintaining a strong emphasis on sustainable cost development. We will continue to focus on lean smelter operations, operational excellence and safety. The ongoing development of next-generation technology, HAL4e, will provide a strong technological basis for continued organic growth, increased efficiency and lower emissions.

#### Strategic mid-term goals

- Improve our safety performance and strive for an injury free environment (2020)
- Deliver on our new improvement ambition of NOK 1 billion (2019)
- Realize approximately 200,000 mt of incremental, technology driven capacity increase (2025)
- Verify the world's most energy efficient smelter technology with completion of HAL4e pilot plant (2017)

#### Operations

Hydro's primary aluminium plants have reduction facilities with pot lines and casthouses, where liquid and remelted aluminium is cast to form value-added products such as extrusion ingot, primary foundry alloys, sheet ingot and wire rod, in addition to standard ingot.

#### Cost and revenue drivers

The main cost drivers for the production of primary aluminium include alumina, power and carbon, which together comprise about 80 percent of the cash costs of electrolysis metal. Approximately two metric tons (mt) of alumina are required to produce one metric ton of aluminium, representing about 30 percent of the production cost of primary aluminium. Energy represents on average about 25-30 percent of the operating costs. Carbon anodes consumed in the smelting process account for approximately 15-20 percent of the total production cost of primary aluminium.

Realized aluminium prices are the most important revenue driver. Prices are fixed mainly one month prior to production. As a result, and due to the hedging of product inventories, Hydro's realized aluminium prices lag LME spot prices by around 1 to 2 months. Realized premiums have become increasingly important and reached historically high levels in the first quarter of 2015 followed by a steep decline in the remainder of the year.

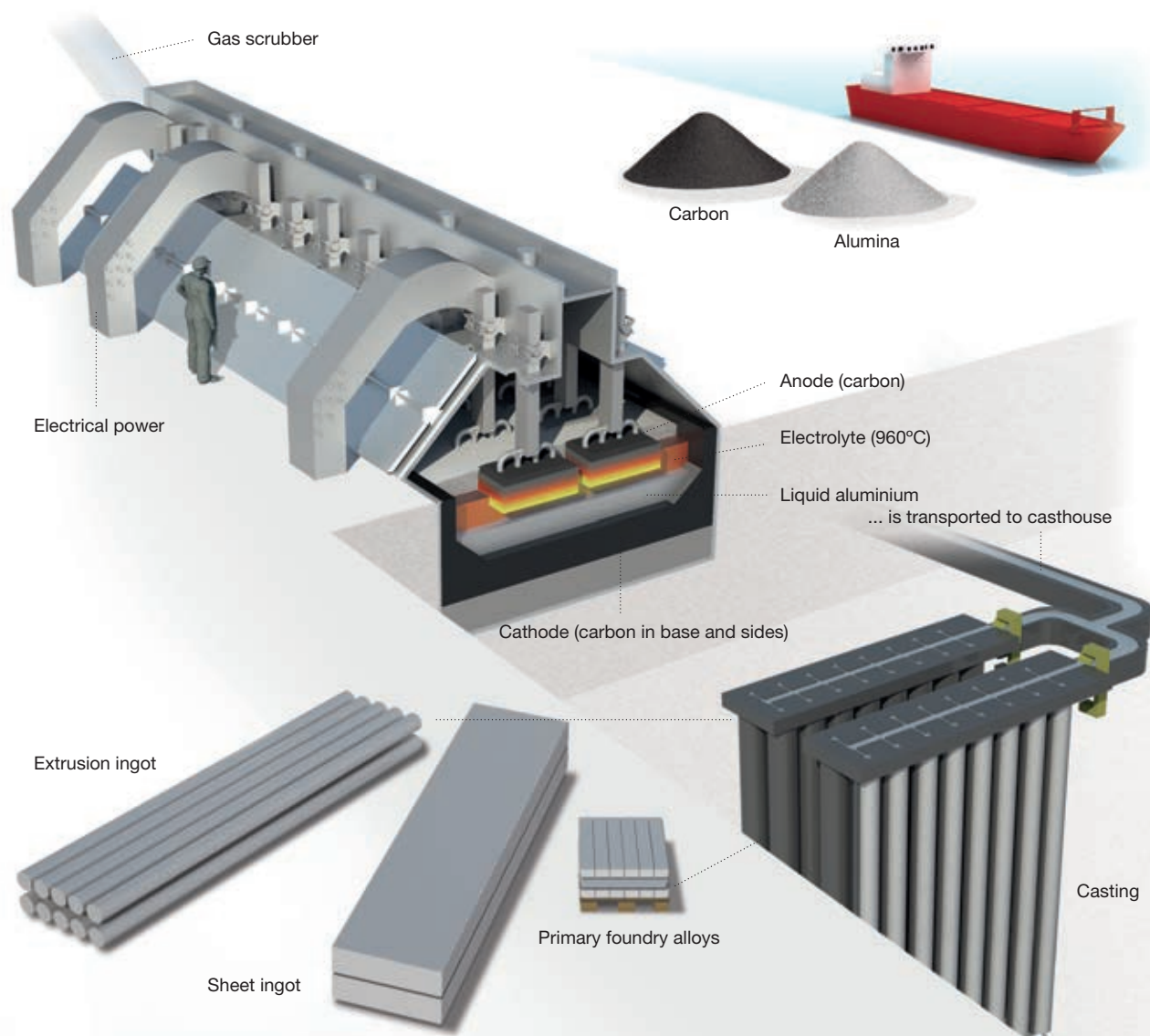
#### Competitive strengths

- Worldwide production network of modern, cost efficient primary aluminium facilities including the Norwegian plant in Sunndal, which is the largest and most modern primary metal plant in Europe, and Qatalum, our world-class smelter in Qatar which is among the top 10 low-cost global producers
- Competitive first quartile position on the industry cash-cost curve at the present currency level
- Culture of continuous improvement and solid track record of continually upgrading efficiency of smelter portfolio
- Most primary aluminium output sold in the form of value-added casthouse products
- Captive alumina position with more than 100 percent coverage
- Robust power position, largely based on hydro power. Substantial coverage of current production until 2030 and beyond
- Technological leadership and world-class smelter technology

#### Aluminium smelter system

Hydro is one of the world's largest producers of primary aluminium, with installed capacity in 11 wholly or partly owned plants in 2015 including the Neuss smelter in Rolled Products. In 2015, we produced around 2 million mt of primary aluminium, which is 128 kt below full capacity, affected by the partial curtailment of the Sunndal and Husnes plants in Norway. Following a restart of the curtailed capacity at Sunndal in 2015, only Husnes continues to have curtailed capacity, of around 50 percent of total capacity. See

## Aluminium smelting process



Primary aluminium is produced in reduction plants where pure aluminium is formed from alumina by an electrolytic process. This process is carried out in electrolytic cells, in which the carbon cathode placed in the bottom of the cells forms the negative electrode. Anodes, which are made of carbon, are consumed during the electrolytic process when the anode reacts with the oxygen in the alumina to form  $\text{CO}_2$ . The process requires electric energy, about 14 kWh per kilo aluminium produced in modern production lines.

the section, Financial and operating performance, for actual electrolysis and casthouse production for the years 2015 and 2014.

Internal supply contracts between our hydro power production operations and our aluminium metal business covered about half of the energy consumption of our wholly owned Norwegian smelters in 2015. The remainder was mainly covered by an external supply contract with Statkraft, a Norwegian electricity company. The contract will expire in 2020. In May and June of 2014, Hydro signed four long-term energy contracts with Adger Energi, Lyse and Axpo Trading for the annual supply of energy totaling 2.7 TWh for the Norwegian smelters for a ten year period ending 2030. In

March and June of 2015, Hydro entered into additional long-term power agreements with Axpo Trading, BKK Produksjon and Eidsiva Vannkraft for the annual supply of energy totaling approximately 1.05 TWh to its Norwegian smelters over a 10 year period from 2021 onwards. Hydro also secured a new power contract for part of the energy requirement of its Neuss smelter in Germany for the period 2018 to 2025.

Electricity for Qatalum is provided by an integrated natural gas-fired power plant supplied with gas by Hydro's joint venture partner, Qatar Petroleum. Albras purchases electricity from the Tucuruí hydroelectric power plant under a long-term agreement with Eletronorte. Alouette, Hydro's part-

Plant	Country	Employees (per Dec. 31)	Electrolysis capacity (000 mt) <sup>1)</sup>	Casthouse capacity (000 mt)	Main products	Key characteristics <sup>2)</sup>
Karmøy	Norway	422	192	240	extrusion ingot, wire rod	<ul style="list-style-type: none"> <li>Two prebake lines</li> <li>R&amp;D center and rolling mill</li> </ul>
Årdal	Norway	545	196	330	sheet ingot, foundry alloys <sup>3)</sup>	<ul style="list-style-type: none"> <li>Two prebake lines</li> <li>Substantial anode production</li> <li>Technology and competence center</li> </ul>
Sunndal	Norway	719	405 <sup>4)</sup>	525	extrusion ingot, foundry alloys	<ul style="list-style-type: none"> <li>Two prebake lines</li> <li>Largest and most modern plant in Western Europe</li> <li>R&amp;D center metallurgy and casting</li> </ul>
Høyanger	Norway	154	64	120	sheet ingot	<ul style="list-style-type: none"> <li>One prebake line</li> </ul>
Husnes	Norway	235	187 <sup>5)</sup>	200	extrusion ingot	<ul style="list-style-type: none"> <li>100% Hydro owned from Nov 2014</li> <li>Long term power contract expiring end of 2020</li> </ul>
Slovalco (55.3%)	Slovakia	496 (100% basis)	171 (100% basis)	191 (100% basis)	extrusion ingot, foundry alloys	<ul style="list-style-type: none"> <li>Joint venture with Penta (Slovakia)</li> <li>One prebake line</li> <li>Long-term power contract expiring end of 2021</li> </ul>
Tomago (12.4%)	Australia	962 (100% basis)	72	67	standard ingot, extrusion ingot, sheet ingot	<ul style="list-style-type: none"> <li>Joint venture with RTA and GAF</li> <li>Three prebake lines</li> <li>Largest producer in Australia</li> <li>Among world's lowest cost smelters</li> </ul>
Qatalum (50%)	Qatar	1205 (100% basis)	306	320	extrusion ingot, foundry alloys	<ul style="list-style-type: none"> <li>Joint venture with Qatar Petroleum</li> <li>Two prebake lines</li> <li>Among the world's lowest cost smelters</li> <li>40 year gas supply contract expiring in 2049</li> </ul>
Alouette (20%)	Canada	881 (100% basis)	121	150	standard ingot,	<ul style="list-style-type: none"> <li>Joint venture with RTA, AMAG and IQ/Marubeni</li> <li>Two prebake lines</li> <li>Largest producer in North America</li> <li>Among the world's lowest cost smelters</li> <li>Long term power contract expiring end of 2030</li> </ul>
Albras (51%)	Brazil	1179 (100% basis)	460 (100% basis)	425 (100% basis)	standard ingot	<ul style="list-style-type: none"> <li>Joint venture with NAAC</li> <li>4 prebake lines</li> <li>Largest producer in South America</li> <li>Long term power contract expiring end of 2024</li> </ul>

1) Production and casthouse capacity for part-owned companies represents our proportional share. Slovalco and Albras are fully consolidated in terms of volumes and financial results. In addition to the production capacity indicated in the table above, Rolled Products' Neuss smelter located in Germany has an annual electrolysis capacity of 235,000 mt.

2) See also discussion regarding power supply for our wholly owned Norwegian smelters and additional information relating to power supply for certain other plants.

3) Curtailment of foundry alloys from the middle of 2012.

4) Actual production impacted by curtailment of about 100,000 mt of capacity in the second quarter of 2009. About half of the curtailed capacity had been restarted by the end of 2012. In September, 2014, Hydro decided to restart the remaining curtailed capacity and Sunndal was in full operations by the middle of 2015.

5) Actual production impacted by curtailment of about 50 percent of capacity in the first quarter of 2009.

owned aluminium plant in Canada, purchased electricity from the supplier Hydro Quebec. In 2015, Alouette agreed on new terms and conditions extending the existing supply of electricity for a 13 year period to 2029. Electricity for the remainder of our smelter system is covered under medium to long-term contracts.

### Technology and innovation

Hydro has significant ongoing R&D activities to strengthen our competitive position, reduce operating costs and improve our environmental performance. As a result, key technology focus areas include reducing energy consumption and improving electrolysis cell efficiency. Hydro's vision is to develop electrolysis cell technology approaching an energy consumption level of 10 kWh per kg aluminium at world-class capital and operating cost levels. Today's industry average is about 14 kWh/kg.

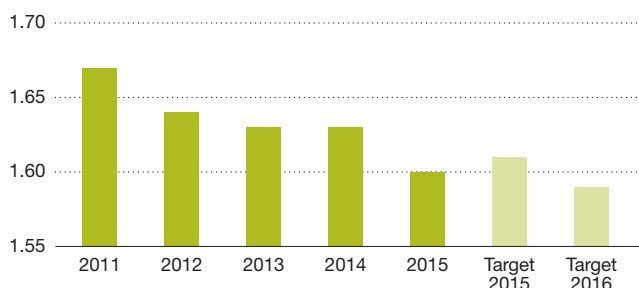
Our aluminium plants in Sunndal, Norway and Qatalum, Qatar utilize our enhanced HAL 300 technology with an

energy consumption of around 13.5 kWh/kg. Our next generation technology, HAL4e, has been tested in a limited number of full-scale production cells delivering an energy consumption of 12.5 kWh/kg. Hydro has decided to build a 75,000 mt technology pilot with the aim of full-scale industrial testing of this proprietary technology at Karmøy, Norway. The project is supported by a contribution of NOK 1.6 billion from Enova, a Norwegian public enterprise which supports new energy and climate-related technology. Ongoing development is targeting a maximum consumption of 12.3 kWh/kg in addition to improved cell productivity for the standard HAL4 technology and below 11.8 kWh/kg for a less mature low-energy version.

Most of our smelters produce anodes on-site, and several of these facilities have been upgraded and expanded over the years. A pilot plant for enhanced anode production technology was established in Årdal, Norway in 2014, aiming at lower anode production cost and improved quality.

## GHG emission intensity – electrolysis

mt CO<sub>2</sub>e/mt aluminium



Includes greenhouse gas (GHG) emissions from electrolysis in primary aluminium production.

## Environment

Aluminium smelting is an energy intensive process. However, approximately 70 percent of the electricity used in Hydro's smelters is provided by hydro power. A substantial portion of the remainder (around 20 percent) is provided by natural gas. On a world-wide basis electricity used for aluminium production based on hydroelectric power is about 36 percent and 8 percent is based on natural gas. The Intergovernmental Panel on Climate Change (IPCC) recognizes natural gas as an important transition fuel that can help reduce global temperature increases.

Primary Metal is Hydro's largest consumer of energy and has the largest combined direct and indirect greenhouse gas emissions. In 2015, direct greenhouse gas emissions from the company's primary metal production, based on ownership equity, amounted to 3.2 million mt. Indirect emissions from

electricity production was 3.7 million mt. Direct emissions of CO<sub>2</sub> equivalents per mt of aluminium from electrolysis was 1.60 down from 1.62 in 2014. The main source of direct CO<sub>2</sub> emissions from Hydro's smelters is the consumption of carbon anodes.

Hydro recognizes that we have a fundamental responsibility to develop solutions to reduce the total greenhouse gas emissions associated with our business activities. See Viability Performance section later in this report for more information regarding our climate strategy and how aluminium products can contribute to reduced energy consumption and greenhouse gas emissions.

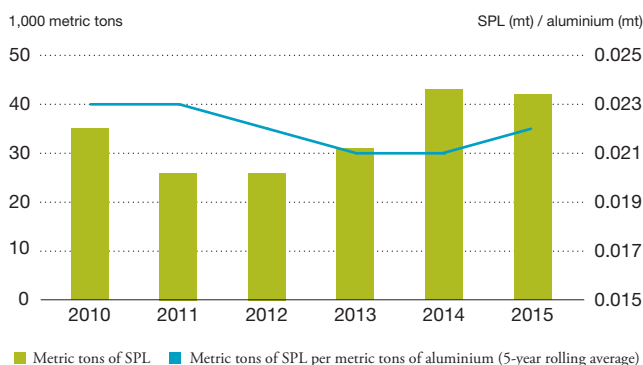
Spent potlining (SPL) from electrolysis cells and anode waste are hazardous waste generated from the production of primary aluminium. Hydro has reduced relining costs and the volume of SPL produced by extending the life-time of the pots. In addition, Hydro has identified that SPL materials can be used as an energy source in the cement and insulation industry where the production process and high temperatures ensure destruction of hazardous components. This represents an efficient use of resources while reducing landfill and related costs. Hydro in cooperation with the Norwegian Environmental Agency have started the work to revise the environmental permits for Hydro's smelters in Norway. The new permits are expected to be in place by the end of 2016 and to be within the new EU environmental emission limits.

## People

Primary Metal, including Metal Markets<sup>10)</sup> had 4,715 permanent employees in its consolidated activities at the end of 2015 and 618 temporary employees including trainees. We have a responsibility to provide a safe work environment and believe that this promotes efficiency and lower operating costs. We monitor and drive ongoing safety improvements by systematic measuring and reporting of injuries. Through deployment of our Work Environment Risk Assessment (WERA) process we have reduced employee exposure to hazards within our electrolysis operations by 5 to 15 percent annually in the last 10 years. This includes reduction of exposure to noise, dust, heat, fumes, chemicals and vibration.

Our AMBS system helps to ensure empowerment and development of our people through best-practice sharing across our organization. AMBS has provided a foundation for our USD 300 per mt improvement program and is expected to help us achieve our new improvement ambition of NOK 1 billion by the end of 2019. My Way, our internal performance and development process, and Hydro Monitor, our employee engagement index, are important tools to engage our people and enhance the performance and development of our organization. In 2015, above 96 percent

## Spent potlining (SPL) from aluminium production



The volumes of spent potlining (SPL) varies with the relining of smelter cells which is normally done every 4-7 years for established smelters. Furthermore, opening new production lines and closing down production lines will give fluctuations in the aluminium production, and - due to the cyclic nature of SPL - a 4-7 years time lag in the SPL volumes. Hence, SPL is normalized with aluminium production with a 5-year rolling average as the best estimate of a trend line.

Figures include historic SPL output from current majority-owned operations, with the exception of Husnes. Husnes was fully acquired during 2015 and collection of historic data is not yet completed.



of Primary Metal's employees (including Metal Markets) participated in My Way or another performance appraisal dialogue tool.

Diversity in the organization is important to us, in particular related to age and gender. A comprehensive diversity awareness training program has been run at management level at all plants, and will be further introduced at more levels in each unit. In 2015, almost half the technology graduates were women. We also emphasize the need to recruit more female operators and promote the workplace as fit for both genders, motivating young women to seek vocational training in the process industry.

### Society

Hydro is one of the most important business enterprises at several communities where our smelters are located. A good dialogue with local residents is considered essential for the mutual benefit of our business and the societies in which we operate. In Barcarena, the location of Hydro's Albras smelter and Alunorte alumina refinery, an inter-sectoral forum has been established to improve communications with the local community. Please see the Viability Performance section later in this report for further information.

In Qatalum, in Qatar, the large majority of employees are migrant workers. We strive to secure good working conditions for people employed directly as well as those supplied by contractors.

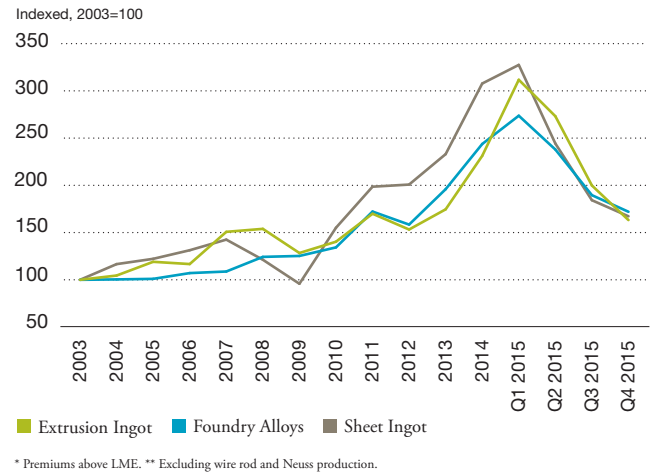
Our supplier requirements regarding corporate responsibility form an integral part of our procurement process. Several of the suppliers for our smelting operations are based in developing countries dealing with certain environmental and social issues. We have risk based mechanisms in place to assess compliance with local regulations and our own requirements including on-site audits and follow-up actions.

## Metal Markets

### Strategy and targets

Hydro's flexible and extensive multi-sourcing system enables us to rapidly adjust our remelt and recycling production to market demand. We intend to continue capitalizing on this flexibility to secure our market position and create additional value on top of LME for our production capacity. We will also exploit this competitive advantage to optimize our casthouse utilization and margin contribution. By increasing sourcing and recycling of post-consumer scrap we will improve our profitability and contribute to reaching our ambition to become carbon-neutral in 2020. Global optimization of Qatalum sales volumes continues to be key priority.

### European premium development



### Focus on margin management

Optimizing product premium margins in our primary casthouses and stand-alone remelters will continue to be at the top of our agenda. This includes shifting production toward higher premium alloys, optimizing remelting activities in response to market developments, shorter duration premium pricing and global optimization of product sales towards stronger markets. We will also focus on implementing key product strategies including strengthening our technical resources and enhancing our market team and key account approach.

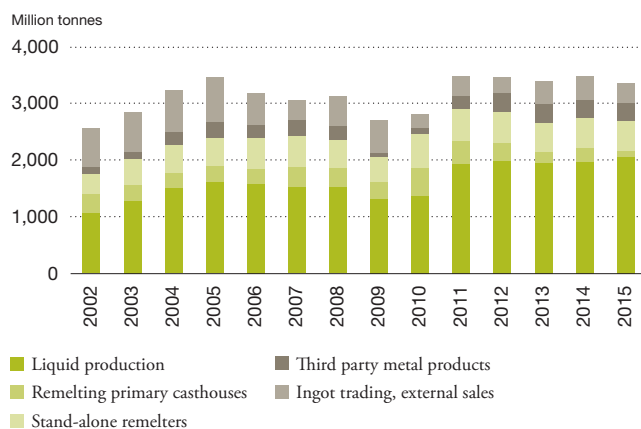
### Grow recycling capabilities

We have built a strong position in the metal products markets to optimize the capacity of our integrated casthouses and stand-alone remelters offering value-added products to the marketplace. Our ambition is to take a strong position in aluminium recycling to improve our cost base and reduce our carbon footprint. In 2015 Hydro acquired world leading scrap sorting technology through the purchase of WMR Recycling GmbH, located in Dormagen Germany. We plan to further increase our capability and capacity to use post-consumed and other types of contaminated scrap and identify new sources of raw materials. With implementation of our global scrap network we will improve communication and cooperation between the regions, generating synergies in our operations. We also plan to continue to increase sales of recycling friendly alloys from our remelters.

### Risk management

We will continue to secure the value of our commercial portfolio by hedging price and currency risk exposures within our group upstream and downstream businesses, mainly resulting from time lags between our manufacturing process and the pricing of products to our customers.

## Sales of casthouse value added products and ingot trading



### 2015 targets

- Progress with implementation of key product strategies
- Progress on implementation of new AFM casting technology during 2015 with completion in 2016
- Further increase in usage of post-consumer scrap
- Further increased sales of recycling-friendly alloys
- Maintain strong focus on risk management and capital discipline

### 2015 results

- Achieved defined key milestones for several product strategies
- AFM casting tables installed in Høyanger and Årdal. Qualifications with customers ongoing
- Increased the use of post-consumer scrap by 23,000 mt
- Increase of sales of recycling-friendly alloys from remelters
- Strong focus on risk management and capital discipline maintained

### 2016 targets

- Further progress with implementation of key product strategies
- Complete implementation of new AFM casting technology
- Further increase the usage of post-consumer scrap by 10 percent
- Further increased sales of recycling-friendly alloys enabling the use of lower quality scrap
- Maintain strong focus on risk management and capital discipline

### Ambitions going forward

Our vision is to be the preferred partner for casthouse products and services. We will strengthen our focus on enhancing product premium margins by utilizing the flexibility of our multi-sourcing system to manage our global

product portfolio in an optimal way. We will continue our strong focus on safety and risk management, and maintain firm discipline on operating costs and capital expenditures.

### Strategic mid-term goal

- Increase recycling of post-consumed scrap by 150,000 mt to improve margins and reduce environmental impact (2020)

### Operations

Metal Markets is responsible for all sales and distribution activities relating to products from our primary metal plants, our stand-alone remelters and our high-purity aluminium business. We operate seven remelters, which recycle mainly scrap, but also standard ingot<sup>11)</sup> into new products. We also market metal products from our part-owned smelters and third parties, and engage in other sourcing and trading activities, including hedging activities on behalf of all business areas in Hydro.

### Cost and revenue drivers

Our results are mainly impacted by the operating results of our stand-alone remelters and high purity aluminium business, margins on sales of third party products and results from ingot and LME trading activities.

Revenues for our stand-alone remelters are influenced by volumes and product premiums over LME. Costs are driven by the cost of scrap and standard ingot premiums over LME, freight costs to customers and operational costs, including energy consumption and prices.

Our results can be heavily influenced by currency effects<sup>12)</sup> and ingot inventory valuation effects<sup>13)</sup>

### Competitive strengths

- Leading worldwide supplier of extrusion ingot, sheet ingot, foundry alloys and wire rod
- High share of value added products
- Extensive multi-sourcing system including broad network of primary casthouses, stand-alone remelters and partly owned primary sources
- Strong recycling capabilities
- Flexible sourcing system enabling significant, rapid and cost effective volume adjustments
- Strong market position in US and Asia through Qatalum volumes
- Commercial expertise and strong risk management competence enabling us to secure manufacturing margins

### Remelting

We have a network of seven stand-alone remelt plants that convert scrap metal and standard ingot into extrusion ingot. We have five plants in Europe and two in the U.S. with a

total capacity of about 0.6 million mt, roughly 0.4 million mt of which is located in Europe. Our facilities in Europe are located in Luxembourg, the United Kingdom, Germany, Spain and France. Total remelt activity, including remelted metal from casthouses integrated with our primary metal plants and third-party sourcing, has historically represented about half of our total sales of metal each year, but has been reduced during the past years to adjust to market balance and improve margins. In addition to remelting post-consumer scrap returned from customers, we purchase pre and post-consumer scrap from third parties. Standard ingot is procured globally under a combination of short and long-term contracts.

### *Sourcing and trading*

To supplement our own equity standard ingot production, we source some standard ingot for remelting in Hydro's remelters and primary casthouses from third parties. Third-party contracts are also executed in order to optimize our total portfolio position and to reduce logistics costs. We also sell standard ingot to external customers.

Our main risk management objectives are to achieve an average LME aluminium price on smelter production, matching the average customer pricing pattern, and to secure margins in our midstream and downstream businesses. Our sourcing and trading operation acts as an internal broker for all LME-hedging transactions by our business units in order to consolidate Hydro's exposure and reduce transaction costs.<sup>14)</sup>

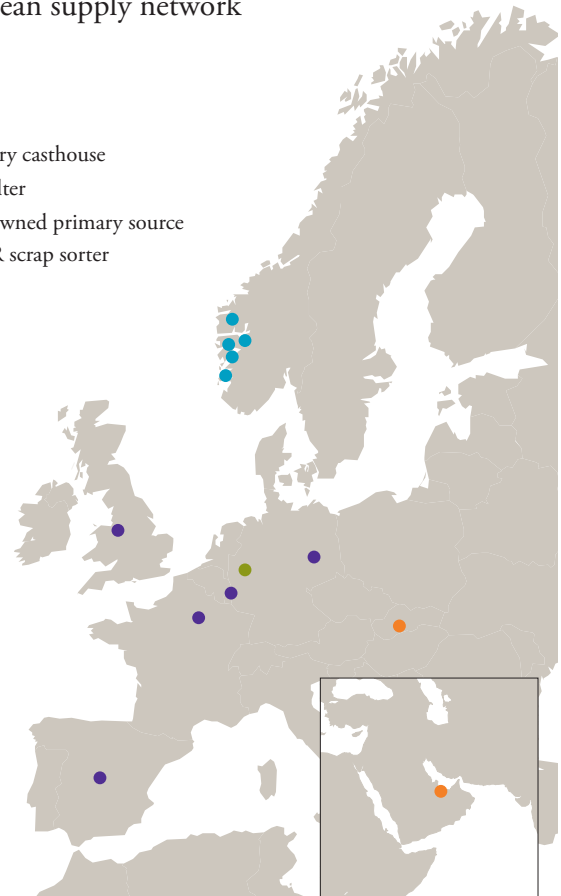
### *Markets, products and customers*

Most of our aluminium is sold in the form of value-added casthouse products such as extrusion ingot, sheet ingot, foundry alloys and wire rod. Our product with the highest volume is extrusion ingot, which is sold to extruders producing aluminium profiles. The most important end-use segments include the building and construction industry, transport and general engineering. Our key market region for extrusion ingot is Europe. However, following the completion of Qatalum, the Asian and U.S. markets have become increasingly important to Hydro. Other important markets for Qatalum include Turkey, the Middle East and Australia/New Zealand.

Foundry alloys are sold to foundries producing cast parts primarily for the automotive industry. Following the closure of casthouse capacity in Europe during 2012 and completion of Qatalum, Asia has become our most significant market for this product. Sheet ingot is sold to European rolling mills, with packaging and transportation as the most important end-use segments. Wire rod is sold to wire and cable mills in Europe for power transmission and other electrical applications.

### European supply network

- Primary casthouse
- Remelter
- Part-owned primary source
- WMR scrap sorter



We also produce and sell high purity aluminium products and other specialty products, mainly used in the electronics industry in products like electrolytic capacitors, semi-conductors and flat-panel displays, as well as in aviation and aerospace applications.

In addition to marketing our own products, we have commercial agreements to market products from part-owned smelters including a full marketing responsibility for all of the casthouse production at the smelters in Qatar and Slovakia.

Our regional market teams are key to our customer approach, delivering commercial, technical, logistical and scrap conversion services. Optimized solutions, such as our customer service programs and online customer portal, add further value and help build and reinforce customer relationships.

### *Technology and innovation*

Innovation and development is carried out in close collaboration between our customers, production units and R&D. We emphasize three main areas including the quality of our products, the efficiency of our production system and the development of new alloys to enhance the functional

characteristics of our products. Our casthouse production process is based on our advanced proprietary casting technology, developed by the fully-owned equipment producer Hycast and our R&D center. In 2014 Hydro announced plans to invest in new Adjustable Flexible Molds (AFM) casting technology in our casthouses in Årdal and Høyanger to better serve customers in the automotive industry and strengthen our position as a supplier of advanced sheet ingot. The investment complements our strategy to high-grade our product portfolio.

Quality improvements are closely linked to our customer technical service, addressing customer needs while improving our own casthouse process. We develop new alloys with distinct properties to support the development of new or enhanced applications within the automotive, building, electronics and other industries. This work begins with developing an understanding of metallurgical processes that form the basis for sample compositions and production methodologies carried out in laboratory or test production facilities. Finally, full scale testing is done often together with customers or end users.

Recycling of post-consumer scrap is an important activity to enable reduced costs and emissions as well as increased capacity utilization. Our casting and alloy expertise enables us to produce products that can be recycled and used as raw material for high quality semi-finished products. Developing products that optimize the use of recycled material is another focus area.

### *Environment*

Aluminium can be continuously recycled without degradation in quality and requires only 5 percent of the energy necessary for primary aluminium production. Depending on cost and quality differences between standard ingot and aluminum scrap, recycling can be commercially attractive and provides significant environmental benefits. These include conserving energy and other natural resources, reducing greenhouse gas emissions, reducing land encroachment related to bauxite mining and alumina refining and reducing landfill. However, most of the aluminium produced today is used in long-life products. As a result, access to aluminium scrap is limited and most of the raw material for our recycling comes from process scrap from our own production and from other companies.

In 2015, we recycled 1.1 million mt of aluminium on a combined basis which was about the same as the previous year.<sup>15)</sup> Of this amount, 134,000 mt was post-consumer scrap, compared with 111,000 mt in 2014.

### *People*

Please see Primary Metal for information about processes and performance relating to people for Metal Markets.

### *Society*

Metal Markets' operations are either co-located with larger Hydro operations or are relatively small stand-alone operations with limited direct social impact on the communities they are part of. The main social impacts associated with our operations are caused by our suppliers, mainly for scrap and alloying metals. See Primary Metal for information relating to our supplier requirements regarding corporate responsibility.

## **Rolled Products**

### **Industry overview**

The aluminium rolled products industry is characterized by economies of scale, with significant capital investments required to achieve and maintain technological capabilities and to meet customer qualification standards.

Worldwide consumption amounted to approximately 23.8 million mt in 2015 in which foil, can and transport were the largest segments. Europe and North America represent 21 percent of world consumption each. The five largest producers in Western Europe supply about 75 percent of the European market. China is the largest single market, representing more than 30 percent of global consumption.

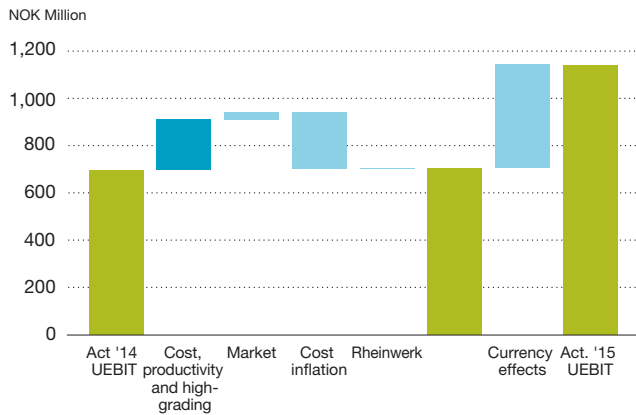
The export of semi fabricated and fabricated aluminium products from China to the rest of the world has steadily increased over the last several years, which has been driven by export tax rebates provided for several semi-fabricated products among other factors.

Flat rolled products exports from China have increased in 2015, in particular to North America, Europe and the Middle East. See Risk review section, Risk factors later in this report for a discussion on our exposure to competition from China.

### **Strategy and targets**

Maintaining our strong market position and increasing returns continue to be key priorities in our Rolled Products business operations. Differentiation through innovation in products, processes and services is an important means to grow our market share and margin contribution. Measures aimed at increasing efficiency and reducing costs will continue together with efforts to reinforce safe operations and sustainable business practices.

## "Climb" improvement program contribution



### *Build on our strong market position*

We intend to develop and improve our market share by leveraging our preferred supplier position in the market. With a focus on our strong position within lithography, foil, beverage can, automotive, general engineering and painted building products, we will continue to improve the quality of our products and services to our customers in order to drive the performance of our business and pursue further growth opportunities. Differentiation through innovation remains a key strategy, supported by our dedicated R&D facilities.

Based on expected strong demand growth in the automotive Body-in-White market segment, we are currently investing in a new production line to lift our nominal capacity for aluminium car body sheet to 200,000 mt per year. The construction of the new line is on time and on budget and start of production is planned for the fourth quarter of 2016.

### *Achieve targeted improvements within the "Better Rolled Products" ambition*

Following the completion of the Climb program at the end of 2015 we have launched our new improvement ambition, "Better Rolled Products", with the goal to generate annual revenue and cost improvements of NOK 900 million by 2019 compared to revenue and cost levels at the end of 2015. Recycling, operational improvements and portfolio high-grading will be central elements in addition to supply chain management. We will also continue to focus on efficiency throughout our operating environment and exploit the strengths in our asset base and core competencies. The Used Beverage Can (UBC) recycling line was started up in February 2016 and will contribute to significant metal cost and CO<sub>2</sub> savings from recycling post-consumer scrap. The new Body in White automotive line starting up in the fourth quarter 2016 will begin to contribute to the bottom line from 2017.

### *Strengthen our safety performance and emphasis on compliance*

We will continue our efforts to improve safety performance through risk reduction and stronger leadership and engagement supported by appropriate training. Emphasis on compliance with internal directives and external legal requirements will continue together with the ongoing work on risk reduction, in particular related to CSR requirements for our business partners.

### *2015 targets*

- Reverse negative trend in TRI and bring rate down by 30 percent
- Realize targeted Climb improvements through further process as well as cost improvements and cost initiatives
- Improve delivery reliability compared to the two previous years
- Start of production at our new UBC recycling line
- Realize minimum one step change related to alloy, product or process development supported by our innovation drive
- Further increase awareness of competition regulations through training across organization
- Progress on implementation of enhanced Rolled Products Business System procedures

### *2015 results*

- The TRI rate improved by 5 percent, nevertheless fell short of our ambitious target of 30 percent improvement
- Climb improvement targets of NOK 800 million cost and revenue improvement compared to the end of 2011 achieved one year ahead of schedule
- Delivery reliability remained on 2014 level, influenced by certain production reliability incidents
- New UBC recycling line started up in February 2016
- Step changes realized include copper free material solutions for heat exchanger applications and new alloy for next generation converting foil
- Competition regulations trainings carried out according to planned schedule and content
- Rolled Products Business System procedures further substantiated and implemented

### *2016 targets*

- Bring the TRI-rate below 4
- Achieve approximately NOK 200 million of the "Better Rolled Products" improvement ambition
- Improve delivery reliability compared to the two previous years by 5 percent
- Finalize and start up new automotive line on time and on budget
- Realize minimum one step change related to alloy, product or process development supported by our innovation drive



- Ensure that existing compliance system is further implemented in all relevant applications of the Rolled Products Business System

#### *Ambitions going forward*

We are committed to a safe working environment and to eliminating accidents in our operations. We aim to increase the returns of our business operations, concentrating on operational excellence and involving all employees in continuous improvement. We will pursue growth opportunities and keep our focus on innovation and technology to sharpen our competitive edge.

#### *Strategic mid-term goals*

- Improve our safety performance and strive for an injury free environment (2020)
- Deliver on our new improvement ambition of NOK 900 million (2019)
- Differentiate through product innovation, quality and service – minimum 1 step change per year
- Increase nominal automotive Body-in-White nominal capacity to 200 kmt (2017)
- Complete ramp-up of UBC recycling line to more than 40 kmt (2017)
- Lift recycling of post-consumer scrap to more than 100 kmt (2020)

### **Operations**

The rolling process consists of heating 600 millimeters (mm) sheet ingot to about 500 degrees Celsius and gradually rolling it into thicknesses of 3-13 mm for further processing. An alternative process, continuous casting, converts molten metal directly into coiled strip, typically 4-8 mm thick. Once cool, the thinner metal is further processed in cold rolling mills, producing various types of products for all markets supplied.

#### *Cost and revenue drivers*

Rolled products is a margin driven business based on a conversion price where the LME cost element is passed on to the customer. Contracts are generally medium term. The cost structure includes a high proportion of fixed costs, so results are volume sensitive.

#### *Competitive strengths*

- Leading positions in high-end products including automotive, foil and lithographic sheet
- Solid position in the European rolling industry with estimated 16 percent market share in Europe
- Global reach with around 30 percent export for high-end markets, serving key customers in the Americas, Middle East and Asia-Pacific
- Leading R&D facility dedicated to Rolled Products

- World class assets including AluNorf (Hydro share 50 percent), the world's largest rolling mill, and Grevenbroich, the world's largest multi-product finishing mill
- AluNorf, Grevenbroich and Rheinwerk smelter located in close proximity generating significant logistical advantages

#### *Rolling mills*

Following the divestment of the Slim plant in Italy at the end of 2015 our flat rolled products operations are located in Germany and Norway. We generated approximately 75 percent of our total sales in 2015 in Europe. More than half of our production was produced in the Grevenbroich/ AluNorf rolling system in Germany, one of the most modern and efficient rolling operations in the world. Grevenbroich is the center of our packaging, lithographic and automotive sheet operations. Our production network mainly comprises of so-called "wall-to-wall" processing, including an integrated casthouse combined with both hot and cold rolling mills.

More than one third of the metal used was sourced internally, based on arm's-length conditions related to LME and applicable premium prices. External supplies of liquid metal, sheet ingots and standard ingots, account for half of our total requirements in 2015. In addition, we recycled post-consumer scrap and pre-consumed scrap from our customers.

#### *Neuss smelter*

Neuss is the largest aluminium smelter in Germany, with a maximum liquid metal capacity of 235,000 mt per year including one curtailed pot line and a recycling capacity of 50,000 mt. In addition, a new, state-of-the-art UBC recycling line, will provide an additional 40.000 mt of liquid metal. The plant supplies the near-by AluNorf rolling mill with primary and recycling based sheet ingots for processing and subsequent fabrication of rolled products in Grevenbroich. The Neuss smelter is an important element of this integrated system and provides significant operating synergies.

#### *Markets, products and customers*

Our ambition is to leverage our position as a preferred supplier by focusing on quality, product development and innovative solutions, together with excellent customer service and overall cost efficiency. To ensure a strong market orientation, our sales function is organized centrally along business lines. This is supported by sales offices in Europe, Brazil, the US, and Singapore where we optimize market contact and sales potential.

Our rolled products business is organized into three business units serving the different market segments in which we operate.

Plant	Country	Capacity (000 mt)	Main products	Other characteristics
Grevenbroich	Germany	450	Packaging, lithographic sheet, automotive	<ul style="list-style-type: none"> <li>The world's largest multi-product finishing mill</li> <li>Supplied by nearby AluNorf rolling mill</li> </ul>
Alunorf 50%	Germany	650	Packaging, lithographic sheet, automotive, general engineering	<ul style="list-style-type: none"> <li>The world's largest rolling mill</li> <li>50/50 joint venture with Novelis</li> <li>Partly supplied with sheet ingot from nearby Rheinwerk smelter</li> <li>Integrated cast house, based on remelting and recycling</li> </ul>
Hamburg	Germany	165	General engineering, automotive, heat exchanger	<ul style="list-style-type: none"> <li>Integrated casthouse</li> </ul>
Slim <sup>1)</sup>	Italy	85	General engineering, packaging	<ul style="list-style-type: none"> <li>Integrated casthouse</li> </ul>
Karmøy	Norway	90	General engineering	<ul style="list-style-type: none"> <li>Continuous casting</li> </ul>
Holmestrand	Norway	90	Building, general engineering	<ul style="list-style-type: none"> <li>Integrated casthouse, recycling center</li> </ul>
Neuss	Germany	235 primary	Liquid metal and sheet ingots	<ul style="list-style-type: none"> <li>Integrated casthouse and recycling</li> <li>UBC recycling center</li> </ul>
			40 (UBC)	
Dormagen	Germany	40	Automotive	<ul style="list-style-type: none"> <li>Slitting</li> </ul>

1) On December 17, 2015 Hydro completed the sale of the Slim rolling mill which will be operated by Rolling Mills International GmbH from January 1, 2016.

### *Lithography, Automotive and Heat Exchanger*

**Lithography:** Hydro is the leading global supplier of lithographic sheet for printing plates, a market characterized by demanding requirements for surface quality, metal characteristics and mechanical properties. We differentiate our products through innovation, consistent high quality, supply chain solutions and extensive service to our customers. Key customers in this segment include Agfa, FujiFilm and Kodak. Our litho production is concentrated at the Grevenbroich plant.

**Automotive:** We are the second-largest supplier of aluminium sheet and coil to the European automotive market for interior and exterior vehicle body parts, chassis and component applications. Key customers include Audi, BMW, Daimler, PSA and Jaguar Landrover. Production is concentrated within our Grevenbroich and Hamburg plants. To increase our car body sheet capacity we are investing in a new production line in Grevenbroich with start up in the fourth quarter of 2016.

**Heat Exchanger:** We produce a wide variety of mainly clad strip and sheet used in the manufacture of heat exchangers for passenger and commercial vehicles as well as other product applications. We are among the top producers in Europe, working with key tier one suppliers such as Mahle, Denso, Modine and Linde to develop specially adapted alloys and optimized production techniques to fit their manufacturing processes.

### *Packaging & Building*

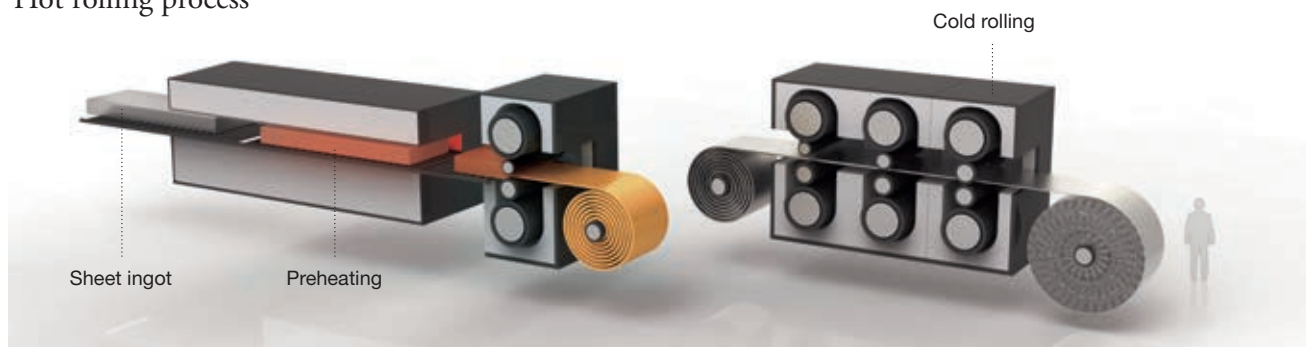
**Packaging:** We serve customer needs in the rigid and semi-rigid packaging industry, offering plain and converted strip and foil in thicknesses ranging from 5 - 500 µm. We provide packaging solutions combining high-quality manufacturing with innovation, cost effectiveness and sound ecological characteristics. We also offer a wide range of services relating to our packaging products in terms of consulting and technical support. We are specialists in thin-gauge foil for flexible packaging, offering foil as thin as 5.0 µm for the packaging of food as well as for technical applications, including converted qualities with a variety of lacquered, laminated and coated finishing. Tetra Pak, Amcor Flexibles and Constantia Flexibles are key customers. Production of packaging is mainly concentrated in our Grevenbroich rolling mill.

Hydro is a worldwide supplier of body, end and tab stock in the form of rolled coil for the production of aluminium beverage cans. Our modern and efficient production facilities, technical know-how and experienced development support facilitate the delivery of high-quality materials to meet the specific requirements of can manufacturers. Our Grevenbroich plant is dedicated to the production of Hydro's quality proprietary can-end stock efficiEND®, which promotes productivity and cost-effective manufacturing to all major beverage can manufacturers worldwide.

**Building (coated):** Hydro is one of the leading manufacturers of coated aluminium strip, with experience in the building

Business unit	Shipments in %	Key characteristics
Lithography, automotive and heat exchanger	32	<ul style="list-style-type: none"> <li>Largest producer in the lithographic products market</li> <li>Serving OEMs and their suppliers with strip and sheet for automotive body, component and chassis applications</li> <li>Automotive and non-automotive heat-transfer applications</li> </ul>
Packaging and Building	39	<ul style="list-style-type: none"> <li>Main markets include beverage can, foil packaging and lacquered building products</li> <li>Global player with leading position in the high value-added liquid packaging market segment</li> </ul>
General engineering	29	<ul style="list-style-type: none"> <li>General engineering products mainly used in industrial applications</li> </ul>

## Hot rolling process



The slabs are preheated before entering the hot reversing mill. The sheets are rolled to the desired thickness in the finishing mill.

market for many decades. We offer to our customers a portfolio of cost-effective solutions from the dedicated production lines in our Holmestrand rolling mill, including product applications for roofing and cladding, roller shutters, ceilings, composites and other specific applications.

### *General Engineering*

Hydro is a leading supplier of hot and cold rolled aluminium strip and sheet, offering a comprehensive range of products tailored to meet the individual requirements of a variety of applications in the industrial and consumer products sectors. Products include coil and sheet for wholesalers and end-producers. We operate modern and efficient manufacturing processes, offering quality products and extensive technical support.

### *Technology and innovation*

Based on continuous research and development at our dedicated R&D center in Bonn, Germany, we differentiate our business through innovative products, processes and services that save resources, reduce emissions and increase performance. Customers benefit from this added value, which increases our market share and margin contribution. We cooperate with customers to develop innovation solutions, through R&D and our sophisticated technical customer service. Supported by our advanced scrap processing and melting concepts, we plan to increase the volume of recycled material used in our production processes. We also focus on optimizing our alloys to make aluminium the material of choice in all our markets. In automotive in particular, our solutions make cars lighter, safer and more dynamic. Examples include our HA6016-X clad alloy with significantly higher formability, and our optimized AA5182 variant which delivers higher formability while maintaining high corrosion resistance. Most of our innovation is supported by our world-leading, in-house simulation tools which enable computer aided process design and alloy

development. Our sophisticated modeling not only delivers optimum results, but also provides all the necessary information for efficient application by our customers.

### *Environment*

Compared to Hydro's upstream operations, Rolled Products' environmental footprint is relatively small and mainly within the vicinity of our production sites. The main environmental impacts include noise, odor and traffic volume. In addition, Hydro's emissions of NMVOC (non-methane volatile organic carbons) mainly originate from Rolled Products.

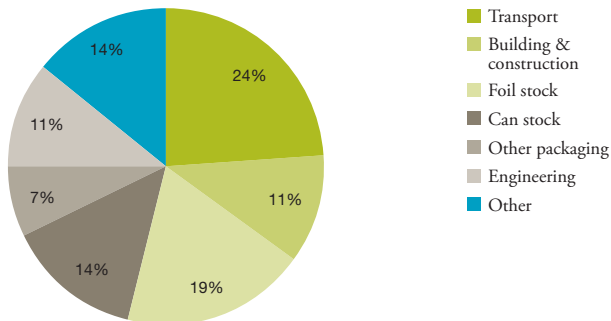
Aluminium has numerous advantages in terms of energy savings and reduced greenhouse gas emissions in the use phase. We work closely with customers to develop innovative and cost efficient solutions to take advantage of these qualities. Examples include light-weight products related to transportation which reduces energy consumption and emissions as well as packaging solutions with superior food preservation properties that reduce energy demands relating to cooling requirements and waste due to food degradation. Our production line for automotive body sheet, which is planned to start production in the fourth quarter of 2016, is an example of how we contribute to reducing CO2 emissions in the use phase while growing our business.

Recycling is an important part of our environmental and business strategy (see also discussion under Environment for Metal Markets). In February 2016 we started up our new recycling line for used aluminium beverage cans (UBC) at our Neuss smelter in Germany. The line will have an annual capacity of more than 40 kmt by 2017.

Most of our rolled products operations are in water-stressed areas with regard to annual renewable water supply (according to the definition used by WBCSD). Although water supply in these areas is well-regulated we are evaluating measures to reduce water consumption.

## Flat rolled products consumption Western Europe 2015

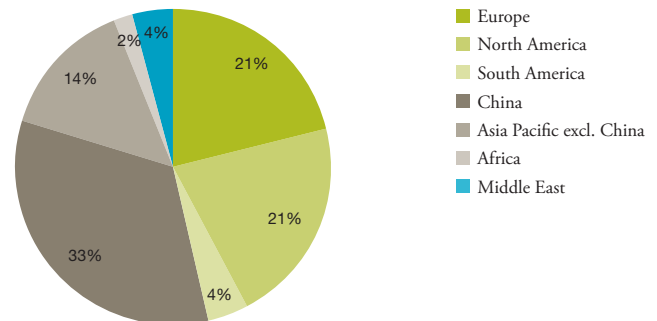
Total market 4,043 Kmt



Source: CRU quarterly November 2015

## Global flat rolled products consumption 2015

Total market 23,837 Kmt



Source: CRU quarterly November 2015

### People

Rolled Products had 4,302 permanent and 311 temporary employees in its consolidated activities at the end of 2015, including the Slim rolling mill which was divested at year-end. New initiatives were launched in the beginning of 2015 aimed at increased involvement, trust and cooperation of all employees as part of our improvements ambitions. My Way, our internal performance and feedback process, is an important tool to engage our people and enhance the performance and development of our organization. Participation rate has been close to 100 percent at participating plants, and My Way will be implemented in the last plant in 2016.

Diversity in the organization is important to us, in particular related to age and gender. For instance, the supervisory boards of two of our German subsidiaries have committed to reach 25 percent female representation by the middle of 2017, additional measures targeted to increase diversity in other plants will follow.

We also plan to strengthen the competence of our employees with a special focus on attracting and developing highly talented individuals through an Employer Branding program at targeted universities in Germany and Norway.

### Society

Apart from being a significant employer in the local communities where we have production sites, the main social impacts associated with our operations are generated by suppliers. Our supplier requirements regarding corporate responsibility form an integral part of our procurement process. This is to ensure compliance with local regulations and our own requirements including risk assessments, on-site audits and follow-up actions.

## Energy

### Industry overview

Electricity generation in the Nordic market is mainly based on hydropower (54 percent) and nuclear power (22 percent). Generation in Norway is almost entirely based on hydropower. Total annual Nordic consumption is approximately 400 TWh.

There has been a common Nordic electricity market since the late 1990s. The Nordic electricity market includes the Baltic countries. Nordic system prices are set in day-ahead auctions at the Nord Pool Spot market. The system price is normally the main reference price for financial contracts traded bilaterally and at the Nasdaq OMX. Area prices are calculated for physical delivery to constrain flows when available transmission capacity would otherwise be exceeded. There are five price areas in Norway, four in Sweden and two in Denmark. Finland, Estonia, Lithuania and Latvia constitute one bidding area each.

Prices are influenced by fuel cost (including emission allowance cost), meteorological parameters (precipitation, temperature, and wind) and exchange transmission possibilities with adjoining markets. An increase in intermittent generation from solar and wind power capacity has had a significant effect on price volatility in Continental markets and influenced price developments in the Nordic market.

Implementation of EU energy and climate regulations has and will continue to have a significant influence on energy prices and energy and climate policy in all EU/EEA countries. Emission trading has increased electricity prices by up to 50 percent in periods with high emission allowance cost in Europe, including the Nordic market where electricity is predominantly generated by non-emitting sources. At

present market conditions, the effect on electricity prices is about 30 percent. There is, however, an ongoing EU legislative process aimed at reducing emissions and consequently increasing future allowance prices. In order to prevent carbon leakage, the EU established guidelines in 2012 allowing national governments to support industries exposed to global competition. Actual compensation, which is dependent on national implementation, is established in Norway and Germany with conditions corresponding closely to the EU guidelines. Please see section Regulation and taxation - Aluminum regulation - climate gases later in this report for more information on this matter.

A common electricity certificate market for Norway and Sweden was established in the beginning of 2012 with the objective to support the development of new renewable generation capacity. The certificate system is designed to support an increase in annual renewable generation in the Norwegian/Swedish market of 28.4 TWh by 2020.

### Strategy and targets

Hydro is the second largest power plant operator in Norway, with more than 100 years of experience in hydropower production. We intend to develop the value of our Norwegian assets and to use our extensive energy competence to secure competitive energy sources for our global activities. Operational excellence and on-going improvement continue to be a key priority to secure cost effective, safe and reliable production.

#### *Develop our captive power capacity*

Our ambition is to continually increase Hydro's share of captive power from renewable sources, and further explore opportunities within our existing concession areas in Norway. Securing and increasing the value of our energy assets is a key priority, based on our normal equity power production of 10 TWh.

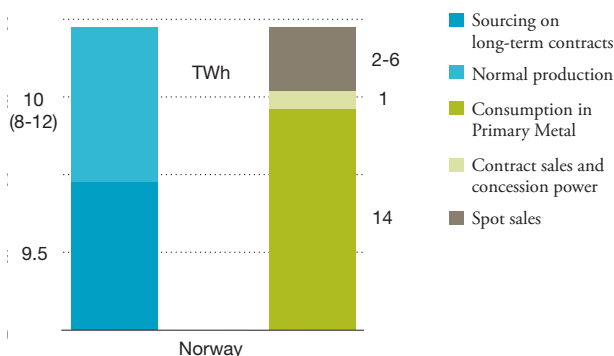
#### *Optimize power asset management and operational excellence*

We are continuously developing our expertise in optimizing power production and market operations. Our objective is to minimize the cost of industrial sourcing and maximize the value of our production assets, including active participation in power markets. We have made significant cost and safety improvements in our hydropower plant operations during the last decade, and we will continue to pursue further performance improvements. Safe, reliable, environmentally conscious operations remain among our top priorities going forward.

#### *Sourcing competitive energy for our global operations*

Access to competitive energy is a major success factor in our value chain. We have large energy exposures on nearly every

### Generation and power sourcing in Norway



continent. We are engaged in a number of initiatives to identify and secure competitive energy supplies for Hydro's operations. In 2015, we successfully sourced 1.05 TWh for Hydro's Norwegian smelters for a ten year period beginning 2021, and 0.3 TWh for the period 2031-40, enabling competitive aluminium production in Norway. During the year, power contracts were also secured for our operations in Germany and Brazil and for the part-owned smelter Alouette in Canada. We also established Norsk Hydro Energia Ltda as a vehicle for power market operations in Brazil. We are actively involved in promoting a responsible energy policy in the regions where we operate.

#### *2015 targets*

- Operational excellence, continued strong emphasis on HSE in projects as well as in operations with no recordable injuries
- Further efforts on securing competitive long term power sourcing for the aluminium operations including the potential pilot plant at Karmøy
- Progress construction of small hydropower plants and continue efficiency improvements in existing plants
- Strengthen local presence in Brazil to secure competitive energy supplies for our alumina refining and aluminium smelting operations and exploit commercial opportunities in the Brazilian power market

#### *2015 results*

- Maintained a strong focus on safe operations, however one recordable injury (TRI) occurred in 2015
- Secured power contracts at competitive prices for our Norwegian smelters; an additional 1.05 TWh annually for the period 2021-30 and 330 GWh for the period 2031-40.
- Rjukan upgrade successfully completed according to plan
- Mannsberg and Midtlæger small hydropower plants projects initiated and progressing as planned



- Norsk Hydro Energia Ltda in Brazil established as a vehicle for the power market operations, power contracts for B&A operations secured

#### 2016 targets

- Operational excellence, and continued strong emphasis on HSE in projects and operations through visible leadership with no recordable injuries
- Compliance with relevant frameworks in the regions where we operate
- Progress on ensuring robust industrial ownership for the Røldal-Sudal Kraft (RSK) energy assets
- Deliver additional production volumes through upgrades/sustaining investments and completion of Mannsberg/Midtlæger
- Progress on securing new competitive sourcing contracts in Norway
- Progress on supporting competitive energy supply as well as energy policy and framework development for other business areas

#### Ambitions going forward

Our goal is to develop our equity power position and capitalize on our energy competence, supporting the sourcing of energy to our operations on a global basis.

#### Strategic mid-term goals

- Operational excellence, and continued strong emphasis on HSE in projects and operations through visible leadership and no recordable injuries
- Ensure robust industrial ownership for RSK energy assets—maintain physical power offtake post 2022
- Deliver additional production volumes through upgrades/sustaining investments
- Secure 4-6 TWh new competitive sourcing contracts in Norway post 2020
- Support competitive energy supply as well as energy policy and framework development for other business areas on a continuous basis

### Operations

Hydro is a global energy player, purchasing and consuming substantial quantities of energy for its smelters, rolling mills and alumina refinery operations. In Norway, we are the largest private-owned power producer with operating and ownership interests in 24 hydroelectric power plants. Installed capacity was approximately 2,000 MW in total at the end of 2015 representing normal annual production of 10 TWh.<sup>16)</sup> This corresponds to about 40 percent of Hydro's total electricity consumption worldwide. We also purchase above 9 TWh annually in the Nordic Market under long-term contracts, mainly with the Norwegian state-owned company Statkraft.

#### Cost and revenue drivers

Production volumes and market prices are strongly influenced by hydrological conditions. Seasonal factors affect both supply and demand.

Our cost base is relatively stable, however, volatile spot volumes and prices may cause significant quarterly revenue variations. The total power portfolio is being optimized in the market and in cooperation with our smelters.

#### Competitive strengths

- Power coverage until 2020 with new contracts covering part of our sourcing requirements beyond 2030
- Substantial captive power through equity hydropower in Norway and natural gas fired power in Qatar
- High share of renewable energy
- Low operating costs
- Operational and commercial competence
- Stable earnings and cash generation

#### Norwegian power assets

Our power plants are located in three main areas - Telemark, Sogn and Røldal-Sudal - and managed from a common operations center at Rjukan in Telemark. We also own the Vigeland power plant in Vennesla, and a 33 percent interest in Skafså Kraftverk ANS in Telemark.

Approximately two-thirds of our normal annual power production in Norway is subject to reversion to the Norwegian state with Røldal-Sudal (RSK) being the first significant production facility subject to reversion. The Norwegian government has sent out a proposal on hearing relating to the organization of ownership of hydropower assets that would allow private entities physical hydropower offtake from ownership stakes below 33.4 percent in hydropower companies (ANS/DA model). If approved, this will enable Hydro to maintain access to physical power from RSK assets after reversion through restructuring the assets within a one-third ownership position in a company with liability. See Government regulation - Energy regulation and taxation for further information on this matter.

In addition to sourcing power for our aluminium operations, Hydro sells about 1 TWh of the electricity related to concession power obligations to the local communities where the power plants are located. Power is also sold on existing contracts to our former petrochemicals business.

We optimize power production on a daily basis, according to the market outlook and the hydrological situation within Hydro's water reservoirs. By utilizing the flexibility of the hydropower plant systems and the volatility in the spot market price, Hydro aims to realize a premium above the

(Ownership percent)	Rated capacity (MW) (100%)	Normal annual production (TWh) (Hydro share)	Key characteristics / concession period
<b>Sogn (100 %)</b>			<ul style="list-style-type: none"> <li>Total catchment area 803 km<sup>2</sup></li> <li>Concession expiration Tyin 2051 and Fortun 2057</li> </ul>
Tyin	374		
Holsbru	48		
Skagen	252		
Fivlemyr	2		
Herva	35		
Total Sogn		<b>3.2</b>	
<b>Røldal-Suldal Kraft (95.2%)</b>			<ul style="list-style-type: none"> <li>Total catchment area 793 km<sup>2</sup></li> <li>Concession expiration 2022</li> </ul>
Middyr	2		
Svandalsflona	20		
Novle	48		
Røldal	172		
Suldal I	169		
Suldal II	155		
Vasstøl	5		
Kvanndal	45		
Total Røldal-Suldal Kraft		<b>3.0</b>	
<b>Telemark (100%) <sup>1)</sup></b>			<ul style="list-style-type: none"> <li>Total catchment area 4 094 km<sup>2</sup></li> <li>No reversion except for Frøystul 50% 2044, Moflåt and Mæl 2049</li> </ul>
Frøystul	45		
Vemork	204		
Såheim	188		
Moflåt	32		
Mæl	38		
Svelgfoss	96		
Total Telemark		<b>3.5</b>	
<b>Skafså (33%)</b>			<ul style="list-style-type: none"> <li>No reversion</li> </ul>
Åmdal	21		
Osen	15		
Skree	7		
Gausbu	7		
Total Skafså		<b>0.1</b>	
<b>Vigeland (100%)</b>			
Vigelandsfoss	26	<b>0.2</b>	<ul style="list-style-type: none"> <li>Exempted from reversion</li> </ul>
Total		<b>10.0</b>	

1) All plants in Telemark are wholly owned except for Svelgfoss, in which Hydro owns 70.22 percent.

average spot price. Our total Norwegian power portfolio, including our own production, is balanced in the market on the Nord Pool Spot Power Exchange. Spot market sales vary significantly between dry and wet years, with an average of 4.0 TWh.

Recently constructed power plants have increased production over the last several years. Two new, smaller power plants, Mannsberg and Midtløger, will be commissioned in 2016, adding further to our production capacity.

### Environment

Hydroelectric power is a renewable energy source. However, there are several potential environmental impacts associated with Hydro's operations including changes in aquatic and terrestrial habitats along the waterways and impact on recreation and tourism. All of our reservoirs are located

within or in close proximity to national parks and other protected areas in mountainous regions in Southern Norway including Hardangervidda and Jotunheimen. We limit vehicle traffic related to operations and maintenance of reservoirs that are within protected areas, and snowplowing to protect reindeer habitat. We monitor the impact of our operations on aquatic life in rivers connected to catchment areas. In order to mitigate the effects of water regulation on fish populations, around 86,000 fish spawn are launched annually in almost 40 lakes and rivers as part of concession requirements. Rehabilitation projects are also carried out to improve fish habitats and esthetic qualities. Stone refuse tips from tunnel construction are registered and rehabilitation performed or planned except for those that are protected as cultural heritage.

### *People*

Energy had 189 permanent employees in its consolidated activities at the end of 2015 and 13 temporary employees including apprentices. We emphasize a safe work environment and believe that we can promote this while also delivering on efficiency and low operating costs. We monitor and drive safety improvements through systematic, preventive activities focused on controlling risks.

Our workforce is our most important asset. My Way, our internal performance and development processes, and Hydro Monitor, our employee engagement index, are important tools to enhance our people and organization performance and development. In 2015, nearly 100 percent of our employees participated in an appraisal dialogue through My Way. The Hydro Monitor survey is performed every second year, with the most recent completed in 2014.

### *Society*

Energy's operations are all located in Norway and have limited impact on the communities in which we operate. For safety purposes, Hydro restricts public access to certain areas due to varying water levels.

Our supplier requirements regarding corporate responsibility form an integral part of our procurement process, including selecting contractors for project execution.

### **Sapa**

Sapa is a world leader in downstream aluminium solutions, with a global reach and local presence within extrusions, building systems and precision tubing. The company is a 50/50 joint venture combining the extrusion business of Hydro ASA and Orkla ASA. Sapa employs around 23,000 people in more than 40 countries. The company's headquarters are located in Oslo, Norway.

### **Joint venture transaction**

On October 15, 2012 Hydro announced an agreement with Orkla ASA to combine their respective extrusion profile, building systems and tubing businesses. The transaction transformed Hydro's extrusion operations, improving the global reach of the combined operations and created a stronger foothold for Hydro in North America and several important emerging markets. The restructuring program initiated in 2013, targeting annual synergies of around NOK one billion by the end of 2016, reached its target in 2015, one year ahead of time.

### **Industry Overview**

Over the past several years there has been significant overcapacity in the extrusion industry in Europe and in southern Europe in particular. Combined with weak economic developments, this has led to increased market

competition and restructuring activities within the industry including the Sapa transaction. Despite these developments, companies with high quality products and services and competitive costs, are able to defend margins that lead to sustainable returns.

The North American extrusion industry is more consolidated than Europe. However, margins remain under pressure despite market improvements and further consolidation within the industry. The market consumption of extruded products in South America is relatively low. Brazil represents over half of the South American extrusion market, followed by Argentina. Asia represents the largest consumer region for extruded products reflecting the ongoing investment in infrastructure and high level of construction activity.

Due to the sharp decline in the building market following the financial crisis in 2008, overcapacity in southern Europe and the U.K. has resulted in increasing competition within the European building systems industry.

Precision tubing is a global business mainly focused on automotive heat transfer applications. The market is relatively fragmented.

### **Operations**

Sapa is the world's leading supplier of extrusion-based aluminum solutions. Market share at the end of 2015 was 24 percent in Europe and 27 percent in North America. Sapa also has a solid foothold in emerging markets with extrusion capacity in South America and in Asia. In 2015, Sapa's extrusion capacity in China was reduced through divestments. Sapa's extrusion operations serve a diverse customer base within the automotive, transportation, building and construction, electrical and engineering market sectors. Sapa operates in value added aluminium solutions, within the areas extruded profiles, building systems and precision tubing. The majority of the Building systems operations are located throughout Europe while Precision Tubing is a global business.

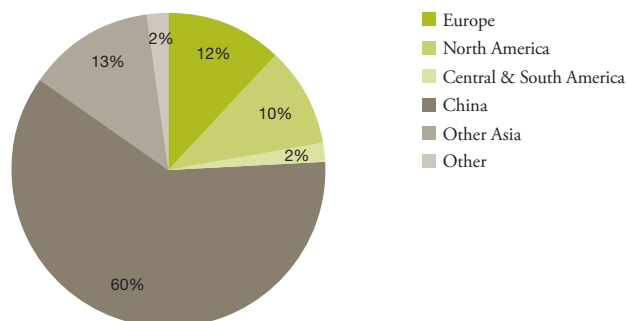
Sapa has an extensive production system that ensures a global reach combined with a local presence. Facilities include around 160 extrusion presses in over 90 production sites. Operations are based in 25 countries in Europe, 12 countries in the Middle East, Africa and Asia and in Brazil, Argentina, the United States, Canada and Mexico. The majority of operations are located throughout Europe and in North America. Sapa also has a solid foothold in emerging markets with extrusion capacity in South America and in Asia.

### **Markets, products and commercial activities**

Approximately half of Sapa's products go to the building and construction markets, with the remainder split evenly

## Extrusion aluminium consumption\* by region 2015

Total market 25.9 million mt



\* Consist of semi fabricated products (included recycled aluminium)  
Source: CRU LT 2015/Hydro

between transportation and consumer/other market segments. Sapa's general extrusion business delivers custom made aluminium extrusions to customers in most industries. Local plants work closely with customers tailoring aluminium profiles and providing supporting services according to customers' needs. In North America, the extrusion business is organized to optimize capabilities across the continent while providing high-quality local service.

Sapa Building Systems (SBS) offers extensive geographic coverage and superior products in a European market that favors solutions linked to regional building habits and local preferences. Each of our brands represents a distinct system that enable our customers to target products to individual markets. Efficient distribution and logistics operations ensure quick and accurate deliveries. SBS is at the forefront in the development of products and solutions for energy-efficient buildings.

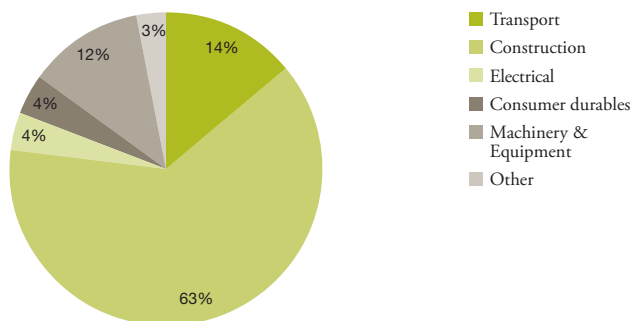
Sapa Precision Tubing (PT) produce and sell specialized products used in heat transfer applications, mainly for the automotive market, which represents about 70 percent of the total sales. PT is also active in the general heat transfer applications, a growing market segment, and applications for transporting liquids and gases. PT operates globally and has leading market positions in Europe, North America and South America, and a smaller, developing market position in Asia.

## Regulation and taxation

Hydro is subject to a broad range of laws and regulations in the jurisdictions in which we operate. These laws and regulations impose stringent standards and requirements and potential liabilities regarding accidents and injuries, the construction and operation of our plants and facilities, air

## Extrusion aluminium consumption\* by end use 2015

Total market 25.9 million mt



\* Consist of semi fabricated products (included recycled aluminium)  
Source: CRU 2015/Hydro

and water pollutant 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, among other things. We believe we are in material compliance with currently applicable laws and regulations.

## Aluminium - regulation

### Environmental matters

Hydro's aluminium operations are subject to a broad range of environmental laws and regulations in each of the jurisdictions in which they operate. 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 water, 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 and perfluorocarbons (PFCs), all greenhouse gases, are emitted during primary aluminium production.

In the European Union and other jurisdictions, various protocols address transboundary pollution controls, including the reduction in emissions from industrial sources of various toxic substances such as polyaromatic hydrocarbons, and the control of pollutants that lead to acidification.

The European Union has adopted a number of pieces of legislation to address discharges of dangerous substances to water: The Water Framework Directive (2000/60/EC), as well as specific legislation on bathing waters, drinking water, nitrates in ground and surface waters, and urban wastewater treatment. Based upon the information currently available regarding implementation in the EU Member States and Norway, Hydro's management does not believe it will have a material negative impact on its business. The European Union has also adopted Directive 2008/105/EC on environmental quality standards in the field of water policy, which sets specific emission limit values for pollutants identified as priority substances and priority hazardous substances (PHS). These standards must be observed from 2015. Among the substances found on the PHS list are polycyclic aromatic hydrocarbons, which are sometimes emitted by the aluminium industry. Any emissions, discharges and losses of such substances (i.e. PHS) must cease in the EU by 2025. Both the Water Framework Directive and the Directive on environmental quality standards were revised in 2013 (Directive 2013/39/EU), notably to expand the list of priority substances and to revise the emission limit values for the period after 2015. Hydro has initiated a process in order to address the relevant requirements of the Water Framework Directive in cooperation with external consultants and the Norwegian Environment Agency. During 2015, the Norwegian plants submitted new water monitoring programs to the Norwegian Environment Agency and after its review, these will form basis for future longer term water monitoring.

Hydro has a number of facilities that have been operated for a number of years or have been acquired 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 has made provisions in its accounts for expected remediation costs relating to sites where contamination has been identified that, based on presently known facts, it believes will be sufficient to cover the cost of remediation under existing laws. Because of uncertainties inherent in making such estimates or possible changes to existing legislation, it is possible that such estimates may prove to be insufficient and will need to be revised and increased in the future. In addition, contamination may be determined to exist at additional sites that could require future expenditures. Therefore, actual costs could be greater than the amounts reserved.

We believe that Hydro is currently in material compliance with the various environmental regulatory and permitting systems that affect our 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 always be accurately predicted.

### **Integrated pollution prevention and control**

Under the EU Directive on Integrated Pollution Prevention and Control 1996/61/EC (the "IPPC Directive"), industrial installations require national operating permits based on best available techniques (BAT) for pollution prevention and control. The European Commission has issued a guidance document relevant for the aluminium industry: BAT Reference Document (BREF) for the Non-Ferrous Metals Industries (2001). Norwegian authorities established stricter emission limits for the aluminium industry in Norway applying from January 1, 2007, in line with the IPPC Directive. Hydro's aluminium production facilities comply with those requirements. The IPPC Directive was amended by Directive 2010/75/EU on Industrial Emissions (IED), and the new requirements have been applicable since 2013. The related BREF note is in the process of being revised at the European level and is expected to be published in 2016. We expect Hydro to be in a position to comply with the new rules.

### **Greenhouse gas emissions**

The EU Emissions Trading Directive 2003/87/EC (the ETS Directive) established an internal emission trading system (ETS) in CO<sub>2</sub> emission allowances for the period 2005-2012. During this period, the aluminium industry was not included in the scope of the scheme, but was indirectly affected by the scheme, through the pass-through of CO<sub>2</sub> allowance costs by power producers into the power prices ("indirect effects"), creating a significant increase in the power prices in the various European markets. This EU Directive is also relevant for the EEA, and Norway joined the EU ETS in 2008.

In April 2009, the European Union adopted a new law amending these rules (Directive 2009/29/EC) to include primary and secondary aluminium production where combustion units have a total rated thermal input exceeding 20 MW in the ETS for the period from 2013-2020 for the direct emissions of CO<sub>2</sub> and PFC gases from aluminium plants. Aluminium production is qualified as an industrial sector exposed to a significant risk of "carbon leakage" (i.e. risk of European operations losing market share to less carbon-efficient installations outside the EU).

This means aluminium producers would, in principle, receive a high percentage of the emission allowances they need free of charge. The free allocation of emission allowances is agreed until 2020. Hydro is currently close to the benchmark values, thus the financial impact of these regulations are currently minor. However, due to increased production volumes and



an annual reduction of free allowances, the need to procure allowances is likely to increase in the coming years. Such increased purchase of allowances could, depending on the development of the price for CO<sub>2</sub> allowances, have a material financial impact.

Rolling operations are also covered by the rules and are allocated allowances free of charge based on an energy efficiency benchmark. Hydro is close to, or within, the benchmark values for its remelting activities.

Even more important for the primary aluminium industry are provisions allowing Member States to grant financial compensation for the increase in electricity prices due to ETS implementation, while observing EU state aid rules. The European Commission issued guidelines allowing for such state aid under certain conditions, in May 2012. Similar guidelines were adopted by the EFTA Surveillance Authority (ESA) in December 2012. Aluminium production qualifies as an eligible sector. The German and Norwegian governments have adopted legislation granting such compensation as from January 1, 2013 and July 1, 2013 respectively. Except for Sør-Norge Aluminum AS, which Hydro acquired control of in 2014, Hydro's fully owned Norwegian smelters did not qualify for compensation at the relevant cut-off date, as, according to the Norwegian regulations, Hydro's power sourcing (self-generated power and old sourcing contracts entered into prior to implementation of the ETS scheme) did not expose those smelters to increased electricity price due to the introduction of ETS.

In 2015 the EU adopted the Market Stability Reserve; a mechanisms to regulate the auction supply of allowances into the ETS market from 2019 and onwards.

In July 2015, the European Commission issued a new draft directive, proposing to amend the ETS rules for the period from 2021-2030 for direct emissions of greenhouse gases, including PFC gases from aluminium plants. The proposal includes a regulation of free allowances for industrial sectors exposed to a significant risk of "carbon leakage" for direct emission, and further, propose that Member States can continue to grant financial compensation for the increase in electricity prices. It is expected that the EU Parliament and Council will discuss and adopt the new directive in 2016 or 2017.

The Paris agreement reached in December 2015, committed all the 195 signatory nations to keep the increase in the global average temperature "well below 2°C", by each signatory nation committing to do their best effort to reduce emissions, and reach a balance between greenhouse gas emissions sources and sinks (known as net zero emissions) "in

the second half of this century". Such efforts could expose Hydro to additional costs in the various countries it operates.

### EU aluminium tariffs

From 2007, the import duty on non-EU imports of primary unalloyed aluminium has been 3 percent, while the duty on alloyed aluminium has been 6 percent. As from January 1, 2014, import duty for alloyed rolling slabs and alloyed extrusion ingot has been reduced from 6 percent to 4 percent, while the import duty on primary foundry alloys has been kept at 6 percent. Aluminium metal produced in the EEA is exempt from any such duty.

The World Trade Organization (WTO) round of negotiations on tariff and non-tariff barriers on industrial products may ultimately lead to further reduction, and perhaps elimination, of aluminium tariffs. Nevertheless, the WTO negotiations are not expected to have a substantial impact on Hydro in the near future.

In the absence of a WTO multilateral trade agreement, the EU has been negotiating bilateral free-trade agreements with various third countries of interest to Hydro, which will, in time, lead to the suspension of aluminium tariffs with such third countries.

### Chemicals legislation - REACH and CLP

The European Union Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (known as "REACH") was adopted in late 2006 and entered into force in the EU on June 1, 2007. Hydro's operations are covered by this regulation, and the regulation has also been applicable in Norway since June 2008 through the EEA agreement.

The main aim of REACH is to protect European citizens and the environment from exposure to hazardous chemicals. This will be achieved by requiring producers and importers of chemicals to register them formally and to evaluate their health and safety impacts. In some cases, REACH may require producers and importers to replace hazardous chemicals with those of less concern. The registration of chemicals is a lengthy process over a number of years, and is being prioritized by volumes produced.

Hydro is on track to implement REACH, having successfully completed the two first stages in the legal process, i.e. the full registration of substances produced and/or imported above 1,000 metric tons/year and substances in volumes between 100 and 1,000 metric tons/year. Both registrations were completed by the legal deadlines of, respectively, November 30, 2010 and June 1, 2013. The final step in the implementation of REACH is the registration of substances

produced and/or imported in volumes between 10 and 100 metric tons/year by June 1, 2018, which Hydro is in a position to do.

The European Union Regulation (EC) No. 1272/2008 concerning the classification, packaging and labeling of chemicals and their mixtures (CLP) transposes in European law the Globally Harmonized System (GHS) for classification and labeling adopted by the United Nations. It covers chemical substances and mixtures, and replaces the previous EU Dangerous Substances Directive and Dangerous Preparations Directive.

CLP is about the hazards of chemical substances and mixtures and how to inform others about them. It is the task of industry to identify the hazards of substances and mixtures before they are placed on the market, and to classify them in accordance with the identified hazards. Importers and manufacturers must provide notification to the European Chemicals Agency (ECHA) about substances subject to registration under the REACH Regulation and hazardous substances, irrespective of volumes, prior to placing them on the market. Hydro complies with these regulations.

## Energy - regulation and taxation

### The Norwegian regulatory system for hydropower production

The ownership and utilization of Norwegian waterfalls for i.e. hydropower production, other than small-scale power production, requires a concession from the Ministry of Petroleum and Energy. According to legislation passed in 2008, new concessions may no longer be granted to private entities such as Hydro. Moreover, private entities may not acquire nor own more than one-third of the shares or interests in companies that own hydropower plants.

Our waterfall rights and hydropower plants in Norway were acquired and developed under previous legislation that allowed for private ownership. Approximately one-third of our normal annual production in Norway - about 3 TWh per year - was acquired before concession laws were enacted and does not contain any compulsory reversion to the Norwegian state. About two-thirds of our normal annual production, or 6 TWh per year, is subject to concessions granted at the time the waterfall rights were acquired. Such power plants operate under concession terms of Norwegian state reversion, with individual concessions expiring in two main parts around 2022 and 2050. Hydro's power plants at Røldal-Suldal, with a normal annual production of 3.0 TWh, will be the first significant production facilities to revert to the Norwegian state towards the end of 2022. Reversion to the Norwegian

state can be avoided if the power plants, or two-thirds or more of the shares of the entity that owns the power plants, are sold to a public entity prior to reversion.

Under the current legislation, private entities like Hydro may lease a waterfall for up to 15 years.

The Water Framework Directive (2000/60/EC) adopted by the EU and implemented in Norway includes requirements that also affects our hydropower production. Depending on the application of such requirements in practice, there is a risk that they may cause some reductions in production volumes. However, as Hydro's hydropower concessions are subject to time limitations and must be renewed, the requirements in the Water Framework Directive are not expected to imply any major change in Hydro's position.

### Taxation of hydropower production in Norway

Profits from Hydro's hydropower production in Norway are subject to ordinary income tax at 27 percent for the income year 2015, being reduced to 25 for the income year 2016. Revenue for ordinary income tax purposes is based on realized prices. Dams, tunnels and power stations are, for tax purposes, depreciated on a linear basis over 67 years, and machinery and generators over 40 years. However, such fixed assets are depreciated over the concession period if that is shorter. Transmission and other electrical equipment are depreciated at a 5 percent declining balance.

A natural resource tax of NOK 13 per MWh is currently levied on water-generated electricity. The tax is fully deductible from the ordinary income tax.

In addition, a special resource rent tax, at 31 percent for the income year 2015, being increased to 33 percent for the income year 2016, is imposed on hydropower production in Norway. Unlike the ordinary income tax, financial costs are not deductible against the basis for the resource rent tax. 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 the income year. The percentage, which is determined annually by the Ministry of Finance, essentially provides for a certain return on fixed assets above which income becomes subject to the resource rent tax. The percentage used to calculate the uplift for 2015 was 0.7 percent.

Revenue for resource rent tax is, with certain exceptions, calculated based on the plant's hourly production, multiplied by the area spot price in the corresponding hour. However, revenues from sales under certain long-term contracts are valued at contract price, and power supplied to Hydro's own industrial production facilities is for tax purposes valued according to a price formula in historical Statkraft contracts,

the so-called "St. Prp. 104 price", which for 2015, was 281.98 NOK/MWh. As from 2016, the «St. Prp. 104 price» is replaced by a new reference price, which has not yet been decided by the tax authorities. As a substantial part of Hydro's hydropower production is used for our own industrial production or sold under qualifying contracts, only part of our production has been subject to spot-price taxation.

## **Bauxite and Alumina - regulation and taxation**

### **Environmental regulation**

Our operations in Brazil are subject to strict environmental regulations and license requirements. Particular regulations apply to our operations in the Mineração Paragominas S.A. (Paragominas) mine, due to its location in the Amazônia region.

One such regulation, known as the "Environmental Legal Reserve" requires that 80 percent of a property with native forest in the Amazônia region must be preserved, which means that a mine in the region cannot be developed without a sustainable forest management plan in accordance with the regulation. The practical implication is that for each rural property where Paragominas has current or planned mining operations, the Environmental Legal Reserve must be complied with and approved by, the Para state environmental agency SEMA.

Under Brazilian environmental legislation, any activity that has the potential to pollute the environment must obtain an environmental license before the activity can start. Such licenses are generally granted by the state environmental agency, SEMA. It is common that licenses granted are subject to a number of conditions to ensure regulatory compliance or to mitigate effects of the operations on the environment or local communities.

Each of our Brazilian operations currently hold several environmental licenses, including environmental installation licenses for respective construction and expansion phases, and environmental operational licenses for their ongoing operations.

### *Greenhouse gas emissions*

In 2009, Brazil addressed its national policy on climate change through a federal law which set out ambitious voluntary targets for reducing greenhouse gas (GHG) emissions until 2020 – most of which has already been achieved. In the end of 2015 Brazil has submitted even more ambitious targets (37 percent cut in GHG by 2025 and 43 percent until 2030 compared to 2005 levels) during the United Nation Climate Change Conference in Paris. Since

2010 authorities have been developing sectoral plans to cut emissions and discussions continue regarding a sectoral plan for the aluminium industry, which currently follows a general plan developed in a cooperation agreement between the Ministry of Environment, the Ministry of Development, Industry and Foreign Trade and the National Confederation of Industry signed in 2012. The current plan has an ambition of reducing greenhouse gas emissions by 5 percent by 2020 compared to a "business as usual" scenario of projected emissions.

## **Mining regulation**

### *Current framework*

Exploration of minerals requires an exploration license from the federal mining agency DNPM. The license grants an exclusive right to explore an area, subject to several requirements including compensation to the land owner and payment of an annual exploration fee to the DNPM. Currently, the annual exploration fee is BRL 2.61 per hectare for the initial term of the license, and BRL 3.95 per hectare for any renewal periods.

If the exploration identifies viable resources, a mining concession is granted by the Ministry of Mining and Energy. The concession includes an obligation to pay royalties to the government and land owners. For bauxite mining, royalties are currently calculated based on net revenue after certain deductions. Government royalties amount to 3 percent and are allocated between local (65 percent), state (23 percent) and federal (12 percent) governments. Royalties due to land owners are 50 percent of the royalty due to the government.

### *Proposed new framework*

In June 2013, a new regulatory framework for mining activities in Brazil was proposed and over 60 public hearings have taken place since then. The new framework proposed to raise the ceiling for royalties up to 4 percent leaving it to the government's discretion to later regulate royalty rates for specific minerals. The framework also proposed to calculate the royalties based on after-tax gross revenues, rather than on net revenues. Under the proposal, existing concessions would continue based on original terms and conditions. However, any transfer of mineral rights would be subject to the conditions of the proposed framework.

The framework also proposed a new mechanism for granting of combined exploration and mining concessions through bidding processes. For a limited number of minerals the current mechanism of "first come, first served" would continue. The new proposal would be similar to the mechanism used to award concessions for the oil and gas industry.

The framework also proposes a reorganization of the mining authorities, indirectly increasing the government's influence on mining regulations, and the possibility of restricting the participation of foreign entities in mining projects.

Following substantial debate, a revised framework was proposed in November 2013, changing the most controversial elements of the original proposal. The revised proposal also aims at reorganizing the mining regulators by creating a new body linked to the President called the National Council on Mineral Policy (CNPM) and by replacing DNPM with a new regulatory agency called the National Mining Agency (ANM).

The revised framework maintains priority rights for the exploration stages of the mining process and introduces new concepts which are intended to boost mining activities. These include new securities for financing exploration and development projects and tax incentives for projects which are intended to improve and add value to tailings and degraded areas. Tender proceedings would not be required for exploration licenses in general or for mining concessions regarding areas already belonging to private parties. In addition, the revised proposal stipulates that the royalty rates for each mineral shall be regulated by law, removing the government discretionary authority in the original proposal.

Due to the long time it has taken to get the new framework approved in Congress, it is uncertain whether there would be new adjustments to the framework and when it could become effective.

### **Taxation in Brazil**

The Brazilian tax system is complex and volatile, with a broad range of direct and indirect taxes levied at the federal, state and municipal levels. Brazilian tax authorities generally take an aggressive approach in tax audits, giving rise to a large number of tax disputes, which tend to take a very long time until finally resolved.

The general income tax rate in Brazil is up to 34 percent of net income. Our operations in Brazil have been granted income tax incentives encouraging investments in the northern states, reducing the tax rate on our operating income to a level of around 20 to 31 percent.

Federal value added tax (PIS/COFINS) is charged on sales at a rate of 9.25 percent, except for import of goods, which is 11.75 percent. Buyers are entitled to PIS/COFINS tax credits on purchases of relevant input factors, which may be used to offset PIS/COFINS or federal income tax liabilities. Exports are exempt from PIS/COFINS. Because most of Hydro's

production in Brazil is exported, we accumulate tax credits. Obtaining cash refunds of tax credits is complex and uncertain, and can take substantial time.

ICMS is a value added tax collected by Brazilian states on circulation of goods, energy and on services such as transportation and communications. ICMS vary from 7 to 25 percent of the gross value of such goods and services, including ICMS.

Hydro's main operations in Brazil, which are located in the state of Pará, have been subject to an ICMS deferral mechanism since 1993 and renewed for a 15-year period in July 2000. A new regulatory regime for ICMS in Pará was published and took effect from July 17, 2015 for an additional 15-year period. Paragominas and Alunorte will continue to pay ICMS on diesel and fuel oil. Albras will pay ICMS on a 50 percent basis of electricity purchases. Other intra-state purchases will have a renewed deferral for the period. ICMS paid by Albras on electricity is expected to be offset by increased domestic sales of primary aluminium, at a sales price including ICMS. The deferred ICMS will not be due on the goods that are destined for export. The new regulatory regime for ICMS is subject to Hydro's compliance with certain conditions concerning verticalization of the aluminium value chain in Pará, contribution to development in the region and enabling sustainable growth in Pará.

### **Other information**

As a public limited company organized under Norwegian law, Hydro is subject to the provisions of the Norwegian Public Limited Companies Act. Our principal executive offices are located at Drammensveien 260, Vækerø, N-0240 Oslo, Norway; telephone number: +47 2253 8100. Hydro's internet site is [www.hydro.com](http://www.hydro.com)

## Notes and references

- 1) In addition to our equity interest, Hydro has bauxite offtake agreements for 40 percent of the volume produced by MRN. In October 2015, Hydro signed a Letter of Intent (LoI) for the possible acquisition of Vale's 40 percent ownership interest in MRN.
- 2) Hydro owns 86.4 percent of the shares of Paragominas and has certain put and call arrangements that give Hydro the right and the obligation to acquire the remaining shares. These arrangements give Hydro effective ownership of 100 percent of Paragominas which has been reflected in the purchase accounting at the date of acquisition.
- 3) Earnings from our investment in MRN are included in "Financial income."
- 4) The actual share depends on lifetime assumption for aluminium products in different applications and in different regions of the world.
- 5) Value adding casthouse premiums are deducted from production costs to calculate business operating costs.
- 6) Includes the remainder of the USD 180 per mt joint venture program targeted for completion at the end of 2016.
- 7) Includes combined performance for Primary Metal and Metal Markets. TRI includes both employees and contractors.
- 8) Emissions targeted for 2015 include Husnes and about 50,000 mt of curtailed capacity in Sundal that was restarted in the middle of 2015. The reported 2016 target will be subject to recalculation following final agreement with EU authorities related to the emission trading scheme (ETS) on new methodology for measurement and calculation of the GHG emissions from electrolysis.
- 9) We purchase alumina from Bauxite & Alumina based on prices linked to the 3 month LME with a one-month lag. Prices are also partly linked to the Platts PAX FOB Australia alumina price index.
- 10) While Primary Metal and Metal Markets are reported as separate business areas, they are organized as one unit for operational purposes.
- 11) Aluminium standard ingot is a global aluminium product traded on the London Metal Exchange (LME).
- 12) Currency effects are comprised of the effects of changes in currency rates on sales and purchase contracts denominated in foreign currencies (mainly U.S. dollars and Euro for our Norwegian operations) and the effects of changes in currency rates on the fair market valuation of dollar denominated derivative contracts (including LME futures) and inventories, mainly translated to Norwegian kroner. These amounts can be very substantial. Hydro manages its external currency exposure on a consolidated basis in order to take advantage of offsetting positions.
- 13) Ingot inventory valuation effects are comprised of hedging gains and losses relating to standard ingot inventories in our metal sourcing and trading operations. Increasing LME prices result in unrealized hedging losses, while the offsetting gains on physical inventories are not recognized until realized. In periods of declining prices, unrealized hedging gains are offset by write-downs of physical inventories.
- 14) These hedging activities, which are designed to mitigate cash exposures, can generate significant underlying accounting effects, partly due to asymmetrical accounting treatment.
- 15) Recycling activities take place in both our Metal Markets and Rolled Products operating areas. Amounts presented reflect the combined activity of both business areas.
- 16) Annual hydropower production can vary by as much as 20 percent in either direction, depending on variations in hydrological conditions.



## 02: *Viability performance*

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ENERGY AND CLIMATE CHANGE	p.71
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### QUICK OVERVIEW

Hydro's mission is to create a more viable society by developing natural resources and products in innovative and efficient ways

In our terms, pursuing viability comprises a specific way of bridging viability and business, and a set of performance areas where we measure our progress.

Our viability performance reporting consists of page 69-128 in Hydro's Annual Report 2015 and the GRI index at [www.hydro.com/gri](http://www.hydro.com/gri)

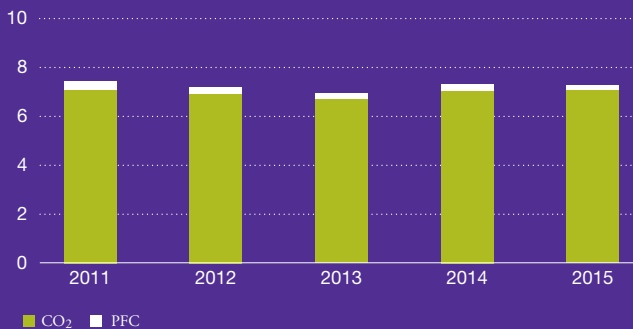
We have an integrated approach to our reporting, and our Viability performance should also be seen in context with the other parts of Hydro's Annual Report 2015.

Here we first describe The Hydro Way, a set of guiding principles that govern our activities and underpin our approach to viability. Next, we report on our viability performance in 2015 based on a thorough materiality analysis and according to a set of areas that capture our most important viability issues while corresponding to generally acknowledged domains of reporting.



### Direct greenhouse gas emissions from Hydro's consolidated activities

Million metric tons CO<sub>2</sub>e



Figures include historical emissions from current operations.

## Viability - The Hydro Way

The Hydro Way is our approach to business. It's an approach that has lived within Hydro since 1905 and guided our development over the years. The Hydro Way originates from our company's identity - our unique set of characteristics - and constitutes a way of doing things that differentiates us from other companies.

The Hydro Way explains how we run our business through:

- Our mission
- Our values
- Our talents
- Our operating model

These principles help us set priorities and serve as a reference point when questions arise. Our mission describes our higher purpose and is supported by our values and our talents, which define how we conduct our business:

*Hydro's mission is to create a more viable society by developing natural resources and products in innovative and efficient ways.*

In order to ensure a uniform high standard, Hydro's global directives lay down requirements for our operations, see page 164.

All elements of Hydro's viability performance are integrated in Hydro's overall group strategy. In addition, we have specific support strategies e.g. on climate change, environment and people - as described in this section.

Hydro has been listed on the Dow Jones Sustainability Indices (DJSI) each year since the index series started in 1999. We are also listed on the corresponding UK index, FTSE4Good and the UN Global Compact 100 stock index.

### Our reporting approach

We have based our viability reporting on The Hydro Way since 2004. This, together with risk analyzes and an extensive stakeholder dialogue, has, over many years, guided us in defining the main elements of our reporting:

- Energy and climate change
- Resource management
- Integrity and human rights
- Community impact

- Organization and work environment
- Innovation

In connection with transition to the Global Reporting Initiative's (GRI) G4 protocol in 2013, we reviewed our reporting strategy. The main elements are unchanged, but through a thorough review of our materiality analysis we have identified which GRI aspects that are most material to report on as well as other material indicators. The analysis as shown on the next page is based on the continuous stakeholder dialogue performed by Hydro with its key stakeholders, and collected and evaluated by relevant specialists and leaders. The materiality analysis is updated annually and approved by Hydro's Corporate Management Board. The most material aspects related to our viability performance are all included in the board of directors' report, which gives a high-level overview of Hydro's strategic direction, strengths and challenges. This information is further elaborated in other parts of this annual report and in the GRI index at [www.hydro.com/gri](http://www.hydro.com/gri)

The information has been reviewed by Hydro's Corporate Management Board who has also approved this annual report. The board of directors has approved the complete board of directors' report including the country by country report on page 122. Read more about our reporting principles and materiality process on page 94.

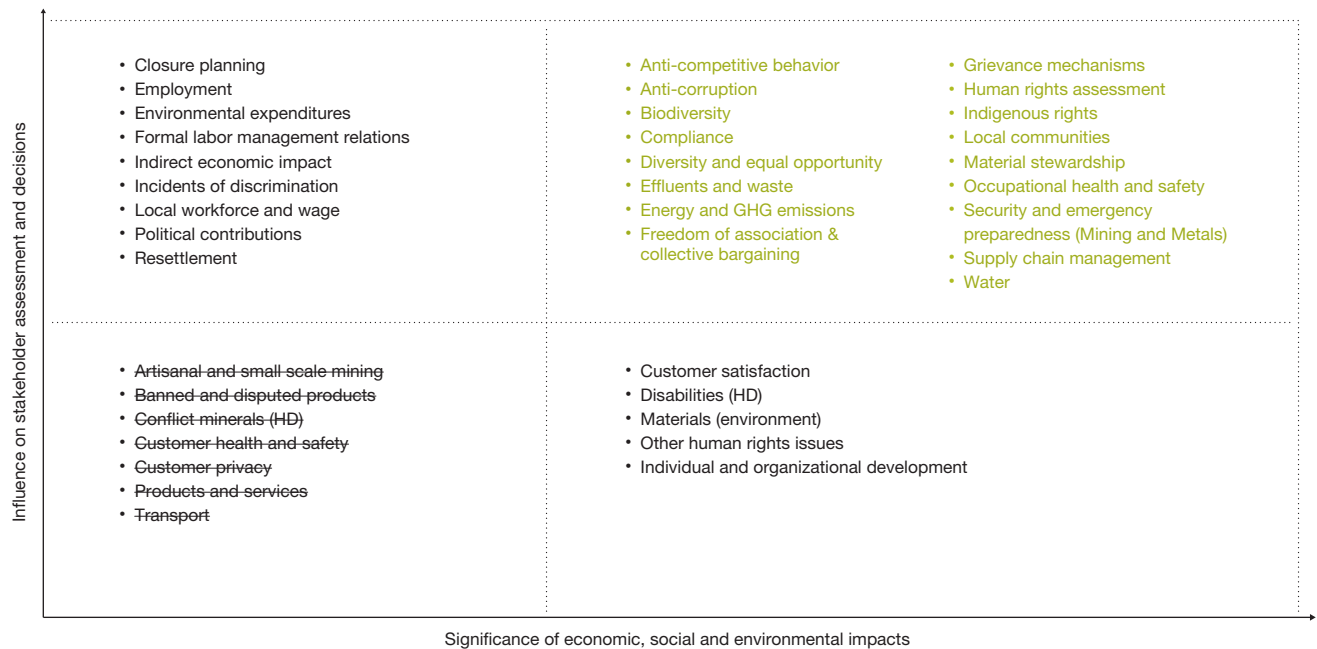
The Viability performance section should be read in context with the other parts of the annual report, and in particular with

- Letter to shareholders on page 6
- Board of directors' report on page 10
- Business description on page 29, including Hydro's value chain, strategic targets and business area specific issues related to technology and innovation, environment and society
- Risk factors on page 149
- Corporate governance on page 163

The underlying details in the reporting are based on different reporting frameworks that are important to us, including the UN Global Compact, the Global Reporting Initiative (GRI), the International Council on Mining and Metals' (ICMM) 10 principles and Position Statements and the Aluminium Stewardship Initiative's (ASI) 11 principles and underlying criteria. The GRI index at [www.hydro.com/gri](http://www.hydro.com/gri) also shows Hydro's adherence with the UN Global Compact, ICMM and how we relate to ASI, UN Sustainability Goals and UN Business Principles on Human Rights - and shows how the different frameworks connect with each other.

## Materiality analysis

Aspects are prioritized in four quadrants, but not prioritized internally in each quadrant



The matrix is based on the GRI G4 framework and has been approved by Hydro's Corporate Management Board. The green aspects represent those that are most material to Hydro, while aspects that are struck through, are considered not material. Aspects marked HD are defined by Hydro.

The main changes compared to 2014 are:

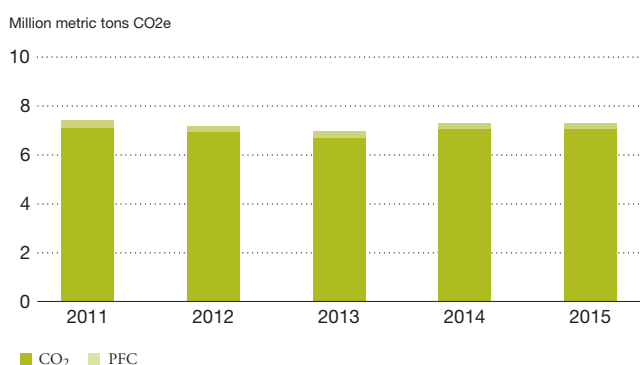
- Security and emergency preparedness (Mining and Metals) have become most material (upper right quadrant)
- Training and education (lower right quadrant) has been renamed Individual and organizational development to better reflect Hydro's approach

We have chosen to merge and rename certain aspects in the matrix to make the titles more intuitive to our stakeholders. An overview of these changes can be found on [www.hydro.com/gri](http://www.hydro.com/gri)

## Energy and climate change

Alumina refining and electrolysis of primary aluminium are energy intensive. On the other hand, aluminium can save significant amounts of energy and GHG emissions in the use phase. Lighter cars result in fuel savings and lower emissions

### Direct greenhouse gas emissions from Hydro's consolidated activities

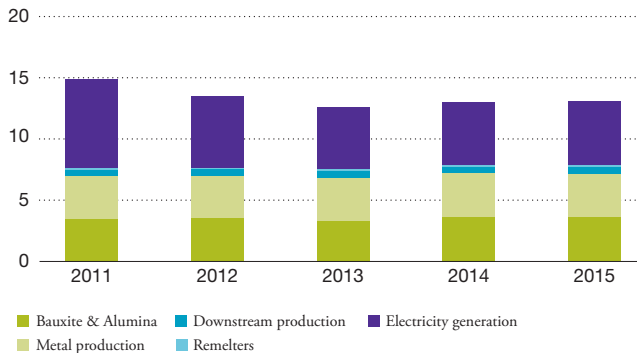


on the road. Aluminium façades can lead to lower operating costs and enable buildings to produce as much energy as they consume during operation. Products and packaging in aluminium reduce transport costs and emissions. Aluminium packaging also provides excellent barrier properties which help to conserve food more effectively, reducing the need for cooling and reducing food spoilage. Aluminium can also be indefinitely recycled without degradation in quality, which requires 95 percent less energy than primary aluminium production.

Hydro's ambition is to be carbon neutral in a life cycle perspective by 2020. Carbon neutrality can be defined in many ways, and our definition is the balance between the direct and indirect emissions from our own operations, and the savings of applying our metal in the use phase. By taking the life-cycle perspective of our production, we are aiming at our activities to contribute to reducing total greenhouse gas emissions globally. We seek to reduce total emissions by increasing energy efficiency, recycle more post-consumer aluminium scrap and direct more of our metal production towards markets where benefits in the use phase can be demonstrated. In order to close the current gap between

## Greenhouse gas emissions from Hydro's ownership equity

Million metric tons CO<sub>2</sub>e



Greenhouse gas emissions based on Hydro's ownership equity as per December 31, 2015. For ownership equity, direct emissions from production in Bauxite & Alumina, Primary Metal, downstream operations and the remelters, are comparable to Scope 1 emissions as defined by WBCSD/WRI GHG Protocol. Emissions from electricity generation are based on electricity consumption and IEA "CO<sub>2</sub> emissions from Fuel Consumption 2010 factors", and are comparable to Scope 2 emissions from purchased electricity. In addition, the reported emissions from electricity include emissions from Hydro's ownership equity in the Qatunil gas-fired power plant. All figures include historical emissions from current operations.

emissions and benefits, we are pursuing three major efforts: increasing hydropower based production in Norway; increasing our recycling of post consumer scrap; and providing more metal for the automotive industry.

How to reach our carbon neutrality target is defined through our climate strategy. It is an integral part of our overall business strategy, aiming at driving improvements and development within the whole company. The strategy includes reducing the environmental impact of our operations as well as taking advantage of business opportunities by enabling our customers to do the same. While some production plants or products might have higher carbon footprint than others, the overall company balance (the difference between emission and benefits) should be zero or negative by 2020. To fulfill this ambition, our measures include:

- Increasing production of renewable hydropower and primary aluminium in Norway
- Increasing energy-efficiency and reducing emissions in production processes in our alumina refinery, aluminium plants and rolling mills
- Developing products and solutions, establishing partnerships with advanced customers
- Supporting global energy-efficiency goals by helping customers reduce energy consumption and emissions
- Reducing waste and increasing recycling of aluminium
- Utilizing advanced sorting technology and developing

recycling-friendly alloys

- Increasing reforestation (see page 74)

We support the development of international frameworks on climate change and greenhouse gas emissions and participate actively in organizations such as the World Business Council for Sustainable Development (WBCSD) and the International Emissions Trading Association, to provide business solutions to the climate change challenge. In addition, we work through aluminium associations to establish a level playing field for global aluminium production. Hydro also engages actively in initiatives fostering increased recycling and material stewardship, and is a member of the Aluminium Stewardship Initiative.

### 2015 targets

- Emission of 1.61 mt CO<sub>2</sub>e/mt aluminium from production
- The two main recycling projects in Germany and Luxembourg within cost and on track towards start-up end 2015 / beginning 2016

### 2015 results

- Emission of 1.60 mt CO<sub>2</sub>e/mt aluminium from production, down from 1.63 in 2014.
- The recycling project in Luxembourg started up according to plan, in Germany in February 2016

### 2016 targets

- Emission of 1.59<sup>1)</sup> mt CO<sub>2</sub>e/mt aluminium from electrolysis, down from 1.60 in 2015
- Further increase the usage of post-consumer scrap by 10 percent

### Strategic mid-term goals 2020

- Increase recycling of post-consumer scrap above 250,000 mt
- Become carbon neutral from a life cycle perspective

## Using viable energy sources

As one of the most electricity-intensive industries, the overall climate footprint of primary aluminium is highly dependent on the source of energy used to produce the metal. Using viable energy sources is thus important to reach our ambition of becoming carbon neutral in a life cycle perspective. Electricity is both a main factor for localization of investments and for the carbon footprint of the metal produced, and about two thirds of Hydro's production of primary aluminium is based on renewable power. We are the second-largest hydropower operator in Norway with a normal production of 10 TWh per year. In 2015 we produced 10.9 TWh.

Our strategy is to secure and expand our hydropower capacity, and we are currently upgrading several of our hydropower plants in Norway to secure future production. We are also working to increase production from existing plants through refurbishments and expansions. Through the acquisition of the remaining 50 percent of Hydro Husnes in 2014 and the 75,000 metric tons technology pilot under construction at Karmøy, we are increasing our Norwegian production which is based on hydropower.

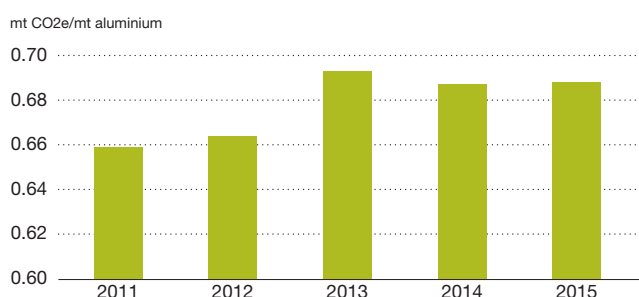
Energy for the Qatalum aluminium plant (Hydro share 50 percent), is based on natural gas. The International Energy Agency recognizes natural gas as an important energy source that in a transition period can help reduce global temperature increases. Qatalum represents about 15 percent of our primary metal production capacity.

## Reducing energy consumption and emissions in production

Energy efficiency is an important part of Hydro's ongoing efforts to reduce costs and CO<sub>2</sub> emissions and thus fulfill our climate strategy. Our Alunorte refinery in Brazil is among the most energy efficient refineries in the world. On average, our consolidated smelters consumed 13,9 kWh of electricity per kilogram (kg) primary aluminium produced compared to a global average of 14. Our new HAL4e technology has achieved an energy consumption level of 12.5 kWh per kg aluminium produced under full scale testing and we are targeting levels under 12 kWh per kg at new test cells at our Årdal smelter. This represents potential reductions of about 10-14 percent. The Karmøy technology pilot, which is currently under construction, will test this technology in industrial scale, see page 90.

In 2016, we will update our external reporting of GHG emissions to be in line with the EU Emissions Trading Scheme (ETS) requirements as this reporting is now fixed and subject to third party verification.

### GHG emission intensity – alumina refining



Includes greenhouse gas (GHG) emissions from alumina refining.

## Reducing CO<sub>2</sub> emissions through the use of our products

Aluminium has significant carbon footprint benefits in its use phase, especially due to its lightweight properties. However, as Hydro has no production of end consumer goods, the calculation of use phase benefits can only to a limited degree be based on product specific data. In order to calculate the use phase benefits, acknowledged, independent LCA (Life Cycle Assessment) studies have been used. Combined with product shipment data, these studies give a good picture of the use phase benefits of Hydro's metal going into end products.

We work closely with customers to develop products that save energy and reduce emissions. Examples include lighter transportation, better packaging to reduce cooling needs and food spoilage, and aluminium façades that lead to lower operating costs and enable buildings to produce as much energy as they consume during operation.

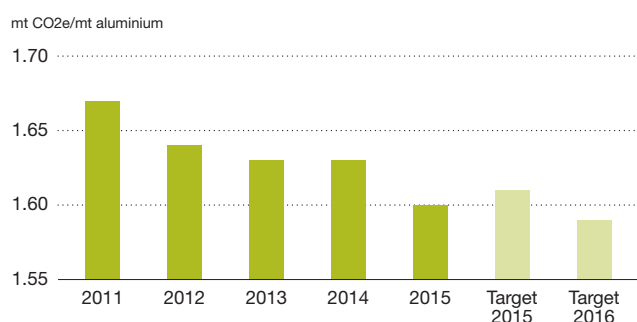
## Increasing recycling of aluminium

The inherent properties of aluminium makes recycling attractive. It can be recycled over and over again without degradation in quality, and recycling requires 95 percent less energy than primary aluminium production. A strong position in aluminium recycling is thus a prerequisite to reach our carbon neutrality ambition.

Hydro is a large remelter and recycler of aluminium. We remelt process scrap from our own production and from other companies as well as post-consumer scrap from the market. Further, we are targeting specific projects to increase our capacity to process post-consumer scrap. Increased recycling capacity in Clervaux, Luxembourg started up at year-end 2015 and a new used beverage can line in Neuss, Germany started up in February 2016, are adding post-consumer scrap recycling capacity of 80,000 mt by 2017.

We have developed processes to combine clean scrap with post-consumer scrap, and we plan to invest in existing

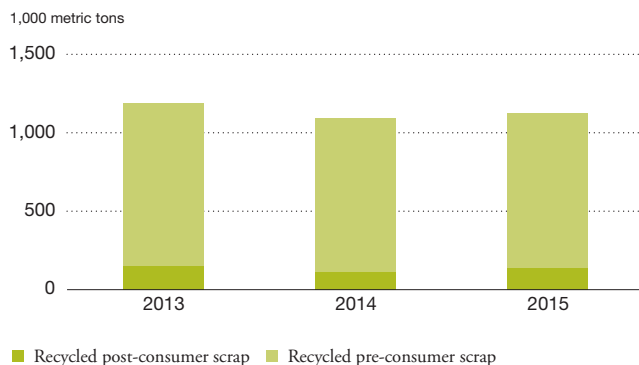
### GHG emission intensity – electrolysis



Includes greenhouse gas (GHG) emissions from electrolysis in primary aluminium production.



## Recycling



remelters with a potential of up to 20 percent post-consumer scrap capacity increase. We expect up to 70 percent of the required additional raw material to come from post-consumer scrap. In April 2015 Hydro acquired WMR Recycling GmbH, a scrap processing company that has developed superior patented technology in scrap shredding and sorting. The company is now named Hydro Aluminium Recycling Deutschland. The acquisition enables Hydro to produce high quality extrusion and sheet ingot from post-consumer building and automotive scrap.

Together with our R&D Center in Sunndal, Norway we have developed a new recycling-friendly alloy (RFA) for extruded building applications that is giving the same properties as our current alloy, but at much higher levels of alloying elements like zinc and copper. Hydro has filed a patent for this so-called Green-Window-Alloy (GWA). Final tests will be performed prior to market launch. With this alloy Hydro will be able to supply extrusion ingots with up to 90 percent lower carbon footprint compared to the standard 6060-type alloy.

About 95 percent of the aluminium from automotive applications and commercial buildings in Europe is being recycled at end of life, while there is still some way to go on packaging. Hydro and our partners in the market are supporting aluminium packaging recycling initiatives throughout Europe. We team up with producers of beverage cans, drinks and food, and other interest groups and industries, to develop specific activities aimed at raising public awareness about the importance of recycling. Through an agreement with Infinitum, Hydro recycles all used aluminium beverage cans collected in Norway at our Holmestrand recycling plant.

## Resource management

Hydro's bauxite mining and alumina refining activities in Pará in Brazil include open pit mining and the handling of significant amounts of tailings and bauxite residue, the latter also known as red mud. Biodiversity is important related to Hydro's activities in Pará and to the water reservoirs for our hydropower production in Norway (see page 60). Hydro has primary aluminium production in Australia, Brazil, Canada, Germany, Norway, Slovakia and Qatar.

In addition to the existing climate and recycling strategies, we prioritize the following areas:

- Ecosystems and biodiversity
- Water use
- Waste and efficient resource use
- Product stewardship

In addition to the corporate environmental ambitions, we have performance indicators for our production plants. The indicators vary between plants due to the inherent differences between, for example, large primary aluminium production plants and small remelters. They help us measure status and improvements, and enable us to concentrate on the most important issues.

### 2015 target

- Complete an ecosystem services assessment for Hydro

### 2015 result

- A pilot ecosystem services assessment of Hydro's Paragominas mine in Brazil completed by the Norwegian University of Science and Technology (NTNU)

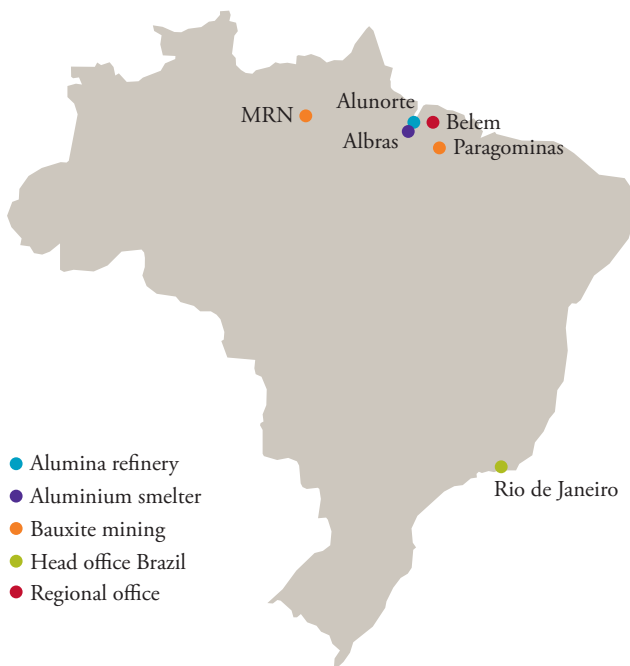
### 2016 target

- Achieve targeted rehabilitation area for Paragominas mining operations of 325 hectares

### Strategic mid-term goals 2020

- Achieve a ratio of 1:1 of mined areas to rehabilitated areas (2017) and eliminate the reforestation gap (2020)
- Best Available Technology or similar implemented for treatment, storage and use of bauxite residue
- 60 percent reduction in land-filled waste (excluding tailings, boiler ash and bauxite residue) compared to a 2010 baseline
- Increase water efficiency by 15 percent in water-stressed areas, compared with a 2010 baseline

## Operations in Brazil



## Ecosystems and biodiversity

The ongoing loss of biodiversity and degradation of ecosystems represent long-term risks for the industry and society at large. We see a need for more sustainable frameworks and participate in several initiatives, including the World Business Council for Sustainable Development (WBCSD) Ecosystem Program. Hydro is a member of the International Council of Mining and Metals (ICMM), which gives us the possibility to participate in the development of industry practices on the environment as well as an arena for sharing best practices.

When developing new projects, we examine environmental issues ahead of time. In the long term, we strive for achieving no net loss of biodiversity. This is an area under development internationally, and we participate in the Cross Sector Biodiversity Initiative (CSBI), which is a joint effort between IPIECA (the petroleum industry), ICMM (the mining industry) and the Equator Principles Association.

Hydro's only operated mine is located in the municipality of Paragominas, in an area that is normally recognized as the deforestation belt around the northeastern Amazon region. In terms of land use, the municipality of Paragominas has seen, over a period of almost 20 years, more than 30 percent reduction in its forest cover. Still, there are enclaves of rain forest that are quite intact, and in recent years the municipality has been in the forefront in Brazil in halting illegal and uncontrolled logging. The mining area had been

exposed to selective logging and clear cutting of forest for development of subsequent pasture land, before Hydro's mine was established.

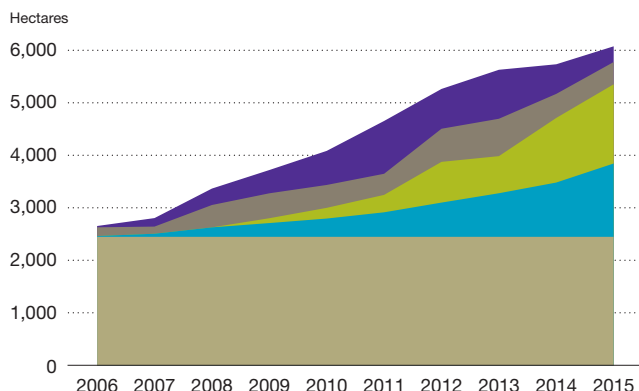
Our most important reforestation ambition is to achieve a balance of 1:1 in 2017 between rehabilitation and mined areas, and to close the existing reforestation gap by 2020.

To increase our knowledge and to secure a science-based approach, the Biodiversity Research Consortium Brazil-Norway (BRC) was established in 2013. BRC consists of the University of Oslo, Norway, and its Brazilian partners Museu Paraense Emílio Goeldi, Federal University of Pará and Federal Rural University of the Amazon in addition to Hydro. The scope of the consortium is to create a research program connected to our mining operations. The aim is to strengthen Hydro's ability to preserve the natural biodiversity of the areas where we mine bauxite. BRC was further strengthened in January 2016 through a new research collaboration agreement between the Research Council of Norway and the state of Pará. Three projects have been initiated so far related to biodiversity restoration techniques, mycorrhizal fungi and entomology. A fourth project related to CO<sub>2</sub> and methane emissions from soils in mining and restoration areas will be initiated in 2016.

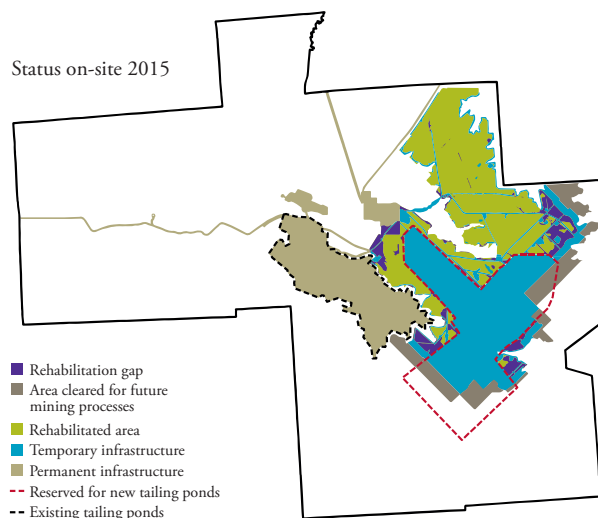
A concept study for the planned ecosystem assessment for Hydro was performed in 2014 and a pilot study for Hydro's operations in Brazil was conducted by the Norwegian University of Science and Technology (NTNU) in 2015. Hydro continues its agreement with NTNU on further studies.

Together with MRN<sup>2)</sup> and Alcoa's Juruti mine, Hydro has established a forum for exchange of best practice for reforestation. Since 2013, Hydro in Paragominas has used the nucleation method that has been tested out by Alcoa in Juruti for several years and which MRN also has tested. Top soil is unevenly distributed to simulate natural landscape and trap rainwater. Piles of cut wood are distributed to increase biodiversity - creating shelters for animals and improving growing conditions for some plant species. The ambition is to establish a forest system of the same structure that is typical in the pristine forest in the area. The method has been approved for testing in MRN by the federal environmental authorities IBAMA as well as by SEMA, the environmental authority of Pará. Following initial challenges when introduced in 2013, the method is now showing encouraging results.

## Land use and rehabilitation – Paragominas



Permanent infrastructure includes areas related to administrative buildings, industrial facilities, current tailing ponds, the pipeline to Alunorte and permanent roads. Temporary infrastructure includes among other things temporary roads and areas dedicated for new tailing ponds. In 2015, we disturbed 393 hectares of land and rehabilitated 278 hectares.



All of our hydropower reservoirs are located within or in close proximity to national parks and other protected areas in mountainous regions in Southern Norway including Hardangervidda and Jotunheimen. See page 60 for more information.

## Water

An annual review of our water withdrawal in 2015 revealed that on a conservative basis 2.35 million m<sup>3</sup> of Hydro's overall fresh water input came from water-stressed areas, with regard to annual renewable water supply (according to the definition used by WBCSD). These areas include Germany and other parts of Europe, where water supply is well-regulated. Following the sale of the rolling mill Slim in Italy, we will revise our medium-term water target in 2016. Qatalum in Qatar relies on public water supply produced by desalination. Sea water is used for wet cooling towers at the power plant as well as for wet scrubbers at the potline fume treatment plants.

Our alumina refinery Alunorte in Brazil obtains an important part of its water supply through the bauxite slurry that is transported from Paragominas by pipeline. Paragominas' and Alunorte's water use is close to their current regulatory limits. From 2015, the authorities have placed a water tax upon the state of Pará. A multidisciplinary team is working to improve the existing water balance studies for the Alunorte and Paragominas sites.

Hydro initiated a comprehensive program in 2012 with the support of the Norwegian Institute of Water Research (NIVA) and the Norwegian Geotechnical Institute (NGI) which will provide a basis for assessing remediation of the Gunnekleiv fjord. In October 2015 Hydro submitted a plan for addressing the contaminated sediments in the fjord to the

Norwegian Environment Agency (NEA). The investigations show that the Gunnekleiv fjord is not a significant source for the transport of contaminants to the outer fjords. The contaminants in the sediments in the Gunnekleiv fjord are not mobile, and the majority of the fishes in the fjord are below EU's limits relating to safe consumption of fish. Further discussions will take place between Hydro and NEA before a final remediation plan is decided.

For more information about the impact of our water reservoirs related to hydropower production, please see page 60.

## Waste and efficient resource use

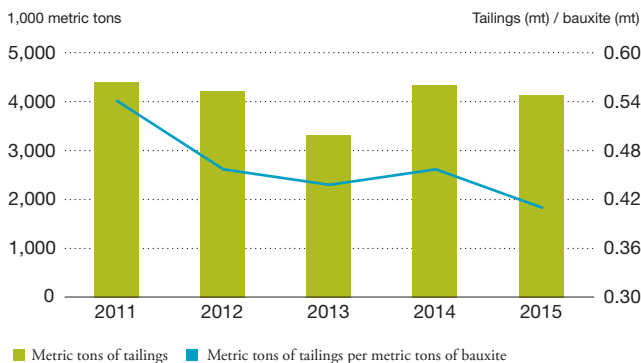
Our goal is to minimize the amount of waste produced when technically and economically feasible and then reuse or recycle it. When this is not possible, we shall deposit it in a secure way to minimize adverse effects to people and the environment.

### Tailings and bauxite residue

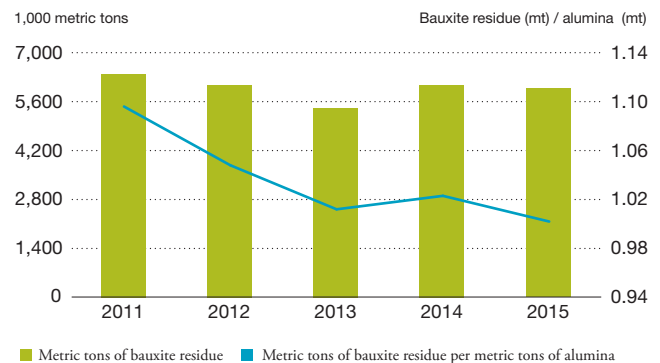
Tailings from bauxite extraction consist of mineral rejects from the extraction process mixed with water. The tailings at Paragominas are stored in dedicated tailing ponds, where the particles settle. Separated water is lead to a clarification dam before it is reused in the process. There is also a dam to secure overflow during heavy precipitation. From the clarification dam there is a minor run-off to the river downstream of the tailings to maintain an ecological flow. The run-off is monitored, and the water quality meets the requirements set by the authorities.

The current tailing ponds, which are expected to be full by 2017, are constructed on a gradient slope. The new tailing dams will be situated on a plateau with an even safer

## Tailings from bauxite production



## Bauxite residue from alumina production



construction. The dams are frequently inspected by Hydro and are also subject to external inspections, including by Norwegian Geotechnical Institute (NGI), latest in November 2015. When full, the tailing ponds need to settle before reforestation can start.

Bauxite residue, also known as red mud, is a by-product of the alumina refining process. We use state of the art dry stacking technology for disposing of bauxite residue. The disposal is challenging due to large volumes and the alkaline nature of the liquid component of the residue. The residue is washed with water to lower the alkalinity and recover caustic soda for reuse. Hydro has started construction of a new bauxite residue deposit at Alunorte including conversion to a more advanced pressure filtration technology that will reduce moisture content resulting in lower deposited volumes and reducing our environmental impact in the long term. The project is expected to be completed in 2016. We also participate in international collaboration projects investigating possibilities to use bauxite residue as a resource. Additions to cement and other construction materials are promising areas that will be pursued further.

### Other waste

Hydro's ambition is to reduce landfilling of other waste by 60 percent within 2020 from a 2010 baseline, see note E5.3 to the Environmental statements for further information.

Spent potlining (SPL) from the electrolysis cells used in primary aluminium production is defined as hazardous waste. The production of SPL varies with the relining of smelter cells which is normally done every 4-7 years for established smelters. New plants will get a relining peak at the same interval after start-up. For information about SPL production, see note E5.2 to the Environmental statements.

SPL and carbon waste from anode production is a substantial part of the hazardous waste generated in Hydro. Since 2012

anode waste is used by Norcem cement plant in Brevik, Norway (part of Heidelberg Cement). The carbon material from Hydro is being used as a fuel in the production process where high temperature incineration ensures destruction of hazardous components. Heidelberg and Hydro are working to further develop alternatives to increase the use of aluminium process waste in the cement production. Hydro has also cooperated with Rockwool regarding recycling of SPL since 2013. Based on learnings from these years a new contract between Hydro and Rockwool was entered into in 2015.

Hydro also has an agreement with a refractory supplier to recycle part of the bricks coming from relining the anode baking furnace. These agreements are examples of efficient resource use that is sound for the environment by substituting fuel or raw materials while reducing landfill and saving landfill costs.

Qatalum delivers all first cut SPL, which is the most energy rich and contaminated part of the SPL, to its neighbor Qatar Steel which uses it in production. Second cut SPL, which has a low fluoride content, is currently sent to landfill. Albras delivers all SPL to the cement industry.

Dross is a mixture of metallic aluminium, alloy components and metal oxides that is formed on the surface of liquid aluminium. Hydro's casthouses have treatment facilities to recover as much aluminium as possible from hot dross. In addition, external channels to recover aluminium and reduce dross waste are used.

Hydro has applied to the Norwegian Environment Agency about removing in total 9,350 metric tons (mt) of hazardous waste including 8 mt of mercury from the Herøya site in Norway to a safe deposit at NOAH Langøya. The

divestment of the Herøya site to Oslo Pensjonsforening was announced in December 2015 with planned closing and takeover during the first quarter of 2016.

A review of the mercury balance at Alunorte in Brazil was initiated in 2015. Further work will be made in 2016 including evaluating if any remediating actions will be needed.

## Product stewardship

Hydro engages in dialogue with customers and other stakeholders regarding the environmental impact of our processes and products. We perform life-cycle assessments (LCAs) for all major product groups to identify improvement potentials. We also assess other aspects such as energy and material consumption, toxicity and recyclability.

Since 2009 Hydro has cooperated with the Norwegian University of Science and Technology (NTNU) to develop and enhance material flow analysis models (MFA) for global and regional aluminium flows. This work is mainly concerned with the long-term potential of aluminium in use as raw material for new aluminium products.

Over the past two decades, Hydro and other aluminium companies have developed a pan-European network of national initiatives to promote and recycle aluminium packaging. Many of these national activities are emphasizing education and have developed projects with primary and secondary schools and universities to stimulate the next generation to make their contribution to a better environment.

Human rights, working conditions, integrity and community impact throughout our value chain are also a part of our product stewardship approach.

Hydro is an active member of the Aluminium Stewardship Initiative (ASI). ASI's mission is to recognize and collaboratively foster the responsible production, sourcing and stewardship of aluminium. We have been involved at all stages in the multi-stakeholder development of ASI standards to date. We are continuing our participation in ASI to develop the supporting systems for a credible and effective third party certification platform, which is expected to be launched in late 2017. For an overview of how Hydro relates to ASI's 11 principles and underlying criteria, please see page 125.

## Integrity and human rights

As a global aluminium company with mining interests and about 13,000 suppliers, Hydro is at risk of being exposed to

corruption and human rights violations. Hydro's approach is zero tolerance, and in the event of violations, our policy is first to correct, then act in a transparent manner, learn and implement corrective actions.

We require adherence with external laws and regulations as well as internal directives relating to corruption and human rights violations. Our compliance system is based on prevention, detection, reporting and responding. Combating corruption and respecting human rights are integral to our supplier requirements, see page 81. Some of the measures we pursue to ensure integrity and responsible behavior include:

- Demonstrating positive impact on the societies and communities where we operate
- Ensuring our joint ventures and suppliers are managed responsibly
- Strengthening Hydro's competence and capacity to deliver our business and CSR goals

We support key frameworks that define human rights principles and are committed to following these. See [www.hydro.com/gri](http://www.hydro.com/gri), general disclosure G4-15a and 16a for full overview.

Hydro also supports the Extractive Industries Transparency Initiative (EITI) and have reported payments to host governments related to exploration and extraction activities for bauxite since 2005. We also comply with the Norwegian legal requirements on country by country reporting, see page 122. The report has been approved by Hydro's board of directors.

According to our global directives, Hydro may not make financial contributions to political parties.

### 2015 targets

- No instances of corruption
- No instances of human rights violations
- Revision of Hydro's Integrity Program
- Revision of Hydro's CSR strategy
- Module 2 of preventing bribery and corruption e-learning completed by more than 3,000 relevant employees
- Implementation of Hydro's new system for planning, monitoring and evaluating social projects in Brazil

### 2015 results

- No registered instances of corruption
- No registered instances of human rights violations
- Revision of Hydro's Integrity Program drafted. *Target not reached*
- Revision of Hydro's CSR strategy completed



- Preventing bribery and corruption e-learning submitted to nearly 4,000 relevant employees and completed by 35 percent in 2015. *Target not reached*
- Hydro's new system for planning, monitoring and evaluating social projects in Brazil implemented for three representative projects

#### 2016 targets

- No instances of corruption
- No instances of human rights violations
- Launch of new code of conduct e-learning mandatory for all new employees
- Roll-out of revised Hydro Integrity Guidelines (formerly Hydro Integrity Program)
- To improve social conditions, develop an infrastructure project that aims to have significant impact on the social development of the Barcarena municipality in Brazil

#### Strategic mid-term goals 2020

- Maintain zero tolerance on corruption
- Positive contribution to local social-economic development
- All suppliers are committed to complying with Hydro's CSR principles

### Ensuring a robust compliance environment

Hydro maintains a board sanctioned code of conduct that is regularly updated. The code of conduct requires adherence with external laws and regulations as well as internal steering documents and is systematically implemented and followed up through our compliance system. All employees have to confirm that they have received, read and understood Hydro's code of conduct.

The compliance system is based on four pillars: prevention, detection, reporting and responding. In addition to financial compliance, priority areas are HSE, anti-corruption and competition law. In 2015, securing compliance with data protection legislation was an important topic. The Chief Compliance Officer reports to the Board Audit Committee at his own discretion and meets with the board of directors minimum twice per year.

Compliance is integrated with our business planning and follow-up process including relevant key performance indicators. Corporate responsibility issues are systematically addressed in activities relating to business development, investment programs and project execution. Compliance is addressed in the quarterly performance review meetings each business area has with the CEO, and an annual compliance report is submitted to the board of directors.

Employees are encouraged to discuss concerns and complaints with their superior. If the employee deems this not to be appropriate, he or she may address any of his or her superiors, the local human resources or HSE staffs, a safety representative, the compliance officer or the Corporate Legal Department. If the employee is uncomfortable using any of the above channels for any reason, Hydro's whistle-blower channel, AlertLine, can be used. All employees and contractors have anonymous access in their own language at all times via toll-free phone numbers, Hydro's intranet or the Internet. In certain countries, e.g. Spain, there are, however, legal restrictions on such reporting lines. AlertLine is publicized throughout the organization.

Every quarter the head of Hydro's internal audit informs the board audit committee and the corporate management about matters reported through the AlertLine. The head of internal audit reports to the company's board of directors through the board audit committee. Hydro's internal audit has resources both in Norway and Brazil.

The 50/50 joint venture Sapa's code of conduct reflects the company's values and guides the behavior. Also during 2015 this message has been spread within the organization through a variety of channels, such as the intranet, wall posters and workshops, all in the local languages. Sapa also conducted extensive anti-corruption training in all markets, based on the UN Fight Against Corruption e-learning modules.

For information about alterations of certain test records in Sapa, please see page 135.

### Combating corruption

Hydro's Integrity Program is based on the Code of Conduct, and is an important tool to prevent corruption and human rights violations. The program is under revision and will be renamed Hydro Integrity Guidelines. Roll-out of the program is planned for 2016, including training for relevant employees.

Other procedures are in place relating to assessing the integrity risk of counter-parties and detecting fraud. Regular transaction based screening of customers and suppliers is also carried out, see page 81.

### Respecting human rights

As an employer, owner and purchaser, our most important contribution toward respecting human rights is to secure decent working conditions in our organization, in minority-owned companies and with our suppliers. Information pertaining to Hydro's human rights, policies and compliance is regularly communicated to the board of directors, the corporate management board, business area management teams, and other relevant parties including union

representatives. See also page 83 for our approach in new projects and dialogue with affected parties. We do not tolerate discrimination on the basis of gender, race, national or ethnic origin, cultural background, social group, disability, sexual orientation, marital status, age or political opinion. See page 87.

### Child and forced labor

It is essential for us to avoid the use of child labor and forced labor, both in Hydro's activities and in those of our suppliers and partners. While child and forced labor has very low risk within our own operations, the risk is higher in the supply chain, see page 81.

### Freedom of association and collective bargaining

We are concerned about fundamental labor rights, such as freedom of association, minimum wage requirements and the regulation of working hours. We support the principle of freedom of association and collective bargaining, and have a long tradition of maintaining a good dialogue with employee organizations. Almost all our production sites in Europe and Brazil are unionized. These sites represent 98 percent of our employees worldwide. No strikes occurred in Hydro's consolidated operations in 2015. See also page 83.

Through joint ventures we have activities in countries where trade unions are restricted. These include Qatar, Vietnam and China, where we look for alternative forums to empower employees. This is based on our commitment to ILO's eight core conventions. Hydro's position on freedom of association, child and forced labor is also anchored in its global directives. In addition, we have a corporate agreement with the main unions regarding the European Works Council. The joint venture Sapa has a similar agreement.

### Risk analysis

Since 2012 Hydro has cooperated with the Danish Institute of Human Rights (DIHR). In 2014, the work included further development of our human rights due diligence systems as well as CSR assessment of all of Hydro's Brazilian operations, and evaluation of the third party grievance mechanism in Brazil. DIHR's complete assessment report was published at [www.hydro.com](http://www.hydro.com) in 2015. DIHR is also one of several stakeholders involved in the ongoing updating Hydro's human rights policy.

To improve social conditions in the municipality of Barcarena, Brazil, where Albras and Alunorte are situated, Hydro is developing projects that aim to have significant impact on the social development of the municipality.

Where necessary, Hydro employs security staff for the protection of personnel, property and business activities. There were no reported incidents in connection with our use of security staff in 2015.

### Vulnerable individuals and groups

We are committed to the principles of non-discrimination and to respecting the rights of vulnerable individuals and groups.

Since 2011 Hydro has been operator of the Paragominas bauxite pipeline that crosses areas inhabited by a traditional Quilombola group in Jambuacu Territory in Brazil. Hydro has established contact with Quilombola representatives and enhanced dedicated resources to improve and follow up the dialogue. This includes projects that aim to increase income generation by enhancing education, training on agricultural techniques etc. The partnership with the Tomé-Açu Joint Agricultural Cooperative (CAMTA) on implementation of agroforestry systems in the Quilombola territory progressed in 2015, but there is still hesitation of the leaders in certain communities to replicate the project. We continue our efforts to obtain a good dialogue with the Quilombolas.

Unresolved issues remain related to identifying individuals directly impacted by the construction of the pipeline - particularly referring to 15 km crossing Quilombola territory - and compensatory or mitigating measures which could have consequences for Hydro's mining operation in Paragominas going forward. These issues relate back to the time before Hydro took over operatorship, and the former operator of the pipeline is the legal party in these unresolved issues.

In MRN<sup>2)</sup> in Pará in Brazil there are currently land disputes with Quilombola communities regarding mine expansion. The disputes have resulted in withdrawal of the licence to perform environmental assessments, which is a prerequisite for the expansion project. Hydro entered in 2015 into a letter of intent with Vale to acquire their 40 percent share of MRN.

In Canada, Hydro's part-owned Alouette smelter is in regular dialogue with representatives of indigenous Innu communities in its vicinity. Alouette is also promoting and hiring Innu employees.

### Grievance mechanisms

Grievance mechanisms are important to protect the rights of individuals and groups affected by our operations. At many sites, such mechanisms are available to all local stakeholders. The current mechanism for third-party grievances was implemented in Hydro's Brazilian operations in 2014, replacing existing systems. The system works as a pilot for a systematic approach in all of Hydro. Channels for submitting grievances may vary depending on local needs. In Brazil, the

system includes several channels including a phone number, e-mail and dedicated and specially trained field workers. Third party grievances may be of any kind, including social and environmental issues. We are using different means to make the mechanism better known to our neighbors, including newsletters, a web site and open meetings.

### Promoting CSR in our supply chain

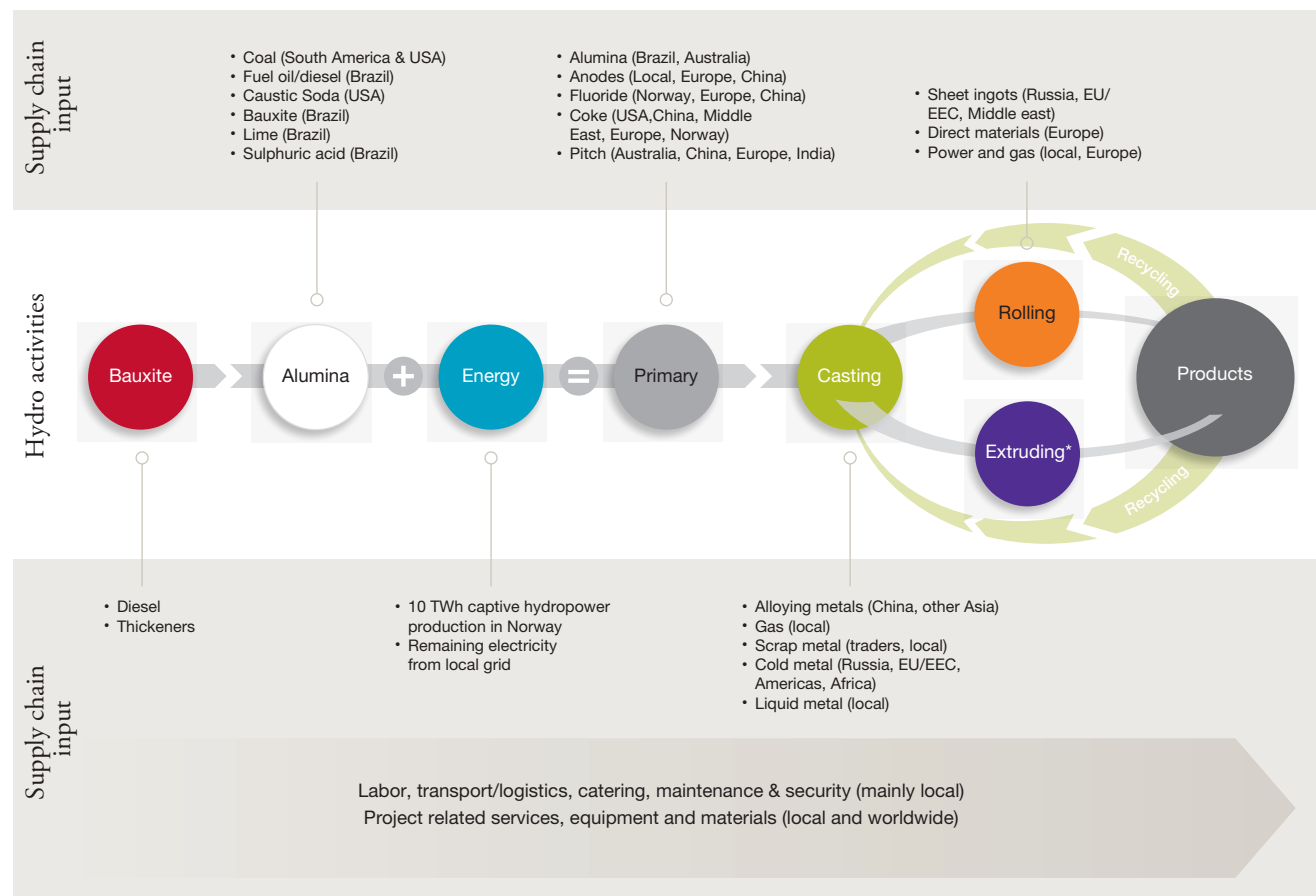
Hydro has about 13,000 suppliers globally, of which the majority is situated close to our production facilities. The number of suppliers for which Hydro accounts for a major part of turnover is low and our estimate is that it includes roughly 10 percent of our critical tier-one suppliers.

Hydro's supplier requirements regarding corporate responsibility are, as stated in our global directives and procedures, an integral part of all stages of the procurement process. The requirements cover issues related to environment, human rights, anti-corruption and working conditions including work environment. Hydro's global

procurement directive and the global procedures related to CSR in the supply chain and integrity risk management were all revised in 2015.

With a few minor exceptions, all suppliers to Hydro, regardless of value, criticality and type of contract, shall confirm that Hydro's Supplier Code of Conduct is reviewed and fully understood and that they have appropriate and adequate policies and procedures implemented in their business in order to ensure compliance. The Supplier Code of Conduct shall be attached to all contracts and shall be made binding through contractual clauses. The requirements demand the supplier to comply with local legislation on environment, anti-corruption and labour rights, to minimize environmental impacts and to prohibit child, forced or compulsory labor. The contracts shall include clauses regarding auditing rights and the supplier's responsibility toward its sub-suppliers and their suppliers, if they have a material contribution.

## Hydro's supply chain



\* Hydro produces extrusion profiles through the 50/50 joint venture Sapa

The figure shows Hydro's supply chain related to its value chain, and does not reflect the current organizational structure

Hydro's procedure for integrity risk management of its business partners includes agents, strategic business partners, suppliers and customers and sets requirements for integrity due diligence. Implementation is risk based and takes into consideration contractual value, country risk, etc. According to Hydro policy, new suppliers shall be screened. In 2015, we achieved this for about 90 percent of new suppliers.

The business areas have different systems in place - based on their different business needs - to comply with the corporate requirements. This also includes formal processes for identifying critical suppliers. A critical supplier delivers products with high consequence or risk for our production, projects and/or company.

All suppliers in consolidated activities are checked routinely against the UN sanction list for matters related to anti-terror and money laundering. Furthermore, audits and site visits are performed by Hydro personnel based on risk analysis. Audit findings and corrective action plans are reported and handed over to the visited site. Proposed corrective actions are then checked in connection with the next audit performed at the site in question. Suppliers who fail to implement corrective actions in relation to identified child, forced or compulsory labor will be excluded. In 2015, we entered into dialogue with a number of suppliers about possible inconsistencies with certain Hydro standards. This mostly related to needs for policies and procedures in important areas as well as more practical recommendations with regard to HSE improvements.

Sapa developed a supplier declaration in 2014 to ensure that the 27,000 firms in its worldwide supply chain are working in line with the values and culture of sustainable development as outlined in our code of conduct. The supplier declaration was further rolled out in 2015 and close to 80 percent of the total spend is now covered by it.

Hydro is an active member of REDES, a supplier development network developed by the Industry Federation of Pará, Brazil with support of the state government. Learn more about compliance in the supply chain and local procurement in note S10.5 and S11 to the Social statements.

The risk of incidents of child, compulsory or forced labor in our supply chain is considered to be low in the majority of Hydro's business areas. We do however recognize a risk of forced or compulsory labor among suppliers in South America and the Far East. This is followed up through supplier audits etc.

## Community impact

Ensuring responsible conduct in relation to society at large is an important element throughout all phases of our activities. The construction of new plants, acquisitions and divestments as well as closing down capacity, are particularly important in this respect. Hydro has a long tradition for responsible restructuring.

### 2015 targets

- Implementation of Hydro's new system for planning, monitoring and evaluating social projects in Brazil
- Carry out restructuring processes in cooperation with employees and their communities

### 2015 results

- Hydro's new system for planning, monitoring and evaluating social projects in Brazil implemented for three representative projects
- Following the sale of Hydro's rolling mill Slim in Italy, the transition was carried out in dialogue with employees, local community and the new owner towards closing

### 2016 targets

- To improve social conditions, develop an infrastructure project that aims to have significant impact on the social development of the Barcarena municipality in Brazil

### Strategic mid-term goals 2020

- Positive contribution to local social-economic development

## Continued repositioning

In April 2015 Hydro acquired Wuppermetall Recycling GmbH, a scrap processing company that has developed superior patented technology in scrap shredding and sorting. The company is now named Hydro Aluminium Recycling Deutschland GmbH and has about 30 employees. Hydro's aluminium smelters in Neuss, Germany (operated by Rolled Products) and Sunndal, Norway have had reduced capacity since 2009. Neuss has restarted capacity from 50,000 mt in 2009 to almost 160,000 mt in 2015. Sunndal has restarted capacity from 290,000 mt in 2009 to full capacity of 405,000 mt by June 2015. Husnes has been producing at half capacity since 2009 of its total capacity of 187,000 metric tons (mt).

Hydro's rolling mill Slim in Cisterna di Latina in Italy was sold to Rolling Mills International GmbH with transfer at year-end. The divestments directly affected about 400 employees.

Improvement and cost reduction programs are running in all business areas and corporate staffs with total savings of NOK 4.5 billion annually compared to 2011, see also page 7.

The joint venture Sapa's restructuring program targeting annual synergies of around NOK 1 billion by end of 2016, is now completed. Confirmed achieved synergies at the end of 2015 was NOK 1 billion, and the integration process started in 2013, is now considered as completed.

Stable electricity contracts are important for our primary aluminium plants. In 2015, Hydro secured 4.0 TWh of electricity for periods varying from 2018-2040 for its smelters in Norway, Germany and Canada.

## New projects

When planning new projects, we map the environmental and social impact when relevant. Our analyzes follow the Equator Principles, and thus reflect the requirements of the World Bank and the International Finance Corporation regarding information, consultation and investigation of the project's environmental and social impact, including human rights, as well as an action plan and proposed initiatives. Dialogue with affected groups gives input to plans, detailing our environmental and social responsibilities. We strive to act in an open and credible manner, and gather views from interested parties, aiming for a common understanding of the decisions that are made.

A 75,000 mt technology pilot, with the aim of full-scale industrial testing of this proprietary technology, is under construction at Karmøy, Norway. See also page 43.

At its rolling mill Grevenbroich in Germany, Hydro started in 2015 the construction of a new line for aluminium car body sheet with a nominal capacity of 200,000 mt. Start up is planned to be in the fourth quarter 2016. Two other investment projects - in Neuss, Germany and Clervaux, Luxembourg were completed around year-end adding post-consumer scrap recycling capacity of 80,000 mt.

In 2015 the second step of the de-bottlenecking of the Alunorf hot-rolling mill has been executed. With the third and final step beginning in 2016, Hydro's hot mill capacity will be increased by some 60,000 mt.

We are currently building two smaller power plants in Norway, see page 58.

In 2015, Hydro entered into a letter of intent with Vale to acquire their 40 percent share in the Brazilian bauxite mine MRN. Hydro has currently a 5 percent ownership share in MRN. Issues at MRN related to ongoing disputes with Quilombola groups and environmental challenges need to be addressed.

A comprehensive technological revision of the CAP refinery project design is underway. This includes technology,

operational setup, capital expenditure and operating costs of the project. The refinery was originally approved and project execution commenced in 2008. Construction has been postponed several times, most recently in 2012.

The construction of a new bauxite residue deposit at Alunorte, Brazil using pressure filtration to reduce even further the moisture content of the residue is expected to be finalized in 2016. Hydro's bauxite mine in Paragominas, also in Brazil, has started construction of new tailing dams. Please see page 40 for more information.

Following successful testing of the advanced AFM (Adjustable Flexible Mould) casting technology at Høyanger in 2014, Hydro decided in June 2015 to invest in the new casting technology in Høyanger and Årdal. AFM will enable casting of more complex alloys with higher accuracy and better quality.

The upgrade of five Norwegian power plants in what is referred to as the Rjukan string, was completed in 2015.

## Dialogue with affected parties

We have a long tradition of conducting a dialogue with the relevant parties affected by our activities, such as unions, works councils, customers, suppliers, business partners, local authorities, non-governmental organizations and affected communities including vulnerable groups. Such engagement with stakeholders is based on rights established by legislation or international conventions as well as our values and experiences. We will consult with interested and affected parties in the identification, assessment and management of all significant social, health, safety, environmental and economic impacts associated with our activities. Before major developments or large expansions are undertaken, it is a requirement to conduct an impact assessment, in line with internationally accepted standards such as IFC and UN Guidelines on business and human rights. This includes the principle of free, prior and informed consent when indigenous peoples are involved.

Dialogue with the employees' representatives includes involvement at an early stage in restructuring processes, and we have a tradition for open and successful collaboration between management and unions. The part-owned aluminium plants Albras and Sivalco are part of the global meeting structure between management and union representatives in our Primary Aluminium business area. In 2015, Hydro decided to include Bauxite & Alumina in the same meeting structure as Primary Metal and Rolled Products, securing direct dialogue between management and union representatives. Brazilian union representatives will also participate in the annual meeting where Hydro's CEO



and the head of People & HSE meet with employee representatives to discuss the company's focus areas and business strategy.

In Barcarena, Pará, Hydro's operating units participate in maintaining and developing an intersectoral forum which is an arena for engagement between representatives of civil society, representatives of the municipality and the local industry. So far, only Hydro units participate from the industry, but it is an ambition to reach out also to other companies. In 2015 the forum has continued working on developing common priorities for the social development in Barcarena.

When needed, employees are given the opportunity to put questions over the intranet to top management. It is possible to ask questions in person or anonymously, and answers are posted simultaneously through net meetings. President & CEO Svein Richard Brandtæg has his own blog on our intranet where employees can add their comments, either in person or anonymously.

## Public affairs and lobbying

Given the nature of our industry, Hydro is particularly involved in policies dealing with climate change, recycling, viable production and consumption, trade, energy efficiency, energy markets, health and safety in the workplace, competition and other framework conditions pertaining to our industry.

Hydro recognizes the value of engaging with public authorities and other stakeholders in relation to the development of various policy initiatives that impact our industry. Hydro interacts primarily with decision-makers in countries in which we have significant operations, such as Norway, Germany and Brazil, as well as with regional structures like the European Union institutions.

Hydro promotes its views on issues of importance either through direct interaction with public authorities and other stakeholders, or through various industry associations. These include the International Aluminium Institute, Eurometaux, European Aluminium, the Brazilian Aluminium Association, the International Council on Mining and Metals, the Brazilian Mining Association, the World Business Council for Sustainable Development, the Federation of Norwegian Industry, and many more, see [www.hydro.com/gri](http://www.hydro.com/gri) standard disclosure G4-15a and 16a.

Hydro participates in a series of think-tanks, especially in Brussels, and engages regularly in discussions with various NGOs. In October 2015, Hydro together with several other leading business enterprises and environmental NGOs in Norway, published the report "Norway 203040 - business

opportunities" targeting the Norwegian government and showing how business can contribute to reaching Norway's target of 40 percent reduction in greenhouse gas emissions by 2030. Hydro also takes part in a government-initiated project, which is targeting a national strategy for green competitiveness in Norway.

Most resources are dedicated to direct dialogue with authorities and decision makers, including lobbying activities, within the EU, Norway and Brazil. Among concrete activities in 2015, Hydro reached an agreement with the state of Pará, Brazil on a long-term ICMS tax framework, see page 67. Within the EU, these activities are publicly reported through the EU Transparency Register. In 2015 we spent about 5 million NOK on such activities in the EU including indirect costs like salaries, office rent etc. Two full-time equivalents (FTE) are dedicated to this work in each of Brazil and Norway, 2.5 FTE in the EU and one additional FTE in Germany.

## Community investments and partnerships

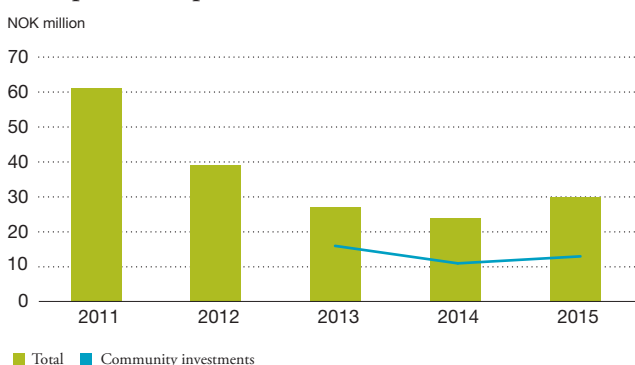
Hydro performs social projects and community investments partly following mining license requirements and partly as voluntary commitments. In addition comes communication partnerships. Main outcome of the investments is a strengthening of local communities in addition to increased visibility for Hydro and pride in the organization, in addition to creating dialogue and interaction with stakeholders.

Hydro's sponsorship and partnership strategy builds on:

- People (education, humanitarian aid, culture)
- Planet (energy and climate change, recycling, resource management)
- Possibilities (science, technology and innovation, design)

Hydro's sponsorships should be included in at least one of these categories.

## Community investments, charitable donations and sponsorships



The community investments related to Hydro's operations in Brazil are being reviewed and revised in line with Hydro's strategy for corporate social responsibility. All projects are planned, monitored and evaluated with the ambition to maximize outcome and impact for the targeted stakeholders. In order to create socio-economic development based on stakeholder engagement, Hydro is involved in a number of projects mainly in Barcarena and Paragominas, and along the pipeline connecting the mine and the refinery including:

- Hydro's cooperation with three academic institutions in Pará, and the University of Oslo, on biodiversity was further developed in 2015, see page 75
- Agriculture projects to increase farm production and income generation for Quilombolas and other rural families in a sustainable way
- Improving the quality of education in Barcarena, Pará, where Albras and Alunorte are situated. This program is being revised and expanded. In 2015, 2000 young students took part in one or more parts of the program.

Our activities in Pará also include building schools, training for income generation, support for community organizations, community infrastructure, cultural and sports facilities as well as health care.

Local activities at Hydro sites around the world typically include children's education and sports activities, culture and assistance to needy children. Our sponsorship activities also include support of the Nobel Peace Center in Oslo and an agreement with Save the Children Norway.

In 2015, Hydro in Germany initiated a program that will offer internships and apprenticeships to eight refugees in addition to the ordinary number of participants in the apprenticeship program. German lessons are planned started in March 2016 for about 15 possible candidates.

Another important contribution is the transfer of competence that takes place through our cooperation with universities and research institutions. This includes scholarships to selected PhD aspirants doing research relevant for our business areas. Hydro is sponsoring professorships in Norway and Qatar and has several adjunct professors among its own employees.

## Organization and work environment

In 2015, one of Hydro's employees became a victim of the Germanwings crash during business travel. Hydro reduced its TRI rate by 6 percent to 3.0 in 2015, while for own employees and contractor employees combined we reduced

the TRI rate by almost 12 percent. Although this was one of the best results in the company's history, it was not sufficient to meet the target for the year. However, the number of high risk incidents within Hydro's operations continued to fall and the company's safety performance remains among the best in the industry.

Hydro's organization across the world represents a great diversity in education, experience, gender, age and cultural background. We see this diversity as a significant resource, not least to encourage innovation. Good leadership, a proper organizational structure and the right tools are essential to achieving this. This includes attracting and retaining the right people. We aim to be highly competitive when it comes to recruiting and keeping the best-qualified personnel. Our ambition is to provide each employee with proper conditions for continuous development of her or his expertise.

### 2015 targets

- No fatal accidents
- Total recordable injuries per million hours down by 12 percent to 2.8 for own employees
- Roll-out of My Way to further 40 percent of all employees
- Diversity road-maps further anchored and implemented in the organization
- Hydro Academy further implemented in the organization

### 2015 results

- A Hydro employee became a victim of the Germanwings crash during business travel
- Total recordable injuries per million hours down by 6 percent to 3.0 for own employees. *Target not reached*
- Roll-out of My Way to further 40 percent of all employees achieved
- Diversity road-maps were further anchored and implemented in the organization
- Hydro Academy was further implemented in the organization

### 2016 targets

- No fatal accidents
- Total recordable injuries per million hours down from 3.0 to 2.8 for own employees and from 3.2 to 3.0 for contractor employees
- 96 percent of all employees completed the appraisal dialogue tool My Way within agreed time-line
- 74 percent Employee Engagement Index score on the employee engagement survey Hydro Monitor

### Strategic mid-term goals 2020

- No fatal accidents
- Total recordable injuries per million hours below 2 for

- employees and contractor employees combined
- All employees participate in the people performance and development process "My Way"
  - Hydro scores in the top 25 percent on the Employee Engagement Index in Hydro Monitor

## Effective organization

In order to deliver on our strategic goals and remain competitive, Hydro needs to attract employees with the right competence. This means that Hydro is highly dedicated to attracting, developing and retaining competence to ensure our future success.

Hydro's People Strategy shall ensure that the most critical people areas to deliver our business strategy are addressed. It is built on five pillars: performance culture, competence management, leadership pipeline, diversity and mobility.

Hydro Monitor is our global employee engagement survey and is carried out for all employees every second year. The long-term ambition is to be among the top 25 percent companies worldwide on the Employee Engagement Index (EEI, IBM External Norm) which is currently equivalent to 76 percent. Hydro scored 73 percent in the latest survey in 2014, in which 92 percent of all employees responded. The next survey is in 2016, where we are targeting 74 percent on the EEI. The most important part of Hydro Monitor is follow-up. All units have action plans based on their survey results. For more information, please see Note S4 to the Social statements in this report.

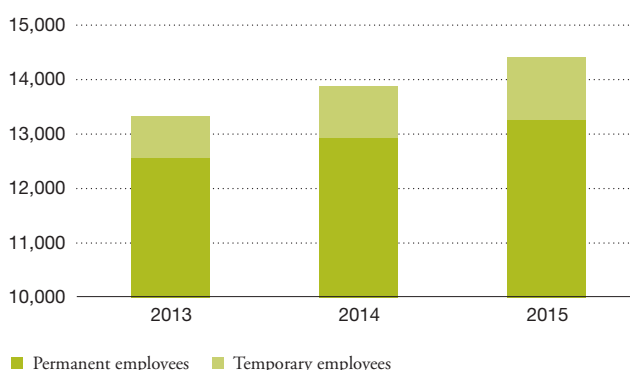
Restructuring and continuous improvement are essential elements of our business operations. Our aim is to involve employees in such processes at an early stage in order to achieve the best results for the individual and for the company.

## Developing and retaining the right competence

Hydro's common process for people performance and development, My Way, includes appraisal dialogue, individual development plan and follow-up, as well as talent planning and succession management. Implementation of the process is planned completed by the end of 2016 when all employees should be included.

Our philosophy is that 70 percent of competence building is direct on-the-job training, 20 percent of competence is acquired via networking and mentoring and 10 percent via traditional training. Hydro Academy is our platform for learning and development available to all employees. It is also the umbrella for all other faculties and academies in Hydro such as the Aluminium Metal Business System (see page 43), HSE, compliance and leadership. One important goal of the

## Number of employees



Figures include Slim. Contractor employees represented about 7,700 full-time equivalents during 2015, up from 6,600 in 2014.

Hydro Academy is to make training more visible and easily accessible. From an employee perspective it is primarily a course catalog of available training in Hydro, including local and global classroom training as well as e-learning and other resources. The main intention is to make it easier for leaders and employees to get an overview of available training and keep track of what training they have completed or should complete.

We offer new employees onboarding training related to the organization and their individual work tasks. This includes required competence within health, security, safety and environment. The most important development takes place locally, primarily with on-the-job training, but also through locally organized training. A special training course, Hydro Fundamentals, is targeting leaders and specialists, giving them insight into Hydro's history, values, diversity, competitive landscape and businesses.

In order to have a healthy pipeline of leaders with the required breadth of experience, we emphasize rotating employees early in their careers so that they gain skills from different parts of the organization. This is also reflected in our diversity ambitions. Through the succession and career part of My Way, we work with the leadership pipeline and identify required development. We have a portfolio of development programs that supports on the job development. In addition to running the Hydro Executive Program, we have the Hydro Leadership Program for middle managers and a program for new leaders. The Hydro Mentor Program aims to ensure competence transfer between experienced leaders and young high potentials. The Hydro Professional Program is specially designed to support the competence development of our specialists and high potentials.

## Diversity

We see diversity as a source of competitive advantage for Hydro and emphasize diversity with regard to nationality, culture, gender and competence when recruiting and when forming management teams and other working groups. All business areas and corporate staffs have diversity targets and road maps towards 2020 to further increase awareness and deliver results.

Hydro is making progress on the implementation of its diversity road maps and on integrating diversity in key people processes such as recruiting, leadership development, My Way and Hydro Monitor. Progress is being made towards the 2020 targets, although at a slower pace than we would like. We will therefore review the approach to diversity and run further diversity awareness trainings in 2016.

We are continually adjusting working conditions so that all employees, regardless of their operability, have the same opportunities in their work place. In Brazil, we are required to employ minimum 5 percent disabled people. The number of disabled employees in Paragominas was more than doubled in 2015 and reaching the requirement after a successful campaign. Alunorte had 3.4 percent disabled employees in 2015 and plans to reach the requirement in 2016.

## Compensation

All employees shall receive a total salary that is fair, competitive and in accordance with the local industry standard. Only relevant qualifications such as performance, education, experience and other professional criteria shall be taken into account when making appointments, or when providing training, settling remuneration and awarding promotion.

To learn about gender related salary differences see note S2.1 to the social statements.

The annual bonus of Hydro executives shall reflect achievements in relation to pre-defined financial targets, achievements of operational and organizational key performance indicators (KPIs). Targets relating to safety and environment and corporate social responsibility, and compliance with and the promotion of Hydro's core values (The Hydro Way) and leadership expectations constitute a substantial part of the KPIs. Please see Note 8 and 9 to the consolidated financial statements for more information.

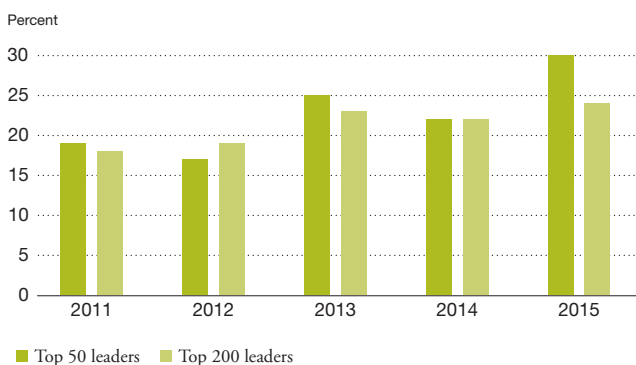
## Health and safety

Hydro shall be a leading company in our industry in the area of health and work environment. Our business-planning process is used to ensure continuous improvement throughout the organization, and progress is reported on a quarterly basis.

Our ambition is to avoid all serious accidents. Accidents and ill-health cause human suffering and inefficient organizations. We work continuously to avoid damage to health, property and loss of production. This applies to all our activities. Internal independent investigations are routinely initiated after fatal accidents and other serious incidents to identify the causes and reduce risk for recurrences.

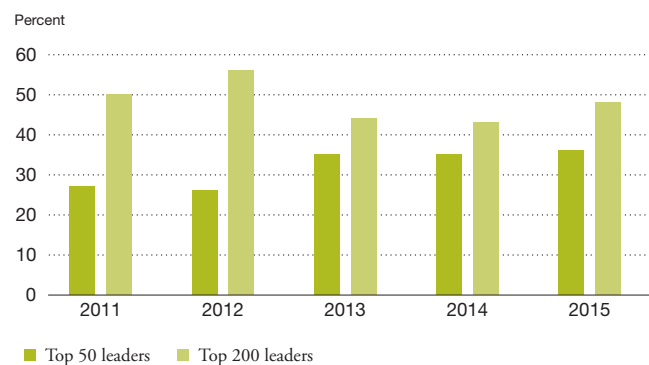
Hydro's TRI rate of 3.0 level in 2015 is one of the best ever measured. This is in particular thanks to our Bauxite & Alumina business area which improved 26 percent to 1.7. Also Primary Metal reached its target of 2.0. Despite several new initiatives and reinforcement of ongoing measures, our Rolled Products business area was far from meeting its

### Share of women leaders



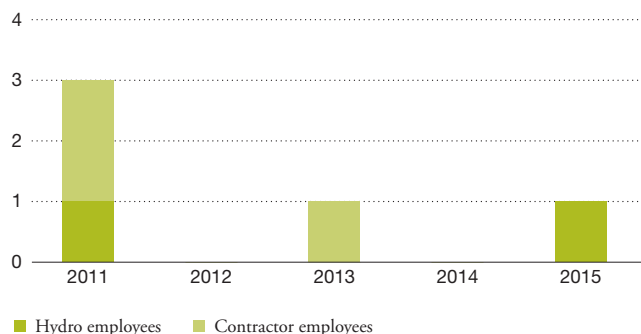
The total share of women at all levels in Hydro was 13 percent in 2015

### Share of non-Norwegian leaders



## Fatal accidents

Number



A Hydro employee on business travel became victim of the Germanwings tragedy.

targeted TRI rate of 30 percent improvement. Increasing awareness and fostering a safety culture is on top of the agenda in Rolled Products.

The CEO HSE Committee is a strategic decision-making committee for all main HSE-related matters in Hydro. The committee is led by the President & CEO Svein Richard Brandtzæg and consists of the Corporate Management Board.

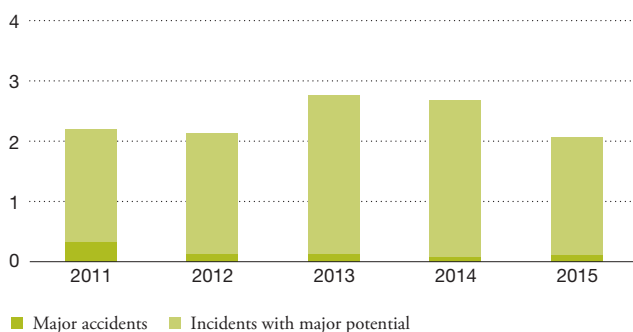
A new performance indicator, the Risk KPI, was developed in the area of HSE in 2014 and established at all production sites in 2015. By this leading indicator management will be able to measure and steer how safely processes and tasks with high inherent risks are managed, complementing existing efforts and tools such as the technical safety rate.

A handbook for assessing physical and chemical work environment risks is used by the business areas to identify potential health hazards and implement risk-reducing measures. We use our proactive tool for risk assessment of work environment to identify employees potentially at risk of developing occupational illnesses and implement risk reducing measures. To encourage further improvement of the physical and chemical work environment, we have established a performance indicator based on the risk assessment. This is a proactive indicator, driving improvement of the work environment, reducing exposure to physical and chemical agents that has the potential of causing ill-health. The indicator is being used by all production sites, and the majority of these have established local targets and track the progress. The targets are tracked through a corporate reporting tool.

Hydro Monitor (see page 86) is a tool we use to track the organizational work environment, and the results are followed up through local action plans. In 2016, we will

## High risk incidents

Per million hours worked (employees and contractors combined)



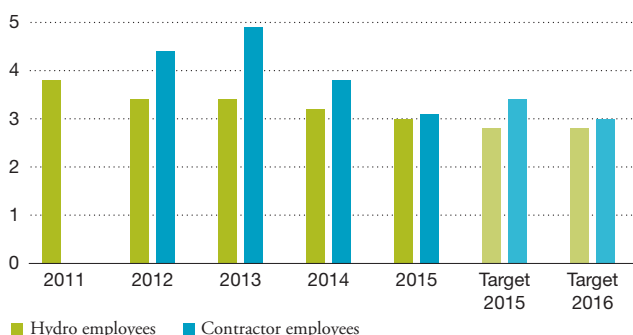
initiate a pilot in Rolled Products on further improving risk assessments of psychosocial work environment.

For legal entities where Hydro holds less than 100 percent of the voting rights, we are working through their board of directors to follow up HSE in general and serious incidents in particular.

Our approach to improving safety performance is based on risk management, leadership qualities and shop floor engagement. An example is one company-wide, harmonized high-risk incident investigation and communication tool. We have defined the priority areas man/machine interface, traffic and contractors as well as leadership behavior. Properly designing the interface between employees and technical equipment is important to avoid dangerous situations and accidents and is an important area in the Primary Metal and Rolled Products business areas.

## Total recordable injuries

Per million hours worked



\* Contractor data not available before 2012.



For the 50/50 joint venture Qatalum in Qatar with almost 40 different nationalities among the workforce, building a strong company culture is an important part of its good safety results. The good safety results in recent years continued in 2015, reaching a TRI rate of 0.82 for own employees and contractor employees combined.

## Security

An increased exposure in areas of risk, and the global volatile risk picture in general, has made us intensify our preventive efforts. We are committed to the protection of people, environment and physical assets, anticipating and preparing for potentially adverse incidents with crisis potential in order to maintain business and operational continuity.

To prepare for and respond to intentional, unintentional and/or naturally caused disasters, and to protect people and critical assets, security measures are adapted and commenced pending on the evolving risk picture. Security guards are employed on a regular basis to protect our personnel and assets. No armed guards were engaged in our mining activities in 2015, and there were no significant incidents reported in connection with the use of security guards. Hydro is committed to the Voluntary Principles on Security and Human Rights.

Hydro is responsible for infrastructure and functions on local and regional level that might be critical to society's operability, and we operate large-scale production sites where a crisis could influence community interests and safety in general. Hence, we are subject to control and follow-up by respective national authorities. We maintain a high state of preparedness, being trained and monitored through regular exercises. A central emergency team is in place to support line management and ensure crisis handling in accordance with Hydro's requirements and expectations.

A threat and vulnerability assessment forms the basis for preventive measures on all sites, within our business areas.

Secure information handling is important to ensure Hydro's business continuity and reputation. Crucial computer systems are subject to surveillance and regulations. All personnel with access to sensitive information are bound to secrecy, and required to handle information according to corporate guidelines and requirements.

Hydro's learning tools for risk management, travel safety and security are currently under update. Employees are safeguarded through systems for travel planning, risk assessment and emergency preparedness. Our ability to respond quickly to incidents worldwide has increased through risk monitoring, incident-monitoring tools and a continuous development of competence.

## Innovation

We believe that the key to Hydro's 110-year-long stretch of industrial progress is the combination of production and innovation, where research and development have gone hand-in-hand with full-scale production.

Our technology efforts are concentrated on these three areas:

- Making products that promote the use of aluminium and sustainable development
- Developing the world's best electrolysis technology - the core of the aluminium company
- Using R&D and technology to ensure optimal operations in existing assets

In our industry, we must start developing today the technology we will be using 10 or 20 years down the road. That's why we are working to maintain progress, unaffected by the fluctuations of the business cycle. Smelter technology, alloys with special properties, lighter transportation through the use of aluminium and better packaging to reduce food spoilage and cooling needs, are among the areas we are developing together with optimized operations throughout our value chain.

In 2015, research and development costs recognized as an expense amounted to NOK 330 million compared to NOK 277 million in 2014. The increase is mainly due to increased R&D related to preparation for the Karmøy Technology Pilot, developing aluminium solutions with improved properties and environmental benefits and increased R&D activities in Bauxite & Alumina. The greater part of our R&D expenses goes to our in-house research organization, while the remainder supports work carried out at external institutions. Our main R&D centers are in Årdal (smelter technology) and Sunndal (alloys and casting) in Norway and Bonn in Germany (Rolled Products). Sapa has its own research centers with more than 1000 engineers working on product and alloy development, R&D and offering support in the customers' development processes. A new research department for Bauxite & Alumina has been established at Alunorte in Barcarena, Brazil.

All business areas are responsible for their own technology development and execution of their respective technology strategies. A corporate technology office, reporting directly to Hydro's President and CEO, shall ensure a holistic and long-term approach to Hydro's technology strategy and agenda. The technology office leads an internal R&D network with representatives from the business areas, and supports the corporate management board in developing overall research and technology priorities and strategies.

A major advantage for Hydro from an innovation perspective is the knowledge and control of the complete value chain from bauxite mining, alumina refining, electrolysis of primary aluminium and alloy technology to finished products.

Our aluminium plants in Sunndal, Norway and Qatalum, Qatar utilize our enhanced HAL 300 technology with an energy consumption of 13.5 kWh/kg compared to a global average of about 14 kWh/kg. Our next generation technology, HAL4e, has been tested in a limited number of full-scale production cells delivering an energy consumption of 12.5 kWh/kg. A 75,000 metric tons technology pilot, with the aim of full-scale industrial testing of this proprietary technology, is under construction at Karmøy, Norway supported by a contribution of NOK 1.6 billion from Enova, a Norwegian public enterprise which supports new energy and climate-related technology. Out of the 60 cells, 48 cells will be operated with an energy consumption of 12.3 kWh/kg aluminium and with an emission of 1.4 kg CO<sub>2</sub> equivalents / kg aluminium only. In addition 12 test cells under development (HAL4e Ultra cells) will be installed based on the identical technology platform as the HAL4e cells but aimed for the purpose of implementing new technology elements with a lower technology readiness level. The HAL4e Ultra cells are expected to be operated with an energy consumption of 11.5-11.8 kWh/kg Al. Hydro's R&D vision is to reach 10 kWh/kg with higher degree of automation and autonomous control system. An important rationale for the technology pilot is to validate the new physical and control-system related elements in order to enable faster, cheaper and lower risk implementation of these new spin-off technology elements also in existing primary aluminium plants in order to improve their performance and financial robustness.

An important part of Hydro's overall technology strategy is to utilize our researchers, operators and other experts in optimizing operations in existing plants. The competence base in Hydro's technology environments is on a very high level and in core areas world-class. In later years we have emphasized utilizing this competence in operational improvements. Examples of such improvements are reduced energy consumption in casting furnaces, new cathode solutions for relining of electrolysis cells, improved blending tools for utilization of recycled materials, reduced emissions from foil annealing furnaces and many improvement projects for quality and productivity.

Upstream R&D and other innovation efforts are mainly emphasizing technology development and operational efficiency, while in downstream the development of new products and applications - to a large extent in cooperation with our customers - is of utmost importance.

For more information about R&D in the individual business areas, please see the section Business description in this report.

## Cooperation with other institutions

In Norway, we receive support from several public institutions to further develop our smelter and casthouse technology as well as downstream activities. These include The Research Council of Norway, Enova, Innovation Norway and Prosessindustriens Miljøfond. In addition comes the contribution of NOK 1.6 billion, granted in 2014, from Enova related to the Karmøy Technology Pilot in Norway. The majority of the support from The Research Council of Norway is paid directly to projects administered or partnered by Hydro at NTNU, SINTEF or Institute for Energy Technology. In 2015 we became a partner in three newly established centers for research-based innovation (SFI), supported by The Research Council of Norway, SFI Metal Production, SFI CASA and SFI Manufacturing. These are cross-disciplinary R&D programs with a frame of eight years. For more information, see note S8 to the Viability performance statements.

We also participate in other national and EU-funded R&D projects on post-consumer scrap-recycling technology, following market demand for products with a low carbon footprint. Our R&D program includes joint projects with external research institutes such as SINTEF, the Norwegian University of Science and Technology (NTNU), Institute for Energy Technology (IFE) and the University of Oslo in Norway, RWTH Aachen in Germany, MIT in Boston, USA and WPI in Worcester, USA. As an example we work together with NTNU in the field of material flow analysis and with MIT on the development of new algorithms for charge optimization. A major co-operation to mention is the participation in the AMAP (Advanced Metals and Processes) Research Cluster at RWTH Aachen, where amongst others two recycling related projects deal with furnace development and melt quality measurement. Furthermore there are two BMBF (German Federal Ministry of Research and Education) funded projects, one with CUTECH in Clausthal-Zellerfeld on SPL inertization for alternative fuel usage, and one with RWTH Aachen on aluminium recovery from incinerator ashes.

Within Energy, we mostly base technical R&D on our suppliers as well as industry cooperation.

## Best practice sharing

We strive toward business excellence through continuous improvement, utilizing people, technology and systems to generate maximum value for our customers. Through decentralized accountability and responsibility, decisions are made by those best able to make them. Our business systems

define the principles needed to create a performance culture in a unit. One example is the Aluminium Metal Business System (AMBS), which is our operational philosophy, our best practice system and standard for world-class production and improvement in our primary metal business. At the heart of AMBS is the principle of empowerment of each employee.

All employees in the organizations are included in the processes, which include establishing standardized practices, training through e-learning, classroom training, on-the-job training and job observation. AMBS training is organized as an ongoing training academy and connected leadership programs. All employees in the relevant units have participated in different academy training sessions. The AMBS academy is one of the faculties in the Hydro Academy.

The production system has been implemented at all our metal plants, including the joint-venture plants Qatalum, Slovalco and Albras.

Our Bauxite and Alumina business area has achieved successful improvements in a short time, based on the AMBS philosophy and system in Bauxite & Alumina Business System (BABS). Our Rolled Products and Energy business areas have similar systems adapted to their business needs.

Implementation of AMBS, BABS and other production systems have been important enablers for Hydro's improvement and cost-reduction programs in recent years, as they will be for Hydro's Better programs targeting NOK 2.9 billion improvement for the period 2016 through 2019.

## President's Award

The objective of the President's Award is to energize all employees by recognizing excellent work and best-practice sharing. The winners are an organization or a team that has demonstrated outstanding effort within the areas of HSE, innovation or performance. Winners should clearly demonstrate the spirit of The Hydro Way, emphasizing the values of Hydro in the way they work. In 2015, the President's Award 2014 was awarded in four categories:

- *HSE Award:* Primary Metals' Deeside remelter in Wales for being a high-performing unit with consistently good results, including a low rate of total recordable injuries, low sick leave rate, good work environment and no occupational illness.
- *Products & Processes Innovation Award:* Primary Metal's "Adjustable Flexible Moulds (AFM) development and pilot" for showing excellent teamwork developing and implementing new casting technology for sheet ingots. The innovation involves improved safety, cost reductions (in

scrap rate and productivity) and improved market opportunities (new high-margin alloys with volume growth potential).

- *Technology Development Innovation Award:* Primary Metal's "New emulsion system for the Karmøy Wire Rod Casthouse" for excellent teamwork where competence from Rolled Products R&D is utilized in Primary Metal to optimize the emulsion of the wire rod production, improving quality, cost and work environment.
- *Performance Award:* Rolled Products in Holmestrand, Norway, for improved performance through vertical integration with the Hytubal product line. The unit achieved sustainable improvements in key figures and entered new markets through improved quality, and outperformed competitors with offering greater delivery flexibility and having higher focus on customer needs.

## Notes and references

- 1) The reported 2016 target will be subject to recalculation following final agreement with EU authorities related to the Emission Trading Scheme (ETS) on new methodology for measurement and calculation of the GHG emissions from electrolysis.
- 2) Hydro has a 5 percent ownership interest and off-take agreements with Vale for a further 40 percent of the volume produced by MRN. In October 2015, Hydro entered into a letter of intent with Vale to take over their ownership interest in MRN. If concluded, Hydro will become the largest owner in MRN with an ownership share of 45 percent.

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### QUICK OVERVIEW

The Viability performance statement is divided in two sections:

- Environmental statements including key information about Hydro's environmental performance
- Social statements that include key information related to Hydro's workforce and interaction with the societies we are part of

#### About the reporting

Hydro's main reporting for 2015 on Viability performance is included in the Annual Report. In the web version of the Annual Report found on [www.hydro.com/reporting2015](http://www.hydro.com/reporting2015) we have included an index referring to the Global Reporting Initiative's Sustainability Reporting Guidelines and the requirements of the International Council on Mining and Metals as well as the Aluminium Stewardship Initiative. In addition, a link to our Communication on Progress report based on the United Nations Global Compact is found there together with a review of how we link to the UN Sustainability Development Goals and how we adhere to the UN Guiding Principles on Business and Human Rights.

# 7.29

MILLION TONS

*CO2 equivalents emitted  
from consolidated operations*

# 13,263

*permanent employees*



## About the reporting

### Principles for reporting on viability performance

The purpose of Hydro's reporting is to provide stakeholders with a fair and balanced picture of relevant aspects, engagements, practices and results for 2015 at a corporate level. We believe that the reporting in total satisfies this purpose. Our reporting on viability performance is aligned with the main reporting principles of the Sustainability Reporting Guidelines (G4) from the Global Reporting Initiative and the requirements of the International Council on Mining and Metals. The selection of elements reported is based on extensive dialogue with stakeholders and proposals from them. In addition, the reporting builds on processes that are part of our daily operations. Important stakeholders include authorities, investors and financial analysts, employees and their representatives, potential employees, customers, non-governmental organizations and local communities affected by major development projects or restructuring processes. Reporting is not necessarily the target of the dialogue process, but when relevant, we use the outcome to improve our reporting, see page 83.

We have endeavored to provide information that is in accordance with the principles of sound reporting practice. The absence of generally accepted reporting standards and practices in certain areas may nevertheless make it difficult to compare results with reports compiled by other companies, without the availability of further data, analyzes and interpretations.

### Reporting scope and limitations

The scope of Viability performance as included on page 69-126 in Hydro's Annual Report 2015, is Hydro's global organization for the period January 1 to December 31, 2015. Operations sold or demerged during the year have in general not been included. Health and safety data for all previously consolidated operations are, however, included in the historic data for the period the unit was owned by Hydro. Regarding environmental data (emissions, energy consumption etc.), operations acquired during the reporting year are included for the complete year. Data from operations that have been closed down, are included for the part of the reporting period it was under operation. Minority-owned operations are not included in the reported data except from in the data related to greenhouse gas emissions for Hydro's ownership equity. In addition, we include some examples and other qualitative information that demonstrate how we promote our policies toward these operations.

Environmental and financial data relating to acquired operations are included in our statistics, and historical data have been recalculated to reflect current operations. Correspondingly, historical data of divested activities are

taken out of our reported data. Employee, safety and work environment data are included from/to the closing date of acquisitions/divestments unless otherwise stated.

Data has been prepared from individual reports in accordance with corporate procedures. Data compiled at each operational unit according to local management systems applicable at the respective operational units are typically based on process data systems, measurements, calculations and/or purchasing data. The data is then aggregated at corporate level, and is not intended to include detailed information that is primarily of significance for individual sites, processes, activities and products.

The reporting is based on input from many units and sources of data. Emphasis has been placed on ensuring that the information is neither incomplete nor misleading. However the scope of the reporting, and varying certainty of data may result in some inherent uncertainties regarding some of the figures reported.

The notes following the statements will clarify the accounting policies for the specific information as well as comment on the development of Hydro's performance in the various areas.

### Main reporting changes from the 2014 report

The main changes to the Viability performance reporting in Hydro's Annual Report 2015 compared to the annual report 2014, are:

- More quantitative information has been removed from the main part of the report and to some degree been substituted by more graphics. All relevant quantitative information can still be found in the Viability performance statements.
- Some information formerly reported in the GRI index only has been included in the Viability reporting statements.
- Hydro Husnes, formerly Sørå, in Norway is included as a consolidated operation in the environmental statements.
- Hydro's former rolling mill in Slim, Italy was divested 31 December 2015. It had about 400 employees and is included for 2015 and earlier in the social statements, while it is no longer included in the environmental statements.
- Hydro acquired Wuppermetall Recycling (WMR) GmbH, a scrap processing company, in April 2015. The company is now named Hydro Aluminium Recycling Deutschland GmbH and has about 30 employees. WRM is included in the 2015 reporting.

### Changes in reporting elements

We have added note E7 Production volumes to the Environmental statements to make it easier to relate certain

environmental data to production volumes. We have also added information about how we relate to the UN Sustainability Development Goals and the UN Guiding Principles on Business and Human Rights.

### Changes in data basis

There has been a few changes to the data basis of some quantitative indicators. Where relevant, this has been described for each note to the Viability performance statements. In particular, that relates to note E2.2, E4.1, E4.2, E5 and E6.3 to the Environmental statements. We believe that neither of these changes are material to the overall evaluation of Hydro's viability performance.

### Assurance principles and scope

We have requested our company auditor to review the Viability performance 2015 in accordance with the international audit standard ISAE 3000 – Assurance Engagements other than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board (IAASB). For the underlying systems, the reader is referred to Hydro's steering documents as described under Corporate Governance, see page 164 in Hydro's Annual Report 2015. The auditor's limited assurance report is found on page 127.

## Environmental statements

The table below shows Hydro's main quantitative indicators related to its environmental performance. More detailed information is, when indicated, available in the notes to the environmental statements.

### Environmental performance

	Notes	% change 2014-2015	2015	2014	2013	2012	2011	GRI G4 reference
GHG emissions								
Direct GHG emissions from consolidated operations (Million tons CO2-e) (equal to scope 1)	E1.1	(0.3)%	7.29	7.31	6.95	7.19	7.43	EN15
Indirect GHG emissions from consolidated operations (Million tons CO2-e) (equal to scope 2)	E1.1	2%	2.46	2.41	2.29	2.84	4.33	EN16
Direct GHG emissions from Hydro's ownership equity (Million tons CO2-e) <sup>1)</sup> (equal to scope 1)	E1.4	(0.2)%	7.81	7.83	7.49	7.61	7.59	EN15
Indirect GHG emissions from Hydro's ownership equity (Million tons CO2-e) <sup>1)</sup> (equal to scope 2)	E1.4	2%	5.31	5.20	5.14	5.90	7.31	EN16
GHG intensity								
Alumina refining (mt CO2-e per mt. alumina)	E1.6	0%	0.69	0.69	0.69	0.66	0.66	EN18
Electrolysis (mt CO2-e per mt. aluminium)	E1.7	1%	1.60	1.63	1.63	1.64	1.67	EN18
Energy production and consumption								
Energy production (TWh)	E3.1	7%	10.9	10.2	10.2	10.3	9.6	EN3/EN6
Energy consumption (TWh)	E3.1	2%	48.9	48.2	46.9	47.2	49.2	
Energy intensity								
Alumina refining (GJ per mt alumina)	E3.2	-	8.49	8.51	8.68	8.33	8.25	EN5
Electrolysis process (kWh per kg aluminium)	E3.2	0.1%	13.90	13.88	13.92	13.94	13.85	EN5
Other resource use								
Alumina (1000 mt)	E4.1	3%	3 256	3 153	3 111	3 085	3 249	EN1
Total water withdrawal from water stressed areas (mill m <sup>3</sup> )	E4.2	(4)%	2.35	2.42	2.33	1.88	1.85	EN8/EN9
Recycling								
Recycled post- consumer scrap (1000 mt)	E4.3	21%	134	111	151	N/A	N/A	EN2
Total recycled metal (1000 mt)	E4.3	3%	1 123	1 092	1 189	N/A	N/A	EN2
Waste (1 000 mt)								
Bauxite tailings	E5.1	(5)%	4 128	4 333	3 313	4 215	4 407	MM3
Bauxite residue (red mud)	E5.1	(2)%	5 973	6 069	5 415	6 071	6 389	MM3
Hazardous waste <sup>5)</sup>	E5.2		196					EN25
Other waste <sup>5)</sup>	E5.2		218					EN23
Hazardous waste to landfill (%)	E5.3	(3) <sup>4)</sup>	46%	49%	52%	53%	54%	EN23
Biodiversity in mining								
Accumulated area disturbed (hectares) <sup>2)</sup>	E6.2	6%	6 076	5 734	5 629	5 264	4 654	MM1
Accumulated area rehabilitated (hectares)	E6.2	23%	1 509	1 231	707	776	332	MM1
Accumulated endangered species observed <sup>3)</sup>	E6.3		57					EN14

Figures in brackets indicate a decrease.

1) Combined numbers: based on ownership equity.

2) Accumulated area disturbed since construction of the mining area started. The mine started its production in 2006.

3) Accumulated number of endangered species observed since registration started in 2003. The 2015-figure is not comparable to previous years. Please see note E6.3.

4) Values are given as percentage points

5) Figures for 2015 are not comparable with previous years due to changes in reporting method.

## Notes to the environmental statements

### General reporting standards and principles

Environment, energy and resource data are reported through the corporate data reporting tool HERE on an annual basis covering all consolidated operational units (defined as Hydro's ownership share exceeding 50 percent). Data reported to HERE should be based on specific environmental, energy and resource data reporting processes that have been established for management purposes at site, sector, business area and corporate level within our organization. Data is reported on a 100 percent basis for all consolidated operational units if not otherwise stated. All environmental emissions include historical emissions from current operations and are recalculated annually to reflect Hydro's current portfolio.

Data reported in HERE is in accordance with Hydro's corporate procedure "Registration of environment, resource and energy data". The procedure provides definitions and factors for estimating emission values. Data is compiled at each operational unit according to local environmental management systems and typically based on process data, measurements, calculations and/or purchasing data.

Where applicable, we have indicated to which GRI G4 disclosure the different notes or parts of the notes are applicable. Please also see the Environmental statement on the previous page for more such information.

### Note E1 - Greenhouse gas emissions

#### Reporting principles

All greenhouse gases (GHG) are measured as CO<sub>2</sub> equivalents (CO<sub>2</sub>e) based on conversion factors for their 100-year Global Warming Potentials from the Intergovernmental Panel on Climate Change (IPCC). In 2013, IPCC changed the Global Warming Potentials (GWP) for PFC-gases (CF<sub>4</sub> and C<sub>2</sub>F<sub>6</sub>), resulting in higher GWP for our PFC emissions. We use the updated factors in our 2015 reporting and have updated historical emissions accordingly.

#### E1.1 Total greenhouse gas emissions in consolidated activities

##### Reporting principles

Greenhouse gas emissions are reported per process step. For information purposes we have indicated in which business area (financial segment) the emissions mainly take place.

#### Greenhouse gas emissions - consolidated activities

Million tons CO <sub>2</sub> e	2015	2014	2013	2012	2011
<b>Direct GHG emissions</b>	<b>7.29</b>	7.31	6.95	7.19	7.43
Bauxite & Alumina	3.95	3.97	3.64	3.86	3.84
Primary aluminium production (mainly Primary Metal)	3.05	3.05	3.03	3.05	3.31
Downstream production (Rolled Products)	0.16	0.17	0.17	0.17	0.18
Remelters (in Metal Markets and Rolled Products)	0.12	0.11	0.11	0.11	0.11
<b>Indirect GHG emissions</b>	<b>2.46</b>	2.41	2.29	2.84	4.33
Electricity consumed (mainly Primary Metal)	2.46	2.41	2.29	2.84	4.33
<b>Total GHG emissions</b>	<b>9.75</b>	9.72	9.24	10.02	11.77

GRI-reference: G4-EN15 and G4-EN16

The production of alumina and primary aluminium increased in 2014 and 2015, see note E7.

## E1.2 Total greenhouse gas emissions per country in consolidated activities

### Reporting principles

Total greenhouse gas emissions per country in Hydro's consolidated activities (based on 100 percent).

#### Greenhouse gas emissions per country - consolidated activities

Million tons CO <sub>2</sub> e	2015	2014	2013	2012	2011
<b>Brazil</b>	<b>5.39</b>	5.42	5.11	5.34	5.30
Direct	4.75	4.77	4.44	4.67	4.63
Indirect	0.64	0.65	0.66	0.67	0.67
<b>Germany</b>	<b>1.67</b>	1.60	1.45	0.87	0.84
Direct	0.47	0.45	0.43	0.31	0.31
Indirect	1.20	1.15	1.01	0.57	0.53
<b>Norway</b>	<b>1.72</b>	1.74	1.75	1.69	1.75
Direct	1.64	1.67	1.68	1.62	1.68
Indirect	0.08	0.07	0.07	0.07	0.07
<b>Slovakia</b>	<b>0.85</b>	0.84	0.82	0.84	0.84
Direct	0.32	0.32	0.30	0.33	0.33
Indirect	0.53	0.53	0.52	0.51	0.52
<b>Other</b>	<b>0.12</b>	0.11	0.11	1.28	3.03
Direct	0.10	0.10	0.09	0.26	0.48
Indirect	0.02	0.02	0.02	1.02	2.55
<b>Total GHG emissions</b>	<b>9.75</b>	9.72	9.24	10.02	11.77

GRI-reference: G4-EN15 and G4-EN16

The production of alumina and primary aluminium increased in 2014 and 2015, see note E7.

## E1.3 Direct GHG emissions per GHG type in consolidated activities

### Reporting principles

CO<sub>2</sub> emissions are calculated based on anode consumption during the electrolysis process and use of other fossil fuels. PFC (perfluorocarbon) emissions consist of the two greenhouse gases CF<sub>4</sub> and C<sub>2</sub>F<sub>6</sub> which are formed during anode effect situations in the aluminium electrolytic cells. Emissions are calculated based on online process measurements.

#### Direct GHG emissions per GHG type - consolidated activities

Million tons CO <sub>2</sub> e	2015	2014	2013	2012	2011
CO <sub>2</sub>	7.06	7.04	6.69	6.91	7.08
PFC	0.23	0.27	0.26	0.28	0.36
<b>Total GHG emissions</b>	<b>7.29</b>	7.31	6.95	7.19	7.43

The production of alumina and primary aluminium increased in 2014 and 2015, see note E7. The reduction from 2010 to 2013 is a result of process improvements and reduced production in our consolidated activities.

Methane (CH<sub>4</sub>) and N<sub>2</sub>O emissions from Hydro's operations are negligible compared to the other GHG emissions.

## E1.4 Total greenhouse gas emissions based on ownership equity

### Reporting principles

In addition to the GHG emissions referred to above, we also report GHG emissions based on our ownership equity as per year end. This data includes Hydro's share of emissions from all operations including non-consolidated operations where Hydro has a minority interest. Electricity generation covers indirect GHG emissions from purchased electricity and emissions from Hydro's ownership share in the gas-fired power plant at Qatalum.

GHG emissions based on ownership equity have been calculated based on the principles of the WRI/WBCSD GHG Protocol. Direct emissions from production in Bauxite & Alumina, metal production and downstream operations as well as from the



remelters, are comparable to Scope 1 emissions as defined by WRI/WBCSD GHG Protocol. Emissions from electricity generation are based on electricity consumption and IEA CO<sub>2</sub> Emissions from Fuel Consumption 2010 factors and are comparable to scope 2 emissions from purchased electricity.

#### Greenhouse gas emissions - ownership equity

Million tons CO <sub>2</sub> e	2015	2014	2013	2012	2011
<b>Direct GHG emissions</b>	<b>7.81</b>	7.83	7.49	7.61	7.59
Bauxite & Alumina	<b>3.59</b>	3.61	3.31	3.50	3.48
Primary aluminium production (mainly Primary Metal)	<b>3.53</b>	3.55	3.51	3.46	3.48
Downstream production (Rolled Products and 50% of SAPA)	<b>0.57</b>	0.56	0.56	0.54	0.51
Remelters (mostly Metal Markets)	<b>0.12</b>	0.11	0.11	0.11	0.11
<b>Indirect GHG emissions</b>	<b>5.31</b>	5.20	5.14	5.90	7.31
Electricity generation (mostly Primary Metal)	<b>5.31</b>	5.20	5.14	5.90	7.31
<b>Total GHG emissions</b>	<b>13.12</b>	13.03	12.63	13.51	14.90

GRI-reference: G4-EN15 and G4-EN16

### E1.5 Total greenhouse gas emissions per country based on ownership equity

#### Reporting principles

Total greenhouse gases per country based on Hydro's ownership equity (see note E1.4 for more information on reporting principles).

#### Greenhouse gas emissions per country - ownership equity

Million tons CO <sub>2</sub> e	2015	2014	2013	2012	2011
<b>Australia</b>	<b>1.06</b>	1.01	1.02	2.16	3.94
Direct	<b>0.18</b>	0.15	0.14	0.29	0.52
From electricity generation	<b>0.88</b>	0.86	0.87	1.87	3.42
<b>Brazil</b>	<b>4.34</b>	4.37	4.08	4.28	4.26
Direct	<b>4.00</b>	4.01	3.72	3.91	3.88
From electricity generation	<b>0.34</b>	0.35	0.36	0.37	0.37
<b>Canada</b>	<b>0.54</b>	0.53	0.53	0.47	0.49
Direct	<b>0.24</b>	0.25	0.24	0.19	0.21
From electricity generation	<b>0.30</b>	0.28	0.29	0.28	0.28
<b>Germany</b>	<b>1.94</b>	1.87	1.71	1.14	1.09
Direct	<b>0.60</b>	0.59	0.57	0.44	0.44
From electricity generation	<b>1.34</b>	1.28	1.15	0.70	0.66
<b>Norway</b>	<b>1.72</b>	1.74	1.75	1.69	1.75
Direct	<b>1.64</b>	1.67	1.68	1.62	1.68
From electricity generation	<b>0.08</b>	0.07	0.07	0.07	0.07
<b>Qatar</b>	<b>2.41</b>	2.35	2.39	2.62	2.30
Direct	<b>0.60</b>	0.55	0.55	0.56	0.30
From electricity generation <sup>1)</sup>	<b>1.82</b>	1.80	1.84	2.07	2.00
<b>Slovakia</b>	<b>0.47</b>	0.46	0.45	0.47	0.47
Direct	<b>0.18</b>	0.17	0.17	0.18	0.18
From electricity generation	<b>0.29</b>	0.29	0.29	0.28	0.29
<b>Other</b>	<b>0.63</b>	0.69	0.69	0.67	0.61
Direct	<b>0.37</b>	0.42	0.42	0.41	0.38
From electricity generation	<b>0.26</b>	0.27	0.27	0.26	0.22
<b>Total GHG emissions</b>	<b>13.12</b>	13.03	12.63	13.51	14.90

1) Most electricity at Qatalum is generated by Qatalum's fully-owned gas power plant . 0.043 million tons CO<sub>2</sub>e came from purchased electricity from the national grid.

GRI-reference: G4-EN15 and G4-EN16

Hydro's production based on ownership equity can be found under Operational review in the section Financial and operating performance in this report.

## E1.6 GHG intensity - Alunorte alumina refinery

### Reporting principles

The GHG intensity is calculated based on total greenhouse gas emissions from Alunorte divided by total alumina production and includes all alumina refining in Hydro.

## E1.7 GHG intensity - Electrolysis

### Reporting principles

The GHG intensity is calculated based on total greenhouse gas emissions from the electrolysis process of Hydro's consolidated smelters. Intensity figures do not include extraordinary emissions during start-up of curtailed capacity in Sunndal in 2015, while all emissions are included in total GHG emissions.

## Note E2 - Other emission related indicators

### E2.1 Other emissions

#### Reporting principles

*Dust and particles* include measured and calculated/estimated stack emissions. Diffuse emissions are not included.

*Fluorides* cover emissions to air of gaseous and particulate fluorides from production of primary aluminium.

*NM VOC* (non-methane volatile organic compounds) emissions to air stems primarily from Rolled Products.

*PAH* (poly-aromatic hydrocarbons) to air is primarily from Primary Metal. Emissions are measured according to NS 16 PAH.

*PAH to water* is from Primary Metal and is measured according to Borneff 6 PAH.

*Sulfur dioxide* to air is primarily from the use of coal as an energy source in Alunorte, Brazil, and from the aluminium electrolysis process where the majority of the total emissions come from Albras in Brazil, Neuss in Germany and Slovalco in Slovakia. SO<sub>2</sub> emissions from the Norwegian smelters are considerably lower due to different waste gas treatment techniques used at these plants.

#### Other Emissions

Metric tons	2015	2014	2013	2012	2011
Dust and particles	5 099.0	5 273.9	3 369.1	3 170.9	2 953.8
Fluorides to air <sup>1)</sup>	742.1	714.7	665	585	616
NM VOC	256.5	247.5	196.9	197.4	218.5
Nitrogen oxide	8 778.5	9 025.6	7 981.7	8 517.4	8 858.8
PAH to air	10.0	11.3	10.5	9.3	8.8
PAH to water (Borneff 6 PAH)	0.4	0.5	0.4	0.3	0.4
Sulfur dioxide (SO <sub>2</sub> )	30 053.2	33 390.9	33 307.2	30 849.3	29 344.6

Historical figures are updated due to Hydro Husnes becoming a fully-owned smelter and the divestment of Slim, Italy, during 2015.

1) A small calculation error for one of the sites has been corrected. This increased the fluorides to air figures marginally from 2013 to 2011.

GRI-reference: G4-EN21

Hydro uses ozone depleting substances in certain applications in its Brazilian operations. In 2015 Hydro used in total 3,4 metric tons of such substances compared to 1.9 metric tons in 2014. The reported value corresponds to the purchased amount of such substances and can vary significantly according to the need of refilling existing cooling devices. All such substances are registered and reported according to Brazilian legal requirements (GRI G4-EN20).

## E2.2 Spillages

### Reporting principles

Spillages and permit breaches are registered in Synergi, which is the electronic reporting tool for incidents regarding health, safety, security and environment. According to Hydro's definition, all significant spillages shall be reported, including significant spillages with short-term reversible damage.

### Spillages

	2015	2014	2013	2012	2011
Spillages <sup>1)</sup>	0	1	1	0	0

1) An analysis of all spillages was performed in 2015 and shows that far fewer spillages than previously reported, had a significant environmental impact. Historical data has been updated as a result.

GRI-reference: G4-EN24

In 2014, one spillage of about 100 m<sup>3</sup> caustic material from the dewatering pond management system at Alunorte, Brazil, reached ground and surface water nearby the dewatering pond. Hydro has engaged an external firm to investigate possible extent and damage to ground water. Two out of four scheduled groundwater monitoring campaigns have been performed so far, concluding that all parameters were in compliance with legal limits according to Brazilian federal legislation. Furthermore, river monitoring and soil samples could not detect any impacts. The report is planned finalized in May 2016.

## E2.3 Permit breaches

### Reporting principles

Permit breaches are based on monthly monitoring of emissions. Hydro's definition of permit breaches is in certain cases more strict than the legal definition.

### Permit breaches

	2015	2014	2013	2012	2011
Permit breaches	3 <sup>1)</sup>	3 <sup>1)</sup>	1	6	3

1) All reported cases are defined breaches according to Hydro's reporting policy, but not according to Norwegian authorities.

In 2015, two breaches of air permits at Sunndalsøra and one breach of waste permit at Årdal, both in Norway, were registered.

## E2.4 Provisions for environmental clean-up and future asset retirement obligations

### Reporting principles

Hydro provides for environmental obligation when Hydro has a legal obligation, or has stated a clear intention, to make a remediation or payment. Such liabilities are only provided for if it is probable that payments or other actions will be needed based on the situation present at the balance sheet date. A provision is measured as the present value of expected cash flows estimated to settle or remediate the liability. When Hydro, at acquisition of an asset or start of a business activity, has an obligation to remove, dismantle or remediate the asset or site used, that obligation is included in the cost of the asset with the present value of estimated remediation costs. The same treatment is applied if an obligation to remove, dismantle or remediate the asset is introduced at a later date, through new legislation or other means. For Hydro's accounting policy for provisions and asset retirement obligations, see note 2 Significant accounting policies to Hydro's financial statements.

## Financial provision for environmental clean-up

	2015	2014	2013	2012	2011
Financial provision for environmental clean-up (MNOK)	381	380	272	227	284
Provisions for future asset retirement obligations (MNOK)	1 959	1 719	1 440	1 509	1 549

GRI-reference: G4-EN31

Provisions for future asset retirement obligations includes anticipated costs related to restoration or rehabilitation of industrial or mining sites, disposal of contaminated material and certain liabilities related to Norwegian power plant concessions to be reverted to the Norwegian government. See also note 36 and 37 in the Consolidated financial statements for further information.

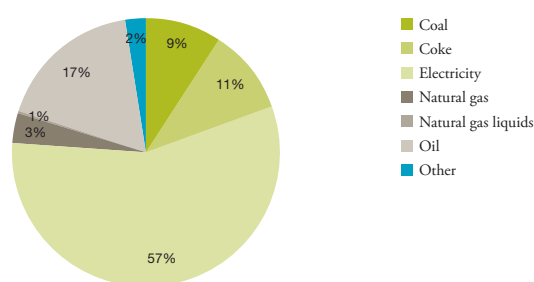
## Note E3 - Energy

## E3.1 Energy consumption and energy production

## Reporting principles

## Energy consumption per energy carrier

Total energy consumption in Hydro was 49 TWh in 2015



Energy consumption includes all consumption of Hydro produced and purchased energy in Hydro's consolidated activities.

Hydro does not purchase heating, cooling or steam, which is produced internally in Hydro and is reported as "other" energy consumptions. Energy consumption includes energy losses in hydroelectric plants.

## Energy consumption per energy carrier (Ownership &gt;50%)

PJ	2015	2014	2013	2012	2011
Coal	16.2	17.5	15.6	16.8	19.0
Coke	18.5	18.0	18.6	18.5	19.7
Electricity	99.7	96.5	95.3	93.3	98.8
Natural gas	6.0	6.0	6.0	6.2	7.3
Natural gas liquids	0.7	1.6	1.5	1.7	1.4
Oil	30.7	29.5	27.6	28.9	26.1
Other	4.3	4.2	4.3	4.5	5.0
Total energy consumption in PJ	176.2	173.4	168.9	169.9	177.2
Total energy consumption in TWh	48.9	48.2	46.9	47.2	49.2

## Energy consumption per sector

PJ	2015	2014	2013	2012	2011
Bauxite and Alumina	49.0	49.5	45.7	48.6	47.6
Electrolysis/Carbon/Casting	115.8	113.4	112.8	112.3	119.0
Remelters	2.5	2.4	2.4	2.3	2.3
Rolled Products	4.3	4.2	4.5	4.3	4.5
Other	4.6	3.9	3.6	2.4	3.6
Total energy consumption	176.2	173.4	168.9	169.9	177.2

#### Energy consumption per country - consolidated activities

PJ	2015	2014	2013	2012	2011
Brazil	80.6	81.1	78.0	80.9	80.4
Germany	16.1	15.4	15.2	11.0	10.5
Norway	65.5	63.0	62.1	59.4	58.7
Slovakia	11.9	11.8	11.6	11.3	11.6
Other	2.1	2.0	2.0	7.3	15.9
Total energy consumption	176.2	173.4	168.9	169.9	177.2

GRI-reference: G4-EN3

The increase from 2014 to 2015 in energy consumption relates to increased smelter production in Norway. See also note E7.

### E3.2 Energy intensity

#### Reporting principles

Energy intensity in Alunorte is calculated based on total energy consumption in Alunorte divided by total alumina production.

Energy intensity in Hydro's consolidated smelters is the average number of kWh direct current consumption in the electrolysis process per kg aluminium.

## Note E4 - Other resource use

### E4.1 Materials

#### Reporting principles

Covers major raw materials used in the alumina refining process and electrolysis process beyond what is included in the energy consumption data.

Alumina and aluminium fluoride are primarily used in the electrolysis process, whilst lime, sodium hydroxide and sulfuric acid are primarily used in the alumina refining process.

#### Materials

1 000 metric tons	2015	2014	2013	2012	2011
Alumina	3 256	3 153	3 111	3 085	3 249
Aluminium fluoride	33	31	29	30	30
Lime	57	60	52	53	61
Sodium hydroxide (caustic soda)	592	611	526	626	665
Sulfuric acid	12	20	16	20	17
Thickener <sup>1)</sup>	1.4	1.4	1.2		

1) We started reporting thickener in 2015 and figures for 2012-2011 have not been collected.  
Historical figures are updated due to Hydro Husnes becoming a fully-owned smelter during 2015.

GRI-reference: G4-EN1

Sulfuric acid use was about 40 percent lower in 2015 than in 2014. This is due to less rainfall and improved lye (of sodium hydroxide) management at Alunorte with consequent reduced need for neutralization by sulfuric acid. The increase in the use of lime, sodium hydroxide and sulfuric acid from 2013 and 2014 is due to an increase in the production of alumina.

### E4.2 Water

#### Reporting principles

Total water withdrawal includes fresh water, sea water, ground water, municipal water and rainwater.

Water consumption includes process water and cooling water. Except for some water losses through steam emissions, water is generally treated according to site specific discharge permits before discharged to local water systems.



Water discharge by destination was disclosed for the first time in 2013. In 2014, we evaluated the water data from each site to improve the accuracy and completeness of the data. Key changes involved:

- ensuring that water into a site balanced the water out of a site
- assigning a source to each water withdrawal and a target to each water discharge

Thus, data on water withdrawal and water discharge for previous years reported in this report is not directly comparable to data reported previous years. The information may still contain some uncertainties.

#### Total water withdrawal by country

Mill m <sup>3</sup>	2015	2014	2013	2012	2011
Brazil	32.77	31.90	32.39	38.72	35.08
Germany	2.08	2.08	2.01	1.54	1.42
Norway	194.61	184.38	197.77	195.21	188.14
Others	0.64	0.73	0.69	0.68	0.80
Total	230.10	219.09	232.86	236.16	225.44

Historical figures are updated due to Hydro Husnes becoming a fully-owned smelter and the divestment of Slim, Italy, during 2015.

#### Total water withdrawal by source

Mill m <sup>3</sup>	Total 2015	Brazil	Germany	Norway	Other	Total 2014
Surface water (fresh water)	61.68	16.82	-	44.80	0.06	62.95
Surface water (sea water)	148.96	-	-	148.96	-	137.48
Ground water	13.54	11.49	2.01	-	0.04	12.34
Municipal water	1.47	-	0.07	0.86	0.54	1.56
Rain water	4.47	4.46	0.01	-	-	4.76
Total water withdrawal	230.10	32.77	2.08	194.61	0.64	219.09
Waste-water from another organization (re-used) <sup>1)</sup>	21.02	11.68	-	9.33	-	21.23
Re-used water as a percent of total water withdrawal	9%	36%	-	5%	-	10%

1) "Waste-water from another organization" is used by both Paragominas and Alunorte. GRI-reference: G4-EN8 and G4-EN10

The increase in water withdrawal from 2014 to 2015 can be attributed to an increase in production in Norway. Almost 85 percent of Hydro's total water withdrawal occurs in Norway from fjords (sea water) and rivers (fresh water) that supply these fjords. These water sources are vast and are not significantly affected by Hydro's operations. Around 7 percent of Hydro's total water withdrawal comes from the Parariquara river in Brazil and is used to supply the mine in Paragominas. The maximum withdrawal from this river is subject to restrictions to protect the ecological flow downstream.

#### Withdrawal from water-stressed areas

	2015	2014	2013	2012	2011
Total water withdrawal from water-stressed areas (mill m <sup>3</sup> )	2.35	2.42	2.33	1.88	1.85

Historical figures are updated due to the divestment of Slim, Italy, during 2015.  
GRI-reference: G4-EN8 and EN9

The mapping of Hydro's sites using the WBCSD global water tool in 2015 showed that 2.35 million m<sup>3</sup> water of our overall freshwater input came from water-stressed areas, with regard to annual renewable water supply (according to the definition used by WBCSD). The increase from 2012 to 2013 was due to the restart of one of electrolysis potline at Neuss, Germany.

The vast majority of the sites included in the figure of 2.4 million m<sup>3</sup> indicated above are classified as borderline water-stressed by the WBCSD global water tool. The figure of 2.4 million m<sup>3</sup> hence represents a worst case scenario in terms of Hydro's water use in water-stressed areas (according to the WBCSD).

#### Total water discharge by destination

Mill m <sup>3</sup>	Total 2015	Brazil	Germany	Norway	Other	Total 2014
River	36.32	20.14	0.03	16.15	-	35.47
Sea	176.95	-	-	176.95	-	167.38
Sewage	0.74	-	0.09	0.29	0.36	0.74
Cooling water to river	1.43	-	1.43	-	-	1.42
Rain water	0.23	-	0.23	-	-	0.24
Other (not specified)	14.41	12.63	0.30	1.20	0.28	13.76
Total water discharge	230.10	32.77	2.08	194.61	0.64	219.09

In 2014 a small portion of the re-used water was reported as "other" in stead of "re-used" resulting in an insignificantly higher water discharge amount. Historical figures are updated due to Hydro Husnes becoming a fully-owned smelter and the divestment of Slim, Italy, during 2015.

GRI-reference: G4-EN22

### E4.3 Recycling

#### Reporting principles

Hydro uses a definition for recycling agreed on by the European Aluminium Association. The definition was implemented in Hydro in 2013. The definition divides recycled scrap in two: process scrap, which includes pre-consumer scrap downstream casthouses, and post-consumer scrap. The change in definition makes recycling volumes later then 2013 incomparable with previous years. Reporting of recycling data is drawn from the company's production software and ERP system.

The numbers include Hydro's share of scrap recycled by Alunorf, Germany (owned 50 percent by Hydro).

#### Recycling

1 000 metric tons	2015 <sup>1)</sup>	2014	2013 <sup>1)</sup>	2012	2011
Recycled post-consumer scrap	134	111	151		
Recycled pre-consumer scrap	990	981	1 038		
Total recycled metal	1 123	1 092	1 189		

1) Volumes from Slim (divested at year-end 2015) are included.

2) Pre- and post-consumer scrap volumes in 2013 included volumes recycled in Extruded Products up until end of August (74,000 mt pre-consumer and 25,000 post-consumer scrap). From 1 September 2014 Extruded Products became part of the new SAPA joint-venture with Orkla, which explains some of the reduction.

### Note E5 - Waste

#### E5.1 Tailings and bauxite residue

Tailings from bauxite extraction consist of mineral rejects from the extraction process mixed with water. The tailings at Paragominas are stored in dedicated tailing ponds, where the particles settle.

Bauxite residue, also known as red mud, is a by-product of the alumina refining process. The residue is washed with water to lower the alkalinity, and recovered caustic soda is recycled for use in the digestion process. Residue is dry-stacked as a clay-like substance with a low moisture content (for more information see page 39).

#### Tailings and bauxite residue

1 000 metric tons	2015	2014	2013	2012	2011
Tailings	4 128	4 333	3 313	4 215	4 407
Bauxite residue (red mud)	5 973	6 069	5 415	6 071	6 389
Total tailings and bauxite residue	10 101	10 402	8 728	10 286	10 796

GRI-reference: G4-MM3

The small decrease in tailings and bauxite residue in 2015 was mainly due to a small decrease in bauxite and alumina production.

Tailings are stored in four dams. There are additionally two other ponds, one for spring protection and another for effluents clarification. The tailings generated in the bauxite's beneficiation process have no hazardous properties, thus it is not necessary to line the tailing dams.

As control measures, the water of the Rio Parariquara (water receiving body from the tailing ponds) are monitored with piezometers upstream and downstream of the dam. The risks related to all regular activities are evaluated by a survey of environmental aspects and impacts. These evaluations are related to real and potential impacts.

## E5.2 Hazardous waste and other waste

### Reporting principles

Waste is reported as specified according to the EU waste directive/waste catalog. During 2015, Primary Metal have reviewed their waste reporting practices including classification of bi-products, resulting in even better standardization across business sites. Due to changes in reporting practice, the 2015 figures are not directly comparable with previous years.

Spent potlining (SPL) from the electrolysis cells used in primary aluminium production is defined as hazardous waste.

#### Hazardous and other waste

1 000 metric tons	2015 <sup>2)</sup>	2014	2013	2012	2011
Spent potlining	41.9	43.5	31.3	26.0	26.2
Other hazardous waste	153.7	120.8	116.5	104.7	109.0
Total hazardous waste <sup>1)</sup>	195.5	164.2	147.88	130.6	135.2
Other waste	218.0	192.2	169.8	166.0	268.0
Total waste	413.5	356.5	317.6	296.6	403.2

1) Total hazardous waste according to Basel convention. GRI-reference: G4-EN25.

2) Due to changes in reporting practice, the 2015 figures are not directly comparable with previous years. Historical figures have been included in this table, but omitted in the Environmental statements

The increase in Other hazardous waste in 2015 is due to changes in reporting principles, please see above. The production of spent potlining varies with the relining of smelter cells which is normally done every 4-7 years for established smelters. New plants will get a relining peak at the same interval after start-up.

## E5.3 Waste treatment

### Reporting principles

Waste sorted by treatment includes external and internal treatment. Tailings and bauxite residue are deposited in appropriately engineered and managed on-site landfills and are not included in the table below. Combustion without energy recovery is included under Other treatment.

#### Treatment of hazardous waste

	2015	2014	2013	2012	2011
Energy recovery	16%	9%	7%	3%	2%
Landfill	46%	49%	52%	53%	54%
Other treatment	10%	16%	17%	17%	11%
Reuse/recycling	28%	26%	25%	27%	34%

#### Treatment of other waste

	2015	2014	2013	2012	2011
Energy recovery	5%	4%	2%	2%	4%
Landfill	32%	53%	53%	57%	39%
Other treatment	11%	11%	11%	13%	28%
Reuse/recycling	52%	33%	35%	28%	30%

The significant increase in reuse/recycling of waste from 2014 to 2015 is mainly due to the change in the reporting method in Primary Metal, please see Reporting principles in E5.2.

## Note E6 - Biodiversity

### E6.1 Overburden removed

#### Reporting principles

Total volume (in million metric tons) of overburden removed in Hydro's Paragominas mine in Brazil. This is the only mine within Hydro's consolidated operations.

#### Overburden removed

Million metric tons	2015	2014	2013	2012	2011
Overburden removed	70	78	71	103	91

GRI-reference: G4-MM3

Hydro uses strip mining in Paragominas, a technique that avoids the formation of an overburden stockpile. Thus, all overburden moved for mining purpose is used to reconstruct the topography of the strip previously mined, prior to rehabilitation of the mined areas. Part of the overburden (laterite) is also used for paving roads and for raising the heights of existing tailing dams.

The sterile soil is untreated and has no dangerous properties. Leaching potential to overburden removal is negligible. There is a water resource management program in place to mitigate silting from the plateau areas.

### E6.2 Land use and rehabilitation

#### Reporting principles

Areas are measured using the ArcGIS Platform. The rehabilitation data is reported to DNPM (the Brazilian Federal Mining Agency) and SEMA (the Brazilian Environment Agency), as part of the suppression (deforestation) permit renewal process.

All areas stated in the table below give a snapshot of Paragominas' land use at an exact point in time. If a given area of land is to be developed, it will go through a number of steps. The first step is suppression, after which the area of land is classified either as *infrastructure* (if the area is to support the mining process) or as *area cleared for future mining* (if the area is to be mined that same year or in the future). The mined, but not yet rehabilitated area is then characterized as *rehabilitation gap* and will be rehabilitated as soon as possible and subsequently classified as *rehabilitated area*.

The figures thus represent the net change in each category.

#### Land use and rehabilitation - Paragominas

Hectares per given point in time	2015	2014	2013	2012	2011
Permanent infrastructure	2 447	2 447	2 447	2 447	2 447
Temporary infrastructure	1 397	1 034	830	652	467
Rehabilitated area	1 509	1 231	707	776	332
Area cleared for future mining	424	458	712	631	402
Rehabilitation gap	299	564	933	758	1006
Total area affected	6 076	5 734	5 629	5 264	4 654

GRI-reference: G4-MM1

We employ three different rehabilitation methods at Paragominas; traditional plantation, nucleation and natural regeneration. Nucleation is a new method for rehabilitation used since January 2013. After setbacks in 2013, it is now showing promising results. The Paragominas site in the Brazilian state of Pará measures 18,763 hectares. As of the end of 2015, a total of 6,076 hectares have been affected by Hydro's operations. During 2015, Hydro mined 359 hectares (around 30 of these hectares were

deforested in 2015, whilst the other 329 hectares were part of the excess deforestation in prior years) and rehabilitated 278 hectares. Hydro's rehabilitation efforts are hence progressing well with a decrease in the rehabilitation gap by 265 hectares in one year.

### E6.3 Endangered species

#### Reporting principles

The figures reported below are not comparable to those reported in 2014 and 2013. In 2014 Hydro changed to a more robust reference database (federal database updated by ICMBio researchers) to classify the species. In 2015 the list was revised in accordance with the Synthesis report published by the Brazil-Norway Biodiversity Research Consortium (BRC). Furthermore, changes in conservation status were performed by the owners of the reference databases. As a result, the species list was revised and updated and species added, reduced and/or moved from one status to another. Reported species are cumulative and represent all species observed within the premises of Hydro's mining activities in Paragominas, Brazil, since monitoring and registration started in 2003. Some species included in the overview are covered by more than one database and the numbers can therefore not be summed across the columns. In total 57 different species, including 46 fauna and 11 flora, are covered by the overview.

#### Endangered species registered within the influence area of Hydro's mining activities (Paragominas)

Conservation status	MMA <sup>1)</sup>		SEMA <sup>2)</sup>		IUCN <sup>3)</sup>	
	Fauna	Flora	Fauna	Flora	Fauna	Flora
Critically endangered	3	0	2	0	2	0
Endangered	3	0	6	0	3	0
Vulnerable	22	0	7	6	16	4
Threatened	0	0	0	0	0	0
Near threatened	0	0	0	0	13	0
Data deficient	0	2	0	0	1	1
Total according to each red list classification	28	2	15	6	35	5

1) Federal Brazilian Red list

2) State Brazilian Red list

3) International Union for Conservation of Nature Red list

GRI-reference: G4-EN14

### E7 Production volumes

#### Reporting principles

The figures reported below are total production volumes (100 percent) from consolidated activities only (Hydro's ownership exceeding 50 percent). Alumina production includes Alunorte while primary aluminium production includes 100 percent of production at all Hydro's primary aluminium plants in Norway, Neuss in Germany, Slovalco in Slovakia and Albras in Brazil. These volumes are not directly comparable to the volumes reported in the financial statements. Alumina and primary aluminium production are by far the most energy intensive processes in Hydro.

#### Production volumes

1 000 metric tons	2015	2014	2013	2012	2011
Alumina production	5 962	5 933	5 377	5 792	5 827 <sup>1)</sup>
Primary aluminium production	1 705	1 615	1 583	1 557	1 520 <sup>2)</sup>

1) Alumina production from Alunorte in 2011 is proforma (related to the whole year of 2011), not only production after the acquisition date (March).

2) Data for Neuss is not included in 2011.

Hydro's production based on ownership equity can be found under Operational review in the section Financial and operating performance in this report.



## Social statements

For geographical distribution of total assets, investments and revenues, see note 6 in the consolidated financial statements.

### Social performance

	Notes	% change 2014-15	2015	2014	2013	2012	2011	GRI G4 reference
<b>Employee demographics</b>								
Number of permanent employees <sup>1)</sup>	S1.1	3%	<b>13 263</b>	12 922	12 564	21 566	22 813	9a
Share of women	S1.1	0.1 <sup>2)</sup>	<b>13.1%</b>	13.0 %	12.6%			
Number of temporary employees	S1.2	18%	<b>1 144</b>	966	765			10
Full-time equivalents for contractor employees	S1	17%	<b>7 700</b>	6 600	7 000	8 200	8 900	10
New employees	S1.3	(9)%	<b>884</b>	976	382			LA1
Turnover	S1.3	(1.7) <sup>2)</sup>	<b>4.7%</b>	6.4%	5.6%	10.0%	7.7%	LA1
Women in top 50 management	S3.1	8 <sup>2)</sup>	<b>30%</b>	22%	25%	17%	19%	LA12
Non-Norwegians in top 50 management	S3.1	1 <sup>2)</sup>	<b>36%</b>	35%	35%	28%	27%	LA12
<b>Hydro Monitor Employee Engagement Index</b>	S4	N/A	<b>N/A</b>	73%	N/A	65%	N/A	
<b>Payroll (NOK million)</b>	S1.1	(3)%	<b>6 323</b>	6 498	5 681	8 971	8 907	
<b>Health and safety</b>								
Sick leave	S5.1	0.2 <sup>1)</sup>	<b>4.0%</b>	3.8%	3.7%	3.2%	3.1%	LA6
Total recordable injuries (TRI) rate <sup>3)</sup>	S5.1	(12)%	<b>3.0</b>	3.4				LA6
Employees		(6)%	<b>3.0</b>	3.2	3.4	3.4	3.8	
Contractors <sup>4)</sup>		(18)%	<b>3.1</b>	3.8	4.9	4.4		
Number of fatal accidents	S5.1		<b>1<sup>6)</sup></b>	0	1	0	3	LA6
Employees			<b>1</b>	0	0	0	1	
Contractors			<b>0</b>	0	1	0	2	
High risk incidents	S5.2	(15)%	<b>83</b>	96	132	121	132	LA6
Occupational illness rate	S5.3	(33)%	<b>1.0</b>	1.5	1.7	1.9	0.6	LA7
<b>Current income tax</b>	S7	(12)%	<b>1 414</b>	1 605	1 425	1 272	1 892	
<b>Research and Development (NOK million)</b>								
R&D funds received	S8	(23)%	<b>51</b>	66	55	47	42	EC4
R&D expenses	S8	19%	<b>330</b>	277	216	247	508	
<b>Social investments</b>								
Community investments, charitable donations and sponsorships (NOK million)	S9	25%	<b>30</b>	24	27	39	61	
<b>Compliance</b>								
Cases reported through AlertLine <sup>5)</sup>	S10.1	38%	<b>83</b>	60	60	45		HR12
Confirmed instances of corruption	S10.1		<b>0</b>	0	0	0	0	SO5
Confirmed human rights breaches	S10.1		<b>0</b>	0	0	0	0	HR3-6
Relocation of people	S10.3		<b>0</b>	0	0	0	0	MM9
Training in business ethics	S10.4	(37)%	<b>2 244</b>	3 570	1 050	3 200	1 800	HR2/SO4
Training in competition law	S10.4		<b>1 093</b>	44	150	300		SO4
Supplier audits	S10.5	115%	<b>129</b>	61				
Potential and existing counter parties screened	S10.5		<b>1 800</b>	2 800	300			HR10/SO9

1) Includes employees in Slim, which was divested 31 December 2015

2) Values are given as percentage points compared to previous year

3) Per million working hours. The numbers include discontinued operations.

4) We do not have reliable data before 2011

5) We do not have reliable data before 2012

6) A Hydro employee became victim of the Germanwings crash on business travel

## Notes to the social statements

### General reporting standards and principles

Data relating to health, safety and work environment has been prepared by individual reporting units in accordance with corporate procedures. This applies to all Hydro's operations, including consolidated subsidiaries, if not otherwise stated. Such data is based on the corporate reporting system for incident reporting, Synergi. All organizational units report incidents to the Synergi system on a regular basis in accordance with a corporate procedure on HSE incidents and sick leave data. Other employee data, including sick leave in Norway, is primarily based on the company's human resources SAP system.

Where applicable, we have indicated to which GRI G4 disclosure the different notes or parts of the notes are applicable. Please also see the Social statements on the previous page for more such information.

### Note S1 - Employees

#### *Reporting policies*

Data for Hydro's permanent and temporary employees is based on Hydro's employee data system in SAP. Data presented represent status at year end, 31 December and include permanent employees only unless otherwise stated. Payroll is based on Hydro's consolidated financial statements.

Temporary employees include among others apprentices, but exclude contractor employees. Legal requirements and customs may vary from country to country, making direct comparison difficult.

Number of full-time equivalents of contractor employees as included in the Social statements, is estimated based on the total hours worked by contractor employees (reported in Hydro's incident reporting system Synergi as basis for calculation of injury frequency) divided by 1850 working hours per year. Contractor employees represented in total about 7 700 full-time equivalents during 2015. The majority relates to Hydro's Bauxite & Alumina activities.

## S1.1 Total employees by region, gender and age as well as payroll

### Total employees by region and gender, and payroll

	Number of employees <sup>1)</sup>					Payroll (NOK million) <sup>2)</sup>				
	2015	2014	2013	2012	2011	2015	2014	2013	2012	2011
<b>Norway</b>	<b>3 653</b>	3 613	3 355	3 859	4 045	<b>2 920</b>	2 579	2 508	2 596	2 692
Women	<b>19%</b>	18%	18%							
Men	<b>81%</b>	82%	82%							
<b>Germany</b>	<b>3 450</b>	3 378	3 462	4 304	4 352	<b>2 040</b>	1 834	1 682	1 855	1 908
Women	<b>10%</b>	10%	9%							
Men	<b>90%</b>	90%	91%							
<b>Italy</b>	<b>397</b>	380	402	1 084	1 129	<b>137</b>	135	129	352	393
Women	<b>5%</b>	5%	5%							
Men	<b>95%</b>	95%	95%							
<b>Slovakia</b>	<b>501</b>	492	481	487	480	<b>87</b>	82	77	71	78
Women	<b>7%</b>	8%	8%							
Men	<b>93%</b>	92%	92%							
<b>Other Europe</b>	<b>235</b>	234	231	4 463	4 951	<b>117</b>	103	113	1 685	1 830
Women	<b>18%</b>	17%	18%							
Men	<b>82%</b>	83%	82%							
<b>Total Europe</b>	<b>8 236</b>	8 097	7 931	14 197	14 957	<b>5 301</b>	4 733	4 509	6 559	6 901
<b>Brazil</b>	<b>4 830</b>	4 631	4 443	4 922	4 722	<b>905</b>	1 133	1 076	1 182	999
Women	<b>12%</b>	12%	11%							
Men	<b>88%</b>	88%	89%							
<b>Rest of the world</b>	<b>197</b>	194	190	2 447	3 134	<b>117</b>	90	96	1 230	1 007
Women	<b>23%</b>	26%	24%							
Men	<b>77%</b>	74%	76%							
<b>Total</b>	<b>13 263</b>	12 922	12 564	21 566	22 813	<b>6 323</b>	5 956	5 681	8 971	8 907
Women	<b>13%</b>	13%	13%							
Men	<b>87%</b>	87%	87%							

1) Number of employees is based on where the employee is actually stationed, and will in some cases differ from the Country-by-country report, which shows in which legal company she or he is employed.

2) Alunorf, Skafsa Kraftverk and Aluminium & Chemie Rotterdam are not included in the 2015, 2014 and 2013 figures above, but are included in the financial reporting. Please see note 3 to the consolidated financial statements for more information.

GRI-reference: G4-10

There has been one major change to the organizational composition during 2015, the divestment of our rolling mill, Slim, in Italy. The divestment was concluded 31st of December and the employees are included in the numbers above. The increase in employees in 2014 is mainly due to the acquisition of Rio Tinto Alcan's share of Sørå in Norway (now Hydro Husnes) and transfer of contractor employees to permanent employees in Bauxite & Alumina. The main reason for the decrease in the number of employees in 2013 was the merger between Hydro's former extrusion business and Sapa in 2012.

### Age distribution total employees (permanent employees)

Age distribution	2015	2014 <sup>1)</sup>	2013	2012	2011
Under 30	<b>13%</b>	13%	13%		
30-50	<b>55%</b>	56%	58%		
50 +	<b>32%</b>	31%	29%		

1) The 2014 data has been re-calculated to include age data for our employees at Hydro Husnes (acquired 2014).

GRI-reference: G4-EU15

## S1.2 Employees by employment type and part-time employees

### Total employees by employment type

	2015	2014	2013	2012	2011
Temporary employees					
Permanent employees <sup>1)</sup>	13 263	12 922	12 564		
<b>Temporary employees</b>	<b>1 144</b>	<b>966</b>	<b>765</b>		
Women	27%	23%	21%		
Men	73%	77%	79%		

1) For percentage split of permanent employees, please see Note S1.1 to the social statements.

GRI-reference: G4-10

*Part-time employees* include all persons being employed in positions that are not full-time (less than 100 percent).

### Part-time employees

	2015	2014	2013	2012	2011
Part-time employees <sup>1)</sup>					
<b>Norway</b>	<b>2.4%</b>	<b>3.2%</b>	<b>2%</b>		
Women	7.7%	10.4%	6%	10%	11%
Men	1.2%	1.6%	1%	2%	2%
<b>Total employees</b>	<b>1.4%</b>	<b>1.6%</b>	<b>1%</b>		
Women	10.2%	8.6%	6%		
Men	0.4%	0.5%	-		

1) Data for 2015 includes 92 percent of Hydro's permanent employees globally. This is an improvement of two percentage-points since 2014. We are working to further improve the reporting.

GRI-reference: G4-10

Hydro employees normally work full-time. The opportunity to work part-time is considered a benefit for which a special application must be made.

## S1.3 New employees and turnover

### New employee hires by age group, gender and country

Region and gender	Age							
	2015				2014			
	Total <sup>1)</sup>	Under 30	30-49	50+	Total	Under 30	30-49	50+
<b>Brazil</b>	<b>595</b>	<b>250</b>	<b>316</b>	<b>28</b>	<b>736</b>	<b>292</b>	<b>407</b>	<b>37</b>
Women	13%	14%	13%	11%	13%	13%	14%	5%
Men	87%	86%	87%	89%	87%	87%	86%	95%
<b>Germany</b>	<b>85</b>	<b>27</b>	<b>53</b>	<b>7</b>	<b>39</b>	<b>10</b>	<b>26</b>	<b>3</b>
Women	9%	15%	6%	14%	10%	-	15%	-
Men	91%	85%	94%	86%	90%	100%	85%	100%
<b>Norway</b>	<b>104</b>	<b>31</b>	<b>65</b>	<b>8</b>	<b>125</b>	<b>44</b>	<b>64</b>	<b>17</b>
Women	27%	26%	29%	13%	23%	32%	22%	6%
Men	73%	74%	71%	88%	77%	68%	78%	94%
<b>Other</b>	<b>100</b>	<b>43</b>	<b>45</b>	<b>6</b>	<b>76</b>	<b>33</b>	<b>36</b>	<b>7</b>
Women	7%	2%	9%	17%	11%	6%	14%	14%
Men	93%	98%	91%	83%	89%	94%	86%	86%
<b>Grand total</b>	<b>884</b>	<b>351</b>	<b>479</b>	<b>49</b>	<b>976</b>	<b>379</b>	<b>533</b>	<b>64</b>
Women	14%	14%	14%	12%	14%	14%	15%	6%
Men	86%	86%	86%	88%	86%	86%	85%	94%

1) Seven new employees, six of them included under Other, are not registered with age and/or gender, but are included in the totals.

GRI-references: G4-LA1, G4-EU15

The employee turnover rate includes resignations, retirements and manning reductions, but excludes closures and divestments.

## Employee turnover by age group, gender and country

Region and gender	Age								2013
	2015				2014				
	Total	Under 30	30-49	50+	Total	Under 30	30-49	50+	
<b>Brazil</b> <sup>1)</sup>	7.4%	7.0%	7.1%	9.0%	10.9%	8.6%	10.6%	15.8%	N/A
Women	8.7%	11.2%	6.8%	11.1%	11.6%	10.3%	11.7%	20.0%	N/A
Men	7.2%	6.1%	7.2%	8.9%	10.8%	8.2%	10.5%	15.6%	N/A
<b>Germany</b>	2.4%	0.5%	0.4%	5.3%	3.0%	0.9%	1.0%	6.3%	3.3%
Women	1.6%	-	0.6%	3.6%	2.5%	-	3.1%	2.0%	2.1%
Men	2.5%	0.5%	0.4%	5.5%	3.0%	1.0%	0.7%	6.6%	3.4%
<b>Norway</b>	3.4%	1.6%	1.5%	5.9%	4.3%	4.1%	2.1%	6.7%	7.5%
Women	2.7%	1.6%	2.2%	3.8%	2.5%	2.0%	1.5%	3.9%	8.0%
Men	3.6%	1.6%	1.3%	6.3%	4.7%	4.8%	2.3%	7.3%	7.4%
<b>Other</b>	5.1%	7.2%	3.4%	8.3%	5.8%	6.8%	3.1%	11.1%	6.6%
Women	5.2%	-	6.6%	4.5%	4.9%	-	1.1%	12.8%	10.2%
Men	5.1%	8.6%	3.0%	8.8%	5.9%	7.5%	3.3%	10.8%	6.1%
<b>Grand total</b> <sup>2)</sup>	4.7%	5.3%	3.7%	6.5%	6.4%	6.9%	5.1%	8.5%	5.6%
Women	4.7%	7.5%	3.9%	4.5%	5.7%	7.6%	5.1%	5.6%	
Men	4.7%	4.8%	3.9%	6.7%	6.5%	6.7%	5.1%	8.9%	

1) We do not have reliable employee turnover data for Brazil for 2013

2) Grand totals for 2015 and 2014 and not comparable with 2013 since Brazil is not included in the 2013-data.  
GRI-reference: G4-LA1

The employee turnover rate in 2015 was 4.7 percent for the global organization, down from 6.4 percent in 2014. Employee turnover has decreased in 2015 compared to 2014 in all our main locations. We do not have reliable turnover data for Brazil before 2014. The general employee turnover rate in Brazil is higher than in most other countries where Hydro has significant operations.

## Note S2 - Remuneration

### Reporting policies

Data on gender related salary differences is based on local salary systems. Data on "highest paid employee" is based on note 9 in Hydro's consolidated financial statements for Norway and Brazil, while data for Germany has been collected from the German salary system.

### S2.1 Gender related salary differences

There are no significant gender-pay differentials for employees earning collectively negotiated wages in Norway and Germany. Salary conditions in the Norwegian organization are reviewed on a regular basis. If significant differences are found at any level, we have a tradition for closing the gaps within short time. We have also checked if gender-related salary differences exist in our operations in Brazil. The review performed in 2015 indicates that women and men have equal salary at manager level and above. At the operator and technician level, women's average salary represented 124 percent of men's salary. The reported differences are not directly comparable as age and detailed position category are not included in the evaluation.



## S2.2 Highest paid employee

Highest paid employee includes fixed salary, pension, health insurance (Brazil only) and other benefits, but excludes bonuses.

### Highest paid employee per country

NOK thousand	Highest paid employee <sup>1)</sup>			
	% change 2014-15	2015	2014	2013
Brazil	19%	4 629	3 881	2 179
Germany <sup>2)</sup>	(76)%	3 929	16 681	10 032
Norway	26%	14 300	11 339	10 072

1) Any severance pay is excluded from the "highest paid employee"- calculations to ensure consistency through reporting.

2) Please note that EVP and Head of Rolled Products, Kjetil Ebbesberg, is an expatriate working in Germany, but employed in Norway. He is not included in the table above. Further information can be found in note 9 to the consolidated financial statements..

GRI-reference: G4-54a and G4-55a

The increase of the highest paid employee in Brazil is due to Alberto Fabrini, a Brazilian citizen employed in Brazil, joining the Corporate Management Board in 2014. The significant increase in 2014 for the highest paid employee in Germany is mostly due to increased pension costs in connection with the severance of Oliver Bell. Please see note 9 to the Consolidated financial statements for more information. Some of the increase is further explained by changes in the exchange rate.

## S2.3 Standard entry level wage

Entry level wages are controlled by the labor agreement in Brazil. The ratio compared to national minimum wage was for both women and men 1.09 in Barcarena and 1.82 in Paragominas. In Germany and Norway the entry level wages are defined by tariff agreements. In the Norwegian operations, minimum entry wage is about 13.5 percent higher than the tariff minimum. In the German operations the entry wage is 80 percent higher than the countrywide tariff minimum wage. There are no significant gender related differences on entry wage in Norway and Germany (GRI reference G4-EC5).

## Note S3 - Diversity in management

### S3.1 Women and non-Norwegians in management

#### Reporting policies

Data for the board of directors and Corporate Management Board (CMB) for Norsk Hydro ASA are counted per year end. Diversity data for Top 50 managers include level 1 and 2 managers, that is the members of CMB and the the members of the management teams at the level below CMB. It is counted at year end and included in total 67 persons in 2015. For Top 200 managers, the data is based on the list of persons invited to the Hydro Summit in December 2015, in total 209 persons. The Hydro Summit is an annual meeting for top management in Hydro. The participants are nominated by the line organization.

#### Diversity in management

	Women					Non-Norwegians				
	2015	2014	2013	2012	2011	2015	2014	2013	2012	2011
Board of directors (10 members) <sup>1)</sup>	30%	30%	27%	27%	30%	20%	20%	27%	27%	20%
Corporate assembly	39%	35%	35%	35%	33%	-	-	-	-	-
Corporate Management Board	44%	29%	29%	25%	20%	11%	29%	14%	25%	20%
Top 50 managers	30%	22%	25%	17%	19%	36%	35%	35%	28%	27%
Top 200 managers	24%	22%	23%	19%	18%	48%	43%	44%	53%	50%

1) With three women among the seven shareholder elected members in the board of directors, Hydro complies with Norwegian legal requirements. All three employee representatives in the board of directors are men.

GRI-reference: G4-LA12

## S3.2 Local representation in senior management

### Reporting policies

Senior management is defined as the management group at each site (site managers and those reporting to them) in addition to business area management team. *Local* is defined at country level for Norway and Germany, and at state level for Brazil. Of the ten members in Brazil of the Bauxite & Alumina management team, half are Brazilian citizens.

### Local representation in senior management

Share of senior management hired from local community	2015	2014	2013
<b>Norway</b>	<b>100%</b>	100%	100%
<b>Germany</b>			
Grevenbroich plant	<b>100%</b>	100%	100%
Rolled Products management team	<b>69%</b>	80%	80%
<b>Brazil</b>			
Paragominas, Pará <sup>1)</sup>	<b>18%</b>	23%	33%
Barcarena, Pará <sup>1)</sup>	<b>26%</b>	29%	33%
Belem main office, Pará <sup>2)</sup>	<b>10%</b>	33%	N/A

1) In 2013, only combined figures were reported for Paragominas and Barcarena, equal to 33 percent.

2) Belem main office in Pará was established in 2014.

GRI-reference: G4-EC6

Hydro employs locals when necessary competence and capacity is available and normally uses expatriates only to secure employee development and the transfer of values and competence. Open positions in Hydro are normally posted at hydro.com and in local media. To secure competence transfer, it is important that there are also senior employees with experience from other units. This may even be the case at the blue-collar level, especially during start-up of new plants or equipment. Where adequate competence and capacity are available, most employees come from the local community and adjacent areas.

## Note S4 - Hydro Monitor

### Reporting policies

Hydro Monitor is carried out for all employees every second year. The survey was redesigned in 2011. Earlier results are therefore not comparable to the results in 2012 and 2014. Hydro Monitor has been run since the early 2000s. The next survey will be in 2016.

The *Employee Engagement Index (EEI)* measures the extent to which employees are motivated to contribute to organizational success, and are willing to apply discretionary effort to accomplishing tasks important to the achievement of organizational goals. The *Performance Excellence Index (PEI)* measures among other things to which degree systems and processes are in place.

### Hydro Monitor

	2015	2014	2013	2012	2011
Employee Engagement Index (EEI)	<b>N/A</b>	73%	N/A	65%	N/A
Performance Excellence Index (PEI)	<b>N/A</b>	75%	N/A	72%	N/A
Response rate	<b>N/A</b>	92%	N/A	92%	N/A

The long-term ambition is to be among the top 25 percent companies worldwide on EEI (IBM External norm) which is currently equivalent to 76 percent. The most important part of Hydro Monitor is follow-up. All units had action plans by 1 October 2014, based on their survey results.

## Note S5 - Health and safety

### Reporting policies

Standardized statistics are prepared and reported to management on a monthly basis. Data covers all organizational units within Hydro, including sales offices and administrative functions.

### S5.1 Total recordable injuries (TRI), Lost time injury (LTI) and sick leave

*Total recordable injuries (TRI)* index is calculated as the number of TRI per one million hours worked. TRI include LTI + RWC + MTC. *Lost time injury (LTI)* is a personal injury at work leading to unfitness for work and absence beyond the day of the accident. *Restricted work case (RWC)* is a personal injury at work that does not lead to absence beyond the day of the accident, because of alternative job assignment. *Medical treatment case (MTC)* is treatment, other than first aid, administered by a physician or registered professional personnel under the standing orders of a physician.

*Contractors* are persons who are under contract to execute work for Hydro, and who are under the supervision of the contractor, but at Hydro premises under Hydro supervision.

*Fatal accidents* are reported both in absolute figures and as a *fatal accident rate* measuring number of work related fatal accidents per 100 million working hours as a five-year rolling average.

*Sick leave* for Hydro globally includes all absence due to both injuries, work related and other illness, measured as number of hours lost due to sick leave as percent of number of hours worked plus number of hours lost due to sick leave.

*Sick leave, Norway* includes all absence due to illness, measured as number of days lost due to sick leave as percent of number of possible working days excluding holidays.

There are challenges in ensuring consistent reporting practice on sick leave due to legislative and cultural differences between countries.

#### Lost-time injuries, fatal accidents and sick leave

	2015	2014	2013	2012	2011
<b>Lost-time injuries (LTI) <sup>1)</sup></b>	<b>1.2</b>	1.3			
Employees	1.4	1.5	2.0	1.9	2.0
Contractors	0.9	1.1	1.0	1.8	1.0
<b>Total fatal accident rate <sup>2)</sup></b>	<b>1.7</b>	1.5	2.7	2.8	3.2
Employees	1.0	0.6	0.5	1.6	1.4
Contractors	3.1	3.7	4.0	4.8	5.9
<b>Total fatal accidents</b>	<b>1</b>	0	1	0	3
Employees	1 <sup>3)</sup>	0	0	0	1
Contractors	0	0	1	0	2
<b>Sick leave</b>	<b>4.0%</b>	3.8%	3.7%	3.2%	3.1%
<b>Sick leave, Norway</b>	<b>4.3%</b>	4.4%	5.1%	4.6%	
Women	4.9%	5.2%	6.6%	5.7%	
Men	4.2%	4.2%	4.8%	4.0%	

1) Number of lost-time injuries per million working hours. The numbers include discontinued operations.

2) Number of fatalities per 100 million working hours, five-year rolling average

3) A Hydro employee became victim of the Germanwings crash on business travel

### Total recordable injuries (TRI)

	2015	2014	2013	2012	2011
<b>Total recordable injuries (TRI) <sup>1)</sup></b>	<b>3.0</b>				
Employees	3.0	3.2	3.4	3.4	3.8
Contractors <sup>2)</sup>	3.1	3.8	4.9	4.4	
<b>TRI Norway</b>	<b>3.6</b>				
Employees	2.8	1.5	2.4		
Contractors	11.1	15.8	18.2		
<b>TRI Germany</b>	<b>6.6</b>				
Employees	5.7	7.0	4.9		
Contractors	12.7	20.8	25.1		
<b>TRI Brazil</b>	<b>1.8</b>				
Employees	1.6	2.2	2.8		
Contractors	1.9	2.4	4.1		
<b>TRI Other countries</b>	<b>4.2</b>				
Employees	3.6	3.7	3.8		
Contractors	7.3	4.3	6.4		

1) Number of recordable injuries per million working hours. The numbers include discontinued operations.

2) We do not have reliable data for contractors earlier than 2012

GRI reference: G4-LA6

The most dominant types of injuries in 2015 were damages to fingers and hands, representing more than half of all recorded injuries. Injured legs, knees, ankles and feet represent 16 percent while arms, elbows, shoulders and wrists represent 14 percent. Damages to face, eyes and head accounted for 6 percent of the recorded injuries. Hydro is not reporting these figures per gender as this can be in conflict with privacy protection considerations.

## S5.2 High risk incidents (HRI)

*High risk incidents (HRI) rate* is calculated as the number of *major accidents* and *other incidents with major potential* per million hours worked, employees and contractors combined. Major accidents are reported in Synergi on a daily basis. Other incidents are reported minimum on a monthly basis. Corporate definitions are adopted globally.

### High risk incidents (HRI)

	2015	2014	2013	2012	2011
Major accidents	4	3	6	7	20
Other incidents with major potential	79	93	126	114	112
HRI rate <sup>1)</sup>	2.07	2.68	2.76	2.14	2.21

1) Cases per million hours worked, employees and contractors combined. Cases include major accidents and incidents with major potential.

GRI-reference: G4-LA6

## S5.3 Occupational illness rate

*Occupational illness rate* measures incidents of diseases related to occupation. Since 2013, we have a common definition for reporting of occupational illnesses. It is required as a minimum that all potential cases shall be reported. The majority of the reports are from our Norwegian sites, showing that there is room for further improvement in our global reporting. Development is tracked through a corporate reporting tool. Actual occupational illnesses are defined by Hydro as illnesses that

- Have been confirmed by relevant authorities / insurance companies or doctors (depending on the national system)
- Have lead to any kind of permanent disability, disablement pension, loss of function and/or are a listed occupational disease

### Occupational illness rate

	2015	2014	2013	2012	2011
Occupational illness rate <sup>1)</sup>	1.0	1.5	1.7	1.9	0.6

1) Cases per million working hours. The numbers include discontinued operations. Our reporting processes do not yet ensure complete reporting, specifically outside Norway.

GRI-reference: G4-LA7

Most of the reported cases are related to noise. We work continuously to avoid new occupational illnesses. We use our proactive tool for risk assessment of work environment to identify employees at risk of developing occupational illnesses and implement risk reducing measures e.g. substitution of hazardous chemicals, noise reduction, personal protective equipment to avoid development of new occupational illness cases. We have e.g. reduced the frequency of occupational illness cases related to noise and pot room asthma. The tool has also helped identifying occupational illnesses related to e.g. musculoskeletal and vibration disorders.

## Note S6 - Community health

Through our activities in Brazil, we have significant activities in areas where some tropical diseases are present. Malaria is only present to a limited degree in our consolidated operations. Minority-owned MRN has a program to limit malaria both within its premises and in the neighboring communities. This includes information given to employees, their families and riverside dwellers. The number of malaria cases is recorded and there were no cases of in 2015. Dengue fever occurs from time to time at several of our operations in Brazil. In 2015, 18 cases were registered and all were recorded as non-work related. Employees are informed about the risk and treatment is given through the operations' health service. HIV/AIDS is an increasing concern in Brazil. Hydro has paid for the construction of an HIV/AIDS center in the city of Paragominas, which is operated by the authorities. The center gives information about how to prevent the disease as well as treatment to the infected. Several of our Brazilian sites participate annually in campaigns to prevent sexually transmitted diseases. In 2015, the Zika virus started spreading in Brazil. Information about preventive measures is given to local employees as well as employees traveling to Brazil.

## Note S7 - Current income tax

### Reporting policies

Current income tax is based on Hydro's financial statements.

### Current income tax

NOK million	2015	2014 <sup>1)</sup>	2013	2012	2011
Norway	563	565	798	755	1 256
Germany	230	432	203	229	134
France	11	2	11	8	32
Italy	2	4	3	(4)	15
Great Britain	7	-	2	-	-
Spain	7	13	(1)	16	-
The Netherlands	(2)	1	-	-	3
Slovakia	115	67	103	75	129
Other	33	11	14	46	61
Total EU	403	530	336	371	374
Switzerland	(15)	14	7	43	24
Other Europe	-	-	-	-	1
Total Europe	952	1 109	1 141	1 169	1 655
USA	14	-	-	-	4
Canada	6	113	148	37	89
Brazil	396	343	111	42	102
Other Americas	-	-	-	15	7
Asia	13	15	17	1	7
Australia and New Zealand	33	25	13	8	28
Total outside Europe	462	496	288	103	237
Total	1 414	1 605	1 429	1 272	1 892

1) Alunorf, Skafså Kraftverk and Aluminium & Chemie Rotterdam are not included in the 2015, 2014 and 2013 figures above, but are included in the financial reporting. Please see note 3 to the consolidated financial statements for more information.

GRI- reference G4-EC4

Hydro is subject to income taxes in the countries where we operate. The nominal tax rates typically vary between around 20 and 35 percent. The effective tax rates may differ from the nominal tax rates, among other things as a result of differences in depreciation rates and other tax deductions. The marginal tax rate for our power production in Norway is 58 percent. Qatalum, a 50/50 joint venture with Qatar Petroleum, has been granted a 10 year exemption from income taxes in Qatar,

expiring in 2020. Thereafter, Qatalum will pay income tax at the generally applicable income tax rate in Qatar. The general corporate income tax rate in Brazil is 34 percent. Hydro's bauxite, alumina and aluminium operations in Brazil have been granted income tax incentives encouraging investments in the northern provinces of Brazil, reducing the tax rate on operating income to between 20 and 34 percent. In addition, Hydro's operations in Brazil are subject to a number of significant indirect taxes adding to the total tax burden. Hydro has bauxite, alumina and aluminium sales activities in Switzerland, and aluminium sales activities in Singapore. These activities are taxed at rates of around 10 percent.

Hydro reports according to the Extractive Industries Transparency Initiative and Norwegian legal requirements in countries where we have exploration and extractive activities (currently only Brazil), see Hydro's Country by country report on page 122. We also report on financial assistance from public organization related to R&D activities, see note S8.

## Note S8 - Research & Development (R&D)

### Reporting policies

Research & Development data is gathered from our main R&D centers, located in Årdal (smelter technology) and Sunndal (alloys and casting) in Norway, Bonn in Germany (Rolled Products) and Brazil (Bauxite & alumina). Funding received are actual income through the year. R&D expenses can be found in the financial statements note 20.

### Research & Development

NOK million	2015	2014	2013	2012	2011
Research & Development expenses <sup>1)</sup>	330	277	216	247	508
Funding received <sup>2)</sup>	51	66	55	47	42

1) For 2011 and 2010 R&D expenses include Hydro's former Extruded Products business area, now part of Sapa.

2) Granted funding to be received in the years to come is not included in this figure

GRI-reference G4-EC4

Received funding in 2015 accumulated to 51 million NOK. We have been granted funding amounting to approximately 208 million NOK - to be received in the years to come - provided that certain research projects are carried out. Some funds might already have been received. In addition comes the support from Enova to the Karmøy Technology Pilot amounting to about 1.6 billion NOK, granted in 2014, see page 89.

## Note S9 - Community investments, charitable donations and sponsorships

### Reporting policies

All sites report annually on all community investments, charitable donations, sponsorship and other related initiatives. The reporting includes monetary amounts and time spent and benefits to the company as well as to the communities. Outcomes for Hydro and the society are also included in the reporting requirements.

### Community investments

NOK million	2015	2014	2013	2012	2011
Community investments	13	11	16		
Total community investments, charitable donations and sponsorships	30	24	27	39	61

## Note S10 Compliance

### Reporting policies

Compliance data has mainly been collected through Hydro's AlertLine, quarterly compliance reporting by business areas and a self-assessment filled in by each business area at year-end. Some information have been collected through other sources including Hydro's Legal office and Procurement Network.

### S10.1 Reported and confirmed cases of non-compliance

In 2015, 83 cases were reported through Hydro's AlertLine, whereas 60 cases were reported in 2014. Nine cases lead to in total 23 dismissals. All reported cases were investigated, with periodic updates to Hydro's board audit committee and corporate



management board. Most cases are related to management behavior and other matters related to human resources. Three cases of alleged discrimination and/or harassment were received, of which one resulted in formal disciplinary actions. In addition, 19 alleged cases of fraud and/or conflict of interest were reported through AlertLine. In five of these cases fraud, fraud attempt or conflict of interest could be proven. In one case, serious compliance breaches could be proven. The other investigations could not prove fraud or systematic compliance breaches. However, they also highlighted partly serious internal control weaknesses and resulted in the dismissal of an additional four persons. Mitigating actions to remediate identified internal control weaknesses were implemented or are still under implementation.

#### Dismissals due to breaches of Hydro policy reported through AlertLine

	2015	2014	2013
Dismissals due to breaches of Hydro policy reported through AlertLine	23	0	16

GRI-reference G4-HR3 and G4-SO5

### S10.2 Legal claims

There is still one legal dispute between five of the 120 relocated families and the alumina refinery project CAP in Barcarena in Brazil. These families claim to have the right to remain on the land that is occupied by CAP. However, after a preliminary analysis, the Trial Court denied their requests, which was confirmed by the Court of Appeals, through an interlocutory appeal. The case is still waiting for the final first instance decision, but there were no major developments in 2015.

Following an overflow of storm water from the bauxite residue deposits at Alunorte in 2009, there are still legal issues pending. In 2012, more than 5,300 claims related to the overflow were filed in the local court. By the end of 2015, a total of 3,437 cases have been decided by the first level civil court in Barcarena, Pará, all in Alunorte's favor, 2,504 of these decisions have been appealed to the second level civil court, located in Belem, Pará, which rendered decisions in 13 appeal cases, all in favor of Alunorte. The Court upheld the first instance decisions on the basis that there is no evidence that the plaintiffs suffer or have suffered from the alleged damages related to the red mud spill.

### S10.3 Relocation of people

Relocation of people may at times be necessary in connection with our operations. No relocations took place in 2015 from sites owned by Hydro. However, the government of Pará state in Brazil is in the process of resettling about 1,600 families who live in an area under development for industrial activities. The area is not related to Hydro's activities, but is in close proximity to two of the industrial ports of Barcarena, one which is state-owned but operated by Alunorte and used by Alunorte and Albras. Hydro monitors the process which has not yet been completed.

### S10.4 Compliance training

In 2015, the attendance to extra-financial compliance training included a total of 3,337 participants. This includes 198 employees that completed the e-learning course "Preventing Bribery and Corruption, module 1", 1,390 employees completing the second module of the e-learning course "Preventing Bribery and Corruption", 1,093 employees received training in competition law, 461 employees received classroom training in Hydro's code of conduct and 195 employees attended classroom training in Hydro's supplier code of conduct. As part of the revision of the corporate social responsibility strategy, corporate CSR organized workshops and presentations, where all business area management teams and several corporate staffs attended.

Within the 31st of January 2016 a total of 3,050 employees had completed the "Preventing Bribery and Corruption, module 2" and another 893 employees are planned to take the e-learning module.

### S10.5 Supplier screening and audits

As part of the integrity risk management process, approximately 1,800 potential or existing counter-parties were screened for human rights violations, corruption, financing terrorists, money-laundering, politically exposed persons and violations relating to sanctions and export. This mostly relates to suppliers, but also some customers, agents and other business partners were included. In addition to integrity risk procedures embedded in the procurement process, new business partners related to most Norwegian operations and also operations in Brazil, are screened before registered in our ERP system. Furthermore, some of

our business units screen all registered suppliers and customers on a daily basis against recognized international trade sanction lists. In total 129 supplier audits, of which all included HSE and more than 90 percent also included CSR related topics, were performed in 2015.

## Note S11 Spending on local suppliers

### *Reporting policies*

Data on local purchasing is gathered by Hydro Procurement Network and covers all consolidated activities. Total procurement in Brazil has been collected as part of Hydro's country by country reporting, see page 122. Selection of local partners and suppliers/contractors shall be based on competitive bidding to the extent feasible, and in compliance with competition laws and regulations as well as Hydro's requirements. A local supplier is here defined as a supplier situated in the same country as the operational site. Germany, Norway and Brazil are considered Hydro's most significant locations of operation based on economic importance. Hydro's external reporting on supplier management is still under development.

Spending on local suppliers vary from site to site depending on what is available. The local spending in our Brazilian operations was approximately 64% percent in 2015 compared to 60 percent in 2014. More than 40 percent of total spend within Rolled Products (mainly operations in Germany and Norway), was spent within Germany and Norway. Most of the raw materials used at the aluminium plants in Norway are imported, while electricity and services are supplied locally. In the Norwegian smelters a relative low share of procurements are made locally, mainly services related to maintenance etc. Our projects procurement organization carries out major projects mainly in Brazil and Norway (Karmøy Technology Pilot and refurbishment of Norwegian power plants). Local spend in Brazil is almost 100 percent while local spend in Norway account for more than 30 percent of total spending on these projects. The portion of local spending related to hydro power projects in Norway was almost 97 percent in 2015 compared to 100 percent in 2014.

## Country by country report

Hydro's country by country report has been developed to comply with legal requirements as stated in the Norwegian Accounting Act §3-3d and the Norwegian Security Trading Act §5-5a, valid from 2014, and replaces our former reporting on payments to host governments according to the Extractive Industries Transparency Initiative (EITI). Our reporting includes, and goes beyond, the EITI requirements. According to the Norwegian Accounting Act, the country by country reporting should be on a project level, and payments should be reported per public authority. Following a thorough evaluation, we have defined "project" as legal entity in the report, and "public authority" as the three levels federal; state(s); and municipality(-ies).

The reporting requirement applies to Hydro as a Norwegian listed company with exploration and extractive activities. Currently, this includes Hydro's consolidated operations in Brazil, through exploration and extractive activities in Mineracao Paragominas SA, in the state of Pará, and exploration activities of Norsk Hydro Brasil Ltda. in the state of Minas Gerais. On a voluntary basis, and in line with our EITI reporting since 2005, we also include the alumina refinery Alunorte. Alumina is refined from bauxite and is the commercial product from Hydro's Bauxite & Alumina business area.

In addition, to comply with the Norwegian country by country regulation, Hydro is required to report on certain information at corporate level related to legal entities; where they are registered; their number of employees; and interest paid to other legal entities in Hydro, within another jurisdiction.

The Country by country report is approved by the board of directors and included in their responsibility statement on page F76.

### Payments to authorities per project and authority (exploration and extractive activities, and alumina refining) in 2015

Extractive related activities (all in Brazil) <sup>1)</sup>	Taxes and fees <sup>2)</sup>	Royalties	License fees <sup>3)</sup>	Infrastructure, contractual <sup>4)</sup>	Infrastructure, voluntary <sup>4)</sup>	Investments	Revenues <sup>5)</sup>	Production volume	Procurement in Brazil <sup>5) 6)</sup>
	kNOK	kNOK	kNOK	kNOK	kNOK	kNOK	kNOK	1000 mt	kNOK
<b>Mineracao Paragominas SA, total</b>	<b>222 476</b>	<b>79 686</b>	<b>1 727</b>	<b>3 434</b>	<b>13</b>	<b>345 038</b>	<b>2 815 648</b>	<b>10 060</b>	<b>1 888 826</b>
Federal	169 824	9 562	1 727						
Pará State	52 651	18 328	-						
Paragominas municipality	-	51 796	-						
<b>Norsk Hydro Brasil Ltda, total</b>	<b>-</b>	<b>-</b>	<b>2 269</b>	<b>-</b>	<b>648</b>	<b>6 426</b>	<b>125 690</b>	<b>-</b>	<b>207 099</b>
Federal	-	-	2 269						
Rio de Janeiro State	-	-	-						
São Paulo Municipality	-	-	-						
<b>Alunorte - Alumina do Norte do Brasil SA, total</b>	<b>116 505</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2 672</b>	<b>1 665 486</b>	<b>14 686 687</b>	<b>5 962</b>	<b>10 108 919</b>
Federal	116 505	-	-						
Pará State	-	-	-						
Barcarena Municipality	-	-	-						
<b>Total</b>	<b>338 980</b>	<b>79 686</b>	<b>3 996</b>	<b>3 434</b>	<b>3 333</b>	<b>2 016 950</b>	<b>17 628 024</b>	<b>16 022</b>	<b>12 204 844</b>

1) In 2015, Hydro's extractive activities did not have the following types of payments to host authorities:

- production entitlements
- dividends
- signature, findings and production bonuses
- stocks, shares or other ownership rights

2) Taxes and fees (income, profit and production) except taxes and fees on consumption such as VAT, income tax for people or sales tax. Please note that sales taxes were unintentionally included in the country by country report in Hydro's Annual Report 2014. The 2015 tax payments are therefore not directly comparable to the figures reported for 2014.

3) License, lease or access fees or other payments for licenses or commissions

4) Payments on improved infrastructure, either contractual based on exploration or operational licenses, or voluntary is based on Hydro's reporting on social investments, please see note S9 to the Social statements in Hydro's Annual Report 2015.

5) Including power procurement and sales

6) Procurement of goods and services from countries where Hydro has extractive operations, currently Brazil only. Procurement at Alunorte includes purchase of bauxite from Paragominas.

The Norwegian country by country reporting requirement as stated in the Norwegian Accounting Act and the Country by Country Regulation also requires reporting on certain information at corporate level related to legal entities, where they are registered, their number of employees and interest paid to other legal entities in Hydro, within another jurisdiction.

Further country by country information for all consolidated legal entities

Jurisdiction	Legal entity	Ownership 31.12	Number of permanent employees 3)	Number of temporary employees 3)	Interest paid to Hydro legal entities in another jurisdiction, in kNOK
Australia	Hydro Aluminium Australia Pty. Limited	100 %	1	-	15
	Hydro Aluminium Kurri Kurri Pty. Limited	100 %	10	-	-
<b>Total Australia</b>			<b>11</b>	<b>-</b>	<b>15</b>
Belgium	Norsk Hydro EU Sprl	100 %	1	1	-
	Hydro Aluminium Belgium BVBA	100 %	-	-	-
<b>Total Belgium</b>			<b>1</b>	<b>1</b>	<b>-</b>
Brazil	Norsk Hydro Brasil Ltda.	100 %	233	30	-
	Mineração Paragominas SA	86.4 %	1 441	74	-
	Ananke Alumina SA	100 %	-	-	-
	ALUNORTE - Alumina do Norte do Brasil S. A. 1)	92.1 %	1 956	80	25 212
	Atlas Alumínio SA	100 %	-	-	-
	ALBRAS - Alumínio Brasileiro SA	51 %	1 187	124	-
	Calypso Alumina SA	100 %	-	-	-
	CAP - Companhia de Alumina do Pará SA	81 %	-	-	-
	Norsk Hydro Energia Ltda.	100 %	-	-	-
	Oncelote Participações Ltda.	Liquidated	-	-	-
<b>Total Brazil</b>			<b>4 817</b>	<b>308</b>	<b>25 212</b>
Canada	Hydro Aluminium Canada Inc.	100 %	-	-	-
	Hydro Aluminium Canada & Co. Ltd.	100 %	3	-	16
<b>Total Canada</b>			<b>3</b>	<b>-</b>	<b>16</b>
China	Hydro Aluminium Beijing Ltd.	100 %	9	-	-
<b>Total China</b>			<b>9</b>	<b>-</b>	<b>-</b>
Denmark	Hydro Aluminium Rolled Products Denmark A/S	100 %	2	-	-
<b>Total Denmark</b>			<b>2</b>	<b>-</b>	<b>-</b>
France	Extrusion Services S.a.r.l	100 %	42	-	233
	Hydro Aluminium Sales and Trading s.n.c.	100 %	8	1	-
	Hydro Aluminium France S.A.S.	100 %	3	-	-
<b>Total France</b>			<b>53</b>	<b>1</b>	<b>233</b>
Germany	Norsk Hydro Deutschland GmbH & Co. KG	100 %	-	-	-
	Norsk Hydro Deutschland Verwaltungs GmbH	100 %	-	-	-
	Hydro Aluminium Deutschland GmbH	100 %	63	3	-
	Hydro Aluminium Rolled Products GmbH	100 %	3 219	256	-
	Hydro Aluminium Dormagen GmbH	100 %	24	9	-
	Hydro Aluminium Gießerei Rackwitz GmbH	100 %	54	7	-
	Hydro Energy GmbH	100 %	-	-	-
	Hydro Aluminium High Purity GmbH	100 %	59	3	-
	VAW-Innwerk Unterstützungs-Gesellschaft GmbH	77.5 %	-	-	-
	Hydro Aluminium Recycling Deutschland GmbH	100 %	29	-	-
	Standort-Entwicklungs-Gesellschaft Nabwerk mbH	100 %	-	-	-
<b>Total Germany</b>			<b>3 448</b>	<b>278</b>	<b>-</b>
Italy	Hydro Aluminium Slim S.p.A. 2)	0 %	-	-	4 357
	Hydro Aluminium Metal Products S.r.l.	100 %	3	-	-
<b>Total Italy</b>			<b>3</b>	<b>-</b>	<b>4 357</b>
Japan	Hydro Aluminium Japan KK	100 %	9	-	2
<b>Total Japan</b>			<b>9</b>	<b>-</b>	<b>2</b>
Luxembourg	Hydro Aluminium Clervaux S.A.	100 %	55	2	1 135
<b>Total Luxembourg</b>			<b>55</b>	<b>2</b>	<b>1 135</b>
Netherlands	Norsk Hydro Holland B.V.	100 %	4	-	-
	Hydro Alunorte B.V.	100 %	-	-	-
	Hydro Albras B.V.	100 %	-	-	-
	Hydro CAP B.V.	100 %	-	-	1
	Hydro Aluminium Pará B.V.	100 %	-	-	-
	Hydro Paragominas B.V.	100 %	-	-	-
	Hydro Aluminium Qatalum Holding B.V.	100 %	-	-	-

Jurisdiction	Legal entity	Ownership 31.12	Number of permanent employees <sup>3)</sup>	Number of temporary employees <sup>3)</sup>	Interest paid to Hydro legal entities in another jurisdiction, in kNOK
	Hydro Aluminium Investment B.V.	100 %	-	-	-
	Hydro Aluminium Netherlands B.V.	100 %	-	-	-
	Hydro Aluminium Brasil Investment B.V.	100 %	-	-	-
	Hydro Aluminium Rolled Products Benelux B.V.	100 %	3	-	-
<b>Total Netherlands</b>			<b>7</b>	<b>-</b>	<b>1</b>
Norway	Norsk Hydro ASA	-	220	13	-
	Hydro Aluminium AS	100 %	2 287	404	-
	Hydro Invest Porsgrunn AS	100 %	-	-	-
	Hydro Aluminium Rolled Products AS	100 %	620	41	-
	Hycast AS	100 %	44	4	-
	Sør-Norge Aluminium AS	100 %	242	64	-
	Vækero Gård Barnehave ANS	100 %	-	-	-
	Industriforsikring AS	100 %	9	-	-
	Hydro Magnesium Porsgrunn AS	Liquidated	N/A	N/A	-
	Hydro Energi AS (previously Norsk Hydro Produksjon AS)	100 %	178	13	-
	Svælgfos AS	100 %	-	-	-
	Hydro Vigelands Brug AS	100 %	35	1	-
	Røldal-Suldal Kraft AS	91.3 %	-	-	-
	Hydro Kapitalforvaltning AS	100 %	4	-	-
	Grenland Industriutvikling AS	Liquidated	N/A	N/A	-
	Norsk Hydro Plastic Pipe AS	100 %	-	-	-
	Herøya Nett AS	100 %	31	2	-
	Herøya Industripark AS	100 %	17	-	-
<b>Total Norway</b>			<b>3 687</b>	<b>542</b>	<b>-</b>
Poland	Hydro Aluminium Rolled Products Polska Sp. z o.o.	100 %	4	-	-
<b>Total Poland</b>			<b>4</b>	<b>-</b>	<b>-</b>
Singapore	Hydro Aluminium Asia Pte. Ltd	100 %	14	-	1
	Hydro Aluminium Asia Rolled Products Pte. Ltd.	100 %	3	-	-
<b>Total Singapore</b>			<b>17</b>	<b>-</b>	<b>1</b>
Slovakia	Slovalco a.s.	55.3 %	501	-	-
	ZSNP DA, s.r.o.	55.3 %	-	-	-
<b>Total Slovakia</b>			<b>501</b>	<b>-</b>	<b>-</b>
Spain	Hydro Aluminium Iberia S.A (former Norsk Hydro Espana SA)	100 %	45	4	112
	Hydro Aluminium Rolled Products Iberia S.L.	100 %	4	1	-
<b>Total Spain</b>			<b>49</b>	<b>5</b>	<b>112</b>
Sweden	Hydro Aluminium Sverige AB	100 %	3	-	-
<b>Total Sweden</b>			<b>3</b>	<b>-</b>	<b>-</b>
Switzerland	Hydro Aluminium International SA <sup>1)</sup>	100 %	7	-	22 508
	Hydro Aluminium Walzprodukte AG	100 %	2	-	-
<b>Total Switzerland</b>			<b>9</b>	<b>-</b>	<b>22 508</b>
United Kingdom	Hydro Aluminium Deeside Ltd.	100 %	42	-	17
	Norsk Hydro Employee Trust Ltd.	100 %	-	-	-
	Hydro Motorcast Leeds (Property) Ltd.	100 %	-	-	276
	Hydro Aluminium Rolled Products Ltd.	100 %	6	-	96
<b>Total UK</b>			<b>48</b>	<b>-</b>	<b>390</b>
USA	Norsk Hydro North America, Inc.	100 %	-	-	78
	Hydro Aluminum Metals USA, LLC	100 %	128	3	-
	Hydro Aluminum USA, Inc.	100 %	6	-	-
	Hydro Aluminum Tomago Inc.	100 %	-	-	-
<b>Total USA</b>			<b>134</b>	<b>3</b>	<b>78</b>
<b>Grand total</b>			<b>12 870</b>	<b>1 144</b>	<b>54 060</b>

1) Interest paid from Alumina do Norte do Brasil S.A., Hydro Aluminium Slim S.p.A and Hydro Aluminium International SA relates to interest on loans and credit facilities in Norsk Hydro ASA.

2) Entity sold during 2015

3) Number of employees is based on the legal entity each employee is employed by. Grand totals exclude employees at Slim since the entity was divested 31.12.2015.

## GRI index

We use the Global Reporting Initiative's (GRI) G4 guidelines for voluntary reporting of sustainable development. The guidelines comprise economic, environmental and social dimensions relating to an enterprise's activities, products and services. GRI collaborates with the United Nations Environment Programme and UN Global Compact.

We believe that our reporting practice is consistent with GRI's reporting principles in all material respects. We report in adherence "Core" as defined by the GRI G4 guidelines, and include the GRI Mining & Metals supplement and certain relevant aspects of the Electric Utilities sector supplement in our reporting.

*The report is externally assured by KPMG. The external assurance, as outlined in the Independent Auditor's Assurance report, concludes that the report is presented, in all material respects in accordance with the Sustainability Reporting Guidelines (G4) of the GRI, see page 127.*

The GRI Index, including the full definition of each indicator and references to specific sections in this report as well as additional information, can be found on [www.hydro.com/gri](http://www.hydro.com/gri)

## UN Global Compact Communication on progress

We support the principles of the UN Global Compact. Human rights, international labor standards, working against corruption and environmental considerations are fundamental to our approach to corporate responsibility.

The Global Compact was formed at the initiative of the former UN Secretary General, Kofi Annan, in 1999, because the UN wants business and industry to be more closely associated with the UN's work. Companies that sign the Global Compact agree to support 10 principles regarding human rights, labor standards, the environment, anti-corruption, and to communicate annually on progress.

Hydro has played an active role in the Global Compact since its formation. Our commitment is expressed by the President & CEO in his letter to shareholders on page 7 of this report. Our Communication on progress (COP) in relation to the Compact's 10 principles is at the Advanced level and thus also reflects the Global Compact's 21 advanced criteria. The consistency of the information in Hydro's Viability Performance reporting 2015 with the information in the

Hydro Communication on Progress 2015 has been reconciled by our auditors, see page 127. A complete report can be found at [www.hydro.com/globalcompact](http://www.hydro.com/globalcompact)

## ICMM

Hydro is a member of the International Council on Mining and Metals and reports according to the ICMM requirements. That includes Hydro's reporting in accordance with the Global Reporting Initiatives G4 protocol for voluntary reporting on sustainable development, see the section about GRI above. The Viability Performance 2015 reporting is prepared in line with the requirements found in the ICMM 10 principles and position statements. The complete Viability Performance 2015 reporting is – according to the ICMM requirements – assured by our external auditor, please see page 127.

## ASI

Hydro is an active member of the Aluminium Stewardship Initiative (ASI). ASI's mission is to recognize and collaboratively foster the responsible production, sourcing and stewardship of aluminium. We have been involved at all stages in the multi-stakeholder development of ASI standards to date. We are continuing our participation in ASI to develop the supporting systems for a credible and effective third party certification platform, which is expected to be launched in late 2017.

Hydro reports in the GRI index 2015 on how we relate to ASI's 11 principles and underlying criteria. This is also included in external auditor's consistency check of Hydro's GRI index 2015.

## UN Sustainability Development Goals

The Sustainable Development Goals (SDGs) embrace a universal approach to the sustainable development agenda. They explicitly call on business to use creativity and innovation to address development challenges and recognize the need for governments to encourage sustainability reporting. Hydro uses the SDG Compass, a tool built in a partnership between GRI, UN Global Compact and the World Business Council on Sustainable Development, to make a high-level review on how we relate to the UN Sustainability Development Goals. This review is included in the GRI index 2015.



## UN Guiding Principles on Business and Human Rights

The United Nations (UN) Guiding Principles on Business and Human Rights (hereafter Guiding Principles) were endorsed by the UN Human Rights Council in June 2011. They have provided a clear, global understanding of governmental duties and corporate responsibilities for human rights. The Guiding Principles articulate that wherever and however a company operates, it must refrain from violating human rights. Companies are expected to be fully aware of their human rights impacts, take concrete steps to address them and implement measures to mitigate negative impacts in the future.

Hydro uses the GRI document "Linking G4 and the UN Guiding Principles" document as basis for how we adhere to the guiding principles, and report on this in the GRI index 2015. The most salient human rights issues are defined through our materiality analysis on page 71 in this report and includes:

- Diversity and equal opportunity
- Freedom of association & collective bargaining
- Grievance mechanisms
- Human rights assessment
- Indigenous rights
- Supply chain management (including child and forced labour)

Hydro has nothing to report for 2015 on the guiding principle B4 "Additional severe impacts".

## Independent auditor's assurance report



To the Board of directors of Norsk Hydro ASA

### *Our conclusion*

We have reviewed the Hydro Viability performance section in the Annual Report 2015 (hereafter 'Viability performance 2015') of Norsk Hydro ASA (further 'Hydro'). Based on our review, nothing has come to our attention to indicate that the Viability performance 2015 is not presented, in all material respects, in accordance with the G4 Guidelines of the Global Reporting Initiative and internally developed guidelines as described in the section about the reporting.

### *Our report on consistency*

We report, to the extent we can assess, that the information on sustainability in the remaining sections of Hydro's Annual Report 2015 is consistent with the Viability performance 2015.

### *Basis for our conclusion*

We conducted our engagement in accordance with the International Standard for Assurance Engagements (ISAE 3000): "Assurance Engagements other than Audits or Reviews of Historical Financial Information", issued by the International Auditing and Assurance Standards Board. This standard requires, among others, that the assurance team possesses the specific knowledge, skills and professional competencies needed to provide assurance on sustainability information, and that they comply with the requirements of the Code of Ethics for Professional Accountants of the International Federation of Accountants to ensure their independence. We do not provide any assurance on the achievability of the objectives, targets and expectations of Hydro.

Our responsibilities under ISAE 3000 and procedures performed have been further specified in the paragraph titled "*Our responsibility for the review of the Viability performance 2015*". We believe that the review evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

### *Key review matter*

Key review matters are those matters that, in our professional judgment, were a key focus during our review of the report. The key review matters are not a comprehensive reflection of all matters discussed. These review matters were addressed in the context of our review of the Report as a whole and in forming our conclusion thereon, and we do not provide a separate conclusion on these matters.

### *Carbon neutrality reporting*

#### *Description*

Hydro's carbon neutrality strategy is an important element of Hydro's business strategy that is gaining increasing attention in the Annual Report. Hydro's strategy focuses on carbon neutrality from a life cycle perspective. Due to the significance of the disclosures and the risk of ambiguity of the information for the readers, this has been a significant review matter for our engagement.

#### *Our response*

We have reviewed Hydro's methodology and assumptions underlying the strategy on carbon neutrality from a life cycle perspective. We conducted interviews with climate specialists at Hydro to understand the assumptions taken for the model presented. We also reviewed the independent external assessment of the methodology. Finally we reviewed the presentation in the report of the strategy to assess whether it provides a clear picture about Hydro's approach and underlying assumptions.

#### *Our observation*

Our overall assessment is that the information as included in the Annual Report on Hydro's approach to carbon neutrality is clearly presented and supported by underlying evidence.

### *Responsibilities of the Corporate Management Board for the Viability performance 2015*

The Corporate Management Board is responsible for the preparation of the Viability performance 2015 in accordance with the GRI G4 Guidelines and internally developed criteria as described in the About the reporting section on page 94 in Hydro's Annual Report. It is important to view the information in the Viability performance 2015 in the context of these criteria.

The Corporate Management Board is responsible for such internal control as it determines is necessary to enable the preparation of the Viability performance 2015 that is free from material misstatement, whether due to fraud or error.

### *Our responsibility for the review of the Viability performance 2015*

Our objective is to plan and perform the review assignment in a manner that allows us to obtain sufficient and appropriate assurance evidence for our conclusion.

We maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our engagement has been performed with a limited level of assurance for the Viability performance 2015. Procedures performed in a limited assurance engagement are aimed at determining the plausibility of information and therefore vary in nature and timing from - and are less extensive than - a reasonable assurance engagement.

The procedures selected depend on our understanding of the Viability performance 2015 and other engagement circumstances, and our consideration of areas where material misstatements are likely to arise. The following procedures for limited assurance on the Viability performance 2015 were performed:

- A risk analysis, including a media search, to identify relevant sustainability issues for Hydro in the reporting period;
- Evaluating the design and implementation of the reporting processes and the controls regarding the qualitative and quantitative information in the Viability performance 2015;
- Interviewing management at corporate level responsible for the sustainability strategy, policies, implementation, management, internal controls and reporting;
- Interviews with relevant staff at corporate level responsible for providing the information in the Viability performance 2015, carrying out internal control procedures on the data and consolidating the data in the Viability performance 2015;
- Visits to two production sites in Brazil to review the source data and the design and implementation of controls and validation procedures at local level;
- Testing internal and external documentation, based on sampling, to determine whether the information in the Viability performance 2015 is supported by sufficient evidence;
- An analytical review of the data and trend explanations submitted by all entities for consolidation at corporate level;
- Interviews with selected external stakeholders with the aim of assessing whether the qualitative and quantitative information in the Report is complete, correct and sufficient in relation to climate, biodiversity and community projects;
- Assessment of Hydro's reporting in relation to Subject Matters 1 to 4 as set out in ICMM Sustainable Development Framework: Assurance Procedure;
- Assessment of Hydro's self-declared commitment to the Aluminium Stewardship Initiative's 11 principles and underlying criteria;
- Determination of the consistency of the sustainability information in the Hydro Communication on Progress 2015 with the information in the Viability performance 2015.

Oslo, March 10, 2016

KPMG AS

KPMG Sustainability,  
part of KPMG Advisory N.V.

Arne Frogner  
State Authorized Public Accountant

Wim Bartels  
Partner

## 03: *Financial and operating performance*

### QUICK OVERVIEW

Underlying EBIT for 2015 improved significantly to NOK 9,656 million from NOK 5,692 million in the previous year. Bauxite & Alumina and Rolled Products achieved the best underlying EBIT since Hydro became a pure aluminium company in 2007, while Sapa's underlying results more than doubled compared to the previous year. Negative effects from lower realized LME prices and premiums were more than offset by positive currency effects from the stronger USD and ongoing improvement efforts.

Bauxite production in Paragominas amounted to 10.1 million mt for the year while alumina production from Alunorte was 6.0 million mt. Production levels for both operations reached record levels in 2015.

Primary aluminium production was about 2.0 million mt and we delivered 3.2 million mt of casthouse products and liquid metal to internal and external customers.

Downstream, we shipped roughly 948 thousand mt of rolled products to the market. Our energy business produced around 10.9 TWh of hydroelectric power. Hydro's share of Sapa sales volumes were about 680 thousand mt.

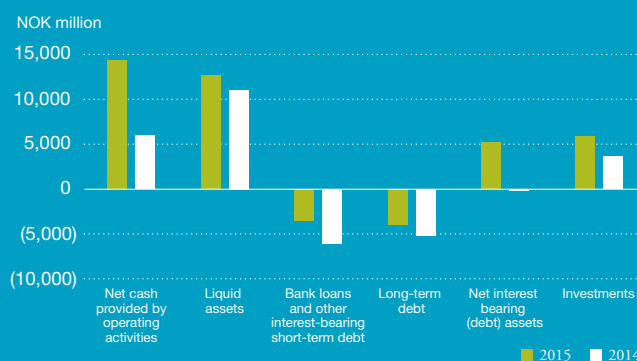
In 2015, cash provided by operating activities was NOK 14.4 billion compared with NOK 6.0 billion in the previous year. Hydro further strengthened its financial position, ending the year with a net cash position of NOK 5.1 billion, compared to a net debt position of NOK 0.1 billion at the end of 2014.

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ADDITIONAL INFORMATION	p.147

### Underlying EBIT

NOK million	2015	2014
Bauxite & Alumina	2 421	(55)
Primary Metal	4 628	3 937
Metal Markets	379	634
Rolled Products	1 142	698
Energy	1 105	1 197
Other and eliminations	(19)	(717)
Underlying EBIT	9 656	5 692

### Liquidity and financial position



## Financial and operating review

### Summary of underlying financial and operating results and liquidity

#### Key financial information

NOK million, except per share data	Year 2015	Year 2014
Revenue	87 694	77 907
Earnings before financial items and tax (EBIT)	8 258	5 674
Items excluded from underlying EBIT <sup>1)</sup>	1 398	18
Underlying EBIT	9 656	5 692
<i>Underlying EBIT :</i>		
Bauxite & Alumina	2 421	(55)
Primary Metal	4 628	3 937
Metal Markets	379	634
Rolled Products	1 142	698
Energy	1 105	1 197
Other and eliminations <sup>2)</sup>	(19)	(717)
Underlying EBIT	9 656	5 692
Underlying EBITDA	14 680	10 299
Net income (loss)	2 333	1 228
Underlying net income (loss)	6 709	3 728
Earnings per share <sup>3)</sup>	0.99	0.39
Underlying earnings per share <sup>3)</sup>	2.98	1.55
<i>Financial data:</i>		
Investments <sup>4)</sup>	5 865	3 625
Adjusted net debt <sup>5)</sup>	(8 173)	(13 587)

1) See section Items excluded from underlying EBIT and net income later in this section for more information on these items.

2) Other and eliminations includes Hydro's 50 percent share of underlying net income from Sapa.

3) Earnings per share and Underlying earnings per share are calculated using Net income and Underlying net income attributable to Hydro shareholders, and using the weighted average number of ordinary shares outstanding. There were no significant diluting elements.

4) Investments include non-cash elements relating to capitalized leases.

5) See note 40 Capital Management in Hydro's Financial statements - 2015 for a discussion of the definition of adjusted net debt.

See Notes and references at the end of this section for footnote references in the following text

By the end of 2015, Hydro's industry-leading improvement programs contributed roughly NOK 4.5 billion of annual improvements compared to 2011<sup>1)</sup> including about NOK 800 million realized in 2015. For the full year, underlying EBIT improved significantly to NOK 9,656 million from NOK 5,692 million. In 2015, Bauxite & Alumina and Rolled Products achieved the best underlying EBIT since Hydro became a pure aluminium company in 2007, while Sapa underlying results more than doubled compared to the previous year. Negative effects from lower realized LME prices and premiums were more than offset by positive currency effects from the stronger USD and ongoing improvement efforts.

Underlying EBIT for Bauxite & Alumina improved significantly compared to 2014, influenced by positive currency developments and lower raw material costs, partly offset by lower realized alumina prices.

Primary Metal delivered improved underlying EBIT for 2015 compared with the previous year despite lower realized LME and premiums due to significant positive effects from the stronger US dollar.

Underlying results for Metal Markets decreased compared with 2014 mainly due to substantial losses from sourcing and trading activities due to the decline in standard ingot premiums. This was partly offset by higher results from remelt operations.

Rolled Products underlying EBIT for 2015 improved significantly, mainly due to positive currency developments from the stronger USD.<sup>2)</sup>

Underlying EBIT for Energy declined compared to the previous year primarily influenced by lower spot prices partly offset by higher production.

Sapa delivered significantly improved underlying EBIT for 2015, supported by internal improvements in Europe and across the organization, and a strong performance in the North American business.

Operating cash flow amounted to NOK 14.3 billion for the year. Net cash used for investment activities amounted to NOK 5.4 billion net of sales proceeds. Hydro paid dividends of NOK 2.4 billion, including NOK 0.3 billion to minority shareholders. Hydro's net cash position amounted to NOK 5.1 billion at the end of the year also influenced by currency translation effects from the weakening NOK versus USD.

For 2015, Hydro's Board of Directors proposes to pay a dividend of NOK 1 per share, demonstrating the company's commitment to provide a stable cash return to shareholders, and taking into account the uncertain market outlook. The proposed payment represents a 101 percent payout ratio for the year reflecting Hydro's operational performance for 2015 and strong financial position.

### Reported EBIT and Net income

Reported earnings before financial items and tax amounted to NOK 8,258 million in 2015, including net unrealized derivative gains and negative metal effects of negative NOK 454 million in total. Reported earnings also included charges of NOK 285 million relating to the termination of the Vækerø Park lease contract, and net losses on divestments of NOK 365 million, including losses of NOK 434 million related to the sale of the Slim rolling mill, and gains of NOK 69 million in total related to sale of other assets, together with other positive effects amounting to NOK 37 million. In addition, reported earnings included a net charge of NOK 331 million for Sapa (Hydro's share net of tax), including NOK 256 million relating to restructuring charges, NOK 66 million relating to unrealized derivative losses, a net foreign exchange loss of NOK 23 million and other positive effects of NOK 14 million.

In the previous year, reported earnings before financial items and tax amounted to NOK 5,674 million including net unrealized derivative gains and positive metal effects of NOK 729 million in total. Reported earnings also included impairment charges of NOK 207 million, net charges of NOK 512 million in Sapa mainly relating to restructuring activities and impairments of fixed assets in China, and other items amounting to a net charge of NOK 28 million.

In 2015 net income amounted to NOK 2,333 million including a net foreign exchange loss of NOK 4,397 million. The net exchange loss in 2015 was mainly comprised of unrealized currency losses on US dollar debt in Brazil and embedded derivatives in power contracts denominated in Euro. The net foreign exchange loss also included unrealized losses on US dollar debt in Norway. In the previous year net income amounted to NOK 1,228 million including a net foreign exchange loss of NOK 3,161 million. In 2014 the net exchange loss related mainly to debt denominated in US dollar and intercompany balances denominated in Euro. In 2014 the foreign exchange loss also included unrealized losses on embedded derivatives in power contracts denominated in Euro.



## Operational review

### Key Operational information <sup>6)</sup>

	Year 2015	Year 2014	% change prior year
Bauxite production (kmt)	10 060	9 481	6 %
Alumina production (kmt)	5 962	5 933	-
Primary aluminium production (kmt)	2 046	1 958	4 %
Realized aluminium price LME (USD/mt)	1 737	1 850	(6) %
Realized aluminium price LME (NOK/mt) <sup>7)</sup>	13 813	11 624	19 %
Realized NOK/USD exchange rate <sup>7)</sup>	7.95	6.28	27 %
Metal products sales, total Hydro (kmt) <sup>8)</sup>	3 186	3 274	(3) %
Rolled Products sales volumes to external market (kmt)	948	946	-
Power production (GWh)	10 894	10 206	7 %

6) Amounts include Hydro's proportionate share of production in equity accounted investments.

7) Including the effect of strategic hedges (hedge accounting applied).

8) Sales from casthouses (incl. Rheinwerk), remelters, third party sources and liquid metal. Sales volumes for 2014 have been restated.

### *Bauxite & Alumina*

Bauxite & Alumina generated total revenues of about NOK 22 billion in 2015. Bauxite production in Paragominas amounted to 10.1 million mt for the year. Alumina production from Alunorte was 6.0 million mt for the year. Production levels for both operations reached record levels in 2015 mainly due to improved performance and production stability. Bauxite & Alumina sourced roughly 2.8 million mt of alumina in 2015. The business area employs around 3,600 people.

### *Primary Metal*

Primary Metal generated about NOK 32 billion in total revenues in 2015. Production of electrolysis metal amounted to 2.0 million mt, from our plants in Australia, Brazil, Canada, Norway, Qatar and Slovakia. We delivered 2.2 million mt of casthouse products to internal and external customers, from casthouses which are integrated with our primary aluminium plants. Deliveries included about 0.8 million mt of extrusion ingot, 0.3 million mt of sheet ingot and 0.4 million mt of foundry alloys and wire rod. We also sold about 0.7 million mt of standard ingot. Primary Metal employs around 4,050 people.

### *Metal Markets*

Metal Markets generated total revenues of around NOK 47 billion in 2015. The business area employs around 650 people at plants and offices in Asia, Europe and North America. Our five remelters in Europe and two in the U.S. produced approximately 530,000 mt of metal products in 2015. We sold 2.7 million mt of metal products last year, including deliveries from the casthouses integrated with our primary smelters.<sup>3)</sup> Of this figure, we sold approximately 2.5 million mt to external customers.

### *Rolled Products*

Rolled Products generated total revenues of approximately NOK 24 billion in 2015 with locations in 14 countries and around 4,300 permanent and 300 temporary employees including the Slim rolling mill. Approximately 948,000 mt of rolled products were shipped from our 6 European rolling mills. Operating information includes the Slim rolling mill which was sold by Hydro on December 17, 2015.<sup>4)</sup>

### *Energy*

Energy generated about NOK 5.3 billion in total revenues in 2015. We produced 10.9 TWh of renewable hydroelectric power, which is above our normal annual production of 10 TWh and higher than production in 2014. The business area employs around 190 people, mainly in Norway.

### *Other and elimination*

Hydro's share of total revenues for Sapa amounted to about NOK 27.6 billion in 2015. The business employs around 23,000 people in more than 40 countries. Hydro's share of Sapa sales volumes amounted to 682,000 mt of extruded products. Sapa has around 160 extrusion presses operating within over 90 production sites. The majority of operations are located throughout Europe and in North America as well as a strong foothold in emerging markets.

## Market developments and outlook

<b>Market statistics <sup>1)</sup></b>	<b>Year 2015</b>	<b>Year 2014</b>	<b>% change prior year</b>
NOK/USD Average exchange rate	<b>8.07</b>	6.30	28 %
NOK/USD Balance sheet date exchange rate	<b>8.81</b>	7.43	19 %
NOK/BRL Average exchange rate	<b>2.45</b>	2.68	(9) %
NOK/BRL Balance sheet date exchange rate	<b>2.22</b>	2.80	(20) %
NOK/EUR Average exchange rate	<b>8.95</b>	8.35	7 %
NOK/EUR Balance sheet date exchange rate	<b>9.62</b>	9.04	6 %
<i>Bauxite &amp; Alumina:</i>			
Average alumina price - Platts PAX FOB Australia (USD/t)	<b>301</b>	330	(9) %
Global production of alumina (kmt)	<b>112 405</b>	106 283	6 %
Global production of alumina (ex. China) (kmt)	<b>55 659</b>	54 679	2 %
<i>Primary Metal and Metal Markets:</i>			
LME three month average (USD/mt)	<b>1 680</b>	1 894	(11) %
LME three month average (NOK/mt)	<b>13 508</b>	11 962	13 %
Global production of primary aluminium (kmt)	<b>57 504</b>	54 207	6 %
Global consumption of primary aluminium (kmt)	<b>56 349</b>	54 223	4 %
Global production of primary aluminium (ex. China) (kmt)	<b>26 306</b>	25 904	2 %
Global consumption of primary aluminium (ex. China) (kmt)	<b>27 237</b>	26 931	1 %
Reported primary aluminium inventories (kmt)	<b>6 550</b>	7 381	(11) %
<i>Rolled products and extruded products:</i>			
Consumption rolled products - Europe (kmt)	<b>4 525</b>	4 442	2 %
Consumption rolled products - USA & Canada (kmt)	<b>4 649</b>	4 447	5 %
Consumption extruded products - Europe (kmt)	<b>2 863</b>	2 861	-
Consumption extruded products - USA & Canada (kmt)	<b>2 334</b>	2 217	5 %
<i>Energy:</i>			
Average southern Norway spot price (NO2) (NOK/MWh)	<b>177</b>	228	(23) %
Average nordic system spot price (NOK/MWh)	<b>187</b>	248	(24) %

1) Industry statistics and other information in the table and text have been derived from analyst reports, trade associations and other public sources including Hydro's own analysis unless otherwise indicated. The information included in this section does not have any direct relationship to the reported figures of Norsk Hydro. Amounts presented in prior reports may have been restated based on updated information. Currency rates have been derived from Norges Bank.

### Bauxite and alumina

The global alumina market was oversupplied at the end of 2015. Platts alumina spot prices started the year at USD 355 per mt and ranged from USD 200 - 355 per mt, ending the year at USD 201 per mt. Prices averaged USD 301 per mt for the year, a decrease of 9 percent compared to 2014. Average prices as a percentage of LME increased and represented 17.8 percent for the year compared with 17.5 percent in 2014. Spot prices at the end 2015 represented 13.3 percent of LME.

Chinese alumina imports amounted to 4.7 million mt in 2015, a decrease of 12 percent compared with 2014. Bauxite imports into China increased to 56.1 million mt, or 54 percent higher compared to 2014. The increase was driven by imports from Malaysia which reached 24.2 million mt in 2015, up from 3.3 million mt in 2014. On January 15, 2016, Malaysia imposed a three month moratorium on bauxite mining to reduce environmental pollution caused by poorly controlled mining activities. Imports from Australia and India were 19.6 million mt and 7.8 million mt, respectively.

According to Chinese import statistics, the average delivered China bauxite price declined around 16 percent from USD 59 per mt in January 2015 to USD 50 per mt in December. Prices averaged USD 52.7 per mt for the year, a decrease of 8 percent compared to 2014.

## Primary aluminium

Three month LME prices started the year around USD 1,850 per mt and reached a level of USD 1,938 per mt in the second quarter before falling to USD 1,435 towards end of November. At the end of the year, prices increased again to around USD 1,515 per mt. Prices averaged USD 1,800 per mt in the first half of 2015 and declined to an average of roughly USD 1,565 per mt in the second half of the year.

Standard ingot and product premiums were at record levels at the beginning of 2015, but fell throughout the year, ending the year at more historical levels. Average North American standard ingot premiums decreased to around USD 280 per mt or around 38 percent lower than average premiums in 2014. Corresponding standard ingot premiums in Europe declined to about USD 237 per mt or around 44 percent lower than in 2014. Premium developments have been influenced by exports of semi-finished products from China and increased metal available from warehouses partly due to a reduced contango during the year.

Global primary aluminium consumption increased by 4 percent to 56.3 million mt in 2015. Global supply increased by about 6 percent resulting in a surplus of around 1.2 million mt. For 2016, global primary aluminium demand is expected to increase by 3 - 4 percent while supply is expected to increase by about 1 percent, resulting in a largely balanced global market.

Demand for primary aluminium outside China increased by around 1.1 percent, while corresponding production increased by 1.6 percent. Ramp-up of new smelter capacity in the Middle East, India and Europe was partly offset by closures and curtailments. Overall, demand outside China exceeded production by close to 1 million mt in 2015. Demand for primary aluminium outside China is expected to grow around 2-4 percent 2016. Corresponding production is expected to be largely stable, resulting in a larger deficit in the world outside China in 2016.

Demand for primary metal in China increased around 7 percent to 29.1 million mt in 2015. Corresponding production increased by around 10 percent, resulting in a surplus of around 2.1 million mt for the year. Chinese primary production growth is expected to moderate in 2016 to around 2 percent influenced by announced curtailments and closures while primary demand is estimated to increase by around 4 percent, resulting in a continued but reduced surplus.

LME stocks fell throughout the year from 4.2 million mt at the end of 2014 to 2.9 million mt at the end of 2015. Most of the metal in warehouses continues to be owned by financial investors. Total inventories, including unreported inventories, however, were estimated to have increased by about 1.2 million mt throughout 2015, amounting to around 14.7 million mt at the end of 2015.

Demand for foundry alloys and sheet ingot in Europe has been solid during 2015 and increased compared to the previous year. Developments in the European wire rod market were also positive, with increasing volumes compared to 2014. Consumption of extrusion ingot was stable.

Consumption of extrusion ingot has been strong in the US in 2015 while the demand for primary foundry alloys increased moderately compared to 2014.

In Asia (excluding China), the market for extrusion ingot and primary foundry alloys showed moderate growth, but flattened towards the end of the year.

## Rolled products

The European market for flat rolled products increased by around 2 percent in 2015. The automotive segment continued to be the dominant market driver due to the growing substitution of steel by aluminium together with an increase in European car production of around 6 percent in 2015. Demand in the building and construction segment remained relatively weak but showed signs of a recovery in parts of Southern Europe. The beverage can market segment was solid and improved after a weak start at the beginning of the year. Demand in the foil market showed a slightly positive development. Overall, increasing imports from China and Turkey resulted in increased margin pressure.

## Extruded products

Demand for general extruded products was strong in North America compared to 2014, with an increase of more than 5 percent. European extrusion markets were stable. Market conditions for building systems continued to weaken in 2015, in

Europe in general and in the key markets of France and Italy in particular. However, the weak European building and construction market was offset by growth in most other segments. The building and construction market represents almost 50 percent of the extrusion market in Europe.

## Energy

In 2015, Nordic electricity prices declined further compared to the previous year. Prices fell sharply from May to August due to strong production from Nordic hydropower generation in addition to high continental solar and wind power generation. Nordic prices recovered during the fourth quarter due to drier weather conditions. However, prices came under pressure again towards the end of the year due to wet, mild and windy weather conditions.

Export restrictions, declining thermal generation costs and a corresponding decrease in continental energy prices also had a negative influence on Nordic prices during the year.

Nordic consumption increased by 1.9 TWh to 377.6 TWh in 2015. Total power production increased by 6.2 TWh to 393.4 TWh.

The Nordic hydrological balance ended the year at around 12 TWh above normal. Water reservoirs in Norway were 82.5 percent of full capacity at the end of the year, which is 14 percentage points above normal. Snow reservoirs were slightly below normal at the end of the year.

In Brazil, the economic downturn has had a negative effect on demand for power throughout the country compared with 2014. This, combined with higher than normal inflow in southern and central part of the country, and higher than normal thermal generation, has resulted in a more balanced power market compared to the previous year which was significantly influenced by severe drought conditions and a deteriorating hydrological balance.

## Additional factors impacting Hydro

Primary Metal has sold forward around 50 percent of its expected primary aluminium production for the first quarter of 2016 at a price level of around USD 1,500 per mt.<sup>9)</sup> This excludes volumes from Qatalum.

Hydro has reached an agreement with the state of Para in Brazil relating to the deferral of ICMS taxation for the next 15 years. For further information on the agreement, please see related stock exchange announcement "Norsk Hydro: Long-term ICMS tax framework established for Hydro's Brazil operations" dated July, 17 2015 on Hydro's website under Press room.

Hydro has signed a Letter of Intent (LoI) with the Brazilian mining company Vale for the possible acquisition of Vale's 40 percent interest in Brazilian bauxite producer Mineração Rio do Norte (MRN).

Hydro has decided to build a pilot plant for full-scale industrial testing of its proprietary HAL4e technology at Karmøy, Norway. The plant is expected to have an annual production capacity of 75,000 mt and a net cost of approximately NOK 2.7 billion, which includes a contribution of NOK 1.6 billion from Enova, a Norwegian public enterprise which supports new energy and climate related technology. The plant is expected to be completed in the second half of 2017.

Sapa Profiles Inc. Portland (SPI), a subsidiary of Sapa AS (owned 50 percent by Hydro) is under investigation by the United States Department of Justice (DOJ) Civil and Criminal Divisions regarding aluminum extrusions that SPI manufactured from 1996 to 2015 and delivered to a supplier to NASA. SPI is cooperating fully in these investigations. In response to these pending investigations, Sapa has performed audits of its quality assurance processes at all relevant extrusion operations in North America, and is in the process of finalizing audits of its extrusion operations in Europe. Quality issues identified in these audits have been, or are in the process of being, addressed with the affected customers and remediation actions are being undertaken. The investigations are currently ongoing, and, at this point, the outcome of the DOJ investigations and of the identified quality issues, including financial consequences on Sapa, is uncertain. Based on the information known to Hydro at this stage, Hydro does not expect any resulting liabilities to have a material adverse effect on its consolidated results of operations, liquidity or financial position. Hydro has also initiated a review of all of its relevant sites which will continue through 2016. Preliminary results are being further evaluated and followed up.

Norsk Hydro ASA has entered into an agreement with Oslo Pensjonsforsikring AS, a life insurance company wholly owned by the Municipality of Oslo, regarding the sale of Herøya Industripark AS. The transfer will likely occur during the first half of 2016 and is expected to give Hydro a book gain of approximately NOK 350 million.

## Underlying EBIT - Business areas

To provide a better understanding of Hydro's underlying performance, the following discussion of operating performance excludes certain items from EBIT (earnings before financial items and tax) and net income, such as unrealized gains and losses on derivatives, impairment and rationalization charges, effects of disposals of businesses and operating assets, as well as other items that are of a special nature or are not expected to be incurred on an ongoing basis. See section later in this report, Items excluded from underlying EBIT and net income, for more information on these items.

### Bauxite & Alumina

Operational and financial information	Year 2015	Year 2014	% change prior year
Underlying EBIT (NOK million)	2 421	(55)	>100 %
Underlying EBITDA (NOK million)	4 404	1 747	>100 %
Alumina production (kmt) <sup>1)</sup>	5 962	5 933	-
Sourced alumina (kmt)	2 787	2 016	38 %
Total alumina sales (kmt) <sup>2)</sup>	8 871	7 942	12 %
Realized alumina price (USD/mt) <sup>3)</sup>	276	284	(3) %
Bauxite production (kmt) <sup>4)</sup>	10 060	9 481	6 %
Sourced bauxite (kmt) <sup>5)</sup>	8 684	8 815	(1) %

1) Including Alunorte on a 100 percent basis.

2) Including Hydro's own production and third party contracts.

3) Weighted average of own production and third party contracts, excluding hedge results.

4) Paragominas on wet basis (100 percent).

5) 40 percent MRN off take from Vale and 5 percent Hydro share on wet basis.

Underlying EBIT for 2015 improved significantly compared to 2014, influenced by positive currency developments and lower raw material costs, partly offset by lower realized alumina prices. Both Paragominas and Alunorte reached record production for 2015. In 2015, Bauxite & Alumina also achieved the best underlying EBIT since Hydro acquired the business in 2011.

Bauxite & Alumina completed the "From B to A" improvement program realizing NOK 300 million during the year and reached the overall targeted improvement of NOK 1 billion compared to 2011.

## Primary Metal

Operational and financial information <sup>1)</sup>	Year 2015	Year 2014	% change prior year
Underlying EBIT (NOK million)	4 628	3 937	18 %
Underlying EBITDA (NOK million)	6 581	5 745	15 %
Realized aluminium price LME (USD/mt) <sup>2)</sup>	1 737	1 850	(6) %
Realized aluminium price LME (NOK/mt) <sup>2)</sup>	13 813	11 624	19 %
Realized premium above LME (USD/mt) <sup>3)</sup>	439	500	(12) %
Realized premium above LME (NOK/mt) <sup>3)</sup>	3 492	3 140	11 %
Realized NOK/USD exchange rate	7.95	6.28	27 %
Primary aluminium production (kmt)	2 046	1 958	4 %
Casthouse production (kmt)	2 059	2 088	(1) %
Total sales (kmt)	2 159	2 220	(3) %

1) Operating and financial information includes Hydro's proportionate share of underlying income (loss), production and sales volumes in equity accounted investments. Realized prices, premiums and exchange rates exclude equity accounted investments, and includes effects of strategic currency hedges (hedge accounting applied).

2) Including effect of strategic LME hedges (hedge accounting applied). Realized aluminium prices lag the LME price developments by approximately 1.5 - 2 months.

3) Average realized premium above LME for casthouse sales from Primary Metal.

Operational and financial information Qatalum (50%)	Year 2015	Year 2014	% change prior year
Revenue (NOK million)	5 502	4 918	12 %
Underlying EBIT (NOK million)	588	874	(33) %
Underlying EBITDA (NOK million)	1 750	1 772	(1) %
Underlying Net income (NOK million)	350	693	(49) %
Primary aluminium production (kmt)	305	306	-
Casthouse sales (kmt)	320	328	(2) %

Primary aluminium and casthouse production (kmt) <sup>4)</sup>	Location	Primary aluminium		Casthouse production	
		2015	2014	2015	2014
Albras	Brazil	434	441	386	386
Karmøy	Norway	192	191	158	181
Årdal	Norway	207	202	212	214
Sunnådal	Norway	388	347	416	441
Høyanger	Norway	64	64	94	108
Husnes	Norway	91	53	97	69
Slovalco	Slovakia	171	168	191	187
Tomago (12.4%)	Australia	72	70	65	65
Qatalum (50%)	Qatar	305	306	319	320
Alouette (20%)	Canada	121	117	121	116
Total production Primary Aluminium		2 046	1 958	2 059	2 088

4) Production volumes for non-consolidated part owned companies represent our proportion of total production. For financial reporting purposes, Qatalum is accounted for as equity accounted investments, while Tomago and Alouette are consolidated on a proportional basis. Husnes, formerly Sørå, was accounted for as an equity accounted investment until the end of October 2014 and was 100 percent consolidated from the beginning of November. Slovalco and Albras are fully consolidated in terms of financial results and volumes.

Underlying EBIT for Primary Metal improved for 2015 compared with the previous year despite lower realized LME and premiums due to significant positive effects from the stronger US dollar. Results from Qatalum declined compared with the previous year due to lower realized all-in metal prices.

By the end of 2015, Primary Metal achieved USD 140 per mt (Hydro's share) under the global joint venture improvement program. Further improvements were also achieved for the fully owned smelters beyond the USD 300 per mt program which was concluded in 2013.<sup>6)</sup>



## Metal Markets

Operational and financial information	Year 2015	Year 2014	% change prior year
Underlying EBIT (NOK million)	379	634	(40) %
Currency effects <sup>1)</sup>	(43)	44	>(100) %
Ingot inventory valuation effects <sup>2)</sup>	(29)	31	>(100) %
Underlying EBIT excl. currency and ingot inventory effects	451	559	(19) %
Underlying EBITDA (NOK million)	480	712	(33) %
Remelt production (kmt) <sup>3)</sup>	533	538	(1) %
Metal products sales excluding ingot trading (kmt) <sup>4)</sup>	2 728	2 852	(4) %
Hereof external sales (kmt)	2 474	2 478	-

1) Includes the effects of changes in currency rates on sales and purchase contracts denominated in foreign currencies (mainly U.S. dollar and Euro for our European operations) and the effects of changes in currency rates on the fair valuation of dollar denominated derivative contracts (including LME futures) and inventories, mainly translated into Norwegian kroner. Hydro manages its external currency exposure on a consolidated basis in order to take advantage of offsetting positions.

2) Comprised of hedging gains and losses relating to standard ingot inventories in our metal sourcing and trading operations. Increasing LME prices result in unrealized hedging losses, while the offsetting gains on physical inventories are not recognized until realized. In periods of declining prices, unrealized hedging gains are offset by write-downs of physical inventories.

3) Excludes Hannover casthouse production.

4) Includes internal and external sales from integrated casthouses, remelters, Hydro's 51 percent share of Albras, and third party sources.

Remelt production (kmt)	Location	Year 2015	Year 2014	% change prior year
<b>Europe</b>				
Clervaux	Luxembourg	81	90	(10) %
Deeside	United Kingdom	53	51	3 %
Rackwitz	Germany	86	87	(2) %
Luce	France	52	52	-
Azuqueca	Spain	73	75	(3) %
<b>US</b>				
Henderson	Kentucky	83	79	5 %
Commerce	Texas	105	104	2 %
Total remelt production Metal Markets		533	538	(1) %

Underlying results for Metal Markets decreased compared with 2014 mainly due to substantial losses from sourcing and trading activities due to the decline in standard ingot premiums. This was partly offset by higher results from remelt operations. In addition, underlying results were influenced by negative currency and inventory valuation effects.

Metal product sales excluding ingot trading was somewhat lower compared with 2014 mainly due to lower remelt production at our plants.

## Rolled Products

Operational and financial information	Year 2015	Year 2014	% change prior year
Underlying EBIT (NOK million)	1 142	698	64 %
Underlying EBITDA (NOK million)	1 873	1 398	34 %
Sales volumes to external market (kmt)	948	946	-

## Sales volumes to external markets (kmt) - Customer business units

Packaging and building	371	365	2 %
Lithography, automotive & heat exchanger	300	317	(5) %
General engineering	277	263	5 %
Rolled Products	948	946	-

Rolled Products production sites		Year 2015	Year 2014	% change prior year
Volumes to external market (kmt)	Location			
Grevenbroich / 50% share in Alunorf	Germany	587	580	1 %
Hamburg	Germany	146	150	(3) %
Slim	Italy	68	63	8 %
Karmøy	Norway	72	68	6 %
Holmestrand	Norway	76	84	(10) %
Total, excluding internal sales		948	946	-

Underlying EBIT for the year 2015 improved significantly, mainly due to positive currency developments from the stronger USD.<sup>2)</sup> Margins improved somewhat, mainly for our general engineering segment.

Shipments of automotive car body sheet, can beverage and general engineering products increased compared to the previous year while sales of packaging foil was stable. Sales of lithographic sheet declined somewhat.

In 2015, Rolled Products completed the "Climb" improvement program one year ahead of schedule achieving cumulative annual saving and improvements of NOK 800 million compared to 2011.

## Energy

Operational and financial information	Year 2015	Year 2014	% change prior year
Underlying EBIT (NOK million)	1 105	1 197	(8) %
Underlying EBITDA (NOK million)	1 300	1 360	(4) %
Direct production costs (NOK million) <sup>1)</sup>	610	608	-
Power production (GWh)	10 894	10 206	7 %
External power sourcing (GWh) <sup>2)</sup>	8 918	9 315	(4) %
Internal contract sales (GWh) <sup>3)</sup>	13 731	13 514	2 %
External contract sales (GWh) <sup>4)</sup>	1 093	1 187	(8) %
Net spot sales (GWh) <sup>5)</sup>	4 989	4 820	3 %

1) Includes maintenance and operational costs, transmission costs, property taxes and concession fees for Hydro as operator.

2) Includes long-term sourcing contracts and industrial sourcing in Germany.

3) Internal contract sales in Norway and Germany, including sales from own production and resale of externally sourced volumes.

4) External contract sales, mainly concession power deliveries and volumes to former Hydro businesses.

5) Spot sales volumes net of spot purchases.

Underlying EBIT for 2015 declined compared to the previous year mainly due to lower spot prices partly offset by higher production.

## Other and eliminations

Financial information NOK million	Year 2015	Year 2014	% change prior year
Sapa (50%) <sup>1)</sup>	454	199	>100 %
Other	(531)	(549)	3 %
Eliminations	58	(367)	>100 %
Underlying EBIT Other and eliminations	(19)	(717)	97 %

1) Hydro's share of Sapa's underlying net income.

Eliminations is mainly comprised of unrealized gains and losses on inventories purchased from group companies, which fluctuates with product flows, volumes and margin developments throughout Hydro's value chain.

Operational and financial information Sapa (50%)	Year 2015	Year 2014	% change prior year <sup>1)</sup>
Revenue (NOK million) <sup>2)</sup>	27 626	23 105	20 %
Underlying EBIT (NOK million)	704	326	>100 %
Underlying EBITDA (NOK million)	1 364	958	42 %
Underlying Net income (loss) (NOK million)	454	199	>100 %
Sales volumes (kmt)	682	699	(3) %

2) Historical revenues have been reclassified.

Sapa delivered significantly improved underlying EBIT for 2015, supported by internal improvements in Europe and across the organization, as well as a strong performance in the North American business. Positive effects from a weakening Norwegian krone was offset by sharply falling metal premiums.

The restructuring program initiated in 2013, targeting annual synergies of around NOK one billion by the end of 2016, reached its target in 2015, one year ahead of time. In addition to the factors mentioned above, reported EBIT for the fourth quarter was affected by charges related to restructuring activities, partly offset by unrealized gains from derivatives.

Net interest-bearing debt at the end of 2015 amounted to roughly NOK 1.8 billion, which is at the same level as when the Sapa joint venture was established on September 1, 2013.

## Items excluded from underlying EBIT and net income

### Items excluded from underlying EBIT and net income

To provide a better understanding of Hydro's underlying performance, the items in the table below have been excluded from underlying EBIT (earnings before financial items and tax) and net income.

Items excluded from underlying EBIT are mainly comprised of unrealized gains and losses on certain derivatives, impairment and rationalization charges, effects of disposals of businesses and operating assets, as well as other items that are of a special nature or are not expected to be incurred on an ongoing basis.

#### Items excluded from underlying net income <sup>1)</sup>

NOK million	Year 2015	Year 2014
Unrealized derivative effects on LME related contracts <sup>2)</sup>	415	(352)
Unrealized derivative effects on power and raw material contracts <sup>3)</sup>	(419)	72
Metal effect, Rolled Products <sup>4)</sup>	458	(449)
Significant rationalization charges and closure costs <sup>5)</sup>	-	-
Impairment charges (PP&E and equity accounted investments) <sup>6)</sup>	-	207
(Gains)/losses on divestments <sup>7)</sup>	365	(8)
Other effects <sup>8)</sup>	248	36
Items excluded in equity accounted investment (Sapa) <sup>9)</sup>	331	512
Items excluded from underlying EBIT	1 398	18
Net foreign exchange (gain)/loss <sup>10)</sup>	4 397	3 161
Calculated income tax effect <sup>11)</sup>	(1 418)	(680)
Items excluded from underlying net income	4 377	2 499

1) Negative figures indicate a gain and positive figures indicate a loss.

2) Unrealized derivative effects on LME contracts include unrealized gains and losses on contracts measured at market value, which are used for operational hedging purposes related to fixed-price customer and supplier contracts, but where hedge accounting is not applied. The amounts include net unrealized gains and losses on derivative contracts relating to operations in all our business areas except for Energy. Certain internal aluminium contracts between Metal Markets and other units are measured at market value by Metal Markets but considered for Hydro's own use by consuming units. The valuation effects are eliminated as part of Other and eliminations, and excluded from underlying results. Unrealized gains and losses on derivative contracts relating to trading activities are not excluded from underlying EBIT, as these are considered to be a normal part of the trading business performance.

3) Unrealized derivative effects on power and raw material contracts include unrealized gains and losses on embedded derivatives in power contracts for Hydro's own use, as well as financial power contracts used by Primary Metal, and Energy for hedging of power prices. Hydro's Energy operations supply electricity for Hydro's own consumption, and have entered into long-term purchase contracts with external power suppliers. Energy accounts for embedded derivatives in certain sourcing contracts and for the corresponding internal supply contracts with consuming units at fair value. These internal purchase contracts are considered for Hydro's own use by the consuming units, while the embedded derivative is recognized at market value in Other and eliminations, and excluded from underlying results. Embedded derivatives in power contracts include exposures to changes in forward prices on aluminium and coal, as well as currency and inflation adjustments. Reported periodic effects are also influenced by changes in the contract portfolio. The majority of physical power-purchase contracts have a long duration and can result in significant unrealized gains and losses on embedded derivatives, impacting the reported results. Embedded derivatives in raw material contracts include exposures to changes in forward prices on aluminium and petroleum coke.

4) Metal effect: Rolled Products' sales prices are based on a margin over the metal price. The pricing, production and logistics process of Rolled Products normally lasts four to five months. As a result, margins are impacted by timing differences resulting from the FIFO (first in, first out) inventory valuation method, due to changing aluminium prices during the process. The effect of inventory write-downs is included. Decreasing aluminium prices in Euro results in a negative metal effect on margins, while increasing prices have a positive effect.

5) Rationalization charges and closure costs include costs that are typically non-recurring for individual plants or operations. Such costs involve termination benefits, dismantling of installations and buildings, clean-up activities that exceed legal liabilities, etc.

6) Impairment charges occur in the period when an asset or a group of assets is identified to have lost part or all of its value, causing a write-down to the recoverable amount. In most of our impairment situations, there is no single event directly causing the write-down. The loss is therefore not necessarily closely linked to performance in a single period.

7) Gains and losses on divestments include a net gain or loss on divested businesses and/or individual major assets.

8) Other effects include recognition of pension plan amendments and related curtailments and settlements, insurance proceeds, legal settlements, etc.

9) Items excluded in equity accounted investments reflects Hydro's share of items excluded from underlying net income in Sapa.

10) Realized and unrealized gains and losses on foreign currency denominated accounts receivable and payable, funding and deposits, embedded currency derivatives in certain power contracts and forward currency contracts purchasing and selling currencies that hedge net future cash flows from operations, sales contracts and working capital.

11) In order to present underlying net income on a basis comparable with our underlying operating performance, we have calculated the income tax effect of items excluded from underlying income before tax.

## Items excluded from underlying EBIT - Business areas

The following includes a summary table of items excluded from underlying EBIT for each of the operating segments and for Other and eliminations.

### Items excluded from underlying EBIT <sup>1)</sup>

NOK million	Year 2015	Year 2014
Unrealized derivative effects on LME related contracts	11	(16)
<b>Bauxite &amp; Alumina</b>	<b>11</b>	<b>(16)</b>
Unrealized derivative effects on LME related contracts	95	(86)
Unrealized derivative effects on power contracts	112	63
Unrealized derivative effects on power contracts (Søral)	-	(16)
Unrealized derivative effects on raw material contracts	-	37
Impairment charges (Qatalum)	-	28
Insurance compensation (Qatalum)	(37)	(55)
Transaction effects Søral acquisition	-	38
<b>Primary Metal</b>	<b>169</b>	<b>9</b>
Unrealized derivative effects on LME related contracts	199	(117)
Impairment charges	-	33
<b>Metal Markets</b>	<b>199</b>	<b>(83)</b>
Unrealized derivative effects on LME related contracts	95	(119)
Metal effect	458	(449)
Impairment charges	-	145
(Gains)/losses on divestments	434	-
<b>Rolled Products</b>	<b>988</b>	<b>(423)</b>
Unrealized derivative effects on power contracts	3	4
<b>Energy</b>	<b>3</b>	<b>4</b>
Unrealized derivative effects on power contracts <sup>2)</sup>	(533)	(16)
Unrealized derivative effects on LME related contracts <sup>2)</sup>	15	(13)
(Gains)/losses on divestments	(69)	(8)
Items excluded in equity accounted investment (Sapa)	331	512
Termination of lease contract Vækerø Park	285	-
Other effects <sup>3)</sup>	-	53
<b>Other and eliminations</b>	<b>28</b>	<b>528</b>
<b>Items excluded from underlying EBIT</b>	<b>1 398</b>	<b>18</b>

1) Negative figures indicate a gain and positive figures indicate a loss.

2) Unrealized derivative effects on power contracts and LME related contracts result from elimination of changes in the valuation of embedded derivatives within certain internal power contracts and in the valuation of certain internal aluminium contracts.

3) Other effects include the re-measurement of environmental liabilities, due to change in interest rate, related to closed business in Germany in 2014.

## Financial income (expense), net

Financial income (expense)	Year	Year	% change
NOK million	2015	2014	prior year
Interest income	279	275	1 %
Dividends received and net gain (loss) on securities	18	71	(75)%
Financial income	297	347	(14)%
Interest expense	(337)	(438)	23 %
Capitalized interest	34	3	>100%
Net foreign exchange gain (loss)	(4 397)	(3 161)	(39)%
Net interest on pension liability	(215)	(189)	(14)%
Other	(215)	(115)	(87)%
Financial expense	(5 130)	(3 900)	(32)%
Financial income (expense), net	(4 834)	(3 554)	(36)%

The net foreign exchange loss in 2015 was mainly comprised of unrealized currency losses on US dollar debt in Brazil and embedded derivatives in power contracts denominated in Euro. The net foreign exchange loss also included unrealized losses on US dollar debt in Norway. The losses reflect a strengthening of USD versus BRL and NOK as well as strengthening of Euro versus NOK during the year.

## Income tax expense

Income taxes amounted to a charge of NOK 1,092 million in 2015, compared with a charge of NOK 892 million in 2014. The tax rate of 32 percent reflects the relatively high share of reported income before tax subject to power sur tax, partly offset by recognition of deferred tax assets previously not recognized.



## Liquidity and capital resources

The table below includes information on Hydro's liquidity, debt, investments and financial position and performance for the years indicated. See note 40 to the consolidated financial statements for more information on Hydro's capital management practices. See the shareholder information section of this report for more information on Hydro's dividend policy, share buybacks and funding and credit rating.

<b>Liquidity and financial position</b> NOK million, except ratios and RoaCE	<b>Year</b> <b>2015</b>	<b>Year</b> <b>2014</b>
Net cash provided by continuing operating activities	<b>14 373</b>	5 965
Cash and cash equivalents	<b>6 917</b>	9 253
Short-term investments <sup>1)</sup>	<b>5 752</b>	1 786
Liquid assets	<b>12 669</b>	11 040
Bank loans and other interest-bearing short-term debt	<b>(3 562)</b>	(6 039)
Long-term debt	<b>(3 969)</b>	(5 128)
Net cash / (debt)	<b>5 138</b>	(127)
Adjusted net debt excluding equity accounted investments (EAI) <sup>2)</sup>	<b>(8 173)</b>	(13 587)
Adjusted net debt including EAI <sup>2)</sup>	<b>(16 184)</b>	(20 882)
Adjusted net debt including EAI / Equity <sup>3)</sup>	<b>0.20</b>	0.26
Investments <sup>4)</sup>	<b>5 865</b>	3 625
Capital employed	<b>75 583</b>	80 069
Return on average capital employed (RoaCE)	<b>7.5 %</b>	4.9 %
Funds from operations / Adjusted net debt	<b>0.89</b>	0.42

1) Hydro's policy is that the maximum maturity for cash deposits is 12 months. Cash flows relating to bank time deposits with original maturities beyond three months are classified as investing activities and included in short-term investments on the balance sheet. See note 24 to the consolidated financial statements for more information on short-term investments.

2) Mainly comprised of net unfunded pension obligations after tax, the present value of operating lease obligations and asset retirement obligations. We are presenting adjusted net debt including/excluding net debt held by equity accounted investees. Net debt per individual equity accounted investment is limited to a floor of zero. See note 40 to the consolidated financial statements for more information on adjusted net debt and equity.

3) Adjusted net debt to equity ratio and other financial metrics included in this report are calculated including net debt per individual equity accounted investment.

4) Additions to property, plant and equipment (capital expenditures) plus long-term securities, intangible assets, long-term advances and investments in equity accounted investments.

## Cash flow and Liquidity

Hydro manages its liquidity at the corporate level, ensuring sufficient funds to cover group operational requirements.

In 2015, cash provided from continuing operating activities of NOK 14.4 billion was more than sufficient to cover cash effective investments net of sales proceeds amounting to NOK 5.3 billion and dividend payments to majority shareholders of NOK 2.0 billion. Net loan repayments amounted to NOK 5.0 billion, including repayment of short-term debt in Brazil of NOK 4.1 billion.

Hydro's net debt changed from net debt of NOK 0.1 billion at the end of 2014 to net cash of NOK 5.1 billion at the end of 2015. This is also reflected in a decrease in adjusted net debt excluding equity accounted investments. Hydro's adjusted net debt to equity ratio was 20 percent, well below its targeted maximum ratio of 55 percent. Our funds from operations/adjusted net debt ratio was 89 percent, well above the targeted minimum of 40 percent over the business cycle.

Norsk Hydro ASA has a USD 1.7 billion revolving multi-currency credit facility with a syndicate of international banks, maturing in November 2020 after being extended one year. There was no borrowing under the facility as of December 31, 2015. The facility will continue to serve primarily as a back-up for unforeseen funding requirements. See note 35 to the consolidated financial statements for additional information.

## 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 information, see notes 21 Operating leases, 35 Long-term debt, 36 Provisions and 43 Contractual commitments and other commitments for future investments to Hydro's consolidated financial statements.

Hydro is contingently liable for certain guarantees amounting to about NOK 4 billion, mainly in connection with the sale of companies. This amount is excluded from the table below. See note 42 Guarantees to Hydro's consolidated financial statements for a description of such guarantees.

Amounts in NOK million	Total	Payments due by period			
		Less than 1 year	1-3 years	3-5 years	Thereafter
Long-term debt including interest	6 894	2 113	1 510	2 320	951
Operating lease obligations	1 887	194	304	270	1 119
Unconditional purchase obligations <sup>1)</sup>	132 098	18 856	30 800	21 005	61 437
Contractual commitments for PP&E	5 216	4 734	468	14	-
Short-term and long-term provisions <sup>2)</sup>	4 411	1 147	1 102	786	1 376
<b>Total contractual and non-contractual obligations</b>	<b>150 506</b>	<b>27 044</b>	<b>34 184</b>	<b>24 395</b>	<b>64 883</b>

1) Unconditional purchase obligations exclude long-term contracts with part owned entities.

2) Short-term and long-term provisions includes certain accruals and provisions which are non-contractual, but related to liabilities or obligations that are measurable and expected to occur in future periods.

## Employee retirement plans

Hydro's employee retirement plans consist of defined benefit and defined contribution pension plans. As of December 31, 2015, the defined benefit obligation associated with Hydro's defined benefit plans was NOK 21.3 billion. The fair value of pension plan assets was NOK 12.4 billion, resulting in a net unfunded obligation relating to the plans of NOK 8.9 billion. In addition, termination benefit obligations and other pension liabilities amounted to NOK 0.5 billion, resulting in a total net unfunded pension liability of NOK 9.4 billion. Hydro's pension expense for 2015 amounted to NOK 0.6 billion. Cash outflows from operating activities in 2015 regarding pensions amounted to approximately NOK 0.8 billion. See note 38 Employee retirement plans in the consolidated financial statements for more information on Hydro's employee retirement plans.

## Non-controlling interest and shareholders' equity

Non-controlling interest was NOK 5,159 million as of December 31, 2015, compared with NOK 5,911 million as of December 31, 2014. Shareholders' equity amounted to NOK 79,329 million at the end of 2015, compared with NOK 79,941 million at the end of 2014. The main items impacting shareholders' equity in 2015 and 2014 included net income, currency translation adjustments and dividends declared and paid. See the consolidated statements of changes in equity and note 39 Shareholders' equity to Hydro's consolidated financial statements for a detailed reconciliation of shareholders' equity.

## Investments

Investments in 2015 amounted to NOK 5,865 million, compared with NOK 3,625 million in 2014.

### Investments<sup>1)</sup>

Amounts in NOK million	Year 2015	Year 2014	% change prior year
Bauxite & Alumina	1 923	701	>100%
Primary Metal	1 839	1 606	15 %
Metal Markets	280	95	>100%
Rolled Products	1 434	783	83 %
Energy	290	364	(20) %
Other and eliminations	99	76	(30) %
Total	5 865	3 625	62 %

1) Additions to property, plant and equipment (capital expenditures) plus long-term securities, intangible assets, long-term advances and investments in equity accounted investments.

In 2015, Hydro continued to focus on securing its liquidity position. Investments were mainly limited to maintenance activities to safeguard our production assets. A summary of the significant investments that were made in addition to maintenance activities for both 2015 and 2014 is included below.

Investments in Bauxite & Alumina in 2014 and 2015 included amounts relating to an expansion and modernization of the bauxite residue (red mud) deposit area at Alunorte. Investments in 2015 also included amounts related to a new residue deposit area (tailing dam) at Paragominas. The Alunorte project is expected to be finalized in 2016 while the Paragominas project is expected to be finalized in 2017.

Investments for Primary Metal in 2015 included capitalization of amounts related to the Karmøy technology plant. In 2014, investments included amounts related to the normal cyclical increase in the relining of smelter cells which is done every 4-7 years for established smelters.

In Metal Markets, investments in 2015 included amounts relating to the purchase of WMR in Dormagen.

Investments for Rolled Products in 2015 included completion of the new recycling line for used beverage cans at our smelter in Neuss, Germany, finalization of the main part of upgrading of one of the lines at the AluNorf hot rolling mill and the new production line in Grevenbroich for aluminium car body sheet to be finalized in the fourth quarter of 2016. Investments for Rolled Products in 2014 included expenditures for the same projects but with a lower amount. The level for smaller investments projects and relining were somewhat lower than in 2014.

In 2015 investments for Energy included completion of the major upgrade project at Rjukan in Telemark as well as small hydropower plants Mannsbærg and Midtlæger. In 2014 investments included amounts related to the same major upgrade project at Rjukan as well as upgrade projects in Røldal-Suldal.

## Return on Capital Employed (RoaCE)

Hydro uses (underlying) RoaCE to measure the performance for the group as a whole and within its operating segments, both in absolute terms and comparatively from period to period. Management views this measure as providing additional understanding of the rate of return on investments over time in each of its capital intensive businesses, and in the operating results of its business segments.

(Underlying) RoaCE is defined as (underlying) "Earnings after tax" divided by average "Capital Employed." (Underlying) "Earnings after tax" is defined as (underlying) "Earnings before financial items and tax" less "Adjusted income tax expense." Since RoaCE represents the return to the capital providers before dividend and interest payments, adjusted income tax expense excludes the tax effects of items reported as "Financial income (expense), net" and in addition, for underlying figures, the tax effect of items excluded. "Capital Employed" is defined as "Shareholders' Equity", including minority interest plus long-term

and short-term interest-bearing debt less "Cash and cash equivalents" and "Short-term investments." Capital Employed can be derived by deducting "Cash and cash equivalents," "Short-term investments" and "Short-term and long-term interest free liabilities" (including deferred tax liabilities) from "Total assets." The two different approaches yield the same value.

NOK million	Underlying		Reported	
	2015	2014	2015	2014
EBIT	9 656	5 692	8 258	5 674
Adjusted Income tax expense <sup>1)</sup>	(2 580)	(1 683)	(2 446)	(1 887)
EBIT after tax	7 076	4 009	5 813	3 787

NOK million	31 December		
	2015	2014	2013
Current assets <sup>2)</sup>	23 491	24 888	19 790
Property, plant and equipment	51 174	55 719	52 855
Other assets <sup>3)</sup>	35 210	34 627	32 788
Other current liabilities	(12 445)	(13 076)	(12 630)
Other long-term liabilities <sup>4)</sup>	(21 847)	(22 088)	(18 223)
Capital Employed	75 583	80 069	74 579

Return on average Capital Employed (RoCE)	Underlying		Reported	
	2015	2014	2015	2014
Hydro	9.1 %	5.2 %	7.5 %	4.9 %
Business areas <sup>5)</sup>				
Bauxite & Alumina	5.2 %	(0.1) %	5.2 %	(0.1) %
Primary Metal	11.0 %	10.4 %	10.7 %	10.4 %
Metal Markets	11.4 %	19.4 %	5.4 %	21.9 %
Rolled Products	7.8 %	5.3 %	1.1 %	8.6 %
Energy	17.3 %	17.4 %	17.2 %	17.4 %

1) Adjusted Income tax expense is based on reported and underlying tax expense adjusted for tax on financial items.

2) Excluding cash and cash equivalents and short-term investments.

3) Including deferred tax assets.

4) Including provisions for pension and deferred tax liabilities.

5) RoCE at business area level is calculated using 30% tax rate. For Energy, 55% tax rate is used.

## Additional information

See note 7 to the consolidated financial statements for additional financial information relating to Hydro's operating segments. Following is a table of underlying EBITDA for each of the operating segments:

Underlying EBITDA	Year	Year	% change
NOK million	2015	2014	prior year
Bauxite & Alumina	4 404	1 747	>100 %
Primary Metal	6 581	5 745	15 %
Metal Markets	480	712	(33) %
Rolled Products	1 873	1 398	34 %
Energy	1 300	1 360	(4) %
Other and eliminations	42	(662)	>100 %
Total	14 680	10 299	43 %

## Notes and references

- 1) Except for the Primary Metal USD 300 per mt program which is compared to 2009.
- 2) Rolled Products incurs currency gains and losses on export sales from its Euro based operations mainly denominated in US dollars. These gains and losses impact the value of the margin contribution to underlying EBIT and can be significant. Offsetting gains and losses on internal hedges are reported as financial items.
- 3) Includes sales from integrated casthouses, remelters, Hydro's 51 percent share of Albras, and third party sources.
- 4) Shipments include amounts related to the Slim rolling mill which was divested at the end of December, 2015.
- 5) Prices are fixed mainly one month prior to production. As a result, and due to the hedging of product inventories, Hydro's realized aluminium prices lag LME spot prices by around 1.5 to 2 months.
- 6) Amounts relating to annual improvements achieved by the end of 2015 for the USD 180 per mt program are based on a comparison to cost and revenue levels in 2011. Amounts relating to the USD 300 per mt program are compared to 2009.

## 04: Risk review

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### QUICK OVERVIEW

Hydro is subject to a range of risks and uncertainties which may affect its business operations, financial condition and results of operations. Changes in the regulatory framework or political environment in which Hydro operates could have a material adverse effect on the company's operating results and financial position. Hydro is exposed to the risk of unfavorable macroeconomic developments. Our operations are exposed to competition from China and we may be unable to achieve or maintain the operational targets necessary to secure the competitiveness of the company's business. Major projects and acquisitions are subject to significant risk and uncertainty. Hydro's business is subject to risks which could result in disruptions to operations, damage to properties or the environment, personal injury or death. Hydro could be negatively affected by investigations, legal proceedings, material CSR incidents or major noncompliance with internal or external regulations. Hydro is exposed to the threat of cyber attacks which may disrupt its business operations, and result in reputational harm and other negative consequences.

Risk management in Hydro is based on the principle that risk evaluation and mitigation is an integral part of all business activities. A core strategy to reduce the risks related to weak economic and unfavorable market developments is the continual improvement of our business in terms of operational efficiency, cost reductions and enhanced commercial strategies. Hydro's main strategy for mitigating risk related to volatility in cash flow is to maintain a solid financial position and strong credit worthiness.



### Commodity price sensitivity +10%

NOK Million	EBIT
<b>Hydro Group</b>	
Aluminium	2 890

### Currency sensitivities +10%

NOK Million	USD	BRL	EUR
<b>Sustainable effect</b>			
EBIT	2 590	(890)	(270)
<b>One-off reevaluation effect</b>			
Financial items	(550)	520	(2 070)

- Annual sensitivities based on normal annual business volumes, LME USD 1 550 per mt, Oil USD 330 per mt, petroleum coke USD 350 per mt, caustic soda USD 275 per mt, coal USD 50 per mt, USDNOK 8.40, BRLNOK 2.20, EURNOK 9.30
- Aluminium price sensitivity is net of aluminium price indexed costs and excluding unrealized effects related to operational hedging
- BRL sensitivity calculated on a long-term basis with fuel oil assumed in USD. In the short term, fuel oil is BRL-denominated
- Excludes effects of priced contracts in currencies different from underlying currency exposure (transaction exposure)
- Currency sensitivity on financial items includes effects from intercompany positions



## Risk factors

Hydro has developed and implemented a enterprise risk management model, approved by our board of directors. In accordance with this model, we continuously identify, analyze, address and monitor risk factors relevant for our business. Risk management is an integral part of Hydro's business activities, and the business areas consequently have the main responsibility for managing risks arising from their business activities. Hydro's corporate staffs establish and develop policies and procedures for managing risk, and coordinate a semi-annual overall enterprise risk assessment. Major risks are followed up, on an ongoing basis, as part of our internal review meeting structure.

Below is a description of some of the principle risks identified that may affect our business operations, financial condition and results of operations from time to time and, ultimately affect our share price. Examples are included to provide further information about risks specific to Hydro, where deemed relevant for illustration purposes. The examples are not meant to be exhaustive. There may also be additional risks unknown to Hydro at the date of this report and risks, currently considered to be immaterial, which could become material. All of the information in this report should be carefully considered by investors, in particular, the risks described in this section.

### **Changes in the regulatory framework or political environment in which Hydro operates could have a material adverse effect on the company's operating results and financial position**

Hydro is subject to a broad range of laws and regulations in the legal jurisdictions in which we operate. These laws and regulations impose stringent standards and requirements and potential liabilities regarding accidents and injuries, the construction and operation of our plants and facilities, payment of taxes, air and water pollutant 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, among other things.

Hydro's operations include extracting and refining bauxite resources and utilizing water resources for the generation of power. Such activities have increasingly been subject to local and regional tax regimes which are separate and in addition to national tax regimes such as Corporate income tax.

In Brazil, the tax system is complex and volatile, with a broad range of direct and indirect taxes levied at the federal, state

and municipal levels. Over the past several years, state finances in Brazil have deteriorated, leading to mounting pressure to increase tax revenues.

ICMS is a value added tax collected by Brazilian states on circulation of goods and on services such as transportation and communications. ICMS varies from 7 to 25 percent of the gross value of such goods and services, including ICMS. Hydro's main operations in Brazil are located in the state of Pará, which has historically granted a deferral of the collection point for ICMS on certain goods and services. Furthermore, Brazil has a general ICMS exemption on exports. In 2015, Hydro reached an agreement with the state of Pará, granting a renewed ICMS deferral regime for Hydro Paragominas, Hydro Alunorte and Albras for a 15 year period. With this regulation, the deferred ICMS tax will not be due on the goods that are destined for export. The agreement is subject to several conditions which Hydro must comply with on an ongoing basis. A discontinuation of the ICMS deferral would adversely affect Hydro's operating results from its Brazilian operations. See discussion on Hydro's operations in Brazil in the Regulation section earlier in this report, for further information on taxation in Brazil.

Failure to comply with the requirements of the Brazilian Department of Mines with respect to exploration permits and mining concessions may result in a loss of title. Third parties (including, but not limited to, indigenous persons) may dispute title to mineral concessions or the right to conduct mining or exploration activities.

Hydro is, directly and indirectly, exposed to increasingly demanding legislation on reducing greenhouse gases emissions. Hydro has substantial smelter operations located in Europe and other regions as well as alumina refining operations located in Brazil. Aluminium production is an energy-intensive process that potentially leads to significant environmental emissions, especially air emissions, including CO<sub>2</sub>. An increasing number of countries have introduced, or are likely to introduce in the near future, legislation with the objective of reducing greenhouse gases emissions. Due to a new climate accord reached at the Paris climate conference in December last year, there is a general belief that the political framework for regulating emissions from greenhouse gases will accelerate together with a focus on technology improvements leading to lower emissions. See also the section in this report on Regulation and taxation for more information pertaining to climate gases.

Hydro has been an active participant in the development of international frameworks on climate change and greenhouse gas emissions supporting the establishment of a level playing field for global aluminium production. We engage in significant R&D activities focused on reducing energy

consumption and improving electrolysis efficiency including anode consumption which is the main source of CO<sub>2</sub> emissions from our smelter operations.

Hydro is engaged in a systematic dialogue with local, state and federal politicians, industry associations, non-governmental organizations and local communities regarding the regulatory challenges facing its operations. The focus of the dialogue is on Hydro's contribution to a sustainable aluminium value chain and underlines the need for competitive and predictable framework conditions for our operations.

These efforts may fail or prove to be inadequate to mitigate the risks we face regarding changes in the regulatory framework or political environment in which we operate.

### **Hydro is exposed to a risk of unfavorable macro-economic development, including risk of prolonged periods of low aluminium and alumina prices and oversupply in the global aluminium market**

The aluminium industry is pro-cyclical with demand for products closely linked to economic development. This results in significant volatility in the market prices for aluminium products in periods of macroeconomic uncertainty or recession. Macroeconomic development also drives changes in currency values, which has a significant effect on Hydro's cost and competitive position.

Global aluminium oversupply, in addition to high global stock levels, have had a negative effect on LME prices in recent years. Following improvements in 2014, market conditions deteriorated throughout 2015, impacted by oversupply in China leading to increased exports of primary metal in the form of semi-fabricated products (see also risk factor below on competition from China). This development, together with increased metal availability from warehouses and an overall downward shift of the industry cost curve, has resulted in a decline in all-in metal prices during 2015. Global economic uncertainty continues, affecting demand for our products in key downstream markets. There are regional differences, with Europe, in particular, experiencing low growth.

The majority of Hydro's upstream capacity is located in countries that have historically experienced strong currencies and/or inflationary pressures such as Norway, Brazil, Qatar, Canada and Australia. In 2015 our major cost currencies weakened substantially, having significant positive impact on our cost level and competitive position. However, these currencies have periodically been volatile. If our main cost currencies strengthen going forward, this will increase our operating cost and weaken our global competitive position.

Hydro's core strategy to reduce the risks related to weak economic and unfavorable market developments is the continuous improvement of our business in terms of operational efficiency, cost reductions and enhanced commercial strategies. These efforts help us to partly offset the effects of low market prices and raw material cost increases. In order to secure financial liquidity, we concentrate on maintaining a strong balance sheet, strong capital discipline and a continued focus on working capital. However, the cost reductions and improvements that we target may prove to be insufficient to achieve a sustainable level of profitability for our business operations in the event of an extended period of low aluminium prices, relatively high costs for key raw materials, or weak market demand.

### **Our business is exposed to competition from China, which could have a significant negative impact on market prices and demand for our products**

China is the world's largest consumer and producer of aluminium, with roughly half of the global production capacity. As a result, changes and developments in aluminium supply and demand in China have a significant impact on global market fundamentals.

In past years, China has followed a policy of promoting a balanced internal market for primary aluminium including incentives to discourage the export of primary metal while encouraging domestic production of more labor-intensive semi-fabricated and finished aluminium products. During 2015, overcapacity in China, together with lower export duties and price incentives, led to a substantial rise in exports of primary aluminium in the form of semi-fabricated products. This affected all-in metal prices outside China which declined significantly. Although exports from China moderated in the second half of 2015, continued oversupply and increasing arbitrage opportunities towards the end of the year added to the uncertainty. Although Chinese authorities have voiced their concerns regarding the market surplus, and certain producers have announced capacity curtailments to address the oversupply, measures may not be implemented or may prove inadequate. An increase in the oversupply of primary metal in China may also lead to higher export of rolled and extruded downstream products, affecting demand for Hydro's metal products.

Our dedicated improvement programs are the key strategies aimed at maintaining and improving our relative position on the industry cost curve. This is further supported by our focus on producing value-added products. However, the targeted cost reductions and improvements may prove to be insufficient to achieve a sustainable level of profitability for our business operations in the event of an extended period of low aluminium prices, relatively high costs for key raw

materials or weak market demand, or an extended period of significantly increased aluminium products exports from China.

### **Hydro may be unable to achieve or maintain the operational targets necessary to secure the competitiveness of our business**

Hydro operates in a highly competitive market where operational excellence in all parts of the value chain is required to reach and maintain a competitive position. This includes each step of the business process from the sourcing of raw materials, to physical operations of each plant, and the commercial optimization of the product portfolio. Failure to build or maintain a high performance culture throughout the organization will reduce the competitiveness of our business and result in the failure to meet our long-term financial targets.

Since the acquisition from Vale in 2011, Hydro has been determined to lift the operating performance of the Bauxite & Alumina assets located in Brazil and the related global commercial operations. Driving improvements and performance is heavily dependent on achieving sufficient capacity and skill in the workforce. Substantial parts of the Brazilian operation are located in remote areas where it has been difficult to attract and retain the competence required to achieve our performance goals for these operations.

Operational performance may also be inhibited by other factors such as the inability to develop necessary technical solutions; changes or variations in geologic conditions, environmental hazards, weather and other natural phenomena; mining and processing equipment failures and unexpected maintenance problems and interruptions. In addition, Hydro's bauxite reserves in Brazil and the estimated quantities of bauxite that Hydro expects can be economically mined and processed are subject to material uncertainties.

The operational performance of Hydro's smelter portfolio has been gradually improved over the past several years through the implementation of defined improvement programs. Unrelenting focus on continuous improvement is necessary for Hydro to maintain and further improve the competitiveness of our smelter portfolio. Our operations, and in particular our aluminium smelters, are dependent upon large volumes of energy. Securing new, competitive energy sources for our business is a key operational target and our business could be materially adversely affected by the inability to replace, on competitive terms, our long-term energy supply contracts when they expire, or our own electricity production, to the extent that concessions revert to the Norwegian state.

A cornerstone in our work to reach operational targets and secure the competitiveness of our operations is the use of standardized Business Systems, BABS and AMBS, to structure and formalize continuous improvement work. Improvements are also supported by benchmarking to identify and implement best practices between our business areas. We are also engaged in a number of initiatives to identify and secure competitive energy supplies for our operations, and are actively involved in promoting a sustainable energy policy in the regions where we operate. However, we may not succeed in achieving or maintaining the operational targets necessary to secure our competitiveness. We may also fail to identify and secure sufficient competitive energy supplies for our operations.

### **Hydro may fail to realize sufficient value in the execution and implementation of major projects or business acquisitions**

Hydro makes significant capital investments and acquisitions as part of its business development, and may not be able to realize the benefits expected from such transactions and projects. Major projects and acquisitions are subject to significant risk, and uncertainty in making the investment evaluation, project execution and subsequent operations. Acquisitions may also contain significant unidentified risks and liabilities, which could have a material adverse effect on our profits and financial position.

Being at the forefront of technological development is important for Hydro to remain competitive. Hydro has decided to build the Karmøy Technology Pilot to operationalize "next generation" cell and smelter technology developed together with key suppliers. We may fail to execute the project on time or on budget. We may also fail to achieve the expected technical enhancements and benefits for the existing smelter portfolio resulting from the new technology.

Hydro has made major investments in emerging and transitioning markets and future investments may occur or may be more likely to occur in countries characterized as emerging and transitioning markets. Investing in emerging and transitioning markets is demanding in terms of organizational capacity, cultural understanding, effort, knowledge and experience, and Hydro may not be capable of succeeding in expanding its business in such markets.

At the end of 2015, around half of our smelter capacity was owned through interests in joint ventures and partly-owned subsidiaries, and our extrusion operations are owned through the 50/50 joint venture, Sapa. Investments as a minority partner in jointly owned entities reduces Hydro's ability to manage and control this part of its portfolio. Investments in jointly owned entities, including those in which we hold a majority position, also entail the risk of diverging interests

between business partners, which could impede Hydro's ability to realize its objectives, repatriate funds from such entities and to achieve full compliance with Hydro's standards.

In order to mitigate the risk associated with the execution and implementation of major projects, all capital projects in Hydro, including M&A projects, are subject to a formal, comprehensive, internal review process prior to making any commitment. Hydro is continuously working to improve our project evaluation and execution processes. This includes improving risk assessment, methodologies and clarifying and refining minimum return requirements for different parts of the value chain. These measures, may however, prove to be insufficient to mitigate the risks we face in the execution and implementation of major projects or business combinations.

### **Hydro could be adversely affected by disruptions or major incidents in our operations and may not be able to maintain sufficient insurance to cover all risks related to its operations**

Hydro's business is subject to a number of risks and hazards which could result in disruptions to operations, damage to properties and production facilities, personal injury or death, environmental damages, monetary losses and possible legal liability. Some of our operations are located in close proximity to sizable communities. Major accidents could result in substantial claims, fines or significant damage to Hydro's reputation. Breakdown of equipment, power failures or other events leading to production interruptions in our plants could have a material adverse effect on our financial results and cash flows.

In 2013 power outages at our Alunorte alumina refinery resulted in significant production disruptions, having a negative impact on operating results for the year. In 2012, the Qatalum joint venture experienced a fire in a power plant cooling tower, leading to temporary cost increases.

In addition, the potential physical impacts of climate change on our facilities and operations is highly uncertain and may cause disruptions in our operations. Effects of climate changes may include changes in rainfall patterns, flooding, shortages of water or other natural resources, changing sea levels, changing storm patterns and intensities, and changing temperature levels.

In order to reduce the risk of disruptions of our operations and potential consequences, we perform regular risk assessments and engage in comprehensive emergency preparedness training for key managers and employees. We have also focused on increasing our resilience against power outages including automation of substations and power generating facilities and improved back-up facilities.

Although Hydro maintains insurance to protect against certain risks in such amounts as it considers reasonable and in accordance with market practice, its insurance may not cover all the potential risks associated with Hydro's operations. These measure may be insufficient to mitigate the risks associated with operational disruptions or major incidents.

### **Hydro could be negatively affected by investigations, legal proceedings, material CSR incidents or major non-compliance with internal or external regulations.**

Hydro could be negatively affected by criminal or civil proceedings or investigations related to, but not limited to product liability, environment, health and safety, alleged anti-competitive or corrupt practices or commercial disputes. See also the section of this report on Viability for more information on issues relating to integrity and transparency.

Violation of applicable laws and regulations could result in substantial fines or penalties, costs of corrective work and, in rare instances, the suspension or shutdown of our operations and substantial damage to the company's reputation. In addition, Hydro is exposed to actual or perceived failures to behave in a socially responsible manner as defined by non-governmental organizations or other key stakeholder groups, which are beyond regulatory requirements. Such failures could result in significant, negative publicity and potential serious harm to Hydro's reputation. Reactions by key stakeholders and communities in which Hydro operates could also interfere or interrupt the operations of our business.

Hydro has significant operations in Barcarena, Brazil, including the Alunorte alumina refinery and Albras aluminium smelter. Local social conditions are challenging with high levels of unemployment and general poverty. Social unrest in Bacarena could result in operational instability and reduced performance of the affected operations. To improve social conditions in Barcarena, Hydro is developing infrastructure projects that aim to have significant impact on the social development of the municipality

In 2015, Sapa, a joint venture owned 50 percent by Hydro, disclosed that quality test results at its fully owned subsidiary Sapa Portland Inc (SPI) had been altered in certain instances by employees during the period between 1996 and 2015. Please see Financial and operating review, Additional factors affecting Hydro section in this report for further information.

Hydro has a comprehensive compliance system, including a Code of Conduct that applies to all employees, and regular and systematic compliance training. Our compliance system requires adherence with external laws and regulations as well as internal steering documents and is based on prevention,



detection, reporting and responding. We are proactive in our interaction with counterparties and our supplier requirements regarding integrity and compliance form an integral part of our procurement process. Hydro is active in, and has a long tradition for, conducting dialogue with the relevant parties affected by our activities. These include unions, works councils, customers, suppliers, business partners, local authorities and non-governmental organizations. The above mentioned controls and initiatives may, however, be insufficient to mitigate these risks.

### **Hydro is exposed to the threat of cyber attacks which may disrupt its business operations, and result in reputational harm and other negative consequences**

Hydro's IS/IT infrastructure is a critical element in all parts of our operations, ranging from process control systems at production sites, central personnel databases to systems for external financial reporting. Cyber crime is increasing globally, and Hydro is exposed to threats to the integrity, availability and confidentiality of our systems. Threats may include attempts to access information, computer viruses, denial of service and other electronic security breaches.

Hydro has launched several initiatives to increase the robustness of its IS/IT infrastructure towards malicious attacks by improving system infrastructure and educating employees to develop and improve secure work processes and routines. However, these initiatives may fail to deliver the expected results or prove to be inadequate to prevent cyber attacks or security breaches that manipulate or improperly use our systems or networks.

## **Market and commercial risk**

### **Financial position**

Our main strategy for mitigating risk related to volatility in cash flow is to maintain a strong balance sheet. Specific key financial ratio levels over the business cycle are targeted reflecting a solid financial position and strong credit worthiness. These include an Adjusted net debt/equity ratio below 0.55 and a ratio of funds from operations to Adjusted net debt above a level of 0.40. In addition, we have close follow-up of liquidity reserves and of the profile of installment payments on debt in order to secure our financial position.

### **Liquidity risk**

Hydro's liquidity position at the end of 2015 is considered to be solid. In addition we have an undrawn credit facility of USD 1.7 billion which expires in 2020. Hydro continues to focus on cash flow and credit risk throughout the

organization. We take a proactive approach toward customers to reduce credit risk and also monitor the financial performance of key suppliers in order to reduce the risk of default on operations and key projects.

### **Prices and currency**

Hydro's operating results are primarily affected by price developments of our main products; aluminium, alumina, bauxite and power, and of raw materials including commodities such as fuel oil, petroleum coke and coal. In addition, Hydro has a substantial portion of its primary metal capacity based in Norway and its accounting and reporting currency is the Norwegian krone. Primary aluminium prices, alumina and certain product premiums as well as a major part of the raw materials for producing aluminium are denominated in US dollars. Roughly half of Hydro's capital employed is located in Brazil. Much of Hydro's downstream business is based in Europe and a large portion of the production is sold in Euro while export sales to other regions are typically denominated in US dollars. As a result of these exposures, the relative value of the Norwegian krone, US dollar, Brazilian Real and Euro are of high importance to Hydro's operating results.

Commodity price volatility and currency fluctuations in general have increased significantly in recent years and can have a substantial impact on our operating costs directly and can also have a significant effect on our reported operating results due to realized and unrealized gains and losses on derivative instruments. Underlying results for our trading and hedging operations are also subject to substantial variations in periods of significant fluctuations of spot and forward prices for aluminium.

Our main risk management strategy for upstream operations is to accept exposure to price movements, while at the same time focusing on reducing the average cost position of our production assets. In certain circumstances, derivatives may be used to hedge certain revenue and cost exposures.

Downstream and other margin-based operations are to a certain extent hedged to protect processing and manufacturing margins against raw material price fluctuations. An operational hedging system has been established to protect commercial contracts from aluminium price fluctuations.

To mitigate the U.S. dollar exposure, Hydro's general policy is to raise funding in U.S. dollars. To reduce the effects of fluctuations in the U.S. dollar and other exchange rates, Hydro has in certain instances in the past used foreign currency swaps and forward currency contracts. No such contracts have been entered into for 2015 and 2016.

An indication of the sensitivities regarding aluminium prices and foreign currency fluctuations for 2016 is provided in the table below. The table illustrates the sensitivity of earnings, before and after tax, to changes in these factors and is provided to supplement the sensitivity analysis required by IFRS, included in note 13 to the Consolidated Financial Statements.

In addition to the above sensitivities, the revaluation of derivative instruments and contracts classified as derivatives may influence reported earnings. For accounting purposes, derivative financial and commodity instruments are recognized at fair value, with changes in fair value impacting earnings unless specific hedge criteria are met. 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. Please see note 12 and 14 to the Consolidated Financial Statements for a detailed description of Hydro's commercial and financial risk exposures and hedging activities related to such exposures.

In accordance with IFRS requirements, 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. Please see note 7 to the Consolidated Financial Statements for more information, and for additional information on these disclosures.

## Legal proceedings

Hydro is involved in or threatened with various legal and tax matters arising in the ordinary course of business. Hydro is of the opinion that it is not probable that the resulting liabilities, if any, will have a material adverse effect on its consolidated results of operations, liquidity or financial position.

### Commodity price sensitivity +10%

NOK Million	UEBIT
<b>Hydro Group</b>	
Aluminium	2 890

### Currency sensitivities +10%

NOK Million	USD	BRL	EUR
<b>Sustainable effect</b>			
EBIT	2 590	(890)	(270)
<b>One-off reevaluation effect</b>			
Financial items	(550)	520	(2 070)

Annual sensitivities based on normal annual business volumes, LME USD 1 550 per mt, Oil USD 330 per mt, petroleum coke USD 350 per mt, caustic soda USD 275 per mt, coal USD 50 per mt, USDNOK 8.40, BRLNOK 2.20, EURNOK 9.30

Aluminium price sensitivity is net of aluminium price indexed costs and excluding unrealized effects related to operational hedging

BRL sensitivity calculated on a long-term basis with fuel oil assumed in USD. In the short term, fuel oil is BRL-denominated

Excludes effects of priced contracts in currencies different from underlying currency exposure (transaction exposure)

Currency sensitivity on financial items includes effects from intercompany positions





## 05: *Shareholder information*

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### QUICK OVERVIEW

Hydro's share price closed at NOK 33.13 at the end of 2015. The return ex. dividend for 2015 was negative with NOK 9.3, or 21.9 percent. Hydro's Board of Directors proposes to pay a dividend of NOK 1 per share for 2015, for approval by the Annual General Meeting on May 2, 2016, demonstrating the company's commitment to provide a stable cash return to its shareholders, reflecting our strong financial position, and taking into account the uncertain market outlook.

There were 2,041,587,692 outstanding shares at the end of 2015. A total of 2.4 billion Hydro shares were traded on the Oslo Stock Exchange during 2015, representing 7.3 percent of the total turnover on the exchange in terms of share value.

Hydro's shares are, in addition to the Oslo Stock Exchange, also listed in London while our American Depositary Shares (ADSs) trade on OTCQX International in the US, the premium over-the-counter market tier.



### Share price development in 2015



## Introduction

Hydro's share price closed at NOK 33.13 at the end of 2015. The return ex. dividend for 2015 was negative with NOK 9.3, or 21.9 percent. Hydro's Board of Directors proposes to pay a dividend of NOK 1 per share for 2015, for approval by the Annual General Meeting on May 2, 2016, demonstrating the company's commitment to provide a stable cash return to its shareholders, reflecting our strong financial position, and taking into account the uncertain market outlook.

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Hydro's shares are, in addition to the Oslo Stock Exchange, also listed in London while our American Depositary Shares (ADSs) trade on OTCQX International in the US, the premium over-the-counter market tier.

## Dividend policy

Long-term return to shareholders should reflect the value created by Hydro. Total shareholder return consists of dividends and share price development. Over time, value creation should be reflected to a greater extent by share price development than through dividends. Our policy is to pay out, on average, 40 percent of net income as ordinary dividend over the cycle to our shareholders. The policy was revised by Hydro's Board of Directors in 2015, from 30 percent to 40 percent of net income over the cycle. In setting the dividend for a specific year, we will take into consideration expected earnings, future investment opportunities, the outlook for world commodity markets and our financial position. Share buybacks or extraordinary dividends will supplement ordinary dividends during periods of strong financials, due consideration being given to the commodity cycle and capital requirements for future growth. The total payout should reflect Hydro's aim to give its shareholders competitive returns benchmarked against alternative investments in comparable companies.

Hydro's Board of Directors normally proposes a dividend per share in connection with the publication of our fourth quarter results. The Annual General Meeting then considers this proposal in May each year, and the approved dividend is subsequently paid to shareholders in May or June. Hydro pays dividends once each year. For non-Norwegian shareholders, Norwegian tax will be deducted at source in accordance with the current regulations.

## Buyback of shares

In periods when earnings are high, Hydro may consider buying back shares in addition to ordinary or extraordinary dividend payments. This consideration will be made in the light of alternative investment opportunities and our financial situation. In circumstances when buying back shares is relevant, our Board of Directors proposes buyback authorizations to be considered and approved by the Annual General Meeting. Authorizations are granted for a specific time period and for a specific share price interval during which share buybacks can be made.

## Funding and credit quality

Maintaining a strong financial position and an investment grade credit rating are viewed as important risk mitigating factors, supporting Hydro's possibilities for strategic development of its businesses. Access to external financial resources is required in order to maximize value creation over time, balanced with acceptable risk exposure. To secure access to debt capital on attractive terms, we aim at maintaining an investment grade credit rating from the leading rating agencies.

Contributing toward this ambition to retain our credit rating, we intend to keep our funds from operations at a level no less than 40 percent of net adjusted debt, in addition to net adjusted debt at a ratio not higher than 0.55 to equity capital over time. In calculating these ratios, we include off-balance sheet pension obligations, operating lease commitments, share of net debt in equity accounted investments and certain other debt-like items. For a discussion of these adjustments see Note 40 - Capital Management in the Financial Statements section of this report.

## Major shareholders and voting rights

As of December 31, 2015, Hydro had 50,333 registered shareholders as per the Norwegian Central Securities Depository (VPS). The Ministry of Trade, Industry and Fisheries of Norway was the largest of these with a shareholding of 34.26 percent of the total number of ordinary shares authorized and issued, and 34.72 percent of the total shares outstanding. As of the same date, The Government Pension Fund - Norway (Folketrygdfondet) owned 6.2 percent of the total number of ordinary shares issued and 6.3 percent of the total shares outstanding. There are no different voting rights associated with the ordinary shares held by the state.

## Hydro's 20 largest shareholders, December 31, 2015

Shareholder	Number of shares	Ownership interest
Ministry of Trade, Industry and Fisheries	708 865 253	34.3%
Folketrygdfondet	128 283 170	6.2%
Silchester International Investors, L.L.P.	49 986 222	2.4%
JPMorgan Asset Management U.K. Limited	49 010 490	2.4%
BlackRock Institutional Trust Company, N.A.	43 488 292	2.1%
SAFE Investment Company Limited	36 262 217	1.8%
KLP Forsikring	29 902 473	1.4%
The Vanguard Group, Inc.	26 110 392	1.3%
JP Morgan Asset Management	23 219 568	1.1%
Storebrand Kapitalforvaltning AS	21 883 247	1.1%
DNB Asset Management AS	20 934 089	1.0%
Manning & Napier Advisors, LLC	19 467 055	0.9%
EARNEST Partners, LLC	18 931 632	0.9%
Danske Capital (Norway)	17 037 069	0.8%
State Street Global Advisors (US)	16 439 709	0.8%
Alliance Trust Plc.	14 935 570	0.7%
Skagen AS	14 542 679	0.7%
Orbis Investment Management Ltd.	13 105 781	0.6%
Nordea Funds Oy	12 013 607	0.6%
Legal & General Investment Management Ltd.	11 468 258	0.6%
BlackRock Advisors (UK) Limited	10 938 118	0.5%

Source: The data is provided by Nasdaq through the Share register Analyses services. The data is obtained through the analysis of beneficial ownership and fund manager information provided in replies to disclosure of ownership notices issued to all custodians on the Hydro share register. Whilst every reasonable effort is made to verify all data, Nasdaq can not guarantee the accuracy of the analysis. For a list of the largest shareholders as of December 31, 2015, from the Norwegian Central Securities Depository (VPS), see Note 13 in Notes to the financial statements Norsk Hydro ASA. Due to lending of shares, an investor's holdings registered in its VPS account may vary.

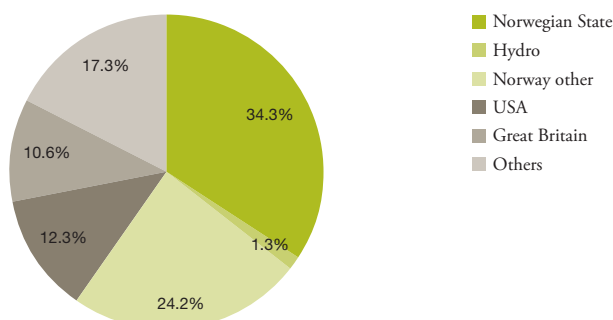
The Norwegian Ministry of Trade, Industry and Fisheries represents the Norwegian government in exercising the state's voting rights. The state has never taken an active role in the day-to-day management of Hydro and has for several decades not disposed of any of the ordinary shares owned by it, except when participating in the share buyback programs.

JPMorgan Chase & Co, as depositary of the ADSs, through its nominee company, Morgan Guaranty Trust Company, held interests in 15,226,699 ordinary shares, or 0.75 percent of the outstanding ordinary shares as of December 31, 2015. The interests are on behalf of 345 registered holders of ADSs.

All shares carry one vote. It is, however, a requirement of Norwegian legislation that a shareholder can only vote and have preferential subscription rights for shares registered in their name. Shares registered with a nominee account must be re-registered in the Norwegian Central Securities Depository, *Verdipapirsentralen* (VPS), before the Annual General Meeting in order to obtain voting rights. This requirement also applies to our US-traded ADSs.

Hydro cannot guarantee that beneficial shareholders will receive the notice for a general meeting in time to instruct their nominees to affect a re-registration of their shares. Hydro is organized under the laws of the Kingdom of Norway. It may be difficult for investors to effect service of process outside Norway upon Hydro or its directors and executive officers, or to enforce against Hydro or its directors and executive officers judgments obtained in other jurisdictions. Norwegian courts are unlikely to apply other than Norwegian law when deciding on civil liability claims under securities laws.

## Geographical ownership distribution of shares



Source: Norwegian Central Securities Depository (VPS)

## Key figures for the Hydro share

	2015	2014	2013 <sup>1)</sup>	2012 <sup>2)</sup>	2011
Share price high, Oslo (NOK)	<b>47.68</b>	42.90	29.09	34.24	48.24
Share price low, Oslo (NOK)	<b>26.54</b>	26.87	23.86	23.40	23.96
Share price average, Oslo (NOK)	<b>35.58</b>	34.03	25.89	27.84	36.92
Share price year-end, Oslo (NOK)	<b>33.13</b>	42.44	27.07	27.88	27.74
Earnings per share (EPS) (NOK)	<b>0.99</b>	0.39	(0.45)	(0.65)	3.41
EPS from continuing operations (NOK) <sup>3)</sup>	<b>0.99</b>	0.39	(0.54)	(0.39)	3.41
Dividend per share (NOK) <sup>4)</sup>	<b>1.00</b>	1.00	0.75	0.75	0.75
Pay-out ratio <sup>5)</sup>	<b>101%</b>	256%	-	-	22 %
Dividend growth	<b>0%</b>	33%	0%	0%	0 %
Pay-out ratio five year average <sup>6)</sup>	<b>110%</b>	95%	86%	176%	77 %
Adjusted debt/equity ratio <sup>7)</sup>	<b>0.20</b>	0.26	0.22	0.19	0.24
Credit rating, Standard & Poor's	<b>BBB</b>	BBB	BBB	BBB	BBB
Credit rating, Moody's	<b>Baa2</b>	Baa2	Baa2	Baa2	Baa2
Non-Norwegian ownership, year-end	<b>40%</b>	35%	33%	42%	44 %
Outstanding shares, average	<b>2 041 000 645</b>	2 039 501 461	2 038 416 268	2 037 199 618	1 965 039 601
Outstanding shares, year-end	<b>2 041 587 692</b>	2 039 832 288	2 038 789 033	2 037 568 162	2 036 459 019

1) Figures for 2013 have been adjusted reflecting IFRS 11

2) Figures for 2012 have been adjusted reflecting IAS 19R

3) Extruded Products is included as discontinued operations from January 1, 2012 to August 31, 2013

4) 2015 dividend per share proposed by Board of Directors, dependent on approval from the Annual General Meeting May 2, 2016.

5) Dividend per share divided by earnings per share from continuing operations.

6) Dividend per share divided by earnings per share from continuing operations for last five years.

7) See note 40 to the Consolidated Financial Statements.

## Information from Hydro

Hydro gives a high priority to communicating with the stock market, and aims to maintain an open dialogue with market participants. Our objective is to provide sufficient information on a timely basis to all market participants to ensure a fair valuation of our shares. Information that is considered price sensitive is communicated by news releases and stock exchange announcements. We host regular meetings for investors in Europe and the US. The major brokers in Oslo and London publish equity research reports on Hydro. All information about Hydro is published on our website: [www.hydro.com](http://www.hydro.com)

Our annual and quarterly reports are available on [www.hydro.com](http://www.hydro.com), and our latest annual reports can also be ordered in printed versions from the website.

Two weeks before the announcement of quarterly results, Hydro practices a "silent period" meaning that contact with external analysts, investors and journalists is minimized. This is done to minimize the risk of information leaks and potentially unequal information in the marketplace.

## Annual General Meeting

The Annual General Meeting will be held at the company's offices at Drammensveien 260, Oslo, Norway, on Monday, May 2, 2016, at 14:00 CET. Shareholders who wish to attend are asked to inform the registrar by 16:00 CET on Wednesday, April 27:

DNB Bank ASA  
Registrar's Department  
P.O.Box 1600 Sentrum  
N-0021 Oslo, Norway

You may also register electronically on our website [www.hydro.com/register](http://www.hydro.com/register) or via VPS Investor Services. Any shareholder may appoint a proxy with written authority to attend the meeting and vote on his or her behalf. Voting rights are discussed under "Major shareholders and voting rights."

## Change of address

Shareholders registered in the Norwegian Central Securities Depository should send information on changes of address to their registrar and not directly to Hydro.

## Financial calendar 2016

April 27	First quarter results
May 2	Annual General Meeting
May 3	Shares traded ex-dividend
May 4	Record date for dividend
July 21	Second quarter results
October 25	Third quarter results
December 1 and 2	Capital Markets Day





## 06: *Corporate governance*

*– including compliance with the Norwegian code of practice for corporate governance*

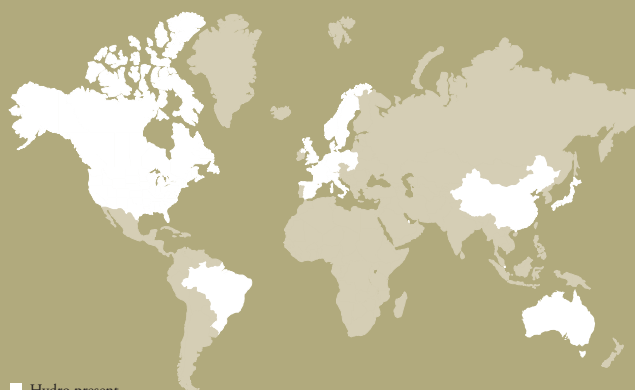
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### QUICK OVERVIEW

Hydro is a public limited company organized under Norwegian law with a governance structure based on Norwegian corporate law. Our corporate governance has been designed to provide a foundation for value creation and to ensure good control mechanisms. We maintain common requirements in the form of corporate directives that are mandatory for all parts of our organization.

Our corporate directives help ensure that all our employees carry out their activities in an ethical manner and in accordance with current legislation and Hydro standards. The board of directors has approved our Code of Conduct, which applies to all employees throughout the world, as well as to board members of Hydro and its subsidiaries. The code addresses compliance with laws and other matters such as handling of conflicts of interest and a commitment to equal opportunities for all employees. Our integrity program contributes to compliance with anti-corruption legislation and basic human rights.

Hydro follows the Norwegian code of practice for corporate governance of October 2014.



■ Hydro present

Based in Norway, Hydro employs 13,000 people involved in activities in 50 countries.

## Introduction

Hydro is a public limited company organized under Norwegian law with a governance structure based on Norwegian corporate law. Our main share listing is on Oslo Børs, which subjects us to Norwegian securities legislation and stock exchange regulations. Hydro has a secondary listing on London Stock Exchange. In the United States the shares are traded on OTCQX International, the premium over-the-counter market tier, in the form of American Depositary Receipts evidencing American Depositary Shares, which carry the same shareholder rights as ordinary shares.

We have developed our governance structure through cooperation between our corporate management board and our superior governance bodies to secure compliance with relevant laws and regulations, Hydro's steering documents and to reflect business needs. Further development is a continuous process.

We follow the Norwegian Code of Practice for Corporate Governance of October 2014. A detailed description of our compliance - including deviations - is presented on page 172. Information regarding our shareholder policy can be found on page 157.

Hydro's strategic direction is described on page 10. More comprehensive information about our governance practices, policies and requirements can be found at [www.hydro.com/governance](http://www.hydro.com/governance)

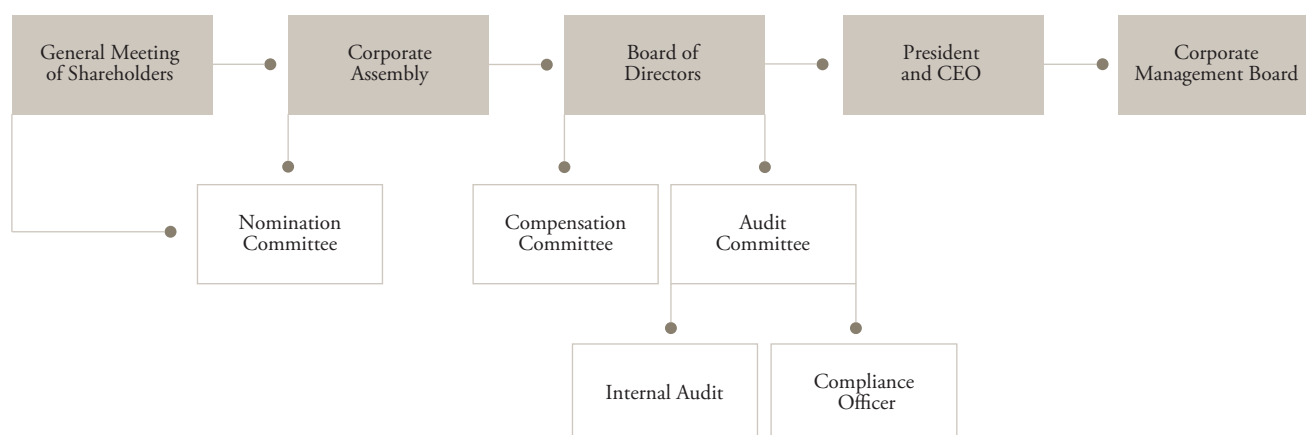
## Global directives and Code of Conduct

The Hydro Way represents our framework for leadership, organization and culture and is the foundation of our governance system. See page 70 for further information.

Our system is based on the delegation of responsibility to our business areas and to corporate functions whose duties include finance, tax and accounting, HSE, CSR, legal and compliance. In order to maintain uniformly high standards, we set common requirements in the form of constituting documents and global directives. Constituting documents are approved by Hydro's board of directors, the corporate assembly or the general meeting of shareholders, while global directives are approved by the President and CEO. These documents address a number of areas, including health, security, safety and environment (HSE), ethics and social responsibility, strategy and business planning, finance, risk management, and organizational and employee development. This information is made available to all employees. For legal entities where Hydro holds less than 100 percent of the voting rights, Hydro's representatives in the boards of directors shall act in compliance with Hydro's Code of Conduct and endeavor to implement the principles as laid down therein.

Hydro's Code of Conduct is a constituting document and applies to all Hydro employees throughout the world, as well as to board members of Hydro and its subsidiaries. The code was last updated in 2012. See page 79 for more information about Hydro's Code of Conduct, whistleblowing procedure and integrity program, and [www.hydro.com/principles](http://www.hydro.com/principles) for more information regarding our corporate directives.

## Governance bodies in Hydro



In Hydro, compliance is defined as adherence to applicable laws and regulations as well as Hydro's steering documents. Guidelines have been established to assist line management to adhere to Hydro's compliance requirements. Special emphasis is made on reducing the risk of non-compliance within finance, anti-corruption, competition, and health, security, safety and environment.

## Business planning and risk management

Hydro's overall goal is to create shareholder value through satisfied customers and motivated and competent employees. We have defined two main processes to ensure that short and long-term targets are achieved.

The portfolio, strategy and business planning process involves strategic and operative planning and results monitoring. The planning, which reflects our ambitions and values, is the basis for the strategies and measures that form the business plans at all levels of our organization. We have defined key performance indicators for each unit, including financial, human resource, ethical and HSE objectives, in addition to unit-specific operating targets.

Hydro's people performance and development process, My Way, is designed to assess and develop our human resources, and includes appraisal dialogue, individual development and follow-up, as well as talent planning and succession management. Its aim is to promote the potential of individual employees and of our organization as a whole and is integrated with our annual business planning process.

Risk management is also an integrated part of our planning and reporting process. Risk management deals with all aspects of value creation, including strategy, finance, commercial matters, organization, HSE, reputation, corporate responsibility, regulatory and legal matters. Hydro's board of directors regularly reviews and evaluates the overall risk management systems and environment within Hydro. We carry out risk assessments for defined exposure areas. Exposure to certain risks, particularly those threatening life

and health, has been consistently reduced to very low levels. See also page 149 for a more detailed discussion of Hydro's risk management.

## Controls and procedures

Hydro's Internal Control over Financial Reporting (ICFR) framework is primarily designed to provide reasonable assurance to our management and the board of directors regarding the preparation and fair presentation of our Financial Statements.

We established our comprehensive ICFR framework in 2006 and continue to maintain it based on the principles established by "The Committee of Sponsoring Organizations of the Treadway Commission (COSO) internal control - integrated framework." The five interrelated COSO principles are: Control Environment, Risk Assessment, Control Activities, Information and Communication, and Monitoring.

Our overall control environment relevant for financial reporting is covered by Hydro-Wide Controls (HWC). HWC reflects the tone set by the common attitudes, ethics, and values, and competence of top management and management, and all the rest of our employees.

Our ICFR model is implemented through a top-down and risk-based approach, which takes Hydro's main financial reporting risks as a starting point.

In addition, a standard and minimum level of controls is required for all reporting units, documented in an internal control handbook.

Hydro's disclosure committee assist the CEO and the CFO in ensuring fairness, accuracy, completeness and timeliness of Hydro's public reports and disclosures, both financial and extra-financial. The disclosure committee is also an integral component of Hydro's disclosure controls and procedures and assesses Hydro's compliance initiatives pertaining to ICFR. The disclosure committee reports quarterly a summary of its activities to the board audit committee.

### Hydro's portfolio, strategy and business planning process



Through reporting from the disclosure committee and internal audit, the audit committee takes an active role in ensuring the functioning of the ICFR framework. See page 171 and [www.hydro.com/governance](http://www.hydro.com/governance) for additional details.

### Pre-approval of audit services

The audit committee has a pre-approval policy governing the engagement of primary and other external auditors to provide audit and non-audit services to Hydro or any entity within the group. Under this pre-approval policy, the audit committee has defined and pre-approved subcategories of audit and non-audit services. The audit committee's pre-approval policy includes annual monetary frames for each of the following categories of services:

- Audit-related
- Tax
- Non-audit related

Within the scope of the pre-approval policy, all services have been pre-approved and all amounts for audit-related, tax and other non-audit related services are within the monetary frames established by the audit committee.

## Transparency and communication

Hydro's corporate culture embodies the principles of transparency and respect for others. Our ability to operate efficiently in the Norwegian market and internationally requires consistent and professional communication. We adhere, therefore, to the principles of transparency, honesty and accountability when interacting with our stakeholders.

## Management compensation

Information concerning remuneration and remuneration policies, share ownership, loans outstanding and loan policy relating to Hydro's board of directors and corporate management board is disclosed in note 8-10 of the consolidated financial statements.

## Board of directors

### *Dag Mejdell, chairperson*

- Position: President and CEO of Posten Norge AS
- Education: Degree in Economics and Business Administration (siviløkonom) from the Norwegian School of Economics (NHH)
- Current directorships: Chair of International Post Corporation, Chair of the Employers Association Spekter, deputy chair of SAS AB and directorships within the Posten group.

### *Inge K. Hansen, deputy chairperson*

- Position: Independent advisor
- Education: Degree in Economics and Business Administration (siviløkonom) from the Norwegian School of Economics (NHH)
- Current directorships: Chair of the board of Harding AS, Troms Kraft AS, World Championship Biathlon 2016, Norsun AS, Gjensidige Forsikring ASA, Hotell og Restauranthuset Continental, Core Energy AS, Nets AS and Arctic Securities AS, and is a board member in Sissener AS and the Fram Museum.

### *Ove Ellefsen, employee representative*

- Position: Project Supervisor / full-time union official representing the Central Cooperative Council (Sentralt Samarbeidsråd)
- Education: Certificate of apprenticeship in electrochemistry. Work supervisor training
- Current directorships: None

### *Billy Fredagsvik, employee representative*

- Position: Process operator / full-time union official. Represents the Norwegian Confederation of Trade Unions (LO)
- Education: Trade school (mechanics)
- Current directorships: None

Name	Place of residence	Year of birth	Position	Board committee	Meetings attended <sup>1)</sup>	No. of Hydro shares <sup>2)</sup>	Director since	Term expires
Dag Mejdell	Oslo, Norway	1957	Chairperson	Chairperson Compensation committee	13	35 000	2012	2016
Inge K. Hansen	Oslo, Norway	1946	Deputy Chairperson	Chairperson Audit committee	13	12 000	2008	2016
Ove Ellefsen	Håvik, Norway	1956	Director		13	8 083	2011	2017
Billy Fredagsvik	Høyanger, Norway	1956	Director	Audit committee	13	3 698	2007	2017
Finn Jebesen	Oslo, Norway	1950	Director	Compensation committee	12	53 405 <sup>3)</sup>	2007	2016
Sten Roar Martinsen	Kopervik, Norway	1962	Director	Compensation committee	13	4 754	2005	2017
Eva Persson	Västra Frölunda, Sweden	1953	Director	Audit committee	13	0	2010	2016
Pedro José Rodrigues	Rio de Janeiro, Brazil	1953	Director		11	0	2012	2016
Irene Rummelhoff	Hafslund, Norway	1967	Director	Compensation committee	13	5 000	2014	2016
Liv Monica Stubholt	Oslo, Norway	1961	Director	Audit committee	11	0	2010	2016

1) Total number of board meetings were 13. Rodrigues abstained himself from discussions related to Vale due to his relationship with the company. Inge Hansen abstained himself from discussions related to certain power contracts due to his relationship with the Troms Kraft.

2) As per 2015-12-31

3) Including shares owned by Fateburet AS

### *Finn Jebesen*

- Position: Independent businessman
- Education: Degree in Economics and Business Administration (siviløkonom) from the Norwegian School of Economics (NHH). Master's degree in Business Administration from the University of California, Los Angeles.
- Current directorships: Chairperson of Kongsberg Gruppen ASA and Kavli Holding AS. Board member of A. Wilhelmsen AS, Norfund, Future Subsea AS and his wholly-owned company Fateburet AS.

### *Sten Roar Martinsen, employee representative*

- Position: Process operator / full-time union official representing the Norwegian Confederation of Trade Unions (LO)
- Education: Certificate of apprenticeship in electrochemistry. Work supervisor training
- Current directorships: None

### *Eva Persson*

- Position: Independent businesswoman
- Education: Master of Law from the University of Lund, Sweden
- Current directorships: Board member of Platzer Fastighets Holding AB, member of the Swedish Securities Council (Aktiemarknadsnämnden) and a member of the Ethics Committee of the Swedish Anti-Corruption Institute

### *Pedro José Rodrigues*

- Position: Independent businessman
- Education: Chemical Engineer from Fundação Armando Alvares Penteado, São Paulo, Brazil
- Current directorships: Chairman of California Steel Industries(CSI), Cia. Siderurgica do Atlantico (CSA) and VLI S.A.

### *Irene Rummelhoff*

- Position: Executive Vice President, New Energy Solutions in Statoil
- Education: Master of Science in Geology/Geophysics (sivilingeniør) from the Norwegian Institute of Technology (NTH)
- Current directorships: None

### *Liv Monica Stubholt*

- Position: Partner, Advokatfirmaet Selmer DA
- Education: Candidate in Jurisprudence (cand. jur.) University of Oslo
- Current directorships: Chair of the board of the Russian-Norwegian Chamber of Commerce, Rosneft Nordic Oil AS and Varanger Kraft AS. Board member of the German-Norwegian Chamber of Commerce, Solveig Gas Norway AS, Broadnet AS and VNG Norge AS.

Number of Hydro shares is as per 31 December 2015.

For more extensive biographical information, please see [www.hydro.com/governance](http://www.hydro.com/governance)



## Corporate Management Board

Name	Place of Residence	Year of birth	Employed in Hydro since	Current position since	Position	Number of Hydro shares <sup>1)</sup>
Svein Richard Brandtzæg	Oslo, Norway	1957	1985	2009	President and Chief Executive Officer	181 055
Kjetil Ebbesberg <sup>2)</sup>	Düsseldorf, Germany	1971	2009	2015	EVP Rolled Products	25 784
Alberto Fabrini <sup>3)</sup>	Campinas, SP, Brazil	1955	2013	2014	EVP Bauxite & Alumina	8 085
Eivind Kallevik	Oslo, Norway	1967	1998	2013	EVP and Chief Financial Officer	29 636
Anne-Lene Midseim	Oslo, Norway	1968	1998	2015	EVP CSR, Compliance and General Counsel	4 339
Arvid Moss	Oslo, Norway	1958	1991	2010	EVP Energy and Corporate Business Development	126 304
Inger Sethov	Høvik, Norway	1970	2005	2015	EVP Communication & Public Affairs	3 663
Hanne Simensen	Oslo, Norway	1967	1994	2015	EVP People & HSE	2 764
Hilde Merete Aasheim <sup>4)</sup>	Oslo, Norway	1958	2008	2008	EVP Primary Metal	59 903

EVP: Executive vice president

1) As per 2015-12-31

2) Ebbesberg also was employed in Hydro 1996-2007

3) Fabrini also was employed in Hydro 2009-2012

4) Aasheim also was employed in Hydro 2005-2007

### *Svein Richard Brandtzæg, President and CEO*

- Key experience: Executive vice president and head of Aluminium Products. Head of Rolled Products. Head of Metal Products. Head of Magnesium
- Education: PhD, Norwegian Institute of Technology. Degree from the Norwegian School of Management
- External directorships: Chair of the Board of Sapa and of the Norwegian University of Science and Technology (NTNU)

### *Kjetil Ebbesberg*

- Key experience: EVP Metal Markets, Head of BU Foundry alloys, CFO for Metal Products, Managing director and Plant manager at Holmestrand rolling mill and CFO for the Norwegian retail group Coop
- Education: Master of Science in Business from Norwegian School of Economics and Business Administration (NHH)
- External directorships: Chair of the board of AluNorf, vice chair of the board of European Aluminium (EA) and Gesamtverband der Aluminiumindustrie (GDA), member of the board of Eurometaux, WirtschaftVereinigung Metalle (WVM), and Norsk-Tysk Handelskammer.

### *Alberto Fabrini*

- Key experience: Head of B&A operations in Pará, Brazil. President at Albras, Hydro's 51 percent owned Brazilian aluminium smelter. Managing director Kurri Kurri. Managing director Jamalco. Managing director Alpart. Various management positions in Alcoa
- Education: Bachelor in Mechanical Engineering, Mackenzie University, São Paulo, Brazil. Immersion Courses, York University and Thunderbird School of Global Management, Canada and USA

- External directorships: Chair of the board of Associação Brasileira de Alumínio and Instituto Brasileiro de Mineração

### *Eivind Kallevik, CFO*

- Key experience: Head of Finance Bauxite and Alumina. Responsible for integration planning of all functional areas in the Vale deal. Head of Corporate Financial Reporting, Performance and Tax. Head of Finance Aluminium Products. Head of Business Controlling Hydro Aluminium. Responsible for Trade Finance & Cash Management. Prior to Hydro, 6 years of Oil and Gas Financing in Christiania Bank og Kreditkasse
- Education: Master of Business Administration from University of San Francisco
- External directorship: Board member in Sapa AS

### *Anne-Lene Midseim*

- Key experience: Company Secretary. Head of Staffs in Bauxite & Alumina. Head of Corporate Social Responsibility and Legal Counsel. Resident Legal Advisor in East-Timor, Oil for development program, Lawyer for Norwegian Law firm Vogt & co, Executive Officer in the Ministry of Oil and Energy
- Education: Candidate in Jurisprudence (cand. jur.) University of Oslo
- External directorships: Member of Nomination Committee of Transparency International Norge

*Arvid Moss*

- Key experience: Executive vice president and head of Corporate Strategy and Business Development. Project leader for the oil and gas merger agreement with Statoil. Head of Metal Products. Head of Automotive Structures
- Education: Degree in Economics and Business Administration (siviløkonom) from the Norwegian School of Economics (NHH)
- External directorships: None

*Inger Sethov*

- Key experience: Head of Communication & Public Affairs in Hydro. Head of Media Relations in Hydro. 10 years of experience as journalist and correspondent for Reuters and Dow Jones news agencies
- Education: BA Mass Communication & Journalism, California State University Fresno
- External directorships: None

*Hanne Simensen*

- Key experience: Head of Energy Markets. Head of HR Energy. Head of Trading Energy. Head of LPG Shipping and Trading. 3 years experience from Rolled Products
- Education: Master of Management from BI
- External directorships: None

*Hilde Merete Aasheim*

- Key experience: Head of Staff Functions and Corporate Services in StatoilHydro. Head of the integration between Statoil and Hydro's oil and gas activities. Head of Leadership and Culture in Hydro. 20 years of service in Elkem, three last years as head of the Silicon Division
- Education: Degree in Economics and Business Administration (siviløkonom) from the Norwegian School of Economics (NHH). Certified public accountant from NHH
- External directorships: Chairperson of the board of directors of Norsk Industri

For more extensive biographical information, please see [www.hydro.com/governance](http://www.hydro.com/governance)

## Governance bodies

Description	Developments and events during the reporting year	References
<p><b>General meeting of shareholders</b></p> <p>Company shareholders exercise ultimate authority through the general meeting. Shareholders registered in VPS, the Norwegian Central Securities Depository, five working days in advance of the general meeting of shareholders can vote in person or by proxy. Invitations are sent to shareholders or to the shareholder's security deposit bank.</p> <p>The general meeting of shareholders:</p> <ul style="list-style-type: none"> <li>• Elects the shareholders' representatives to the corporate assembly</li> <li>• Elects the external auditor and determines the auditor's remuneration</li> <li>• Approves the report according to Norwegian requirements and financial statements, including the dividend proposed by the board of directors and recommended by the corporate assembly</li> <li>• Elects the nomination committee and determines their remuneration</li> <li>• Deals with any other matters listed in the notice convening the meeting</li> <li>• Determines the remuneration of the corporate assembly</li> </ul> <p>Shareholders may, at least four weeks before an ordinary general meeting, request in writing that proposals for resolutions are submitted to the general meeting, or that items are added to the agenda.</p>	<p>General meeting in May</p>	<p>The protocols can be found at <a href="http://www.hydro.com/governance">www.hydro.com/governance</a></p>
<p><b>Corporate assembly</b></p> <p>Normally eighteen members. Twelve are elected by the general meeting of shareholders, six are elected by and among the group's employees in Norway. The members are elected for a period of up to two years.</p> <p>In accordance with Norwegian law, the corporate assembly:</p> <ul style="list-style-type: none"> <li>• Elects the board of directors and determines their remuneration</li> <li>• Nominates the external auditor to be elected by the general meeting of shareholders</li> <li>• Based on recommendations from the board of directors, makes decisions in matters relating to investments that are substantial in relation to Hydro's resources, and when closures and reorganizations will lead to significant changes for the workforce</li> <li>• Provides recommendations to the general meeting of shareholders with respect to approval of the board of directors' proposal regarding the financial statements and dividend</li> </ul>	<p>Four meetings. 95 percent meeting attendance.</p> <p><i>Members:</i> Terje Venold (chairperson), Susanne Munch Thore (deputy chairperson), Shahzad Abid, Rolf Arnesen, Nils Bastiansen, Anne Kverneland Boggsnes, Anne-Margrethe Firing, Berit Ledel Henriksen, Idar Kreutzer, Bjørn Petter Moxnes, Birger Solberg, Unni Steinsmo, Sten-Arthur Sælør, Eivind Torvik, Tove Wangensten, Einar Øren, Bente Østlyngen, Bjørn Øvstetun.</p> <p><i>Deputy members:</i> Jan Fredrik Meling, Ylva Lindberg, Jorunn Johanne Sætre, Svein Kåre Sund, Odd Arne Fodnes, Tone Hjelmtvedt, Leif Sundstrøm, Ørjan Normann, Kolbjørn Havnes, Line Melkild, Ann Kristin Prytz, Nancy Jorunn Holt, Per Ivar Kjennerud, Roar Jakobsen, Kari Sommerfeldt.</p>	<p>Note 10 to the consolidated financial statements for remuneration and share ownership</p> <p>Articles of association § 7-8 at <a href="http://www.hydro.com/governance">www.hydro.com/governance</a></p>
<p><b>Nomination committee</b></p> <p>Normally four members appointed by the general meeting of shareholders. The chairperson of the committee and at least one of the other members shall be elected among the shareholder-elected corporate assembly members.</p> <p>Nominates candidates to the board of directors, the corporate assembly and the nomination committee, and proposes remuneration to the board, its sub-committees, the corporate assembly and the nomination committee.</p>	<p>15 meetings. 95 percent meeting attendance.</p> <p><i>Members:</i> Terje Venold (chairperson) Susanne Munch Thore Mette Wikborg Berit Ledel Henriksen (from May 2015) In May 2015, the general meeting of shareholders approved to change Hydro's Articles of Association regarding the number of members of the nomination committee from "four" to "minimum three, maximum four".</p>	<p>Articles of association § 5A and biographical information can be found at <a href="http://www.hydro.com/governance">www.hydro.com/governance</a></p>
<p><b>Board of directors</b></p> <p><b>The board of directors currently holds 10 members.</b></p> <p>Seven are elected by the corporate assembly, three elected by and among the company's employees in Norway, for a period of up to two years.</p> <p>In accordance with Norwegian law, the board of directors assumes the overall governance of the company, ensures that appropriate management and control systems are in place and supervises the day-to-day management as carried out by the President and CEO.</p>	<p>13 meetings. 96 percent meeting attendance.</p>	<p>The board's mandate can be found at <a href="http://www.hydro.com/governance">www.hydro.com/governance</a></p> <p>Biographical information on the board members on page 166</p>

Description	Developments and events during the reporting year	References
<p>All shareholder-elected members are external. No members elected by employees are part of the company's executive management. 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.</p> <p>The board of directors has an annual plan for its work. It includes recurring topics such as strategy review, business planning, risk and compliance oversight, financial reporting, people strategy, succession planning as well as HSE and CSR</p>	<p>The board of directors is closely following the market and macro-economic developments relevant for the aluminium industry. Two deepdives related to aluminium production in China and Qatar's internal affairs and foreign policy was made to the board of directors by external specialists. The board of directors also visited Qatar and Qatalum.</p> <p>The board of directors conducts an annual self-assessment of its work, competence and cooperation with management and a separate assessment of the chairperson. Also the board audit committee performs a self-assessment. The reviews are facilitated by the corporate advisory firm Lintstock. The main conclusions of all assessments were submitted to the nomination committee, which in turn assessed the board's composition and competence.</p> <p>All shareholder-elected members were in 2015 deemed to be independent according to the Norwegian standards. None of the company's non-employee board members had any other service contractual agreements with the company. Stubholt is since 1 September 2015 a partner of Advokatfirmaet Selmer ANS. Selmer invoiced services to Hydro in 2015 with a legal fee of 6.6 million NOK. Stubholt did not participate personally or directly in any form of provisions of legal services to Hydro.</p>	<p>Note 10 to the consolidated financial statements for remuneration, share ownership and loans.</p>
<p><b>Compensation committee</b></p> <p>Consists of four of the board of directors' members.</p> <p>The committee reviews the performance of, and puts forward proposals regarding the compensation of the President &amp; CEO to the board of directors. The committee assists in evaluating the compensation of the corporate management board and in determining performance-promoting schemes for management.</p>	<p>Seven meetings. 100 percent meeting attendance.</p> <p><i>Members:</i> Dag Mejdell (chairperson) Finn Jebsen Irene Rummelhoff Sten Roar Martinsen<sup>1)</sup></p> <p><sup>1)</sup> Martinsen is employed in Hydro and represents the employees through the Norwegian Confederation of Trade Unions (LO). We believe that such reliance does not adversely affect, in any material way, the ability of the compensation committee to act independently or to satisfy the other requirements.</p>	<p>The mandate can be found on <a href="http://www.hydro.com/governance">www.hydro.com/governance</a></p>
<p><b>Audit committee</b></p> <p>Consists of four of the board of directors' members. The audit committee meets Norwegian requirements regarding independence and competence.</p> <p>The primary function of the Audit committee is to assist the Board in exercising its oversight responsibility, with respect to the integrity of the company's financial statements, the company's financial reporting processes and internal controls, the company's risk assessment and risk management policies, the qualifications, independence of the external auditor, the performance of the company's internal audit function, and the company's compliance system.</p> <p>To ensure the independence of the internal audit function, the head of Internal Audit reports functionally to the board through the audit committee.</p> <p>The audit committee maintains a pre-approval policy governing the engagement of the company's primary and other external auditors to ensure auditor independence.</p>	<p>Six meetings. 96 percent meeting attendance. For self-assessment, see information on the Board of directors above.</p> <p><i>Members:</i> Inge K Hansen (chairperson)</p> <p>Eva Persson Liv Monica Stubholt Billy Fredagsvik<sup>2)</sup></p> <p><sup>2)</sup> Fredagsvik is employed in Hydro and represents the employees through the Norwegian Confederation of Trade Unions (LO). We believe that such reliance does not adversely affect, in any material way, the ability of the audit committee to act independently or to satisfy the other requirements.</p>	<p>The mandate can be found on <a href="http://www.hydro.com/governance">www.hydro.com/governance</a></p> <p>Pre-approval of audit services on page 166</p>
<p><b>President &amp; CEO and corporate management board</b></p> <p>According to Norwegian corporate law, the President &amp; CEO constitutes a formal governing body that is responsible for the daily management of the company. The division of functions and responsibilities between the President &amp; CEO and the board of directors is defined in greater detail in the rules of procedures established by the board.</p> <p>The Corporate Management Board (CMB), including the President &amp; CEO, has a shared responsibility for promoting Hydro's objectives and securing the company's property, organization and reputation. Members of the CMB are also Executive Vice Presidents (EVPs) with responsibility for the respective business areas and corporate staffs.</p>	<p>38 meetings in 2015.</p> <p>Effective 1 January 2015, the CMB was restructured and four new members were appointed executive vice president: Kjetil Ebbesberg with a special responsibility for Rolled Products, Hanne Simensen for People &amp; HSE, Anne-Lene Midseim for CSR, Compliance and General Counsel, and Inger Sethov for Communication &amp; Public Affairs.</p>	<p>Biographical information on page 168</p> <p>Note 8 and 9 to the consolidated financial statements for remuneration, share ownership and loans</p>

## Further on the Norwegian code of practice for corporate governance

This chapter provides a detailed overview of how Hydro follows the Norwegian Code of Practice for Corporate Governance. Information that Hydro must provide in accordance with the Norwegian Accounting Act, section 3.3b, is also included. This overview should be seen in context with the general corporate governance report provided in Hydro's annual report for 2015.

All page numbers and notes to the financial statements refer to this report. All other references can be found at [www.hydro.com/governance](http://www.hydro.com/governance)

### Deviations from the Norwegian code of practice for corporate governance

In the board of directors' assessment, we have deviations from three sections in the code of practice:

#### *Section 6, General meeting of shareholders:*

Hydro has three deviations from this section. The entire board of directors has generally not participated in the general meeting. Matters under consideration at the general meeting of shareholders have not yet required this. The chairperson of the board of directors is always on hand to present the report and answer any questions. Other board members participate as needed. The board of directors considers this to be adequate.

The second deviation from section 6 is that the entire nomination committee has generally not participated in the general meeting. Matters under consideration at the general meeting of shareholders have not yet required this. The chairperson of the nomination committee is always on hand to present the nominations and answer any questions. Other committee members participate as needed. The nomination committee considers this to be adequate.

The third deviation from section 6 concerns section 10 in Hydro's articles of association which states that the general meeting is chaired by the chairperson of the corporate assembly, or, in his or her absence, by the deputy chair. This arrangement has been approved by the company's general meeting.

#### *Section 7, Nomination committee:*

The nomination committee has no formal rules on rotation of its members. The nomination committee's mandate expresses, however, the intention to "over the course of time balance the need for continuity against the need for renewal in respect of each governing organ". The chairperson of the committee, who is also the chairperson of the corporate

assembly, has been a member of the committee since 2012, became acting chairperson in 2014 and was elected chairperson in 2015. The other members were elected to the nomination committee in 2008, 2014 and 2015.

#### *Section 14, Takeovers:*

The board of directors has chosen not to prepare explicitly formulated general principles for handling takeover bids. The reason for this is that the Norwegian state, represented by the Ministry of Trade, Industry and Fisheries, owns 34.3 percent of the Hydro shares (as of 31.12.2015) and has by virtue of the Active Ownership Report (Report to the Storting no. 27 (2013-2014)) expressed a long-term ownership perspective in the company for the purpose of retaining its head office and research activities in Norway.

### 1. Statement of corporate governance

Hydro follows the Norwegian Code of Practice for Corporate Governance of 2014. The Hydro Way represents our framework for leadership, organization and culture and is the foundation for our governance system, including our code of conduct. Hydro's Code of Conduct has been approved by the board of directors, which also oversees that Hydro has appropriate corporate directives for, among other things, risk management, HSE and corporate responsibility.

*References:* Learn more about The Hydro Way at [www.hydro.com/principles](http://www.hydro.com/principles)

### 2. Hydro's business

Hydro is a global aluminium company with production, sales and trading activities throughout the value chain, from bauxite, alumina and energy generation to the production of primary aluminium and rolled products as well as recycling. Based in Norway, the company has 13,000 employees involved in activities in more than 50 countries on all continents. Rooted in more than a century of experience in renewable energy production, technology development and partnerships, Hydro is committed to strengthening the viability of the customers and communities we serve.

The company's objectives, as stated in its articles of association, are to engage in industry, commerce and transport, to utilize energy resources and raw materials, and to engage in other activities connected with these objectives. Its business activities may also be conducted through participation in or in cooperation with other enterprises.

*References:* Hydro's articles of association are available at [www.hydro.com/governance](http://www.hydro.com/governance)

### 3. Equity and dividend

In the opinion of the board of directors, Hydro's equity capital is appropriate to the company's objectives, strategy and risk profile.

Hydro's dividend policy, latest revised in February 2015, is to pay out an average of 40 percent of net income over the business cycle.

The board of directors may obtain authorization from the general meeting of shareholders to buy back Hydro shares in the market. In such cases, the board will normally request that the shares are acquired in the open market, and that the authority lasts no longer than until the next general meeting.

When the general meeting of shareholders considers whether or not to authorize the board of directors to carry out share capital increases for multiple purposes, each purpose must be considered separately by the meeting. Such authorization will be limited in time, and will last no longer than until the date of the next general meeting. Authorization granted to the board of directors is restricted to specific purposes. One example of this is the Vale transaction in 2011, where the board was authorized to issue consideration shares to Vale.

The dividend per share is normally proposed by the board of directors, based on Hydro's dividend policy, and approved by the general meeting of shareholders.

See also item 4.

*References:* Learn more about Hydro's equity and dividend policy at page 157.

### 4. Equal treatment of shareholders

Hydro has one share class. All the shares have the same rights.

Transactions involving own shares are normally executed on the stock exchange. Buybacks of own shares are executed at the current market rate.

Shareholders who are registered in the Norwegian Central Securities Depository (VPS) may vote in person or by proxy. Invitations are sent to the shareholders or to the bank/broker where the shareholder's securities account is held.

Sales of shares to employees are conducted at a discount to market value. See also item 6.

Contact between the board of directors and the investors is normally conducted via the management. Under special circumstances the board, represented by the chairperson, may conduct dialogue directly with investors.

### *Transactions with related parties*

Hydro's Code of Conduct contains guidelines for, among other things, how any conflicts of interest that may arise should be dealt with. The code applies to all of Hydro's board members and employees. It is the opinion of the board of directors that there were no other transactions that were not immaterial between the group and its shareholders, board members, corporate management board or related parties in 2015 except those described under item 8.

Regulation of share issues and preemptive rights are described in the company's articles of association.

### *State ownership*

As of December 31, 2015 the Norwegian state, represented by the Ministry of Trade, Industry and Fisheries, owned 34.3 percent of Hydro's issued shares. Hydro holds regular meetings with the Ministry, where topics discussed include Hydro's economic and strategic development, corporate social responsibility, and the Norwegian State's expectations regarding results and returns on investments. These meetings are comparable to what is customary between a private company and its principal shareholders. The meetings comply with the provisions specified in Norwegian company and securities legislation, not least with respect to equal treatment of shareholders. As a shareholder, the Norwegian state does not usually have access to more information than what is available to other shareholders. If state participation is imperative and the government must seek approval from the Norwegian parliament (Stortinget), it may be necessary to provide the Ministry with insider information. In such cases, the state is subject to the general rules that apply to the handling of such information.

*References:* Learn more about the Hydro share at page 157 and sale of the Hydro share to employees in note 17 (Employee remuneration) to the consolidated financial statements. Hydro's code of conduct can be found on [www.hydro.com/principles](http://www.hydro.com/principles). Hydro's articles of association can be found on [www.hydro.com/governance](http://www.hydro.com/governance). Learn more about major shareholders at page 159 and note 11 (Related party information) to the consolidated financial statements.

### 5. Freely negotiable shares

The Hydro share is freely negotiable. It is among the most traded shares on the Oslo Stock Exchange and is subject to efficient pricing. As of December 31, 2015 the Norwegian state, represented by the Ministry of Trade, Industry and Fisheries, owned 34.3 percent of Hydro's shares, while the Government Pension Fund Norway owned 6.2 percent. Shareholding is based on information from the Norwegian Central Securities Depository (VPS) as of December 31, 2015. Due to lending of shares, an investor's holdings registered in its VPS account may vary.



*References:* Learn more about the Hydro share at page 157.

## 6. General meeting of shareholders

Notice of a general meeting of shareholders with supporting information is normally published on [www.hydro.com](http://www.hydro.com) more than three weeks in advance, and is sent to the shareholders at least three weeks before the meeting is held.

Notice of a general meeting of shareholders provides information on the procedures which shareholders must observe in order to participate in and vote at the meetings. Such notice also details:

- the procedure for representation by proxy, including the use of a form of proxy
- the right of shareholders to propose resolutions for consideration by the general meeting of shareholders.
- the website where the notice of the meeting and other supporting documents will be made available

The following information is available at [www.hydro.com](http://www.hydro.com):

- information on the right of shareholders to propose matters for consideration by the general meeting of shareholders
- how to make proposals for resolutions for consideration by the general meeting or how to comment on matters for which no resolution is proposed
- form of proxy

Our aim is that resolution proposals and supporting information that are distributed are sufficiently detailed and comprehensive to enable shareholders to reach decisions on the matters to be considered at the meeting.

The notification deadline for shareholders wishing to attend the general meeting of shareholders is maximum five days prior to the meeting.

Shares registered in a nominee account must be re-registered in the Norwegian Central Securities Depository (VPS) and be registered in the VPS on the fifth working day before the general meeting of shareholders in order to obtain voting rights.

Shareholders who are unable to attend in person may vote by proxy. Hydro will nominate a person who will be available to vote on behalf of shareholders as their proxy.

The general meeting of shareholders votes for each candidate nominated for election to the company's corporate assembly and nomination committee.

To the extent possible, the form of proxy will facilitate separate voting instructions for each matter to be considered by the meeting and for each of the candidates nominated for election. It is possible to vote electronically in advance.

The general meeting of shareholders is chaired by the chairperson of the corporate assembly or, in his or her absence, by the deputy chairperson.

The chairperson of the board of directors, minimum one nomination committee representative, the President and CEO, and the auditor attend the general meeting.

*References:* Learn more about the general meeting of shareholders at [www.hydro.com/investor](http://www.hydro.com/investor)

*Deviations:* See page 172.

## 7. Nomination committee

In accordance with Hydro's articles of association, the company must appoint a nomination committee. This committee is comprised of minimum three members, maximum four, who are either shareholders or shareholder representatives. The committee's chairperson and members are appointed by the general meeting of shareholders. At least two, including the chairperson, must be elected from among the shareholder-elected representatives in the corporate assembly. If the chairperson resigns as member of the Nomination Committee during the electoral period, the Nomination Committee shall elect among its members a new chairperson for the remainder of the new chairperson's electoral period.

The guidelines for the nomination committee have been approved by the general meeting of shareholders, which also determines the remuneration of the committee. All shareholders may propose candidates for the nomination committee at any time. In order to be considered at the next ordinary election, proposals must be submitted by the end of November in the year before the election year.

The recommendations of the nomination committee include details on the candidates' background and independence.

The nomination committee ensures that due attention is paid to the interests of the shareholder community and the company's requirements for competence, capacity and diversity. The nomination committee also takes account of relevant statutory requirements regarding the composition of the company's governing bodies.

According to its mandate, the Nomination Committee shall be receptive to external views and shall ensure that any deadlines for proposals regarding members of the Corporate

Assembly, the Nomination Committee and the Board of Directors are published well in advance on the Company's website. In carrying out its duties the Nomination Committee should actively maintain contact with the shareholder community and should ensure that its recommendations are anchored with major shareholders.

All members of the nomination committee are independent of Hydro's board of directors, chief executive officer and other executive management staff. As the largest shareholder, the Norwegian state is represented on the nomination committee by department head Mette I. Wikborg.

*References:* Hydro's Articles of Association can be found at [www.hydro.com/governance](http://www.hydro.com/governance). More information about Hydro's nomination committee can be found at the same site. Members of the nomination committee are listed on page 170. Nominations can be submitted electronically, also from [www.hydro.com/governance](http://www.hydro.com/governance)

*Deviations:* See page 172.

## 8. Corporate assembly and board of directors: composition and independence

All board directors, members of the board committees and members of the corporate assembly are independent of the company's executive management and material business relationships. One member of the corporate assembly is dependent of major Hydro shareholders: Nils Bastiansen, who is an employee of the Government Pension Fund Norway, is a member of the corporate assembly. Pedro Jose Rodrigues, who was global director of Mergers and Acquisitions in Vale S.A. until July 2015 and is currently a consultant to Vale S.A., is a member of the board of directors. Until November 2013 Vale possessed 22 percent of Hydro's issued shares. Vale is also a significant supplier of bauxite to Hydro and was a significant supplier of electricity till the end of 2014. Rodrigues abstained himself from discussions related to Vale in Hydro's board of directors due to his relationship with the company. Inge K. Hansen abstained himself from discussions related to certain power contracts due to his relationship with Troms Kraft. Liv Monica Stubholt is since 1 September 2015 a partner of Advokatfirmaet Selmer ANS. Selmer invoiced services to Hydro in 2015 with a legal fee of 6.6 million NOK. Stubholt did not participate personally or directly in any form of provisions of legal services to Hydro.

Two thirds of the corporate assembly and their deputies are elected by the general meeting of shareholders. The nomination committee nominates candidates with a view to obtain a broad representation by the company's shareholders

and other relevant stakeholders with competence in, for example, technology, finance, and corporate social responsibility.

The corporate assembly elects the board of directors, including its chair and deputy chair.

In compliance with Hydro's articles of association, the board of directors consists of between nine and 11 members. These are elected for a period of up to two years.

The nomination committee aims to achieve a board composition whereby the members complement each other professionally and the board of directors is able to function as a corporate body.

As of December 31, 2015, seven of the board's directors own a total of 121,940 shares. Hydro has no share purchase program for board members, with the exception of the employee representatives, who are entitled to buy shares through the employee share purchase scheme. All share purchase transactions are conducted in compliance with the Securities Trading Act.

*References:* The Government Pension Fund Norway is a significant shareholder in Hydro; see page 159. An overview of the members of the corporate assembly, the current composition of the board of directors and information about their independence can be found on page 170-171 and Hydro's articles of association at [www.hydro.com/governance](http://www.hydro.com/governance)

## 9. The work of the board of directors

The board of directors has established procedures for its own work and that of the company's management, with particular emphasis on clear internal division of responsibilities whereby the board has responsibility for supervising and administrating the company, and the company's management has responsibility for the general operation of the group.

If the chairperson of the board is or has been actively involved in a given case, for example in negotiations on mergers, acquisitions etc., another board director will normally lead discussions concerning that particular case.

The board of directors has an annual work plan, with particular emphasis on objectives, strategy and implementation.

Since 2001, Hydro has had an audit committee and a compensation committee. Both committees consist of three shareholder-elected and one employee-elected board member. The shareholder-elected members are all independent of the

company. In the opinion of the board of directors, the audit committee meets the Norwegian requirements regarding independence and competence.

The board of directors conducts an annual self-assessment of its work, competence and cooperation with management and a separate assessment of the chairperson of the board. In addition, the audit committee performs a self-assessment. The assessment results are submitted to the nomination committee, which in turn assesses the board's composition and competence.

*References:* See page 27. Information about the board of directors and its committees, and the board members' competence can be found on page 166-167 and 170-171. The board of directors' mandate can be found at [www.hydro.com/governance](http://www.hydro.com/governance)

## 10. Risk management and internal controls

The board of directors ensures that the company has sound internal controls and appropriate risk management systems through, for example, an annual review of the key risk areas and the company's internal controls. Internal audit corporate reports directly to the board of directors, but is for administrative purposes placed under the purview of the chief financial officer.

Hydro's internal control system includes all parts of our corporate directives, including our code of conduct and HSE and corporate social responsibility requirements. A more detailed description of the company's internal controls and risk management systems related to financial reporting can be found at [www.hydro.com/governance](http://www.hydro.com/governance)

*References:* A review of Hydro's main risks can be found at page 149.

## 11. Remuneration of the board of directors

The board directors elected by the shareholders perform no duties for the company other than their board duties.

Remuneration is determined by the corporate assembly, based on the recommendation of the nomination committee. The nomination committee recommends compensation with the intention that it should reflect the board's responsibility, competence and time commitment as well as the company's complexity and global activities compared with the general level of directors' fees in Norway. Remuneration of the board of directors is based neither on performance nor on shares.

*References:* All aspects of remuneration of the board of directors are described in note 10 (Board of directors and corporate assembly) to the consolidated financial statements. See also Hydro's articles of association.

## 12. Remuneration of the executive management

The board of directors has established guidelines for remuneration of members of the executive management. These guidelines are communicated to the general meeting of shareholders and included in the annual report. The guidelines for determining remuneration of the executive management are based on the main principles for Hydro's remuneration policy, which is that Hydro shall pay its employees a total compensation package that is competitive, but not among the highest, and in line with good industry standards locally. Where appropriate, compensation packages should also include a performance-based component, and the basic salary should reflect individual performance.

The guidelines are also intended to contribute to long-term value creation for the company's shareholders. A ceiling has been set on performance-based compensation. The company has share-based long-term incentive programs, but no share option scheme for its executive management.

The board of directors' statement on management remuneration is made public through note 8 to the consolidated financial statements and sent forward to the general meeting of shareholders for advisory vote to the annual general meeting of shareholders.

*References:* The board's guidelines for management remuneration are described in note 8 (Board of directors' statement on management remuneration) to the consolidated financial statements. All aspects of remuneration of executive management are described in note 9 (Management remuneration). The employee share purchase plan is described in note 17 (Employee remuneration). Hydro's remuneration policy is also described in Hydro's people policy which can be found at [www.hydro.com/principles](http://www.hydro.com/principles)

## 13. Information and communication

Hydro has established guidelines for the company's reporting of financial and extra-financial information based on transparency and with regard to the requirement of equal treatment of all parties in the securities market. This also pertains to contact with shareholders outside of the general meeting of shareholders.

Shareholder information is available at [www.hydro.com](http://www.hydro.com). The financial statements and annual report are sent free of charge to shareholders on request. Notice of general meeting of shareholders is sent directly to shareholders with known addresses unless they have consented to receive these documents electronically. All information sent to the shareholders is made available at [hydro.com](http://hydro.com) when distributed. Presentation of the quarterly reports as well as the annual shareholder meeting are simultaneously

broadcasted through web casts. All relevant information is sent to the Oslo Stock Exchange electronically for public storage.

Hydro has emergency plans that are regularly exercised. Rules for who can speak on behalf of the company are regulated through Hydro's code of conduct.

*References:* Learn more on page 89, 157 and 166. A financial calendar is available on page 161 and at [www.hydro.com/investor](http://www.hydro.com/investor) where also more information about web casts and the Hydro share can be found, including key legal information for shareholders in Norsk Hydro ASA. Hydro's code of conduct is available at [www.hydro.com/principles](http://www.hydro.com/principles)

#### 14. Takeovers

The board of directors will handle takeover bids in accordance with Norwegian law and the Norwegian Code of Practice for Corporate Governance. There are no defense mechanisms against acquisition offers in our articles of association or in any underlying steering document. Neither have we implemented any measures to limit the opportunity to acquire shares in the company. See also item 5.

*Deviations:* See page 172.

#### 15. Auditor

The external auditor annually presents to the audit committee the main features of the plan for the audit of Hydro.

The external auditor participates in considering relevant matters at all meetings of the audit committee. The minutes from these meetings are distributed to all the board directors. This practice is in line with the EU audit directive. Each year the auditor expresses its opinion on internal control procedures to the audit committee including identified weaknesses and proposals for improvement.

The auditor participates in board meetings where the company's financial statements are discussed. In the meetings the auditor will review material changes in the company's accounting policies, assess material accounting estimates and any other material matters on which the auditor and management may disagree, and identify weaknesses in and suggest improvements to the company's internal controls. The board of directors and the audit committee at least annually hold meetings with the external auditor without members of the corporate management present.

Hydro places importance on independence and has clear guidelines regarding the use of services from external

auditors. All use of services from an external auditor, including non-audit services, is subject to prior approval as defined by the audit committee.

Remuneration of the auditor is stated in the annual report. It is also included as a separate agenda item to be approved by the annual general meeting of shareholders.

In May 2010, the general meeting of shareholders chose KPMG as new external auditor for the group with effect from the reporting period 2010.

*References:* Learn more about the external auditor on page 127, 165, 171 and note 45 (Auditor's remuneration) to the consolidated financial statements.



Revenue 2015

NOK MILLION

87,694

## 07: *Financial statements*

### CONSOLIDATED FINANCIAL STATEMENTS

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## Consolidated financial statements

### Consolidated income statements

Amounts in NOK million (except per share amounts). Years ended December 31	Notes	2015	2014
Revenue	7	87 694	77 907
Share of the profit (loss) in equity accounted investments	7, 31, 32	512	415
Other income, net	15	461	751
<b>Total revenue and income</b>		<b>88 667</b>	<b>79 073</b>
Raw material and energy expense	16	56 330	51 480
Employee benefit expense	17	9 048	8 089
Depreciation and amortization expense	18	5 024	4 565
Impairment of non-current assets	19	(1)	206
Other	20, 21	10 008	9 059
<b>Total expenses</b>		<b>80 409</b>	<b>73 399</b>
<b>Earnings before financial items and tax</b>	7	<b>8 258</b>	<b>5 674</b>
Financial income	22	297	347
Financial expense	22	(5 130)	(3 900)
<b>Financial income (expense), net</b>		<b>(4 834)</b>	<b>(3 554)</b>
<b>Income before tax</b>		<b>3 425</b>	<b>2 121</b>
<b>Income taxes</b>	23	<b>(1 092)</b>	<b>(892)</b>
<b>Net income</b>		<b>2 333</b>	<b>1 228</b>
Net income attributable to non-controlling interests		313	432
<b>Net income attributable to Hydro shareholders</b>		<b>2 020</b>	<b>797</b>
<b>Basic and diluted earnings per share attributable to Hydro shareholders</b>	39	<b>0.99</b>	<b>0.39</b>

*The accompanying notes are an integral part of the consolidated financial statements.*

## Consolidated statements of comprehensive income

Amounts in NOK million. Years ended December 31	Notes	2015	2014
Net income		2 333	1 228
<b>Other comprehensive income</b>			
<b>Items that will not be reclassified to income statement</b>			
Remeasurement postemployment benefits, net of tax	39	764	(2 340)
Share of remeasurement postemployment benefits of equity accounted investments, net of tax	39	126	(150)
Total		890	(2 490)
<b>Items that will be reclassified to income statement</b>			
Currency translation differences, net of tax	39	(2 130)	7 004
Unrealized gain on securities, net of tax	39	15	90
Cash flow hedges, net of tax	39	72	9
Share of other comprehensive income that will be recycled to income statement in equity accounted investments, net of tax	39	502	666
Total		(1 541)	7 769
Other comprehensive income		(651)	5 279
Total comprehensive income		1 681	6 507
Total comprehensive income attributable to non-controlling interests		(418)	959
Total comprehensive income attributable to Hydro shareholders		2 099	5 548

*The accompanying notes are an integral part of the consolidated financial statements.*

## Consolidated balance sheets

Amounts in NOK million, December 31	Notes	2015	2014
<b>Assets</b>			
Cash and cash equivalents		6 917	9 253
Short-term investments	24	5 752	1 786
Trade and other receivables	25	10 797	11 703
Inventories	26	12 192	12 642
Other current financial assets	13	502	543
<b>Total current assets</b>		<b>36 160</b>	<b>35 927</b>
Property, plant and equipment	28	51 174	55 719
Intangible assets	29, 30	5 121	5 947
Investments accounted for using the equity method	31, 32	20 150	18 095
Other non-current assets	13, 25	4 614	6 227
Prepaid pension	38	3 382	2 881
Deferred tax assets	23	1 943	1 476
<b>Total non-current assets</b>		<b>86 384</b>	<b>90 345</b>
<b>Total assets</b>	7	<b>122 544</b>	<b>126 273</b>
<b>Liabilities and equity</b>			
Bank loans and other interest-bearing short-term debt	33	3 562	6 039
Trade and other payables	34	9 375	9 663
Provisions	36	1 147	1 125
Taxes payable		1 338	1 884
Other current financial liabilities	13	1 977	406
<b>Total current liabilities</b>		<b>17 399</b>	<b>19 116</b>
Long-term debt	35	3 969	5 128
Provisions	36	3 264	3 993
Pension liabilities	38	12 782	12 796
Other non-current financial liabilities	13	2 169	2 780
Other liabilities		1 632	842
Deferred tax liabilities	23	1 999	1 676
<b>Total non-current liabilities</b>		<b>25 816</b>	<b>27 215</b>
<b>Total liabilities</b>		<b>43 215</b>	<b>46 332</b>
Share capital	39	2 272	2 272
Additional paid-in capital	39	29 068	29 045
Treasury shares	39	(913)	(972)
Retained earnings		45 850	45 872
Other components of equity	39	(2 107)	(2 187)
<b>Equity attributable to Hydro shareholders</b>		<b>74 169</b>	<b>74 030</b>
<b>Non-controlling interests</b>		<b>5 159</b>	<b>5 911</b>
<b>Total equity</b>		<b>79 329</b>	<b>79 941</b>
<b>Total liabilities and equity</b>		<b>122 544</b>	<b>126 273</b>

*The accompanying notes are an integral part of the consolidated financial statements.*

## Consolidated statements of cash flows

Amounts in NOK million. Years ended December 31	Notes	2015	2014
<b>Operating activities</b>			
Net income		2 333	1 228
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation, amortization and impairment	7, 18, 19	5 023	4 771
Share of profit in equity accounted investments	7, 31, 32	(512)	(415)
Dividends received from equity accounted investments	31, 32	1 037	942
Deferred taxes		(321)	(713)
Loss (gain) on sale of non-current assets		422	(44)
Net foreign exchange loss	22	4 397	3 161
Net sales (purchases) of trading securities		31	(33)
Capitalized interest	22	(34)	(3)
Changes in assets and liabilities that provided (used) cash:			
Accounts receivable		3 108	(561)
Inventories		53	(1 451)
Trade and other payables		(833)	(184)
Commodity derivatives		(71)	(313)
Other items		(260)	(420)
Net cash provided by continuing operating activities	44	14 373	5 965
<b>Investing activities</b>			
Purchases of property, plant and equipment		(5 254)	(3 294)
Purchases of other long-term investments	44	(212)	166
Purchases of short-term investments		(5 050)	(1 500)
Proceeds from long-term investing activities		125	103
Proceeds from sales of short-term investments		1 000	2 250
Net cash used in continuing investing activities		(9 391)	(2 275)
<b>Financing activities</b>			
Loan proceeds		2 340	6 880
Principal repayments		(7 042)	(8 226)
Net increase (decrease) in other short-term debt		(344)	170
Proceeds from shares issued		35	21
Dividends paid		(2 370)	(1 943)
Net cash used in continuing financing activities		(7 381)	(3 098)
Foreign currency effects on cash and bank overdraft		68	387
Net cash used in discontinued operations	6	-	(139)
Net increase (decrease) in cash, cash equivalents and bank overdraft		(2 331)	840
Cash, cash equivalents and bank overdraft at beginning of year		9 248	8 408
Cash, cash equivalents and bank overdraft at end of year	44	6 917	9 248

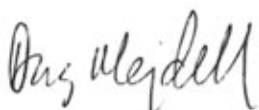
The accompanying notes are an integral part of the consolidated financial statements.

## Consolidated statements of changes in equity

Amounts in NOK million	Notes	Share capital	Additional paid-in capital	Treasury shares	Retained earnings	Other components of equity	Equity attributable to Hydro share-holders	Non-control-ling interests	Total equity
December 31, 2013		2 272	29 049	(1 006)	46 617	(6 950)	69 981	5 283	75 264
Treasury shares reissued to employees	39		(4)	35			31		31
Dividends	41				(1 530)		(1 530)	(331)	(1 861)
Items not reclassified to income statement in subsidiaries sold/liquidated					(12)	12	-		-
Total comprehensive income for the year					797	4 751	5 548	959	6 507
December 31, 2014		2 272	29 045	(972)	45 872	(2 187)	74 030	5 911	79 941
Treasury shares reissued to employees	39		24	58			82		82
Dividends	41				(2 042)		(2 042)	(334)	(2 375)
Total comprehensive income for the year					2 020	80	2 099	(418)	1 681
December 31, 2015		2 272	29 068	(913)	45 850	(2 107)	74 169	5 159	79 329

The accompanying notes are an integral part of the consolidated financial statements.

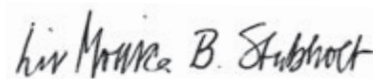
Oslo, March 10, 2016



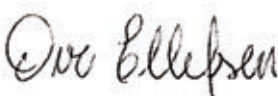
**DAG MEJDELL**  
Chair



**INGE K. HANSEN**  
Deputy chair



**LIV MONICA BARGEM STUBBHOLT**  
Board member



**OVE ELLEFSEN**  
Board member



**BILLY FREDAGSVIK**  
Board member



**FINN JEBSEN**  
Board member



**STEN ROAR MARTINSEN**  
Board member



**EVA PERSSON**  
Board member



**PEDRO JOSÉ RODRIGUES**  
Board member



**IRENE RUMMELHOFF**  
Board member



**SVEIN RICHARD BRANDTZÆG**  
President and CEO

## Notes to the consolidated financial statements

### Note 1 - Reporting entity and basis of presentation

The reporting entity reflected in these financial statements comprises Norsk Hydro ASA and consolidated subsidiaries (Hydro). Hydro is headquartered in Oslo, Norway, and the group employs around 13,000 people in more than 20 countries. Hydro is a global supplier of aluminium with operations throughout the industry value chain. Operations include power production, bauxite extraction, alumina refining, aluminium smelting, remelting and recycling, as well as rolling activities. Through joint ventures Hydro is also engaged in extrusion activities in more than 40 countries and certain other activities. The Board of Directors and the President and CEO authorized these financial statements for issue on March 10, 2016. Hydro is listed on the Oslo and London stock exchanges.

#### Basis of presentation

The financial statements have been prepared on a historical cost basis except for certain assets, liabilities and financial instruments, which are measured at fair value. Preparation of financial statement including note disclosures requires management to make estimates and assumptions that affect amounts reported. Actual results may differ. See note 5 Critical accounting judgment and key sources of estimation uncertainty.

Presentation and classification of items in the financial statements is consistent for the periods presented. Gains and losses on disposal of non-current assets are presented net, as well as expenditures related to provisions that are reimbursed by a third party. However, insurance compensation and government grants are reported on a gross basis.

The functional currency of Norsk Hydro ASA is the Norwegian krone (NOK). The Hydro group accounts are presented in NOK.

As a result of rounding adjustments, the figures in one or more columns included in the financial statements may not add up to the total of that column.

Interest rates used for calculating net present values are rounded to the nearest 10 basis points for post employment benefits and financial instruments, to the nearest 25 basis points for other non financial assets and liabilities.

### Note 2 - Significant accounting policies

The consolidated financial statements of Norsk Hydro ASA and its subsidiaries are prepared in accordance with International Financial Reporting Standards (IFRS) as endorsed by the European Union (EU) and Norwegian authorities and are effective as of December 31, 2015. Hydro also provides the disclosure as specified under the Norwegian Accounting Law (Regnskapsloven).

The following description of accounting principles applies to Hydro's 2015 financial reporting, including all comparative figures. See note 1 Reporting entity and basis of presentation, note 4 Measurement of fair value, and note 5 Critical accounting judgment and key sources of estimation uncertainty for additional information related to the presentation, classification and measurement of Hydro's financial reporting.

#### Basis of consolidation

The consolidated financial statements include Norsk Hydro ASA and subsidiaries, which are entities in which Hydro has the power to govern the financial and operating policies of the entity (control). Control is normally achieved through ownership, directly or indirectly, of more than 50 percent of the voting power. Currently, Hydro has more than 50 percent of the voting power in all subsidiaries. Subsidiaries are included from the date control commences until the date control ceases.

Intercompany transactions and balances have been eliminated. Profits and losses resulting from intercompany transactions have been eliminated.



### Non-controlling interests

Non-controlling interests, previously referred to as minority interest, represent equity interests in subsidiaries held by other owners than Hydro. Non-controlling interests are reported as a separate section of the Group's equity in accordance with IFRS 10 Consolidated Financial Statements. Results attributed to non-controlling interests are based on ownership interest, or other method of allocation if required by contract.

### Business combinations

Business combinations are accounted for using the acquisition method in accordance with IFRS 3 Business Combinations. Consideration is the sum of the fair values, as of the date of exchange, of the assets given, liabilities incurred or assumed, and equity instruments issued in exchange for control of the acquiree. The fair value of Hydro's pre-existing ownership interest in an acquiree is included in the consideration, with any gain or loss recognized in Other income, net.

The acquiree's identifiable assets, liabilities and contingent liabilities are recognized separately at the acquisition date at their fair value irrespective of any non-controlling interest. Goodwill is initially measured either as the excess of the consideration over Hydro's interest in the fair value of the acquiree's identifiable net assets (partial goodwill), or as the fair value of 100 percent of the acquiree in excess of the acquiree's identifiable net assets (full goodwill). The method is elected on a transaction-by-transaction basis. Goodwill is not amortized, but is tested for impairment annually and more frequently if indicators of possible impairment are observed, in accordance with IAS 36 Impairment of Assets. Goodwill is allocated to the cash generating units or groups of cash generating units expected to benefit from the synergies of the combination and that are monitored for internal management purposes.

The interest of non-controlling shareholders in the acquiree is initially measured as the non-controlling interests' proportion of the fair value of the net assets recognized (partial goodwill method), or as the non-controlling interests' proportion of the fair value of the acquiree (full goodwill method). Non-controlling interests are subsequently adjusted for changes in equity after the acquisition date.

### Transactions between non-controlling shareholders and the group

Sales and purchases of share interests and equity contributions not resulting in Hydro gaining or losing control of a subsidiary are reported as equity transactions in accordance with IFRS 10. No gain, loss or change of recognized assets, liabilities or goodwill is recognized as result of such transactions.

### Investments in associates and joint ventures

An associate is an equity investment in which Hydro has the ability to exercise significant influence, which is the power to participate in the financial and operating policy decisions of the entity. Significant influence is assumed to exist when Hydro owns between 20 to 50 percent of the voting rights unless other terms and conditions affect Hydro's influence.

A joint arrangement is an entity, asset or operation that is subject to contractually established joint control. Special voting rights may extend control beyond what is conveyed through the owners' proportional ownership interest. Such rights may take the form of a specified number of board representatives, the right of refusal for important decisions, or the requirement of a qualified majority for important decisions which effectively results in joint control with the specific ownership situation. Joint ventures are joint arrangement which represents a residual interest in the arrangement rather than an interest in assets and responsibility for liabilities.

Hydro accounts for investments in associates and participation in joint ventures using the equity method. This involves recognizing Hydro's interest based on its proportional share of the entity's equity, including any excess values and goodwill. Hydro recognizes its share of net income, including depreciation and amortization of excess values and any impairment losses, in Share of the profit (loss) in equity accounted investments. Other comprehensive income derived from associates and joint ventures is included in Hydro's Other comprehensive income. Hydro's proportional share of unrealized profits resulting from transactions with associates and joint ventures, including transfer of businesses, is eliminated. Accounting policies used by associates and joint ventures may differ from the accounting policies adopted by Hydro. Differences in recognition or measurement are adjusted for prior to equity accounting.

Investments in associates and joint ventures are tested for impairment when there are indications of a possible loss in value. An impairment loss is recognized if the recoverable amount, estimated as the higher of fair value less cost to sell or value in use, is below Hydro's carrying value. Impairment losses are reversed if circumstances change and the impairment situation is no longer deemed to exist.

### Investments in joint operations and jointly owned assets

Joint operations are arrangements under contractually joint control where the joint operators have an interest in the assets; or benefits from the service potential of the assets; as well as have a direct obligation for the liabilities of the joint arrangement. Joint operations can result from the legal form of the arrangement or other facts and circumstances resulting in an interest in the service potential of the asset and obligation for liabilities. Jointly owned assets are arrangements where Hydro and the other partners have a direct ownership in specifically identified assets, but where joint control is not established. Hydro recognizes its share of assets, liabilities, revenues, if any, and expenses of joint operations and jointly owned assets on a line-by-line basis in the group financial statements.

### Assets held for sale and Income from discontinued operations

Assets held for sale are reported separately in accordance with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations, provided that the sale is highly probable, which includes the criteria that management is committed to the sale, and that the sale will be completed within one year. Assets held for sale are not depreciated, but are measured at the lower of carrying value and the fair value less costs to sell for the asset group. Assets are not reclassified in prior period balance sheets. Immaterial disposal groups are not reclassified.

A discontinued operation is a component of Hydro that is held for sale or has been disposed of and that can be clearly distinguished both operationally and for financial reporting purposes. A discontinued operation is a separate major line of business or geographical area of operations. Related cash flows, results of operations and gain or loss from disposal are reported separately as Income (loss) from discontinued operations.

Assets held for sale, liabilities in disposal groups and income and expense from discontinued operations are excluded from specifications presented in the notes unless otherwise stated.

### Revenue recognition

Revenue from sales of products, including products sold in international commodity markets, is recognized upon transfer of ownership, which generally occurs on delivery. For multiple delivery contracts, revenue is allocated to deliveries in line with contract terms, normally either fixed price per unit or price referred to observable market prices at either pricing date or delivery date. Any rebates or incentive allowances are deferred and recognized in income upon the realization or at the closing of the rebate period. In arrangements where Hydro acts as an agent, such as commission sales, the net commission fee is recognized as revenue. To the extent a transaction consists of multiple elements, the transaction is analyzed into the separately identifiable components for revenue recognition.

Margins related to the trading of derivative commodity instruments, including instruments used for risk management purposes, purchase or delivery of physical commodities on a commodity exchange, and physical commodity swaps with a single counterpart, are presented on a net basis in the income statement with trading margins included in revenues.

### Government grants

Government grants are recognized in accordance with IAS 20 Accounting for Government Grants and Disclosure of Government Assistance. Grants are recognized when there is a reasonable assurance that Hydro will comply with relevant conditions and the grants will be received. Government grants are deferred in Other non-current liabilities until the associated activity is performed or expenses recognized. Investment grants are recognized over the period the associated asset is depreciated. Grants are recognized in Other income, net. Investment grants are included in Investing activities in the statement of cash flows.

### Other income, net

Transactions resulting in income from activities other than normal production and sales operations are classified as Other income, net. This includes gains and losses resulting from the sale or disposal of PP&E, investments in subsidiaries, associates or joint ventures as well as government grants, insurance compensation, rental revenue and revenue from utilities.

## Inventories

Inventories are valued at the lower of cost, using the first-in, first-out method (FIFO), or net realizable value. Net realizable value is the estimated selling price in the ordinary course of business less estimated costs of completion and selling costs. Inventory cost includes direct materials, direct labor and a portion of production overhead (manufactured goods) or the purchase price of the inventory. Abnormal amounts of idle facility expense, freight, handling costs, and wasted materials are recognized as expense in the current period. Inventory write-downs to net realizable value occurs when the cost of the inventory is not recoverable, and is reversed in later periods when there is clear evidence of an increase in the net realizable value.

## Property, plant and equipment

Property, plant and equipment (PP&E) is recognized at acquisition cost when there is probable future economic benefits and the cost can be measured reliably. The carrying value of PP&E is comprised of the historical cost less accumulated depreciation and any accumulated impairment losses. The carrying value also includes the estimated fair value of the asset retirement obligation upon initial recognition of the liability. Hydro uses the cost model for investment properties.

### *Capitalized maintenance*

Expenditures for maintenance and repairs applicable to production facilities are capitalized in accordance with IAS 16 Property, Plant and Equipment when such costs are incurred on a scheduled basis with a time interval of greater than one year. Expenditures that regularly occur at shorter intervals are expensed as incurred. Major replacements and renewals are capitalized and any assets replaced are retired.

### *Stripping cost*

Stripping costs incurred during the mining production phase are allocated between cost of inventory produced and the existing mine asset. Stripping costs are allocated as a component of the mine asset in the event they represent significantly improved access to ore. Stripping costs include such activities as removal of vegetation as well as digging the actual pit for mining the ore.

### *Capitalized interest*

Hydro capitalizes borrowing costs on qualifying assets in accordance with IAS 23 Borrowing Costs. Currency gains or losses related to Hydro's foreign currency denominated borrowings are not capitalized.

### *Leased assets*

Leases which transfer to Hydro substantially all the risks and benefits incidental to ownership of the leased item are identified using the guidance in IAS 17 Leases and IFRIC 4 Determining whether an Arrangement contains a lease. Such arrangements are capitalized as finance leases and included under Property, plant and equipment at the fair value of the leased asset, or, if lower, the present value of the minimum lease payments as of the later of date of the inception of the lease or getting access to the services of the asset. The assets are depreciated over the shorter of the estimated useful life of the asset or the lease term. The liability is included in Long-term debt and amortized by the amount of the lease payment less the effective interest expense. All other leases are classified as operating leases with lease payments recognized as an expense over the term of the lease.

## Asset retirement obligations

Hydro recognizes liabilities for the estimated fair value of asset retirement obligations (ARO) relating to assets where such obligations exists, in the period incurred in accordance with IAS 37 Provisions, Contingent Liabilities and Contingent Assets. Fair value is estimated as the present value of costs relating to dismantlement or removal of buildings or other assets, and/or the restoration or rehabilitation of industrial or mining sites. The liability is recognized when an asset is constructed and ready for use or when the obligation is incurred if imposed at a later date. Related asset retirement costs are capitalized and depreciated over the useful life of the asset. Accretion costs are recognized for the change in the present value of the liability and classified as part of Financial expense. Liabilities that are conditional on a future event (e.g. the timing or method of settlement) are recognized if the fair value of the liability can be reasonably estimated.

## Intangible assets

Intangible assets acquired individually or as a group are recognized at fair value when acquired. Intangible assets acquired in a business combination are recognized at fair value separately from goodwill when they arise from contractual or legal rights or can be separated from the acquired entity and sold or transferred.

### *Emission rights*

Government granted and purchased CO<sub>2</sub> emission allowances expected to be used towards Hydro's own emissions are recognized as intangible assets at nominal value (cost). The amounts are not amortized but are tested for impairment at least annually. Actual CO<sub>2</sub> emissions which exceed the level covered by emission rights are recognized as a liability. Sale of emission rights are recognized at the time of sale at the transaction price. CO<sub>2</sub> emission allowances purchased for trading are measured and classified as inventory.

### *Research and development*

Research expenditures are expensed as incurred. Development costs are capitalized as intangible assets at cost in accordance with IAS 38 Intangible Assets when the recognition criteria are met, including probable future economic benefit and that the cost can be measured reliably.

### *Exploration cost*

Exploration cost for mineral resources are expensed as incurred. Costs related to acquired exploration rights are allocated to the relevant areas and capitalized. An area represents a unit that may be utilized based on shared infrastructure and may include several licenses. Exploration rights are transferred to mine development cost when development starts. Exploration rights related to undeveloped areas remain on the balance sheet as intangible assets (mineral rights) until a development is decided or a decision not to develop the area is made.

## **Depreciation and amortization**

Depreciation and amortization expenses are measured on a straight-line basis over the estimated useful life of the asset, commencing when the asset is ready for its intended use. Mine property and development costs in extractive activities are depreciated using the unit-of-production method, using relevant proved and probable reserves. Tangible and intangible assets with an indefinite useful life are not depreciated. Estimated useful life by category is as follows:

- Machinery and equipment, initial investment 4-30 years, for power plants up to 75 years
- Machinery and equipment, capitalized maintenance 1-15 years
- Buildings 20-50 years
- Intangibles with definite lives 3-10 years, for rights related to hydroelectric power production up to 50 years

A component of an item of property, plant and equipment with a significantly differing useful life and a cost that is significant in relation to the item is depreciated separately. At each financial year-end Hydro reviews the residual value and useful life of its assets, with any estimate changes accounted for prospectively over the remaining useful life of the asset.

## **Impairment of property, plant and equipment and intangible assets**

Property, plant and equipment and intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable, in accordance with IAS 36 Impairment of Assets. Exploration cost for undeveloped areas are assessed for impairment under IFRS 6 Exploration for and Evaluation of Mineral Resources.

Intangible assets with indefinite useful life are tested for impairment at least annually. The carrying amount is not recoverable if it exceeds the higher of the asset's or cash generating unit's fair value less costs to sell or the value in use. An impairment loss is recognized in the amount that the carrying value exceeds its recoverable amount. Losses are reversed in the event of a subsequent increase in the recoverable amount of an impaired asset, however, impairment of goodwill is not reversed.

## **Provisions**

Provisions are recognized when Hydro has a present obligation (legal or constructive) as a result of a past event, it is probable (more likely than not) that Hydro will be required to settle the obligation, and a reliable estimate can be made of the amount, taking into account the risks and uncertainties. The provision is measured at the present value of the cash flows estimated to settle the obligation. Uncertain outcomes are measured as the expected value of reasonably possible outcomes. See also the accounting policy discussion for Asset retirement obligations.

### Exit and disposal activity costs

Hydro recognizes a provision in the amount of the direct costs associated with an exit and/or disposal activity when a formal commitment to a detailed exit plan is made and communicated to those affected. A provision for termination benefits to employees is recognized as of the date of employee notification. Costs related to such activities are classified as restructuring costs if the exit or disposal materially change the scope of Hydro's business.

### Contingent liabilities and assets

A contingent liability is a possible obligation that arises from a past event, with the resolution of the contingency dependent on uncertain future events, or a present obligation where no outflow is probable. Major contingent liabilities are disclosed in the financial statements unless the possibility of an outflow of economic resources is remote. Contingent assets are not recognized in the financial statements.

### Foreign currency transactions

Transactions in foreign currencies are initially recorded in the functional currency of the entity by applying the rate of exchange as of the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the rate of exchange at the balance sheet date. Realized and unrealized currency gains or losses are included in Financial expense.

### Foreign currency translation

For consolidation purposes, the financial statements of subsidiaries with a functional currency other than Norwegian kroner (NOK) are translated into NOK. Assets and liabilities, including investment in associates and joint ventures and goodwill, are translated using the rate of exchange as of the balance sheet date. Income, expenses and cash flows are translated using the average exchange rate for the reported period. Translation adjustments are recognized in Other comprehensive income and accumulated in Currency translation reserve in Other components of equity. On disposal of such subsidiary, joint venture or associate, the cumulative translation adjustment of the disposed entity is recognized in the income statement.

### Financial assets

Financial assets represent a contractual right by Hydro to receive cash or another financial asset in the future. Financial assets include financial instruments used for cash-flow hedges, financial derivatives and commodity derivative contracts. Non-current financial assets include long-term derivative instruments, other investments, long-term loans to employees, long-term bank deposits, restricted cash and other long-term receivables. Financial assets are derecognized when the rights to receive cash from the asset have expired or when Hydro has transferred its rights to receive cash flows and has either transferred substantially all of the risks and rewards of the asset or has transferred control of the asset. Financial assets are measured at amortized cost unless another measurement basis is described below.

#### *Cash and cash equivalents*

Cash and cash equivalents in the balance sheet includes cash, bank deposits and all other monetary instruments with a maturity of less than three months from the date of acquisition, and are measured at nominal value. Cash and cash equivalents in the statement of cash flows is presented net of outstanding bank overdrafts connected to cash management activities.

#### *Short-term investments*

Short-term investments include bank deposits and all other monetary instruments with a maturity between three and twelve months at the date of purchase. Short-term investments also includes Hydro's current portfolio of equity and debt securities which are considered trading securities. Such instruments are measured at fair value with the resulting unrealized holding gains and losses included in Financial income. Investment income is recognized when the right to receive cash flows has been established.

#### *Accounts receivable*

Accounts receivable are initially recognized at fair value, subsequently accounted for at amortized cost and are reviewed for impairment on an ongoing basis. Individual accounts are assessed for impairment taking into consideration delayed payments and other indicators of financial difficulty as well as prior collection experience, local economic conditions and management assessment. Discounting generally does not have a material effect on accounts receivable, however, in special cases discounting may be applied.

### *Other non-current assets*

Other non-current assets include Hydro's portfolio of equity securities that are not consolidated or accounted for using the equity method. The portfolio is classified as available-for-sale securities and is measured at fair value with changes in fair value, net of tax, recognized in Other comprehensive income. Investment income is recognized when the right to cash flows has been established. Fair value of the investment is measured under IFRS 13 Fair Value Measurement. When the estimated fair value of the investment is below Hydro's cost, and the difference is significant or prolonged, the impairment is recognized in the income statement. Any accumulated reduction in fair value previously recognized in Other comprehensive income is reclassified to the income statement.

### **Financial liabilities**

Financial liabilities represent a contractual obligation by Hydro to deliver cash in the future, and are classified as either short or long-term. Financial liabilities include financial instruments used for cash-flow hedges, financial derivatives, commodity derivative contracts and other financial liabilities. Financial liabilities, with the exception of derivatives, are initially recognized at fair value including transaction costs directly attributable to the transaction and are subsequently measured at amortized cost. Financial liabilities are derecognized when the obligation is discharged through payment or when Hydro is legally released from the primary responsibility for the liability.

### **Derivative instruments**

Derivative instruments are marked-to-market with the resulting gain or loss reflected in the income statement, except when the instruments meet the criteria for cash flow hedge accounting and are designated as hedge instruments. Derivatives, including hedging instruments and embedded derivatives with expected cash flows within twelve months from the balance sheet date, or held solely for trading, are classified as short-term. Instruments with expected cash flows more than 12 months after the balance sheet date are classified as short and long-term based on the timing of the estimated cash flows.

Derivative contracts are presented gross on the balance sheet unless contract terms include the possibility to settle the contracts on a net basis and Hydro has the intention and ability to do so. The ability to settle net is conditional on simultaneous offsetting cash-flows.

Physical commodity contracts are evaluated on a portfolio basis. If a portfolio of contracts contains contracts of a similar nature that are settled net in cash, or the assets are not intended for own use, the entire portfolio of contracts is recognized at fair value and classified as derivatives. Physical commodity contracts that are entered into and continue to be held for the purpose of the receipt or delivery of the commodity in accordance with Hydro's expected purchase, sale or usage requirements (own use) are not accounted for at fair value. Commodity purchase contracts are generally considered to be the primary source for usage requirements. Hydro's own production of such commodities, for instance electricity, alumina and primary aluminium, is considered to be available for use or sale at Hydro's discretion unless relevant concessions contains restrictions for use.

Derivative commodity instruments are marked-to-market with their fair value recorded in the balance sheet as either assets or liabilities. Adjustments for changes in the fair value of the instruments are reflected in revenue and/or cost. Forward currency contracts and currency options are recognized in the balance sheet and measured at fair value at each balance sheet date with the resulting gain or loss recorded in Financial expense. Interest income and expense relating to swaps are netted and recognized as income or expense over the life of the contract.

Hedge accounting is applied when specific hedge criteria are met, including documentation of the hedge relationship. The changes in fair value of the hedging instruments are offset in part or in full by the corresponding changes in the fair value or cash flows of the underlying hedged exposures. Gains and losses on cash flow hedging instruments are recognized in Other comprehensive income and deferred in the Hedging reserve in Other components of equity until the underlying transaction is recognized in the income statement. Deferred gains and losses relating to forecasted hedged transactions that are no longer expected to occur are immediately recognized in the income statement. Any amounts resulting from hedge ineffectiveness are recognized in the current period's income statement.

An embedded derivative is accounted for as a separate financial instrument, provided that the economic characteristics and risks of the embedded derivative are not closely related to those of the host contract, a separate instrument with the same terms



as the embedded derivative would meet the definition of a derivative, and the host contract is not accounted for at fair value. Embedded derivatives are classified both in the income statement and on the balance sheet based on the risks in the derivatives' underlying.

### **Income taxes, current and deferred**

Taxes payable is based on taxable profit for the year which excludes items of income or expense that are taxable or deductible in other years. Taxable profit also excludes items that are never taxable or deductible. Hydro's liability for current tax is calculated using tax rates that have been enacted or substantively enacted as of the balance sheet date.

Deferred income tax expense is calculated using the liability method in accordance with IAS 12 Income Taxes. Deferred tax assets and liabilities are classified as non-current in the balance sheet and are measured based on the difference between the carrying value of assets and liabilities for financial reporting and their tax basis when such differences are considered temporary in nature. Temporary differences related to intercompany profits are deferred using the buyer's tax rate. Deferred tax assets are reviewed for recoverability every balance sheet date, and the amount probable of recovery is recognized.

Deferred income tax expense represents the change in deferred tax asset and liability balances during the year, except for the deferred tax related to items recognized in Other comprehensive income or resulting from a business combination or disposal. Changes resulting from amendments and revisions in tax laws and tax rates are recognized when the new tax laws or rates become effective or are substantively enacted. Uncertain tax positions are recognized in the financial statements based on management's expectations.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities, when they relate to income taxes levied by the same taxation authority, and when the Group intends to settle its current tax assets and liabilities on a net basis.

Deferred taxes are not provided on undistributed earnings of subsidiaries when the timing of the reversal of this temporary difference is controlled by Hydro and is not expected to happen in the foreseeable future. This is applicable for the majority of Hydro's subsidiaries.

### **Share-based compensation**

Hydro accounts for share-based compensation in accordance with IFRS 2 Share-based Payment. Share-based compensation expense is measured at fair value over the service period and includes social security taxes that will be paid by Hydro at the settlement date. All changes in fair value are recognized in the income statement.

### **Employee benefits and post-employment benefits**

Payments to employees, such as wages, salaries, social security contributions, paid annual leave, as well as bonus agreements are accrued in the period in which the associated services are rendered by the employee.

Post-employment benefits are recognized in accordance with IAS 19 Employee Benefits. The cost of providing pension benefits under a defined benefit plan is determined separately for each plan using the projected unit credit method. Past service costs are recognized immediately in the income statement. The interest component of the periodic cost is included in Financial expense. Remeasurement gains and losses are recognized in Other comprehensive income.

Contributions to defined contribution plans are recognized in the income statement in the period in which they accrue. Multi-employer defined benefit plans where available information is insufficient to use defined benefit accounting are accounted for as if the plan were a defined contribution plan.

### **Statements of cash flows**

Hydro uses the indirect method to present cash flows from operating activities. Interest and dividends received as well as interest paid is included in cash flows from operating activities. Dividends paid is included in cash flows from financing activities.

## Segment information

Hydro identifies its reportable segments and discloses segment information under IFRS 8 Operating Segments.

## Note 3 - Changes in accounting principles and new pronouncements

### Changes in accounting principles

Hydro implemented IFRIC 21 Levies as of January 1, 2015 impacting how certain levies and indirect taxes are allocated between interim periods, with a limited impact to results. The change did not impact the annual period.

### New pronouncements

As of the date of authorization of these financial statements, the following standards, amendments and interpretations relevant to Hydro have been issued by the IASB.

- IFRS 9 Financial Instruments - Classification and Measurement; effective date January 1, 2018.
- IFRS 15 Revenue from Contracts with Customers; effective date January 1, 2018.
- IFRS 16 Leases; effective date January 1, 2019.

As of the date of issue of Hydro's financial statements, these standards were not endorsed by the EU.

Hydro is in the process of evaluating the potential accounting impact of IFRS 9, IFRS 15 and IFRS 16. Preliminary assessment of IFRS 9 and IFRS 15 has not indicated any significant changes in timing of recognition or how to measure revenue, cost, assets or liabilities. There will be some changes to presentation and disclosures, however, the detailed effect has not yet been determined. It is likely that additional risk management strategies will qualify for hedge accounting. It has not been decided whether Hydro will utilize these additional possibilities. Preliminary assessment of IFRS 16 indicates somewhat increased recognized fixed assets and debt, with a corresponding shift of certain amounts from Other operating expenses partly to depreciation and amortization expense, partly to interest expense.

## Note 4 - Measurement of fair value

### Measurement of fair value

Hydro measures certain assets and liabilities at fair value for the purpose of recognition or disclosure, see note 2 Significant accounting policies. Recurring fair value measurement is used primarily for financial instruments. Non-recurring fair value measurement is used for transactions, such as business combinations, divestments with non-cash consideration and certain other non-routine transactions. Fair value is estimated using inputs which are to varying degrees objectively observable. Certain items are valued on the basis of quoted prices in active markets for identical assets or liabilities, others are valued on the basis of inputs that are derived from observable prices, while certain positions are valued on the basis of judgmental assumptions that are to a limited degree or not at all based on observable market data.

### Financial instruments

The estimated fair value of Hydro's financial instruments is based on market prices and valuation techniques. Valuations are made with the objective to include relevant factors that market participants would consider in setting a price, and to apply accepted economic and financial methodologies for the pricing of financial instruments. References for less active markets are carefully reviewed to establish relevant and comparable data. Extrapolations and other accepted valuation techniques are employed in periods with few or no transactions, such as for long-term commodity contracts in markets with few observations beyond the short or mid term period.

Hydro's estimated credit spread for similar liabilities is used when determining the fair value of financial instruments where Hydro is net liable. Hydro determines the appropriate discount factor and credit spread for financial assets based on both an individual and portfolio assessment.

### Equity securities

Fair value for listed shares is based on quoted market prices as of the balance sheet date. Fair value for unlisted shares is based on commonly accepted valuation techniques utilizing significant unobservable data, primarily cash flow based models.

### *Derivatives*

Fair value of financial derivatives with a currency or interest rate as underlying is estimated as the present value of future cash flows, calculated by reference to quoted swap price curves and exchange rates as of the balance sheet date. For derivatives covering a period beyond the liquid period of price curves, the curves are extrapolated using unobservable data.

Fair value of commodity derivatives is measured as the present value of future cash flows, calculated using forward curves and exchange rates as of the balance sheet date. Estimates from brokers and extrapolation techniques are applied for non-quoted periods to achieve the most relevant forward curve. In addition, when deemed appropriate, correlation techniques between commodities are applied. Options are revalued using option pricing models and credit spreads are applied where deemed to be significant. Markets are assessed to determine whether they are active for the relevant instruments. For aluminium contracts priced to observations at the London Metal Exchange (LME), liquidity is considered good for the first few years, with fewer transactions for longer durations. For electricity contracts priced to the electricity exchange Nasdaq Electricity Nordic, liquidity is considered good for the first two to three years. For longer durations there are fewer transactions and higher uncertainty. Similar assessment is made for other markets used for price references.

### *Embedded derivatives*

Hydro measures embedded derivatives that are separated from the host contract by comparing the forward curve at contract inception to the forward curve as of the balance sheet date. Changes in the present value of the cash flows related to the embedded derivative are recognized in the balance sheet and in the income statement. Forward curves are established as described above under Derivatives.

## **Note 5 - Critical accounting judgment and key sources of estimation uncertainty**

The application of accounting policies requires that management makes estimates and judgments in determining certain revenues, expenses, assets, and liabilities. The following accounting policies represent areas that are considered more critical, involving a higher degree of judgment and complexity.

### **Impairment of non-current assets**

IAS 36 requires that Hydro assess conditions that could cause an asset or a Cash Generating Unit (CGU) to become impaired and to test recoverability of potentially impaired assets. These conditions include internal and external factors such as Hydro's market capitalization, significant changes in Hydro's planned use of the assets or a significant adverse change in the expected prices, sales volumes or raw material cost. The identification of CGUs involves judgment, including assessment of where active markets exist, and the level of interdependency of cash inflows. For Hydro, the CGU is usually the individual plant, unless the asset or asset group is an integral part of a value chain where no independent prices for the intermediate products exist, a group of plants is combined and managed to serve a common market, or where circumstances otherwise indicate significant interdependencies.

In accordance with IAS 36, goodwill and certain intangible assets are reviewed at least annually for impairment. If a loss in value is indicated, the recoverable amount is estimated as the higher of the CGU's fair value less cost to sell, or its value in use. Directly observable market prices rarely exist for our assets, however, fair value may be estimated based on recent transactions on comparable assets, internal models used by Hydro for transactions involving the same type of assets or other relevant information. Calculation of value in use is a discounted cash flow calculation based on continued use of the assets in its present condition, excluding potential exploitation of improvement or expansion potential.

Determination of the recoverable amount involves management estimates on highly uncertain matters, such as commodity prices and their impact on markets and prices for upgraded products, development in demand, inflation, operating expenses and tax and legal systems. We use internal business plans, quoted market prices and our best estimate of long-term development in commodity prices, currency rates, discount rates and other relevant information. A detailed forecast is developed for a period of three to five years with projections thereafter. Hydro does not include a general growth factor to volumes or cash flows for the purpose of impairment tests, however, cash flows are generally increased by expected inflation and market recovery towards previously observed volumes is considered. Estimated cash flows are discounted with a nominal risk adjusted discount rate. For further information about impairment tests, see note 19 Impairment of non-current assets.

### Financial instruments

Certain commodity contracts are deemed to be financial instruments under IAS 39 or to contain embedded derivatives which are required to be recognized at fair value, with subsequent changes in fair value impacting the income statement. Determining whether contracts qualify as financial instruments at fair value involves evaluation of markets, Hydro's use of those instruments and historic or planned use of physically delivered products under such contracts. Determining whether embedded derivatives are required to be separated and accounted for at fair value involve assessing price correlations and normal market pricing mechanisms for relevant products and market places. Where no directly observable market prices exist, fair value is estimated through valuation models which rely on internal assumptions as well as observable market information such as forward curves, yield curves and interest rates. Market stability impacts the reliability of observed prices and other market information, and consequently, the extent of judgment necessary to estimate appropriate market prices for valuation purposes. Volatility also impacts the magnitude of changes in estimated fair value, which can be substantial, in particular on long-term contracts. Historically, financial and commodity markets have been highly volatile.

### Employee retirement plans

Hydro provides both defined benefit employee retirement plans and defined contribution plans. A significant but decreasing share is defined benefit plans. Measurement of pension cost and obligations under such plans require numerous assumptions and estimates that can have a significant impact on the recognized pension cost and obligation, such as future salary levels, discount rates, turnover rate and mortality.

The discount rate is based on the yield from high quality corporate bonds. Around 60 percent of Hydro's defined benefit obligation (DBO) relates to Norway. The discount rate applied for Norwegian plans as of December 31, 2015 was 2.6 percent (2014: 2.25 percent). The discount rate is based on the yield on covered bonds <sup>1)</sup> issued in Norway. As the market for covered bond has developed in size and liquidity we currently deem this market to be sufficiently deep to serve as reference for the discount rate for our post employment benefit plans in Norway.

Assumptions for salary increase in the remaining service period for active plan participants are based on expected salary increases for each country or economic area. Changes in these assumptions can influence the net asset or liability for the plan as well as the pension cost as further described in note 38 Employee retirement plans.

### Business combinations

In a business combination consideration, assets and liabilities are recognized at estimated fair value, and any excess purchase price included in goodwill. Where Hydro had an existing ownership interest in the acquiree that interest is also reassessed to determine its acquisition date estimated fair value, resulting in the acquisition date gain or loss. In the businesses Hydro operates, fair values of individual assets and liabilities are normally not readily observable in active markets. This requires the use of valuation models to estimate the fair value of acquired assets and liabilities. Such valuations are subject to numerous assumptions and thus uncertain.

### Contingent assets and liabilities, uncertain assets and liabilities

Liabilities that are uncertain in timing or amount are recognized when a liability arises from a past event and an outflow of cash or other resources is probable and can be reasonably estimated. Contingent liabilities are possible obligations where a future event will determine whether Hydro will be required to make a payment to settle the liability, or where the size of the payment cannot be determined reliably. Material contingent liabilities are disclosed unless a future payment is considered remote. Evaluation of uncertain liabilities and contingent liabilities and assets requires judgment and assumptions regarding the probability of realization and the timing and amount, or range of amounts, that may ultimately be incurred. Such estimates may vary from the ultimate outcome as a result of differing interpretations of laws and facts.

### Environmental liabilities

Environmental liabilities and asset retirement obligations require interpretation of scientific and legal data, in addition to assumptions about probability and future costs. A discussion of Hydro's major contingencies is included in note 37 Contingent liabilities and contingent assets.

### Taxes

Hydro calculates income tax expense based on reported income in the different legal entities. Deferred income tax expense is calculated based on the differences between the carrying value of assets and liabilities for financial reporting purposes and their

respective tax basis that are considered temporary in nature. Valuation of deferred tax assets is dependent on management's assessment of future recoverability of the deferred benefit. Expected recoverability may result from expected taxable income in the future, planned transactions or planned tax optimizing measures. Economic conditions may change and lead to a different conclusion regarding recoverability. Tax authorities in different jurisdictions may challenge Hydro's calculation of taxes payable from prior periods. Such processes may lead to changes to prior periods' taxable income, resulting in changes to income tax expense in the period of change.

Indirect tax regimes are complex in many jurisdictions and cross-border. Basis for such taxes may differ from actual transaction prices. In some jurisdictions, including Brazil, significant credit amounts are generated for use against future indirect and/or direct tax payments, for which the value depends on future generation of taxes. Economic conditions and tax regulations may change and lead to a different conclusion regarding recoverability. Tax authorities may challenge Hydro's calculation of taxes and credits from prior periods. Such processes may lead to changes to prior periods' operating or financial expenses to be recognized in the period of change.

#### *Insurance and other compensation*

Compensation claims related to insurance and other arrangements are recognized when it is deemed to be virtually certain that Hydro will receive a compensation under the arrangement. Such determination requires analysis of the legal basis for the claim; any contingencies that are or may be raised by the liable party; evaluation of assessment from technical, legal or other experts; and other relevant information. To recognize such claims Hydro normally expects to have received either a confirmation from the liable party that the claim is valid and will be honored, or a confirmation from an external expert that Hydro has a valid claim with no or remote risk of not being honored. The claim is measured at Hydro's best estimate of the amount to be received.

1) Covered bonds (Obligasjoner med fortrinnsrett) are debt securities backed by cash-flow from mortgages.

## Note 6 - Significant subsidiaries and changes to the consolidated group

The Hydro group consists of about 80 companies in about 20 countries. Most subsidiaries, including the large operating units in Norway and Germany, are 100 percent owned, directly or indirectly, by Norsk Hydro ASA. Restrictions in the ability to transfer dividend based on reported results and/or equity in the relevant subsidiaries exist in most countries where we operate. In some countries there are also legal restrictions in our ability to integrate cash holdings in subsidiaries in the group's cash pool. There are non-controlling interests in some subsidiaries. The more significant ones are described below.

#### *Albras*

Hydro holds 51 percent of the shares in the Brazilian aluminium smelter Alumínio Brasileiro S.A. (Albras), which is part of Primary Metal. The non-controlling owner has significant influence on certain decisions in the entity, including operational and investment budgets. The non-controlling interests in Albras amounted to NOK 2,683 million as of December 31, 2015, and NOK 3,332 million as of December 31, 2014. Funds held by the entity are not available to the group through cash pool arrangements. Dividends need to be approved by the shareholders jointly. The shareholder agreement supports transfer of dividend to the extent possible under statutory regulations. The smelter produces standard ingots, which are sold to its shareholders in proportion to ownership interest at a price based on prevailing aluminium prices at the London Metal Exchange and product premiums.

#### *Slovalco*

Hydro holds 55 percent of the total shares and 60 percent of the voting interest in the Slovak smelter Slovalco a.s, which is part of Primary Metal. The non-controlling owner has significant influence on certain decisions in the entity, including operational and investment budgets. The non-controlling interests in Slovalco amounted to NOK 1,247 million as of December 31, 2015, and NOK 1,064 million as of December 31, 2014. Funds held by the entity are not available to the group through cash pool arrangements. Dividends need to be approved by the shareholders jointly. The shareholder agreement supports transfer of dividend to the extent possible under statutory regulations. The smelter produces metal products, of which the majority is sold to Hydro at a price based on prevailing aluminium prices at the London Metal Exchange and product premiums.

#### *Alunorte*

Hydro holds about 92 percent of the shares in the Brazilian alumina refinery Alumina do Norte do Brasil S.A. (Alunorte), which is part of Bauxite & Alumina. The non-controlling owners have limited influence on the operational decisions. The

non-controlling interests in Alunorte amounted to NOK 1,084 million as of December 31, 2015, and NOK 1,326 million as of December 31, 2014. Funds held by the entity are not available to the group through cash pool arrangements. Dividends need to be approved by the shareholders jointly. The shareholder agreement supports transfer of dividend to the extent possible under statutory regulations. The refinery produces alumina, which is sold to its shareholders at a price based on prevailing aluminium prices at the London Metal Exchange, with a fixed minimum and maximum price introduced in June 2014.

The table below summarizes key figures for Albras, the only subsidiary with non-controlling interests considered material, as included in the group financial statements. Fair value adjustments from Hydro's acquisition of the subsidiary are included. Intercompany transactions and balances are included, and any internal profit and loss in inventory and fixed assets purchased from group companies are not eliminated in the numbers below.

Amounts in NOK million	Albras	
	2015	2014
Internal revenue	3 842	3 440
External revenue	2 787	3 310
Earnings before financial items and tax	702	1 391
Net income	354	851
Other comprehensive income	(1 339)	479
Total comprehensive income	(985)	1 330
Net cash flows from operating activities	1 041	1 817
Net cash flows from investing activities	(373)	(377)
Net cash flows from financing activities	(1 371)	(356)
Cash and cash equivalents	111	743
Other current assets	1 506	1 617
Non-current assets	5 539	6 897
Current liabilities	1 020	1 545
Non-current liabilities	664	914
Equity attributable to Hydro	2 790	3 465
Equity attributable to minority interests	2 683	3 332
Share of net income attributable to non-controlling interest	167	417
Dividends paid to non-controlling interests	166	135

### Discontinued operations and Assets held for sale

On September 1, 2013, Hydro and the Norwegian industrial group Orkla established the 50/50 joint venture Sapa. Hydro contributed its Extruded Products activities while Orkla contributed its similar businesses. Hydro delivered certain services to Sapa in a transition period, and continues to deliver metal products to Sapa at market prices.

The Extruded Products business was reported as Assets held for sale and Discontinued operations. Cash flows from discontinued operations are presented separately, and included a settlement of adjusting items to the agreed contribution in 2014.

There were no significant changes to the group during 2015.

### Note 7 - Operating and geographic segment information

Hydro identifies its reportable segments and discloses segment information under IFRS 8 Operating Segments which requires Hydro to identify its segments according to the organization and reporting structure used by management. Operating segments are components of a business that are evaluated regularly by the chief operating decision maker for the purpose of assessing performance and allocating resources. Hydro's chief operating decision maker is the President and CEO. Generally, financial information is required to be disclosed on the same basis that is used by the CEO.



Hydro's operating segments represent separately managed business areas with products serving different markets. Hydro's reportable segments are the five business areas Bauxite & Alumina, Primary Metal, Metal Markets, Rolled Products, and Energy.

Bauxite & Alumina activities includes bauxite mining activities, production of alumina and related commercial activities, primarily the sale of alumina.

Primary Metal includes primary aluminium production, remelting and casting activities. The main products are comprised of extrusion ingots, foundry alloys, sheet ingot and standard ingot.

Metal Markets includes all sales activities relating to products from our primary metal plants and operational responsibility for Hydro's stand-alone remelters as well as physical and financial metal trading activities.

Rolled Products includes Hydro's rolling mills. The main products are comprised of aluminium foil, strip, sheet, and lithographic plate for application in such sectors as packaging, automotive and transport industries, as well as for offset printing plates.

Energy includes operating and commercial responsibility for Hydro's power stations in Norway and energy sourcing for Hydro's world-wide operations.

Other consist of Hydro's captive insurance company Industriforsikring, its industry parks, internal service providers, Hydro's investment in Sapa and certain other activities.

### Operating segment information

Hydro uses two measures of segment results, Earnings before financial items and tax - EBIT and EBITDA. EBIT is consistent with the same measure for the group, considering the principles for measuring certain intersegment transactions and contracts described below. Hydro defines EBITDA as Income (loss) before tax, financial income and expense, depreciation, amortization and write-downs, including amortization and impairment of excess values in equity accounted investments. Hydro's definition of EBITDA may be different from other companies.

Because Hydro manages long-term debt and taxes on a Group basis, Net income is presented only for the Group as a whole.

Intersegment sales and transfers reflect arm's length prices as if sold or transferred to third parties at the time of inception of the internal contract, which may cover several years. Transfers of businesses or fixed assets within or between Hydro's segments are reported without recognizing gains or losses. Results of activities not considered part of Hydro's main operations as well as unallocated revenues, expenses, liabilities and assets are reported together with Other under the caption Other and eliminations.

The accounting policies used for segment reporting reflect those used for the Group. The following exceptions apply for intersegment transactions: Internal commodity contracts may meet the definition of a financial instrument in IAS 39 or contain embedded derivatives that are required to be reported separately and valued at fair value under IAS 39. However, Hydro considers these contracts as sourcing of raw materials or sale of own production, and accounts for such contracts as executory contracts. Certain other internal contracts may contain lease arrangements that qualify as a finance lease. However, the segment reporting reflects the responsibility allocated by Hydro's management for those assets. Costs related to certain pension schemes covering more than one segment are allocated to the operating segments based either on the premium charged or the estimated service cost. Any difference between these charges and pension expenses measured in accordance with IFRS, as well as pension assets and liabilities are included in Other and eliminations.

The following tables include information about Hydro's operating segments.

Amounts in NOK million	External revenue		Internal revenue		Share of the profit (loss) in equity accounted investments	
	2015	2014	2015	2014	2015	2014
Bauxite & Alumina	13 534	9 568	8 356	6 279	-	-
Primary Metal	5 373	6 397	26 967	21 667	389	728
Metal Markets	42 795	37 981	4 114	5 048	-	-
Rolled Products	24 293	21 345	(132)	109	-	-
Energy	1 623	2 492	3 703	3 810	-	-
Other and eliminations	77	124	(43 008)	(36 914)	123	(313)
<b>Total</b>	<b>87 694</b>	<b>77 907</b>	<b>-</b>	<b>-</b>	<b>512</b>	<b>415</b>

Amounts in NOK million	Depreciation, amortization and impairment		Earnings before financial items and tax (EBIT) <sup>1)</sup>		EBITDA	
	2015	2014	2015	2014	2015	2014
Bauxite & Alumina	1 983	1 802	2 411	(39)	4 393	1 763
Primary Metal	1 952	1 794	4 459	3 928	6 411	5 736
Metal Markets	101	112	180	717	281	829
Rolled Products <sup>2)</sup>	732	845	154	1 121	886	1 966
Energy	195	162	1 103	1 193	1 297	1 355
Other and eliminations	61	55	(48)	(1 245)	14	(1 190)
<b>Total</b>	<b>5 023</b>	<b>4 771</b>	<b>8 258</b>	<b>5 674</b>	<b>13 282</b>	<b>10 460</b>

Amounts in NOK million	Non-current assets		Total assets <sup>3)</sup>		Investments <sup>4)</sup>	
	2015	2014	2015	2014	2015	2014
Bauxite & Alumina	31 171	39 386	36 640	44 752	1 923	701
Primary Metal	29 740	29 051	38 988	39 168	1 839	1 606
Metal Markets	1 401	1 159	7 354	8 410	280	95
Rolled Products	7 856	6 834	16 120	15 770	1 434	783
Energy	5 395	5 328	6 464	6 308	290	364
Other and eliminations	10 821	8 588	16 978	11 865	99	76
<b>Total</b>	<b>86 384</b>	<b>90 345</b>	<b>122 544</b>	<b>126 273</b>	<b>5 865</b>	<b>3 625</b>

1) Total segment Earnings before financial items and tax is the same as Hydro group's total Earnings before financial items and tax. Financial income and financial expense are not allocated to the segments. There are no reconciling items between segment Earnings before financial items and tax to Hydro Earnings before financial items and tax. Therefore, a separate reconciliation table is not presented.

2) EBIT and EBITDA for Rolled Products for 2015 includes the loss on sale of the rolling mill in Slim, Italy, of NOK 434 million.

3) Total assets exclude internal cash accounts and accounts receivables related to group relief.

4) Additions to property, plant and equipment plus long-term securities, intangible assets, long-term advances and investments in equity accounted investments.

The identification of assets, long-lived assets and investments is based on location of operation. Included in long-lived assets are investments in equity accounted investments; property, plant and equipment (net of accumulated depreciation) and non-current financial assets.

Operating revenues are identified by customer location.

Amounts in NOK million	Revenue		Non-current assets		Investments <sup>4)</sup>	
	2015	2014	2015	2014	2015	2014
Norway	2 310	4 142	24 901	23 514	1 678	1 363
Germany	13 854	12 655	8 062	6 657	1 475	731
Great Britain	3 723	5 272	114	97	5	11
Spain	3 639	2 791	155	127	7	4
Italy	3 543	2 974	-	117	18	18
France	2 885	2 664	40	39	5	6
Poland	2 843	2 491	-	-	-	-
The Netherlands	1 933	1 621	924	948	17	70
Austria	1 866	1 490	-	-	-	-
Denmark	1 597	1 346	-	-	-	-
Belgium	1 212	1 029	-	-	-	-
Slovakia	522	657	1 277	1 140	105	90
Other	4 238	3 340	144	86	62	15
Total EU	41 854	38 330	10 717	9 211	1 695	944
Switzerland	4 372	3 505	281	183	2	-
Turkey	1 872	1 891	-	-	-	-
Other Europe	1 000	788	-	-	-	-
Total Europe	51 407	48 656	35 899	32 908	3 375	2 307
USA	7 343	5 424	995	573	20	20
Canada	637	463	2 061	1 858	130	166
Brazil	3 108	3 873	34 329	43 454	2 295	1 077
Other Americas	787	544	-	-	-	-
Qatar	2 003	1 351	12 279	10 799	-	-
Japan	4 705	4 652	3	2	1	-
Singapore	3 329	3 020	1	-	1	-
Saudi Arabia	2 347	1 530	-	-	-	-
South Korea	2 145	1 928	-	-	-	-
China	1 742	608	3	-	-	-
Hong Kong	1 452	307	-	-	-	-
Taiwan	834	807	-	-	-	-
Other Asia	4 123	3 404	-	-	-	-
Australia and New Zealand	1 310	1 051	815	751	45	56
Africa	424	289	-	-	-	-
Total outside Europe	36 287	29 251	50 485	57 437	2 491	1 318
Total	87 694	77 907	86 384	90 345	5 865	3 625

## Note 8 - Board of Directors' statement on executive management remuneration

### Board of Directors' statement on executive management remuneration

The statement on the remuneration of the company's Chief Executive Officer (CEO) and other members of the Corporate Management Board has been prepared in accordance with the provisions of the Norwegian Public Limited Companies Act, the Norwegian Accounting Act and the Norwegian Code of Practice for Corporate Governance.

The company has evaluated its principles of remuneration of executive management, including adaptation to "Retningslinjer for lønn og annen godtgjørelse til ledende ansatte i foretak og selskaper med statlig eierandel" (the Government's guidelines on remuneration of executive management in entities in which the Government has an ownership interest) issued by the Ministry of Trade, Industry and Fisheries amended with effect from 13.2.2015.

### Guidelines for executive management remuneration

Hydro's guidelines for the remuneration of the company's CEO and other members of the Corporate Management Board reflect Hydro's global human resources policy, whereby *"Hydro shall offer its employees an overall compensation package that is competitive and in line with good industry standards in the country in question. Where appropriate this package should include, in addition to the base salary, also a performance-based incentive that overall shall reflect individual performance."* The guidelines will be evaluated in the coming year.

### Process for determination of remuneration

The Board of Directors has appointed a separate compensation committee consisting of the board chairperson and two shareholder-elected board members, as well as one employee-elected board member. The CEO normally participates in the committee's meetings unless the committee is considering issues regarding the CEO. Other representatives of senior management may attend meetings if requested to do so.

The committee functions as an advisory body for the Board of Directors and the CEO and is responsible primarily for:

- Making recommendations to the Board of Directors based on the committee's evaluation of the principles and systems underlying the remuneration of the CEO and other members of the Corporate Management Board.
- Making recommendations to the Board of Directors based on the committee's evaluation of the overall remuneration of the CEO, including the annual basis for bonus payments and bonus payments actually made.
- Assisting the CEO by consulting on the remuneration of the other members of the Corporate Management Board.
- Advising the Board of Directors and the CEO in remuneration matters which the committee finds to be of material or principal importance for Hydro.

### Key principles for determination of remuneration in the coming financial year

The following statement regarding the remuneration of members of the Corporate Management Board will be presented for an indicative vote to the annual general meeting to be held in May 2016. The Board of Directors proposes that the principles set forth below shall apply for 2016 and up until the Annual General Meeting in 2017.

The remuneration of members of the Corporate Management Board shall reflect at all times the responsibility of the CEO and the other members of the Corporate Management Board for the management of Hydro, taking into account the complexity and breadth of the company's operations, as well as the growth and sustainability of the company. The total remuneration will be rooted in the company's objective of being competitive, but not a remuneration leader, within the relevant labor markets, while at the same time reflecting Hydro's international focus and presence.

Hydro attaches importance to transparency and to ensuring that remuneration arrangements are developed and implemented in accordance with principles for good corporate governance.

The total remuneration of the CEO and other members of the Corporate Management Board consists of a fixed compensation, performance-based bonus, share-based long-term incentive plan, employee share plan, pension and insurance arrangements and, in certain cases, a severance pay arrangement.

## Fixed compensation

The fixed compensation provided to members of the Corporate Management Board includes a base salary (which is the main element of remuneration) and benefits in kind such as a company car or car allowance, a telephone, newspapers and other similar benefits. The base salaries of individual members of the Corporate Management Board are evaluated annually in light of the complexity and responsibility of the relevant employee's role and his or her contribution, qualifications and experience, together with conditions in the labor market and general salary trends.

## Variable compensation

### *Bonus*

The maximum annual performance-based bonus payable to the CEO is equal to 50 percent of his or her annual base salary. The maximum annual performance-based bonus payable to the other members of the Corporate Management Board on Norwegian terms of employment is equal to 40 percent of his or her annual base salary. The Board of Directors evaluates and determines annually the bonus system for the CEO and members of the Corporate Management Board. Bonus payments to the CEO and the other members of the Corporate Management Board are dependent on Hydro achieving positive underlying earnings before interest and tax (EBIT). The bonus parameters are established as part of the annual business-planning process with the objective of having parameters that are ambitious and balanced, and objective and measurable, and which reflect the varied nature of Hydro's operations. The annual bonus shall reflect (a) achievement of pre-defined financial targets, (b) achievement of strategic, operational and organizational key performance indicators (KPIs) including targets relating to safety and environment (HSE) and corporate social responsibility (CSR), (c) contribution to the company's development, as well as compliance with and the promotion of Hydro's core values ("The Hydro Way") and achievement of individual targets, and (d) the Board of Directors' overall discretionary assessment. Bonus payments are not taken into account when determining the basis for pensionable salary.

### *Long Term Incentive (LTI)*

The company has a share-based long-term incentive plan for the CEO and the other members of the Corporate Management Board of 30 percent and 25 percent of annual base salary, respectively. LTI payments are dependent on Hydro achieving positive underlying earnings before interest and tax (EBIT) for the previous financial year. Recipients of LTI payments are required to invest the after-tax net amount in Hydro shares with a lock-in period of three years. Any holder of such shares who voluntarily terminates his or her employment during such a three-year period must pay to the company an amount equal to the after-tax value of the relevant shares at or around the last day of employment. The LTI plan is subject to annual evaluation and decision by the Board of Directors. LTI payments are not taken into account when determining the basis for pensionable salary.

The company does not offer options or other similar arrangements.

## Other share-based compensation

The CEO and other members of the Corporate Management Board are eligible to participate in Hydro's discounted employee share purchase plan on the same terms as all other eligible employees (as described in note 17 Employee remuneration).

## Pensions

There are two pension plans in Hydro in Norway, defined benefit and defined contribution. The defined contribution plan was established on 1 March 2010 at the same time as the defined benefit plan was closed to new entrants. A cash compensation scheme has been established for employees who have been transferred from the defined benefit plan to the defined contribution plan and for whom a deficit in pension capital resulting from the transfer has been estimated.

As of 1 January 2016, approximately 77 percent of the permanent employees in Norway, including five members of the Corporate Management Board, are members of the defined contribution plan. The rest, including the CEO and two members of the Corporate Management Board, are members of the defined benefit plan.

The defined contribution plan stipulates a payment into the plan of amounts equal to 5 percent of the salary between 1 and 6 G and 8 percent of the salary between 6 and 12 G, where "G" is the Norwegian National Insurance basic amount. Following

changes to the Norwegian National Insurance Scheme and the Act on Defined Contribution Occupational Pension, the company is working on an adjustment of its defined contribution plan. The defined benefit plan implies a pension right of approximately 65 percent of pensionable salary subject to full service period (minimum 30 years).

The company has an arrangement funded through operations for earning pension on the portion of any salary exceeding 12G (12G plan). For employees with a defined contribution plan, an amount equivalent to 20 percent of the portion of salary exceeding 12G is allocated as a vested (pension) right. For employees with a defined benefit plan, the portion of salary exceeding 12G is included in the final salary that forms the basis for calculating pension. The CEO and the other Norwegian members of the Corporate Management Board were part of the 12G plan at the beginning of 2015. The company has initiated a process to close this plan during 2016. New members of the Corporate Management Board will not be offered the possibility to earn pension on the portion of salary exceeding 12G.

The company is in the process of adapting to the new rules on age limits in the Working Environment Act, and this will be completed by the deadline of 1 July 2016. Until this work is completed, the normal retirement age in Hydro in Norway is 67 years. From this age, the normal pension rules apply (defined contribution or defined benefit). The company has no early retirement plan, except for the two closed schemes mentioned below.

Until 2011, Hydro had an early retirement scheme for employees on certain levels offering a right to retire at the age of 65 with an entitlement to 65 percent of pensionable salary until the age of 67. All current Norwegian members of the Corporate Management Board were members of the scheme when it closed and are, thus, still covered by it.

In addition, the CEO has a right to retire, and the Board of Directors may require him to do so, after the age of 62 with an entitlement to 60 percent of pensionable salary until the age of 65. From the age of 65, the entitlement is 65 percent of pensionable salary (in accordance with the scheme described in the foregoing paragraph). Two members of the Corporate Management Board belong to an early retirement scheme that gives them the right to retire at the age of 62 with an entitlement to 60 percent of pensionable salary until the age of 65, subject to at least five years of service on the Corporate Management Board between the ages of 50 and 60. This scheme was discontinued in 2012.

The pensionable salaries of the CEO and of two members of the Corporate Management Board have been capped. The pensionable salary caps are subject to annual adjustment in accordance with the adjustment of the Norwegian National Insurance basic amount. Following the adjustment as of 1 January 2016, the pensionable salaries are capped at NOK 7,050,985 for the CEO and NOK 4,325,380 for the two members of the Corporate Management Board.

## Insurance

The CEO and other members of the Corporate Management Board are covered by insurance arrangements applicable to all Hydro employees with a rank of vice president or higher.

## Termination agreement

In the event the CEO's employment is terminated before age 62 unilaterally by Hydro, the CEO has a contractual right to a notice period of six months, plus severance pay and other remuneration (excluding bonus and LTI payments) for 12 months but not beyond the age of 62. Two members of the Corporate Management Board have a similar arrangement as the CEO, but without the limitation of 62 years. Other Norwegian members of the Corporate Management Board have, as of the beginning of 2015, a contractual right to a notice period of six months, plus six months' severance pay.

The CEO's contract and the contracts of the two members of the Corporate Management Board referred to above give the company the right to reduce severance pay in the event of new regular income.

The CEO's employment contract contains provisions on the loss of severance pay if there are grounds for summary dismissal. Other employment contracts include provisions on the loss of severance pay for gross breach of duty or other material breach, and subsequent termination of employment on such grounds. None of the contracts gives the right to severance pay if the employee has initiated the termination of employment.



The company has no specific guidelines for severance packages, but when recruiting for corporate management in recent times, it has followed a practice whereby the total of salary during the notice period and severance pay does not exceed 12 months' salary.

### Members of the Corporate Management Board outside Norway

For members of the Corporate Management Board outside Norway, base salary and other employment conditions are determined in accordance with Hydro's global human resources policy and local industry standards, and accords generally with the remuneration principles applicable to the other members of the Corporate Management Board.

One member of the Corporate Management Board, Alberto Fabrini, has variable compensation schemes deviating from the description above. He is employed by Norsk Hydro Brasil Ltda in Brazil. These schemes entail a framework for variable compensation of up to 8.8 months' base salary for each of the elements (short-term incentive and long-term incentive). Both incentive schemes are performance-based as described above. The Board of Directors' overall assessment is that Fabrini's total remuneration framework is in accordance with market practice in Brazil.

Fabrini is covered by the share-based long-term incentive (LTI) plan described above on the same terms as the Norwegian members of the Corporate Management Board.

### Key principles for determining compensation during the previous financial year

The compensation of the CEO and the other members of the Corporate Management Board for the financial year 2015 was based on the guidelines presented at the Annual General Meeting in 2015.

In July 2015, the Board of Directors decided to increase the CEO's base salary by 3.1 percent, from NOK 5,883,000 to NOK 6,065,000 with effect from January 1, 2015.

Bonus payments for 2014 were determined and paid in 2015 on the basis of the principles described above (see also note 9 Management remuneration). Bonus payments for 2015 were determined in March 2016 on the basis of the principles described above and will be paid during 2016.

### Note 9 - Management remuneration

Corporate management board members' salaries and other benefits, number of LTI-shares allocated, as well as Hydro share ownership as of December 31, 2015 and 2014 are presented in the table below. Unless otherwise stated, Hydro did not have any loans to or guarantees made on behalf of any of the corporate management board members in 2015 and 2014.

Name	Base salary 1) 2)	Maximum bonus potential 1) 2)	Salary paid 1) 3)	Other benefits paid 1) 3)	Compensation pension paid 1) 3)	Bonus earned 1) 3)	Long-term incentive (LTI) earned 1) 3)	Pension benefits 1) 4)	LTI-shares allocated 3)	Hydro share ownership 5)
<b>2015</b>										
Svein Richard Brandtzæg	6 065	3 033	6 207	286	-	2 068	1 820	7 807	19 954	181 055
Eivind Kallevik	2 940	1 176	3 027	279	104	773	735	988	8 025	29 636
Alberto Fabrini <sup>6)</sup>	3 478	5 347	3 478	1 053	-	4 589	870	98	8 085	8 085
Hilde Aasheim	3 158	1 263	3 266	206	-	898	790	2 710	8 668	59 903
Kjetil Ebbesberg <sup>7)</sup>	3 547	1 452	3 768	703	191	751	907	895	-	25 784
Arvid Moss	2 940	1 176	3 017	214	-	798	735	2 923	8 083	126 304
Anne-Lene Midseim <sup>7)</sup>	2 350	940	2 398	195	161	629	588	1 209	-	4 339
Inger Sethov <sup>7)</sup>	2 150	860	2 224	270	195	576	538	764	-	3 663
Hanne Simensen <sup>7)</sup>	2 350	940	2 442	261	150	641	588	1 310	-	2 764
<b>2014</b>										
Svein Richard Brandtzæg	5 883	2 942	6 034	239	-	2 145	1 765	5 066	30 611	160 565
Eivind Kallevik <sup>8)</sup>	2 839	1 136	2 923	208	102	857	710	946	11 285	21 075
Alberto Fabrini <sup>6)</sup>	3 572	3 133	3 008	830	-	2 987	521	43	-	-
Hilde Aasheim	3 067	1 227	3 162	186	-	997	767	1 715	13 298	50 699
Oliver Bell <sup>9)</sup>	4 692	1 877	4 694	132	-	817	1 173	11 855	19 922	70 553
Arvid Moss	2 860	1 144	2 927	241	-	824	715	2 054	12 400	117 685
Wenche Agerup <sup>10)</sup>	2 839	1 136	2 907	246	237	749	710	1 024	12 311	55 034
Johnny Undeli <sup>11)</sup>	6 375	548	4 903	200	-	251	-	2 422	14 253	53 194

1) Amounts in NOK thousand. Amounts paid by subsidiaries outside Norway have been translated to NOK at average exchange rates for each year.

2) Annual base salary per December 31, or per the date of stepping down from the Corporate Management Board. Maximum bonus potential is for the year presented, and for the period as corporate management board member.

3) Salary is the amount paid to the individual during the year presented, and includes vacation pay. Other benefits is the total of all other cash and non-cash related benefits received by the individual during the year presented and includes such items as the taxable portion of insurance premiums, car and mileage allowances and electronic communication items. Compensation pension is the amount paid to compensate for future pension shortfall estimated at the time of transition from Hydro's defined benefit pension plans to the defined contribution plan in line with an arrangement applicable to all affected employees in Norway. Bonus is the amount earned in the year presented, including vacation pay, based on performance achieved as corporate management board member. The LTI plan benefit reflects gross (pre-tax) amounts earned in the year presented, and results in LTI shares allocated in the following year. For corporate management board members on net salary employment contracts, benefits have been converted to estimated gross (pre-tax) amounts.

4) Pension benefits include the estimated change in the value of defined pension benefits, and reflects both the effect of earning an additional year's pension benefit and the adjustment to present value of previously earned pension rights. It is calculated as the increase in the Defined Benefit Obligations (DBO) calculated with stable assumptions. As such, the number includes both the annual accrual of pension benefits and the interest element related to the total accrued pension benefit. For all individuals listed in the table, this is the estimated change from January 1 to December 31. In addition, pension benefits also include contributions to defined contribution plans.

5) Hydro share ownership is the number of shares held directly by the corporate management board member and any shares held by close family members and controlled entities. Hydro share ownership for all corporate management board members is as of December 31.

6) Alberto Fabrini became member of the Corporate Management Board as of June 1, 2014. In addition to the performance related pay arrangement for all members of the Corporate Management Board, Fabrini has a cash-paid long-term incentive which is payable over three years with payments partly dependent on salary levels and business results in the following two years, included in bonus. The reported bonus amounts represent estimates, and prior year estimates have been updated.

7) Kjetil Ebbesberg, Anne-Lene Midseim, Inger Sethov, and Hanne Simensen became members of the Corporate Management Board as of January 1, 2015.

8) In June 2014, Kallevik obtained a loan from Hydro of NOK 175 thousand at an interest rate of 7.5 percent. The loan was repaid in August 2014.

9) Oliver Bell stepped down from the Corporate Management Board and left Hydro as of December 31, 2014. In addition to the benefits included in the table above, Bell received termination benefits amounting to NOK 16,874 thousand in 2015. The long term incentive earned for 2014, was settled in cash in 2015. Bell was not required to make any payments to Hydro for non-vested LTI shares at termination of employment.

10) Wenche Agerup stepped down from the Corporate Management Board and left Hydro as of December 31, 2014. In addition to the benefits included in the table above, Agerup received salary and other benefits during her six month notice period ending June 30, 2015, amounting to NOK 1,952 thousand. Agerup had no work obligations for Hydro in this period. From July 1, 2015, Agerup receives severance pay for a period of 12 months, amounting to NOK 1,215 thousand in 2015, and with an estimated amount of NOK 532 thousand to be received in 2016. Agerup was not required to make any payments to Hydro for non-vested LTI shares at termination of employment. Under the long-term incentive earned in 2014 and settled in 2015, Agerup received 8,025 shares.

11) Johnny Undeli stepped down from the Corporate Management Board as of May 31, 2014.

## Note 10 - Board of Directors and Corporate Assembly

### Board of Directors' remuneration and share ownership

The remuneration to the Board of Directors consists of the payment of fees and travel compensation. Travel compensation is paid to members living outside Scandinavia who attend meetings in person, with an amount of NOK 10,000 (unchanged from 2014) per meeting. Board members do not have any incentive or share-based compensation. Hydro has not made any guarantees on behalf of any of the board members. The only board members with loans are the employee-elected members of the board.

Fees are based on the position of the board members and board committee assignments. Annual fees for 2015 for the chairperson of the board, deputy chairperson and directors are NOK 600,000 (2014: NOK 582,000), NOK 376,000 (2014: NOK 365,000) and NOK 329,000 (2014: NOK 319,000), respectively. The chairperson of the audit committee and the chairperson of the compensation committee receive an additional NOK 190,000 (2014: NOK 185,000) and NOK 109,000 (2014: NOK 106,000) annually in fees, respectively, and audit and compensation committee members receive NOK 124,000 (2014: NOK 120,500) and NOK 82,000 (2014: NOK 79,500) annually, respectively, for their participation on these committees.

Total board fees and individual board member fees for 2015 and 2014, and outstanding loans and board member share ownership as of December 31, 2015 and 2014, are presented in the tables below.

#### Board of Directors' fees

Amounts in NOK thousand	2015	2014
Fees and other remuneration - normal board activities	3 678	3 740
Fees - compensation committee	355	345
Fees - audit committee	562	547
Total fees for board services provided to Hydro during the year	4 595	4 631

Board member	Board fees <sup>1)</sup>		Outstanding loans <sup>1) 2)</sup>		Number of shares <sup>3)</sup>	
	2015	2014	2015	2014	2015	2014
Dag Mejdell <sup>4)</sup>	709	584	-	-	35 000	35 000
Inge K. Hansen <sup>5)</sup>	566	550	-	-	12 000	12 000
Finn Jebsen <sup>6)</sup>	411	399	-	-	53 406	53 406
Eva Persson <sup>7)</sup>	453	440	-	-	-	-
Pedro Rodrigues	399	399	-	-	-	-
Irene Rummelhoff <sup>8)</sup>	411	232	-	-	5 000	5 000
Liv Monica Stubholt <sup>9)</sup>	453	422	-	-	-	-
Ove Ellefsen <sup>10) 11)</sup>	329	389	-	-	8 083	7 547
Billy Fredagsvik <sup>11) 12)</sup>	453	369	107	57	3 698	3 162
Sten Roar Martinsen <sup>6) 11)</sup>	411	399	-	-	4 754	4 218
Terje Vareberg <sup>13)</sup>	-	295	-	-	-	28 391
Victoire de Margerie <sup>14)</sup>	-	153	-	-	-	-
Total	4 595	4 631	107	57	121 941	148 724

1) Amounts in NOK thousand.

2) Loans are extended to board members who are also Hydro employees under an employee benefit scheme available to all employees in Norway. Loans are as of December 31, 2015 and 2014 for board members as of December 31, 2015 and 2014; otherwise loans are as of the date the individual stepped down from the Board of Directors. At the end of 2015 the loan to Billy Fredagsvik had an interest rate of 7.5 percent, with a repayment period of 13 months. All payments have been made in a timely fashion and in accordance with the agreed payment schedule. Loans have not been extended to related parties.

3) Number of shares owned as of December 31, 2015 and 2014 for board members as of December 31, 2015 and 2014; otherwise it is the number of shares owned as of the date the individual stepped down from the Board of Directors. Shareholdings disclosed include shares held by close members of family and controlled entities, in addition to shares held directly by the board member.

4) Chairperson of the board as of May 27, 2014. Chairperson of the board compensation committee as of June 4, 2014. Member of the board audit committee until June 4, 2014.

5) Deputy chairperson of the board, and chairperson of the board audit committee.

6) Member of the board compensation committee.

7) Member of the board audit committee.

8) Member of the board as of May 27, 2014. Member of the compensation committee as of June 4, 2014.

9) Member of the board audit committee as of June 4, 2014. Member of the board compensation committee until June 4, 2014.

10) Member of the board audit committee until August 1, 2014.

11) Employee representative on the board elected by the employees in accordance with Norwegian Company Law. As such, these individuals also are paid regular salary, remuneration in kind and pension benefits that are not included in the table above.

12) Member of the board audit committee as of August 1, 2014.

13) Chairperson of the board until May 27, 2014. Chairperson of the board compensation committee until May 27, 2014.

14) Member of the board until May 27, 2014.

## Corporate Assembly

Corporate Assembly members owned 30,135 shares as of December 31, 2015. Loans to employees who are members of the Corporate Assembly were extended under an employee benefit scheme that is available to all employees in Norway. Loans outstanding to Corporate Assembly members who are also Hydro employees totaled NOK 448 thousand as of December 31, 2015. The interest rates on these loans are 3.10 percent and 7.50 percent with a repayment period between eight months and 29 years.

## Note 11 - Related party information

As of December 31, 2015, The Norwegian state had ownership interests in Hydro through the Ministry of Trade, Industry and Fisheries, and Folketrygdfondet, which manages the Government Pension Fund - Norway. The Ministry of Trade, Industry and Fisheries held 34.7 percent of total shares outstanding (2014: 34.8 percent). Folketrygdfondet <sup>1)</sup> held 6.3 percent (2014: 7.4 percent). There are no preferential voting rights associated with the shares held by the Norwegian State. Hydro has concluded that the Norwegian state's shareholding represents significant interest in Hydro, and that the State thus is a related party.

The Norwegian state has ownership interests in a substantial number of companies. The ownership interests in 70 companies are managed by the ministries and covered by public information from the Ministry of Trade, Industry and Fisheries <sup>2)</sup>. We have not assessed which of these companies that are controlled by the State. Hydro has business transactions with a number of these companies, including purchase of power from Statkraft SF. Generally, transactions are agreed independent of the possible control exercised by the State.

The public enterprise Enova, which supports new energy and climate-related technology development in Norway, decided in June 2014 to contribute up to NOK 1.6 billion to Hydro's planned pilot project for new electrolysis technology at Karmøy, Norway. The contribution was approved by the European Free Trade Association, EFTA, in February 2015 with the first payment in July 2015. The majority of the grant is expected to be paid over the preparation and building period with final payments after approved project report when the project has been completed.

A significant share of Hydro's defined benefit post-employment plans is managed by the independent pension trust, Norsk Hydro Pensjonskasse. This trust owns some of the office buildings rented by Hydro. The rental arrangement was entered into in 2006, and priced based on market price benchmarks at that time. Hydro has paid a total of NOK 206 million and NOK 201 million for 2015 and 2014, respectively related to the contract. In 2013, Hydro concluded that the rental contract was loss making and made a provision of NOK 312 million for future rental costs in excess of the benefit through sub rentals and own use of the premises. In December 2015 the contract was renegotiated. Hydro retains the rental of premises used for head-office functions, while contracts for sublease arrangements were transferred to the pension trust who also has the responsibility for future leases of premises not covered by Hydro's new lease contract. Hydro will pay a compensation for reduced rental and certain costs including identified maintenance projects, estimated at NOK 507 million, payable over the remaining rental period until 2021. The change resulted in a loss of NOK 285 million recognized in 2015.

The members of Hydro's board of directors during 2015 and 2014 are stated in note 10 Board of Directors and Corporate Assembly, where their remuneration and share ownership is outlined. Some of the board members or their close members of family serve as board members or executive directors in other companies. In addition, some members of Hydro's corporate management board or their close members of family serve as board members in other companies. Hydro has not identified any transactions where the relationship is known to have influenced the transaction. The board member Liv Monica Stubholt is partner in the Norwegian law firm Advokatfirmaet Selmer DA from September 1, 2015. Selmer has had assignments for Hydro resulting in fees of NOK 6.6 million in 2015. During 2014 and the period through August 2015, Stubholt was partner in the law firm Advokatfirmaet Hjort DA. Hjort also had assignments for Hydro resulting in fees of NOK 0.8 million for 2015 and NOK 0.1 million for 2014. Stubholt has not been involved in these services to Hydro. Some close family members of members of Hydro's management are employed in non-executive positions in Hydro.

Hydro's significant associated companies and transactions with those companies are described in note 32 Investments in associates. Hydro's significant joint arrangements and transactions with those entities are described in note 31 Investments in joint arrangements. Hydro has joint arrangements with a number of other companies. Generally, the relationships are limited to a combined effort within a limited area. Hydro considers the joint venture partners as competitors in other business transactions, and do not see these relationships as related party relationships.

1) Shareholding is based on information from the Norwegian Central Securities Depository (VPS) as of December 31, 2015. Due to lending of shares, an investor's holdings registered in its VPS account may vary.

2) According to information on the Government web site [www.regjeringen.no](http://www.regjeringen.no), state ownership

## Note 12 - Financial and commercial risk management

Hydro is exposed to market risks from fluctuations in the price of commodities bought and sold, prices of other raw materials, currency exchange rates and interest rates. Price volatility, which may be significant, can have a substantial impact on Hydro's results. Market risk exposures are evaluated based on a holistic approach in order to take advantage of offsetting positions and to manage risk on a net exposure basis. Natural hedging positions are established where possible and economically viable. Hydro uses financial derivatives to some extent to manage financial and commercial risk exposures. Hydro's main policy to manage market volatility is to keep a strong financial position. Hydro's market risk strategy is materially unchanged in 2015 compared to previous years.

### Commodity price risk exposure

#### *Aluminium*

Hydro produces primary aluminium, aluminium casthouse products and fabricated aluminium products including remelting. Hydro also engages in sourcing and trading activities to procure raw materials and primary aluminium for internal use and for resale to customers. These activities serve to optimize capacity utilization, reduce logistical costs and strengthen our market positions. Hydro also participates in trading activities within strict volume and risk limits.

Hydro enters into future contracts with the London Metal Exchange (LME) mainly for two purposes. The first is to achieve an average LME aluminium price on smelter production, matching the average customer pricing pattern. Second, because Hydro's downstream business, remelting, and the sale of third party products are based on margins above the LME price, Hydro seeks to offset the metal price exposure when entering into customer and supplier contracts with corresponding physical or derivative future contracts at fixed prices (back-to-back hedging). Hydro manages these exposures on a portfolio basis, taking LME positions based upon net exposures within given limits. Aluminium price volatility can result in significant fluctuations in earnings as the derivative positions are marked to their market value with changes to market value recognized in the income statement, while the underlying physical metal transactions normally are not marked-to-market, except for those included in trading portfolios. The majority of Hydro's LME contracts mature within one year.

Hydro's sales of primary aluminium, aluminium casthouse products and fabricated aluminium products include a premium above the LME aluminium price. The pricing of these premiums can be volatile, and is related to physical demand and supply, with regional and product-related differences. Over the later years, these premiums have been a higher share of the revenue than historic averages. There are limited possibilities for hedging future premiums.

In order to secure cash flow or margins for specific projects or special circumstances, Hydro might enter into futures contracts on a longer-term basis. In these cases, hedge accounting has normally been applied. See the section on cash flow hedges in note 14 Derivative instruments and hedge accounting.

#### *Bauxite and alumina*

Hydro's production of alumina exceeds the alumina consumption in its primary aluminium production. In addition, Hydro has entered into long-term agreements to purchase alumina from third parties. The older alumina purchase and sale contracts are priced as a percentage of the LME aluminium price. New contracts, and thus an increasing part of the contracts, are purchased and sold with reference to a spot market price index.

Hydro is a producer and consumer of bauxite. Hydro's needs for bauxite are secured through long-term contracts as well as by own production. The purchasing contracts have links to the LME aluminium price and to alumina indexes. Bauxite is sold under medium and short-term contracts with prices linked to the alumina price index or open price negotiations.

### *Electricity*

Hydro is a large power consumer with a significant power production. Hydro's consumption is mainly secured through long-term contracts with power suppliers and through Hydro's own production in Norway. Hydro's own production is influenced by hydrological conditions which can vary significantly. The net power position in Norway is balanced out in the Nordic power market. In order to manage and mitigate risks related to price and volume fluctuations, Hydro utilizes physical contracts and derivatives including future contracts, forwards and options. Hydro also participates in trading activities within strict volume and risk limits.

A significant part of Hydro's power purchase contracts are linked to aluminium prices in order to mitigate market price risk related to the sales of its aluminium products. These contract elements are separated from their host contracts and accounted for as derivatives. Further, some power contracts in Norway are priced in Euro. There is no consensus that the Euro is a commonly used currency in the relevant market, the euro price clauses are thus accounted for separately as currency forwards.

### *Other raw materials*

Hydro is party to both long-term and short-term sourcing agreements for a range of raw materials and services with both fixed and variable prices. Such agreements include pitch, petroleum coke, caustic, natural gas, coal, fuel oil and freight. The number of purchasing agreements with prices linked to the price of other commodities such as aluminium is limited and the fair value exposure is considered to be immaterial.

### **Foreign currency risk exposure**

The prices of Hydro's upstream products bauxite, alumina and primary aluminium, are mainly denominated in US dollars. Margins for mid- and downstream products are mainly priced in US dollars and Euro. Further, the prices of major raw materials used in Hydro's production processes, are quoted in US dollars in the international commodity markets. Hydro also incurs local costs related to the production, distribution and marketing of products in a number of different currencies, mainly Norwegian Krone, Brazilian Real, Euro and US dollar.

Hydro's primary underlying foreign currency risk is consequently linked to fluctuations in the value of the US dollar versus the currencies in which significant costs are incurred. In addition, Hydro's results and equity are influenced by value changes for the functional currencies of the individual entities and the Norwegian Krone as the Group's presentation currency.

To mitigate the US dollar exposure, Hydro's policy is to raise funding primarily in US dollar. To reduce the effects of fluctuations in the US dollar and other exchange rates, Hydro also uses foreign currency swaps and forward currency contracts from time to time.

### *Foreign currency risk exposure in financial instruments*

Short-term receivables and payables are often held in currencies other than the functional currency of the unit. Such risks are usually not hedged, and fluctuations between the functional currency and the currency in which the receivable or payable is denominated are reported in Financial expense. Borrowings is often denominated in other currencies than the functional currency of the unit, predominantly US dollar. Fluctuations between the functional currency and the borrowing currency, both short and long term, impacts the recognized value of the debt, and is reported in Financial expense. Investments in equity and debt instruments of other entities are often impacted by changes in currency exchange rates. To the extent such investments are carried at fair value, the currency changes are included in the changes of fair value and reported as an integral part of such changes.

### **Interest rate exposure**

Hydro is exposed to changes in interest rates, primarily as a result of financing its business operations and managing its liquidity in different currencies. Cash and other liquid resources, as well as debt, are currently mainly held in Norwegian Krone and US dollars. The corresponding interest rate exposures are consequently related to Norwegian Krone and US dollar short-term rates.



Financial instruments and provisions are also exposed to changes in interest rates in connection with discounting of positions to present value. See sensitivity analysis of financial instruments in note 13 Financial instruments.

### Credit risk management

Hydro manages credit risk by setting counterparty risk limits and establishing procedures for monitoring exposures and timely settlement of customer accounts. Prepayments or guarantees are required where credit risk is outside the limits set for the relevant counterparty. Hydro is also monitoring the financial performance of key suppliers in order to reduce the risk of default on operations and key projects. Our overall credit risk exposure is reduced due to a diversified customer base representing various industries and geographic areas. Enforceable netting agreements, guarantees, and credit insurance, also contribute to a lower credit risk.

Credit risk arising from derivatives is generally limited to net exposures. Exposure limits are established for financial institutions relating to current accounts, deposits and other obligations. Credit risk related to commodity derivatives is limited by settlement through commodity exchanges such as the London Metal Exchange, Nasdaq and banks. Current counterparty risk related to the use of derivative instruments and financial operations is considered limited.

### Liquidity risk

Volatile commodity prices and exchange rates as well as fluctuating business volumes and inventory levels can have a substantial effect on Hydro's cash positions and borrowing requirements.

To fund cash deficits of a more permanent nature Hydro will normally raise long-term bond or bank debt in available markets. Hydro has a revolving syndicated credit facility of USD 1.7 billion maturing in 2020. The facility remained undrawn at year-end.

Repayments of long-term debt are disclosed in note 35 Long-term debt. Further, all other financial liabilities, such as trade payables, with the exception of derivatives, have a final maturity date within one year. An overview of estimated gross cash flows from derivatives accounted for as liabilities and assets is presented below. Many of these assets and liabilities are offset by cash flows from contracts not accounted for as derivatives.

Risk of significant cash payments or margin calls related to derivative instruments is limited due to strict volume limits, value-at-risk and tenor limits for relevant trading activities.

Information about derivatives and other financial instruments held, including sensitivity analysis, is presented in Note 13 Financial instruments

Expected gross cash flows from derivatives accounted for as financial liabilities and financial assets, respectively, as of end of year:

Amounts in NOK million	December 31, 2015		December 31, 2014	
	Liabilities	Assets	Liabilities	Assets
2015			(295)	562
2016	(429)	425	(28)	6
2017	(22)	20	-	-
2018	(5)	1	-	-
2019	(5)	-	-	-
2020	(4)	-	-	-
Total	(465)	446	(323)	568

The cash flows above are to a large extent subject to enforceable netting agreements reducing Hydro's exposure substantially.

For additional information on contracts accounted for at fair value, see note 14 Derivative instruments and hedge accounting.

## Note 13 - Financial instruments

Financial instruments, and contracts accounted for as such, are in the balance sheet included in several line items and classified in categories for accounting treatment. A reconciliation of the financial instruments in Hydro is presented below:

Amounts in NOK million	Financial instruments at fair value through profit or loss <sup>1)</sup>	Derivatives identified as hedging instruments	Loans and receivables	Available-for-sale financial assets <sup>2)</sup>	Other financial liabilities <sup>3)</sup>	Non-financial assets and liabilities	Total
<b>2015</b>							
<b>Assets - current</b>							
Cash and cash equivalents	-	-	6 917	-	-	-	6 917
Short-term investments	1 085	-	4 667	-	-	-	5 752
Accounts receivable	-	-	8 436	-	-	2 361	10 797
Other current financial assets	502	-	-	-	-	-	502
<b>Assets - non-current</b>							
Investments accounted for using the equity method	-	-	3	-	-	20 147	20 150
Other non-current assets	205	-	630	1 798	-	1 981	4 614
<b>Liabilities - current</b>							
Bank loans and other interest-bearing short-term debt	-	-	-	-	3 562	-	3 562
Trade and other payables	-	-	-	-	5 301	4 074	9 375
Other current financial liabilities	189	-	40	-	1 748	-	1 977
<b>Liabilities - non-current</b>							
Long-term debt	-	-	-	-	3 969	-	3 969
Other non-current financial liabilities	1 766	403	-	-	-	-	2 169
<b>2014</b>							
<b>Assets - current</b>							
Cash and cash equivalents	-	-	9 253	-	-	-	9 253
Short-term investments	1 108	-	678	-	-	-	1 786
Accounts receivable	-	-	9 327	-	-	2 376	11 703
Other current financial assets	543	-	-	-	-	-	543
<b>Assets - non-current</b>							
Investments accounted for using the equity method	-	-	4	-	-	18 092	18 095
Other non-current assets	59	-	705	1 757	-	3 706	6 227
<b>Liabilities - current</b>							
Bank loans and other interest-bearing short-term debt	-	-	-	-	6 039	-	6 039
Trade and other payables	-	-	-	-	5 825	3 838	9 663
Other current financial liabilities	301	105	-	-	-	-	406
<b>Liabilities - non-current</b>							
Long-term debt	-	-	-	-	5 128	-	5 128
Other non-current financial liabilities	909	455	-	-	1 416	-	2 780

1) Financial instruments at Fair Value Through Profit or Loss (FVTPL) are trading instruments required by IAS 39 to be at FVTPL, with the exception of one element of contingent consideration from a business combination required to be at FVTPL by IFRS 3, included in Other current financial liabilities.

2) Includes the investment in the independent pension trust Norsk Hydros Pensjonskasse, carried at cost.

3) Items disclosed under this category are financial liabilities at amortized cost.

The above specification relates to financial statement line items containing financial instruments.

Hydro's liability to acquire the remaining shares in Paragominas is included as a financial liability at amortized cost, net of certain guarantees issued by the seller in Hydro's acquisition of Vale Aluminium in 2011, measured at fair value.

Financial assets, classified as current and non-current, represent the maximum exposure Hydro has towards credit risk as at the reporting date.

Collateral or margin calls are required for some financial liabilities, primarily related to derivative transactions. Such collaterals for financial instruments are reported as part of Short-term investments.

Impairment of receivables are disclosed in note 25 Trade and other receivables. No other financial assets are currently impaired based on credit losses.

### Gains and losses

Realized and unrealized gains and losses from financial instruments and contracts accounted for as financial instruments are included in several line items in the income statement. Below is a reconciliation of the effects from Hydro's financial instruments in the income statements:

Amounts in NOK million	Financial instruments at fair value through profit or loss	Derivatives identified as hedging instruments	Loans and receivables	Available-for-sale financial assets	Other financial liabilities	Non-financial assets and liabilities	Total <sup>1)</sup>
<b>2015</b>							
<b>Income statement line item</b>							
Revenue	(517)	-	-	-	-	-	(517)
Raw material and energy expense	(177)	1	-	-	-	-	(176)
Other expense	-	-	-	-	-	-	-
Financial income	(4)	-	-	(13)	-	-	(17)
Financial expense	745	-	-	-	-	-	745
<b>Gain/loss directly in Other comprehensive income</b>							
Recognized in Other comprehensive income (before tax)				(23)			
Removed from Other components of equity and recognized in the income statement				-			
<b>2014</b>							
<b>Income statement line item</b>							
Revenue	(169)	(50)	-	-	-	-	(219)
Raw material and energy expense	456	95	-	-	-	-	551
Other expense	(122)	-	-	-	-	-	(122)
Financial income	(49)	-	-	(21)	-	-	(70)
Financial expense	931	-	-	-	-	-	931
<b>Gain/loss directly in Other comprehensive income</b>							
Recognized in Other comprehensive income (before tax)				(138)			
Removed from Other components of equity and recognized in the income statement				-			

1) Amount indicates the total gains and losses to financial instruments for each specific income statement line item.

Currency effects, with the exception of currency derivatives, are not included above. Negative amounts indicate a gain.

### Sensitivity analysis

In accordance with IFRS, 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. The sensitivity analysis depicted in the tables below reflects the hypothetical gain/loss in fair values that would occur assuming a 10 percent increase in rates or prices and no changes in the portfolio of instruments as of December 31, 2015 and December 31, 2014, respectively. Effects shown below are largely also representative of reductions in rates or prices by 10 percent but with the opposite sign convention. Only effects that would ultimately be accounted for in the income statement, or equity, as a result of a change in rates or prices are included. All changes are before tax.

Amounts in NOK million	Fair value as of December 31, 2015 <sup>1)</sup>	Gain (loss) from 10 percent increase in						
		Foreign currency exchange rates			Commodity prices		Interest	
		USD	EUR	Other	Aluminium	Other	rates	Other
Derivative financial instruments <sup>2)</sup>	(1 600)	-	(1 005)	-	-	-	-	-
Other financial instruments <sup>3)</sup>	8 049	(362)	280	23	-	-	(3)	29
Derivative commodity instruments <sup>4)</sup>	(4)	(151)	1	(2)	66	(55)	28	(8)
Financial instruments through OCI <sup>5)</sup>	820	183	(44)	1	-	16	(76)	73

Amounts in NOK million	Fair value as of December 31, 2014 <sup>1)</sup>	Gain (loss) from 10 percent increase in						
		Foreign currency exchange rates			Commodity prices		Interest	
		USD	EUR	Other	Aluminium	Other	rates	Other
Derivative financial instruments <sup>2)</sup>	(854)	-	(648)	-	-	-	12	-
Other financial instruments <sup>3)</sup>	3 503	(904)	330	55	-	-	(3)	29
Derivative commodity instruments <sup>4)</sup>	(54)	(298)	3	(2)	(279)	(146)	(7)	(17)
Financial instruments through OCI <sup>5)</sup>	663	494	(56)	-	-	12	(118)	121

1) The change in fair value due to price changes is calculated based on pricing formulas for certain derivatives, the Black-Scholes/Turnbull-Wakeman models for options and the net present value of cash flows for certain financial instruments or derivatives. Discount rates vary as appropriate for the individual instruments.

2) Includes forward currency contracts and embedded currency derivatives.

3) Includes cash and cash equivalents, investments in securities, bank loans and other interest-bearing short-term debt and long-term debt. Trade payables and trade receivables are also included.

4) Includes all contracts with commodities as underlying, both financial and physical contracts, such as LME contracts and NASDAQ Nordic Power contracts, which are accounted for at fair value.

5) Includes shares classified as available-for-sale and hedging derivatives.

Hydro's management emphasizes that the above sensitivity analysis contains material limitations due to the necessarily simplified assumptions including:

- Only the effects of the derivative instruments discussed above and of certain financial instruments (see footnotes in the table above) which excludes all related offsetting physical positions, contracts, and anticipated transactions.
- No adjustments for potential correlations between the risk exposure categories, such as the effect of a change in a foreign exchange rate on a commodity price.
- The assumption that all rates or prices simultaneously move in directions that would have negative/positive effects on Hydro's portfolio of instruments.

The above discussion about Hydro's risk management policies and the estimated amounts included in the sensitivity analysis relates to the balance sheet position as of December 31. Outcomes could differ materially based on actual developments in the global markets. The methods used by Hydro to analyze risks discussed above should not be considered projections of future events, gains or losses.

The following is an overview of fair value measurements categorized on the basis of observability of significant measurement inputs. Certain items are valued on the basis of quoted prices in active markets for identical assets or liabilities (level 1 inputs), others are valued on the basis of inputs that are derived from observable prices (level 2 inputs), while certain positions are

valued on the basis of judgmental assumptions that are to a limited degree or not at all based on observable market data (level 3 inputs). The level in this fair value hierarchy within which measurements are categorized is determined on the basis of the lowest level input that is significant to the fair value measurement.

Amounts in NOK million	2015	Level 1	Level 2	Level 3	2014	Level 1	Level 2	Level 3
<b>Assets</b>								
Commodity derivatives	707	449	91	167	602	317	233	51
Securities held for trading	1 085	316	764	5	1 109	314	788	6
Available for sale financial assets	1 263	-	-	1 263	1 222	-	-	1 222
<b>Total</b>	<b>3 055</b>	<b>765</b>	<b>855</b>	<b>1 435</b>	<b>2 933</b>	<b>631</b>	<b>1 022</b>	<b>1 280</b>
<b>Liabilities</b>								
Commodity derivatives	(711)	(465)	(25)	(221)	(655)	(70)	(46)	(539)
Currency derivatives	(1 529)	(413)	(1 117)	-	(855)	-	(277)	(578)
Cash flow hedges	(514)	(1)	(70)	(443)	(560)	-	-	(560)
Other non-current financial liabilities	355	-	-	355	300	-	-	300
<b>Total</b>	<b>(2 399)</b>	<b>(879)</b>	<b>(1 211)</b>	<b>(309)</b>	<b>(1 770)</b>	<b>(70)</b>	<b>(323)</b>	<b>(1 378)</b>

The following is an overview in which changes in level 3 measurements are specified:

Amounts in NOK million	Commodity derivatives Assets	Commodity derivatives Liabilities	Currency derivatives Liabilities	Cash flow hedges	Available for sale financial assets	Other
December 31, 2013	137	(535)	-	(465)	1 009	1 056
Total gains (losses)						
in income statement	(54)	(159)	(578)	4	-	124
in Other comprehensive income	-	-	-	(99)	138	-
Settlements	(37)	170	-	-	-	(1 090)
Currency translation difference	5	(16)	-	-	75	216
December 31, 2014	51	(539)	(578)	(560)	1 222	306
Total gains (losses)						
in income statement	116	137	-	117	-	31
in Other comprehensive income	-	-	-	-	23	-
Reclassified to level 2	-	-	578	-	-	-
Settlements	6	193	-	-	(2)	-
Currency translation difference	(7)	(11)	-	-	20	23
December 31, 2015	167	(221)	-	(443)	1 263	360
Total gains (losses) for the period	116	319	-	117	23	31
Total gains (losses) for the period included in the income statement for assets held at the end of the reporting period	116	319	-	117	23	31

Embedded currency derivatives with long duration, exceeding ten years, were classified as level 3 measurements in 2014. During 2015 we have concluded that the significant inputs used to value such instruments qualify as level 2 inputs, and reclassified the instruments accordingly.

Gains or losses relating to level 3 commodity derivatives appearing in the table above are included in the income statement in Raw material and energy expense. Changes in fair value for embedded derivatives are reported as gains or losses for the period. Changes in fair value for hedge instruments are reported in Other comprehensive income. Changes in fair value on available for sale assets are reported in Other comprehensive income while dividends received and realized gains and losses are included in Financial income.

Certain measurements classified as level 3 are highly sensitive to changes in assumptions, the effects of which would be material. Some of the instruments are sensitive to judgmental factors such as probabilities of certain future events and interpretation of contracts or legal issues. These are not reflected in the table below. Sensitivities relating to commodity

derivatives are based on models utilized in the calculation of position balance as of December 31, adjusted for alternate assumptions. Effects shown below are largely also representative of increases in rates or prices by 10 percent but with the opposite sign convention. The following is an overview of such sensitivity:

Amounts in NOK million	Gain (loss) from 10 percent decrease in				
	USD	EUR	Aluminium	Other commodity	Interest rates
Commodity derivatives	153	-	(110)	53	(11)
Currency derivatives	-	-	-	-	-
Cash flow hedges	-	44	-	(16)	1
Available for sale financial assets	(181)	-	-	-	97

## Note 14 - Derivative instruments and hedge accounting

Derivative instruments, whether physically or financially settled, are accounted for under IAS 39. All derivative instruments are accounted for at fair value with changes in the fair value of derivative instruments recognized in the income statement, unless specific hedge criteria are met. Some of Hydro's commodity contracts are deemed to be derivatives under IFRS. For further explanation on the principles for which physical commodity contracts that are accounted for as derivatives, and which are considered own use, see note 2 Significant accounting policies.

### Embedded derivatives

Some contracts contain pricing links that affect cash flows in a manner different than the underlying commodity or financial instrument in the contract. For accounting purposes, these embedded derivatives are in some circumstances separated from the host contract and recognized at fair value. Hydro has separated and recognized at fair value embedded derivatives related to currency, aluminium, inflation and coal links from the underlying contracts.

### Commodity derivatives

The following types of commodity derivatives were recorded at fair value on the balance sheet as of December 31, 2015 and December 31, 2014. Contracts that are designated as hedging instruments in cash flow hedges are not included. The presentation of fair values for electricity and aluminium contracts shown in the table below includes the fair value of traditional derivative instruments such as futures, forwards and swaps, in conjunction with the physical contracts accounted for at fair value, as well as embedded derivatives.

Amounts in NOK million	2015	2014
<b>Assets</b>		
Electricity contracts	138	63
Aluminium futures, forwards and options	534	538
Other	35	-
<b>Total</b>	<b>707</b>	<b>601</b>
<b>Liabilities</b>		
Electricity contracts	(122)	(37)
Coal forwards	(241)	(658)
Aluminium futures, forwards and options	(347)	63
Other	-	(23)
<b>Total</b>	<b>(710)</b>	<b>(655)</b>

Embedded derivatives are classified based on the underlying in the contract feature constituting a separable embedded derivative in the table above.

Changes in the fair value of commodity derivatives are included in operating revenues or cost of goods sold based on classification of host contract for embedded derivatives and on the purpose of the instrument for freestanding derivatives.



### Cash flow hedges

Hydro has periodically entered into hedge programs to secure the price of aluminium and alumina to be sold or power to be consumed. Aluminium futures, options and swaps on the London Metal Exchange and with banks, currency forwards with banks, as well as power derivatives with exchanges or producers have been used for this purpose. Certain of these hedge programs have been accounted for as cash flow hedges, where gains and losses on the hedge derivatives are recognized in Other comprehensive income, and accumulated in the hedging reserve in equity and reclassified into operating revenues when the corresponding forecasted sale or consumption is recognized.

In 2012 Hydro entered into a hedge arrangement for parts of the power consumption in the Rheinwerk smelter in Germany. The price differential between the German and the Nordic power market was secured through derivative contracts for 150 MW for the period 2013 to 2020.

Hydro also hedged part of the US dollar exposure on sales of aluminium and alumina to be produced in the Brazilian plants Alunorte and Albras in 2013 and 2014. All of the forward instruments had matured as of December 31, 2014.

Ineffectiveness amounting to NOK 4 million was recognized in the income statement in 2014. No ineffectiveness was identified and recognized in 2015.

The table below gives aggregated numbers related to the cash flow hedges for the period 2014 to 2015.

	2016	2015	2014
Expected to be reclassified to the income statement during the year (NOK million)	(33)	(99)	(52)
Reclassified to the income statement from Other components of equity (NOK million) <sup>1)</sup>		(10)	(33)

1) Deviates from expected reclassifications due to changes in market prices throughout the year. Negative amounts indicate a loss.

Liabilities of NOK 443 million and NOK 560 million were recognized as the fair value of cash flow hedging instruments for December 31, 2015 and 2014, respectively.

Hydro performs trading operations to reduce currency exposures on commodity positions. The effect of such operations is recognized as a part of Financial expense in the income statement.

For the after tax movement in Hydro's equity relating to cash-flow hedges for 2015 and 2014, please see note 39 Shareholders' equity.

### Fair Value of Derivative Instruments

The fair value of derivative financial instruments such as currency forwards and swaps is based on quoted market prices. The fair market value of aluminium and electricity futures/forwards and option contracts is based on quoted market prices obtained from the London Metals Exchange and NASDAQ Nordic Power/EEX (European Energy Exchange) respectively. The fair value of other commodity over-the-counter contracts and swaps is based on quoted market prices, estimates obtained from brokers and other appropriate valuation techniques. Where long-term physical delivery commodity contracts are recognized at fair value in accordance with IAS 39, such fair market values are based on quoted forward prices in the market and assumptions of forward prices and margins where market prices are not available. Hydro takes credit-spread into consideration when valuating positions when necessary.

For further information on fair values, see note 4 Measurement of fair value. See note 13 Financial instruments for a specification of the classification of derivative positions according to a fair value hierarchy.

## Note 15 - Other income

Amounts in NOK million	2015	2014
Gain on sale of property, plant and equipment	71	93
Net gain (loss) on sale of subsidiaries, associates and joint ventures <sup>1)</sup>	(400)	7
Net loss acquisition subsidiary <sup>2)</sup>	-	(38)
Revenue from utilities <sup>3)</sup>	154	154
Rental revenue	264	286
Government grants	251	150
Other <sup>4)</sup>	121	98
<b>Other income, net</b>	<b>461</b>	<b>751</b>

1) Includes loss related to sale of Hydro's rolling mill in Slim, Italy, of NOK 434 million.

2) Net loss acquisition of subsidiary reflects the holding loss on previously held shares in Soral, the gain on acquisition of Soral, as well as the settlement of preexisting contracts with Soral.

3) Revenue from utilities include quay structures, pipe network, tank terminal, process water and grid rental.

4) Other includes royalties and insurance compensations.

## Note 16 - Raw material and energy expense

Amounts in NOK million	2015	2014
Raw material expense and production related cost	56 089	52 035
Change in inventories own production	93	(667)
Write-downs of inventories	148	116
Reversals of write-downs of inventory	(1)	(4)
<b>Raw material and energy expense</b>	<b>56 330</b>	<b>51 480</b>

Raw material expense and production related cost include effect of commodity derivative instruments. See note 14 Derivative instruments and hedge accounting.

## Note 17 - Employee remuneration

### Employee share purchase plan

Hydro has established a share purchase plan for employees in Norway. The plan payout is based on share price performance, and whether the share price (adjusted for dividend paid) increases with at least 12 percent or not during the performance period. Employees are eligible to receive an offer to purchase shares under this plan if they were 1) employed by Norsk Hydro ASA or a more than 90 percent owned Norwegian subsidiary, and 2) employed as of December 31 through the final acceptance date of the share purchase offer. From the measurement period 2014, each employee can purchase shares with a rebate of 50 percent for a value of NOK 12,500 or NOK 25,000, depending on shareholder return and the employee's choice.

Compensation expense related to the 2014 performance measurement period was accrued and recognized over the service period of December 31, 2014 through March 31, 2015, the final acceptance date of the offer. In 2015 and 2014 the participation rates of eligible employees in the employee share purchase plan were 88 and 82 percent, respectively. Details related to the employee share purchase plan are provided in the table below.

**Employee share purchase plan**

Performance measurement period	2015	2014	2013
Total shareholder return performance target achieved	<12%	≥12%	<12%
Employee rebate, NOK	6 250	6 250/12 500	2 500
Employee rebate, percent	50%	50%	25%

**Share purchase plan compensation**

	2015	2014
Award share price, NOK	46.70	29.70
Number of shares issued, per employee	268 / 536	336
Total number of shares issued to employees	1 694 564	921 984
Compensation expense related to the award, NOK thousand	39 568	6 848

**Employee benefit expense**

The average number of employees in Hydro for 2015 and 2014 was 13,136 and 12,653, respectively. As of year end 2015 and 2014, Hydro employed 12,870 and 12,922 people, respectively. Employees in joint operations are not included. The specification of employee benefit expenses for 2015 and 2014, including employee benefits in joint operations, is given in the table below.

**Employee benefit expense**

Amounts in NOK million	2015	2014
Salary	7 001	6 507
Social security costs	1 128	842
Other benefits	291	228
Pension expense (note 38)	627	512
Total	9 048	8 089

**Note 18 - Depreciation and amortization expense****Specification of depreciation and amortization by asset category**

Amounts in NOK million	2015	2014
Buildings	795	608
Machinery and equipment	4 133	3 880
Intangible assets	97	76
Depreciation and amortization expense	5 024	4 565

## Note 19 - Impairment of non-current assets

Amounts in NOK million	2015	2014
<b>Classification by asset category</b>		
<b>Impairment losses</b>		
Property, plant and equipment	-	214
Intangible assets	(1)	(8)
<b>Total impairment of non-current assets</b>	<b>(1)</b>	<b>206</b>
<b>Classification by segment</b>		
<b>Impairment losses</b>		
Bauxite & Alumina	-	44
Rolled Products	-	145
Primary Metal	-	-
Metal Markets	-	25
Energy	(1)	(8)
Other activities	-	-
<b>Total impairment of non-current assets</b>	<b>(1)</b>	<b>206</b>

All Cash Generating Units (CGUs) or fixed assets that are not part of a CGU are reviewed for impairment indicators at each balance sheet date. Tests for impairment have been performed for the CGUs where impairment indicators have been identified. The recoverable amount for these units have been determined estimating the Value in Use (VIU) of the asset and/or, if appropriate, its fair value less cost to sell (FV), and comparing the highest of the two against the carrying value of the CGUs. The calculation of VIU has been based on management's best estimate, reflecting Hydro's business planning process. The discount rates are derived as the weighted average cost of capital (WACC) for a similar business in the same business environment. For Hydro's businesses the pre tax nominal discount rate is estimated at between 8.75 and 18.5 percent (2014: 9.5-15.5 percent), with the higher rates applicable for assets in Brazil. Impairment losses have been recognized where the recoverable amount is less than the carrying value.

In 2015 we identified impairment indicators for Primary Metal's smelters that have US dollars or Norwegian kroner as their functional currencies. Currently observed sales prices for aluminium and expected sales prices in the next three to five years have deteriorated compared to market observations and expectations one year ago. These reductions are to some extent offset by cost reductions, most significantly for smelters with local costs in currencies that have weakened towards USD, such as Brazilian real and NOK. The Slovakian smelter Slovalco and our smelters in Norway were tested for impairment at the end of 2015 based on this indicator. In addition, our share in the joint operation Tomago in Australia and our share in the jointly owned smelter Alouette in Canada were tested. Rolled Products' Neuss smelter, having Euro as its functional currency, was also determined to have an impairment indicator. In total smelters with a carrying value equivalent to 11 billion NOK were tested for potential impairment.

The recoverable amount for all the smelters were determined as the VIU based on Hydro's internal assumptions for aluminium prices, raw material prices including energy and currency exchange rates. Contract prices are used for raw materials and energy for periods covered by specific contracts with external suppliers. For periods where such consumption is not yet contracted, or where internal supply of such items as electric power and alumina is expected, estimated market prices are used. Power prices well above the currently observed market prices combined with CO<sub>2</sub> compensation to energy intensive industry in Norway and the EU is assumed. None of the smelters were considered impaired, as the recoverable amount measured as VIU exceeded the carrying amount for all CGUs. Coverage was limited for the Slovalco smelter, about 20 percent of the carrying amount. The tests are sensitive to changes in aluminium prices, variable cost and discount rate. All other smelters tested had a significant coverage, varying from about 70 percent of carrying amount to about the double of their carrying amount.

In 2014 we identified impairment indicators for Rolled Products' plant in Slim, Italy. The CGU was tested for impairment at the end of 2014. The recoverable amount was determined to be below the carrying value, and the assets were written down by NOK 145 million. The subsidiary owning the plant was sold in 2015 with a loss of NOK 434 million.

In addition certain assets were written down as impaired due to physical damage or obsolescence. Previously impaired CO<sub>2</sub> quotas regained some value both in 2014 and 2015, and previous write-down was therefore partly reversed.

Goodwill and intangible assets with indefinite life are required to be tested annually, in addition to any tests required when impairment indicators are determined to be present. Hydro has elected to do the annual impairment test of goodwill in the fourth quarter.

Goodwill is allocated to CGUs or groups of CGUs as shown in the following table:

Amounts in NOK million	2015	2014
Bauxite & Alumina Operations	2 325	2 875
Remelters sector (Metal Markets)	408	301
Total goodwill	2 734	3 177

Goodwill in Bauxite & Alumina was allocated to a CGU consisting of the Alunorte alumina refinery, the main bauxite source Paragominas and certain related activities. The recoverable amount has been determined based on a VIU calculation, and amounts to about NOK 59 billion. The value significantly exceeds the carrying value of NOK 25 billion. The calculation used cash flow forecasts in BRL based on internal plans approved by management covering a five-year period. All significant assumptions are internally derived based on external references. Cash flows have been projected for the following 35 years based on the five-year detailed forecast period using Hydro's long-term assumptions for alumina prices and key raw material prices. The CGU is expected to remain in operation for at least the 40-year period. Improvements expected from the currently implemented improvement programs and certain planned equipment replacements are included. Further improvements are not included in the cash flow forecasts. Cash flows beyond the five-year period are inflated by the expected long-term inflation levels in Brazil and the main western economies.

The main assumptions, expressed in real 2015 values, to which the test is sensitive are shown in the table below:

	Assumptions	
	2016	Long-term
Exchange rate BRL/USD	3.90	3.79
Alumina price (USD/mt)	274	360
Inflation difference Brazil - main Western economies	5.5%	2.5%
Production volume alumina (million mt)	6.2	6.6
Discount rate nominal, pre-tax	18.5%	18.5%

Significant cash flows are denominated in US dollars. These are translated to BRL at a rate of 3.90 for 2016 with a slight increase to a nominal rate of 4.60 in 2023, equal to a real exchange rate of 3.79. For future periods the exchange rate is projected with a rate development reflecting the inflation difference between international inflation and the higher expected Brazil specific inflation.

If one of the key parameters were changed with no changes to the other assumptions, the estimated recoverable amount for the CGU would equal the carrying amount with the following long-term real 2015 assumptions over the entire 40-year period:

	% change	Value
Exchange rate BRL/USD	(36%)	2.42
Alumina price (USD/mt)	(24%)	273
Production volume alumina (million mt)	(33%)	4.4
Discount rate (% point)	83%	33.75%
Increase in total production cost (million BRL 2015)	31%	1 800

For Metal Markets the impairment test on goodwill has been based on approved business plan for the next year, managements best estimate of cash flows for the following four years and extrapolated to a 15 years cash flow estimate, providing a VIU exceeding the carrying value.

Hydro also has indefinite life intangible assets of NOK 138 million related to the Vigeland power plant in Norway. This CGU is tested for impairment using a FV approach based on observed transaction values for power production assets in the Nordic region. The recoverable amount exceeds the carrying amount by about 11 percent.

See note 5 Critical accounting judgment and key sources of estimation uncertainty for additional information about impairment testing. Impairment assessment for investments in associates, joint ventures and other financial assets are discussed in the specific notes.

## Note 20 - Research and development

Total expensed research and development cost was NOK 330 million in 2015 and NOK 277 million in 2014. Research and development activities are aiming at making production of aluminium more efficient including further improving the operational and environmental performance of Hydro's electrolysis technology. The planned Karmøy Technology Pilot will be important for verifying the next generation electrolysis technology at an industrial level, which is necessary for reducing the risk of implementing new technology. A significant proportion of the means are also used for further developing the production processes and products within casting and alloy technology as well as rolled products. A new research department for Bauxite & Alumina has been established at Alunorte in Para, Brazil.

To the extent development costs are directly contributing to the construction of a fixed asset, the development costs are capitalized as part of the asset provided all criteria for capitalizing the cost are met. Costs incurred during the preliminary project stage, as well as maintenance costs, are expensed as incurred. The capitalized development costs was NOK 21 million in 2015 and NOK 32 million in 2014.

## Note 21 - Operating leases

Future minimum lease payments due under non-cancellable operating leases are as follows:

Amounts in NOK million	Less than 1 year	1-5 years	Thereafter	Total
Operating lease obligation 2015	194	574	1 119	1 887
Operating lease obligation 2014	318	1 104	1 072	2 494

Operating lease expense for office space, machinery and equipment amounts to NOK 347 million for 2015 and NOK 341 million for 2014.

## Note 22 - Financial income and expense

Amounts in NOK million	2015	2014
Interest income	279	275
Dividends received and net gain (loss) on securities	18	71
Financial income	297	347
Interest expense	(337)	(438)
Capitalized interest	34	3
Net foreign exchange gain (loss)	(4 397)	(3 161)
Accretion	(404)	(353)
Other	(26)	48
Financial expense	(5 130)	(3 900)
Financial income (expense), net	(4 834)	(3 554)



Accretion represent the period's interest component for pension obligations, asset retirement obligations and other liabilities measured as present value of future expected payments.

## Note 23 - Income taxes

Amounts in NOK million	2015	2014
<b>Income before tax</b>		
Norway	2 005	255
Other countries	1 420	1 865
<b>Total</b>	<b>3 425</b>	<b>2 121</b>
<b>Current taxes</b>		
Norway	563	566
Other countries	850	1 040
<b>Current income tax expense</b>	<b>1 414</b>	<b>1 605</b>
<b>Deferred taxes</b>		
Norway	510	255
Other countries	(831)	(968)
<b>Deferred tax expense (benefit)</b>	<b>(321)</b>	<b>(713)</b>
<b>Total income tax expense (benefit)</b>	<b>1 092</b>	<b>892</b>
<b>Components of deferred taxes</b>		
Origination and reversal of temporary differences	409	(673)
Benefit tax loss carryforwards	351	(950)
Net change in unrecognized deferred tax assets	(690)	48
Tax (expense) benefit allocated to Other comprehensive income	(391)	863
<b>Deferred tax expense (benefit)</b>	<b>(321)</b>	<b>(713)</b>

### Reconciliation of tax expense to Norwegian nominal statutory tax rate

Amounts in NOK million	2015	2014
Expected income taxes at statutory tax rate <sup>1)</sup>	925	573
Hydro-electric power surtax <sup>2)</sup>	535	612
Equity accounted investments	(138)	(112)
Foreign tax rate differences	(45)	(125)
Tax free income	(64)	(37)
Deferred tax asset not recognized and expired tax loss carryforwards	(294)	(40)
Withholding tax	113	17
Other tax benefits and deductions with no tax benefits, net	60	5
<b>Income tax expense (benefit)</b>	<b>1 092</b>	<b>892</b>

1) Norwegian nominal statutory tax rate is 27 percent. It is changed to 25 percent from 2016.

2) A surtax of 31 percent is applied to taxable income, with certain adjustments, for Norwegian hydro-electric power plants. The surtax comes in addition to the normal corporate taxation. The tax rate is changed to 33 percent from 2016.

The tax effects of temporary differences and tax loss carryforwards giving rise to deferred tax assets and liabilities were as follows as of December 31, 2015 and December 31, 2014:

Amounts in NOK million	Assets 2015	Liabilities 2015	Assets 2014	Liabilities 2014
Inventory valuation	320	(262)	296	(446)
Accrued expenses	909	(318)	1 069	(267)
Property, plant and equipment	4 606	(9 131)	4 701	(9 769)
Intangible assets	1 027	(1 057)	978	(1 042)
Pensions	2 366	(921)	2 512	(767)
Derivatives	668	(173)	531	(128)
Other	700	(1 539)	216	(1 011)
Tax loss carryforwards	3 961		4 966	
Subtotal	14 557	(13 401)	15 270	(13 429)
Of which not recognized as tax asset	(1 213)		(2 041)	
Gross deferred tax assets (liabilities)	13 344	(13 401)	13 229	(13 429)
Net deferred tax assets (liabilities)		(57)		(200)
<b>Reconciliation to balance sheets</b>		<b>2015</b>		<b>2014</b>
Deferred tax assets		1 943		1 476
Deferred tax liabilities		1 999		1 676
Net deferred tax assets (liabilities)		(57)		(200)

Recognition of net deferred tax asset is based on expected taxable income in the future.

At the end of 2015, Hydro had tax loss carryforwards of NOK 11,859 million, primarily in Brazil, Australia, Spain and Switzerland. None of the losses carry forward expire before 2018. Of the total, NOK 10,357 million is without expiration. Tax assets are recognized for about 75 percent of the tax losses.

## Note 24 - Short-term investments

Amounts in NOK million	2015	2014
Bank, time deposits	4 550	500
Equity securities	292	293
Debt securities	793	816
Other	117	178
Total short-term investments	5 752	1 786

## Note 25 - Trade and other receivables

Amounts in NOK million	2015	2014
Trade receivables	7 929	8 626
VAT and other sales taxes	1 355	1 170
Other receivables	1 545	1 981
Allowance for credit losses	(32)	(73)
Trade and other receivables	10 797	11 703

No significant receivables were past due at the balance sheet dates.

## Note 26 - Inventories

Amounts in NOK million	2015	2014
Raw materials	4 765	5 074
Work in progress	3 260	3 322
Finished goods	4 167	4 247
Inventories	12 192	12 642

Raw materials include spare parts. All amounts are net of any write-downs.

## Note 27 - Other non-current assets

Amounts in NOK million	2015	2014
Equity securities	1 263	1 222
Other securities	536	537
Employee loans	130	144
Derivative instruments	204	59
Prepaid taxes and tax credits	1 981	3 706
Other receivables	500	558
Other non-current assets	4 614	6 227

## Note 28 - Property, plant and equipment

Amounts in NOK million	Land	Buildings	Machinery and equipment	Plant under construction	Total
<b>Cost</b>					
December 31, 2013	913	20 550	75 648	3 023	100 135
Additions	1	116	1 552	1 760	3 429
Acquisitions through business combinations	-	685	267	18	970
Disposals	(2)	(686)	(3 419)	(7)	(4 114)
Transfers	(43)	391	1 924	(2 272)	-
Foreign currency translation effect	73	936	4 891	164	6 065
December 31, 2014	942	21 993	80 863	2 687	106 485
Additions	3	238	2 248	3 017	5 505
Acquisitions through business combinations	20	9	35	-	65
Disposals	(9)	(348)	(2 612)	(28)	(2 996)
Transfers <sup>1)</sup>	83	2 343	(1 167)	(1 260)	-
Foreign currency translation effect	70	(945)	(3 328)	(315)	(4 518)
December 31, 2015	1 110	23 291	76 039	4 101	104 541
<b>Accumulated depreciation and impairment</b>					
December 31, 2013	(3)	(9 514)	(37 761)	(3)	(47 280)
Depreciation for the year	-	(608)	(3 880)	-	(4 489)
Impairment losses	(5)	(1)	(208)	-	(214)
Disposals	-	668	3 299	-	3 967
Transfers	-	(7)	3	4	-
Foreign currency translation effect	(1)	(390)	(2 359)	-	(2 750)
December 31, 2014	(9)	(9 852)	(40 906)	-	(50 766)
Depreciation for the year	-	(795)	(4 133)	-	(4 928)
Disposals	6	305	2 532	-	2 842
Transfers <sup>1)</sup>	-	(253)	253	-	-
Foreign currency translation effect	(2)	(84)	(429)	-	(515)
December 31, 2015	(5)	(10 679)	(42 683)	-	(53 367)
<b>Carrying value</b>					
December 31, 2014	934	12 141	39 958	2 687	55 719
December 31, 2015	1 105	12 612	33 355	4 101	51 174

1) Transfers includes reclassification of certain industrial structures following renewed assessment.

## Note 29 - Intangible assets

Amounts in NOK million	Intangible assets under development	Mineral rights	Waterfall rights	Software	Acquired sourcing contracts	Other intangibles assets	Total
<b>Cost</b>							
December 31, 2013	154	865	329	899	1 200	998	4 446
Additions	35	-	-	106	-	33	174
Disposals	-	-	-	(16)	-	(11)	(26)
Transfers	(12)	-	-	11	-	1	-
Foreign currency translation effect	-	58	-	57	81	47	243
December 31, 2014	176	924	329	1 058	1 281	1 069	4 836
Additions	59	-	-	131	-	46	236
Acquisitions through business combinations	-	-	-	1	-	10	10
Disposals	-	-	(190)	(247)	-	(129)	(566)
Transfers	(2)	-	-	2	-	-	-
Foreign currency translation effect	-	(177)	-	(5)	(245)	(13)	(440)
December 31, 2015	233	747	139	940	1 036	983	4 078
<b>Accumulated amortization and impairment</b>							
December 31, 2013	-	-	(190)	(763)	(237)	(638)	(1 829)
Amortization for the year <sup>1)</sup>	-	-	-	(61)	(89)	(17)	(167)
Reversal of impairment loss	-	-	-	-	-	8	8
Disposals	-	-	-	16	-	6	22
Foreign currency translation effect	-	-	-	(48)	(20)	(32)	(100)
December 31, 2014	-	-	(190)	(856)	(346)	(673)	(2 066)
Amortization for the year <sup>1)</sup>	-	-	-	(77)	(76)	(20)	(173)
Reversal of impairment loss	-	-	-	-	-	1	1
Disposals	-	-	190	210	-	120	520
Foreign currency translation effect	-	-	-	(16)	69	(25)	28
December 31, 2015	-	-	-	(740)	(353)	(597)	(1 690)
<b>Carrying value</b>							
December 31, 2014	176	924	139	202	935	396	2 771
December 31, 2015	233	747	139	200	682	386	2 388

1) Amortization of a sourcing contract is reported as Raw material and energy expense in the income statement.

Mineral rights are not depreciated until extraction of the resources starts. Waterfall rights acquired in 2013 have indefinite life and are thus not depreciated.

## Note 30 - Goodwill

Amounts in NOK million	Bauxite & Alumina	Metal Markets	Total
<b>Cost</b>			
December 31, 2013	2 694	250	2 945
Foreign currency translation effect	181	51	232
December 31, 2014	2 875	301	3 177
Acquisitions through business combinations	-	49	49
Foreign currency translation effect	(550)	58	(492)
December 31, 2015	2 325	408	2 734

See note 19 Impairment of non-current assets for information about the annual impairment testing of goodwill.

## Note 31 - Investments in joint arrangements

Hydro is engaged in various arrangements on a joint basis with other companies. In assessing whether joint control exists for these arrangements we evaluate the legal framework and contracts governing the arrangement combined with an assessment of which decisions that significantly influence the return from the arrangement. Arrangements owned on a 50/50 basis and/or governed by unanimous decisions constitute the majority of our joint arrangements.

Most of our joint arrangements are joint production facilities supplying metal and other products for Hydro's value chain. Hydro is also engaged in one major downstream joint venture, Sapa. Hydro assesses whether joint arrangements are joint operations where Hydro has a direct interest in the assets and direct liability to settle obligations, directly or indirectly, or a joint venture where we have an interest in the net assets of the joint arrangement. In this assessment we evaluate the contracts governing the arrangement and the legal framework for the type of entity in which the arrangement is operated. Hydro is engaged in both joint arrangements that are considered joint ventures, and arrangements that are concluded to be joint operations.

### Joint operations

Of our joint operations, two are classified as joint operations based on the legal form of the operations. These are Tomago, an aluminium smelter in Australia and Skafsa ANS, a power producer in Norway. Another two arrangements are classified as joint operations based on the contractual arrangements whereby all output is sold to the shareholders in proportion to their ownership interest at a cost based price formula. The major or sole sources of cash inflows for the joint arrangements are the owners, who are legally obliged to cover production costs. These are Aluminium Norf GmbH (Alunorf), a large rolling mill in Germany and Aluminium & Chemie Rotterdam B.V., Aluchemie, (from November 1, 2014), an anode producer in the Netherlands.

### Joint ventures

The following joint ventures are considered material for Hydro:

**Qatar Aluminium Ltd. (Qatalum)** is a primary aluminium smelter with a dedicated power plant located in Qatar. Qatalum has an annual production capacity of about 600,000 mt of liquid metal. Qatalum is owned by Hydro and Qatar Petroleum Ltd., (50 percent each). Hydro is committed to sell fixed quantities of alumina and purchase all products from Qatalum at market based prices. Purchases of metal from Qatalum amounted to NOK 10,812 million in 2015 and NOK 9,719 million in 2014. Related payables amount to NOK 1,035 million at the end of 2015 and NOK 871 million at the end of 2014. Sales from Hydro to Qatalum amounted to NOK 2,201 million in 2015 and NOK 1,668 million in 2014, primarily alumina. Related receivables amounted to NOK 128 million and NOK 36 million at the end of the periods. Qatalum is part of Primary Metal.

An impairment test was performed for the only CGU in Qatalum at the end of 2015 following the weakening aluminium market. Method and assumptions were largely the same as for Hydro's smelters, see note 19 Impairment of non-current assets. The recoverable amount exceeded the carrying value by about 30 percent. The test is sensitive to changes in aluminium prices, variable cost and discount rate.

**Sapa AS** is a world leader in aluminium solutions established on September 1, 2013 by Hydro and Orkla ASA, a listed company in Norway. Hydro issued certain guarantees towards Sapa as part of establishing the company, primarily related to tax exposure. A provision of about NOK 100 million is recognized for these guarantees. Sapa delivers products within extrusion profiles, building systems and precision tubing and employs around 23,000 people in more than 40 countries. The company's headquarter is located in Oslo, Norway. Sapa is owned 50/50 by Hydro and Orkla. Hydro sells metal products to Sapa at market prices. Sales from Hydro to Sapa amounted to NOK 5,314 million in 2015 and NOK 5,303 million in 2014. Hydro's accounts receivables amounted to NOK 689 million and NOK 934 million at the end of 2015 and 2014, respectively. Sapa is part of Other Activities.

Sapa has several CGUs, and identified impairment indicators for some of those both in 2015 and 2014. Recognized impairments mainly related to closed, divested and significantly restructured units.



Sapa Profiles Inc. Portland (SPI), a subsidiary of Sapa AS, is under investigation by the United States Department of Justice (DOJ) Civil and Criminal Divisions regarding aluminum extrusions that SPI manufactured from 1996-2015 and delivered to a supplier to NASA. SPI is cooperating fully in these investigations. In response to these pending investigations, Sapa has performed audits of its quality assurance processes at all relevant extrusion operations in North America, and is in the process of finalizing audits of its extrusion operations in Europe. Quality issues identified in these audits have been, or are in the process of being, addressed with the affected customers and remediation actions are being undertaken. The investigations are currently ongoing, and, at this point, the outcome of the DOJ investigations and of the identified quality issues, including financial consequences on Sapa, is uncertain. Based on the information known to Hydro at this stage, Hydro does not expect any resulting liabilities to have a material adverse effect on its consolidated results of operations, liquidity or financial position.

The table below summarizes key figures for these joint ventures for 2015 and 2014. The figures are on the same basis as used for inclusion in the group financial statements. Fair value adjustments from Hydro's contribution of assets and businesses to the joint ventures are included. Intercompany transactions and balances are included, and internal profit and loss in inventory and fixed assets purchased from group companies are not eliminated in the numbers below. All amounts are for the joint venture on 100 percent basis.

Amounts in NOK million	Qatalum		Sapa	
	2015	2014	2015	2014
Revenue	11 031	9 830	55 252	46 384
Depreciation and amortization	2 240	1 765	1 321	1 263
Earnings before financial items and tax	1 257	1 832	528	(316)
Financial income (expense), net	(478)	(383)	(280)	(266)
Income tax expense	-	-	4	(38)
Net income (loss)	779	1 449	251	(622)
Other comprehensive income	181	94	1 082	937
Total comprehensive income	960	1 543	1 333	315
Cash and cash equivalents	3 430	3 307	2 512	1 882
Other current assets	4 016	3 538	12 829	13 422
Non-current assets	36 725	32 452	13 529	12 295
Current financial liabilities	1 036	1 143	1 596	758
Non-current financial liabilities	17 075	15 176	3 084	3 205
Other liabilities	1 503	1 379	11 318	12 098
Net assets	24 558	21 599	12 871	11 538
Hydro's share of net assets	12 279	10 799	6 411	5 750
Goodwill in Hydro's investment	-	-	1 526	1 526
Carrying value of Hydro's equity investment	12 279	10 799	7 937	7 276
Loans extended to joint ventures	-	-	-	-
Total investment	12 279	10 799	7 937	7 276

Amounts in NOK million	Qatalum	Sapa	Søral	Other	Total
December 31, 2013	9 074	7 120	330	(12)	16 512
Investments (sale), net			(340)		(340)
Hydro's share of net income (loss)	725	(313)	10		422
Hydro's share of other comprehensive income	47	468			515
Dividends and other payments received by Hydro	(942)				(942)
Foreign currency translation and other	1 896				1 896
December 31, 2014	10 799	7 276	-	(12)	18 062
Hydro's share of net income (loss)	390	123			513
Hydro's share of other comprehensive income	90	538			628
Dividends and other payments received by Hydro	(1 037)				(1 037)
Foreign currency translation and other	2 036				2 036
Changes elimination of internal gain in inventory		(81)			(81)
December 31, 2015	12 279	7 856	-	(12)	20 122

Hydro acquired the remaining 50 percent ownership interests in Søral as of November 1, 2014. The transaction also included shares in Aluchemie, which was previously an associate of Hydro, see note 32 Investments in associates. As part of this transaction the shareholders' agreement was renegotiated to give Hydro joint control in significant decisions, and thus support a joint operation classification of Aluchemie.

### Note 32 - Investments in associates

The previous associate Aluminium & Chemie Rotterdam B.V. (Aluchemie) became a joint operation as of November 1, 2014, when the governing contracts were changed and Hydro acquired additional interests in Aluchemie. Until the change, Hydro owned 36.2 percent of the entity and had 21.2 percent of the voting rights. Hydro purchased anodes from Aluchemie amounting to NOK 594 million in the period January to October 2014 based on a cost plus formula. Sales of anode butts and coke from Hydro to Aluchemie amounted to NOK 66 million in the same period. Aluchemie is part of Primary Metal. Hydro had ownership interests in associates with a combined carrying value of NOK 15 million as of December 31, 2015, and NOK 20 million as of December 31, 2014.

### Note 33 - Bank loans and other interest-bearing short-term debt

Amounts in NOK million	2015	2014
Bank loans and overdraft facilities	1 275	5 242
Other interest-bearing short-term debt	345	198
Current portion of long-term debt	1 943	600
Bank loans and other interest-bearing short-term debt	3 562	6 039

### Note 34 - Trade and other payables

Amounts in NOK million	2015	2014
Accounts payable	6 907	7 259
Payroll and value added taxes	1 293	1 422
Accrued liabilities and other payables	1 175	981
Trade and other payables	9 375	9 663

## Note 35 - Long-term debt

Amounts in NOK million	2015	2014
USD	3 667	3 502
NOK	1 500	1 500
Total unsecured loans	5 167	5 002
Finance lease obligations	745	685
Other long-term debt	-	40
Outstanding debt	5 912	5 727
Less: Current portion	(1 943)	(600)
Total long-term debt	3 969	5 128

### Repayments of long-term debt including interest

Amounts in NOK million	Unsecured loans	Other	Interest	Total
2016	1 916	27	170	2 113
2017	874	28	150	1 053
2018	290	30	138	457
2019	1 792	28	132	1 953
2020	295	27	46	367
Thereafter	-	605	346	951
Total	5 167	745	982	6 894

Norsk Hydro ASA has a USD 1,700 million, revolving multi-currency credit facility with a syndicate of international banks, maturing in November 2020. A commitment fee on undrawn amounts is calculated as a percentage of the loan margin under the facility. Any borrowing under the facility will be unsecured, and the debt agreement contains no financial ratio covenants and no provisions connected to the value of underlying assets. The facility is for general corporate purposes, and provide readily available and flexible long-term funding. There was no borrowing under the facility as of December 31, 2015.

## Note 36 - Provisions

Amounts in NOK million	2015			2014		
	Short-term	Long-term	Total	Short-term	Long-term	Total
Product warranties	43	1	44	39	3	42
Environmental clean-up and asset retirement obligations (ARO)	143	2 198	2 340	88	2 012	2 100
Employee benefits	548	422	969	272	433	705
Insurance	167	-	167	228	-	228
Unfavorable contracts and onerous contracts	101	401	503	225	1 261	1 485
Other	145	243	388	275	285	560
Total provisions	1 147	3 264	4 411	1 125	3 993	5 118

The following table includes a specification of changes to provisions for the year ending December 31, 2015 and the expected timing of cash outflows relating to the provisions.

Amounts in NOK million	Warranties	Environ- mental clean-up and ARO	Employee benefits	Insur- ance	Contracts	Other	Total
<b>Specification of change in provisions</b>							
December 31, 2014	42	2 100	705	228	1 485	560	5 118
Additions	110	350	889	7	281	327	1 965
Used during the year	(94)	(110)	(605)	(68)	(65)	(58)	(1 000)
Reversal of unused provisions	(16)	(30)	(34)	-	(1 200)	(378)	(1 658)
Accretion expense and effect of change in discount rate	-	80	9	-	2	-	91
Foreign currency translation	2	(49)	5	-	-	(63)	(105)
December 31, 2015	44	2 340	969	167	503	388	4 411
<b>Timing of cash outflows</b>							
2016	43	143	548	167	101	145	1 147
2017-2020	1	1 124	198	-	399	166	1 888
Thereafter	-	1 073	224	-	2	77	1 376
	44	2 340	969	167	503	388	4 411

Provisions for environmental clean-up relate to production facilities currently in operation and facilities that are closed. Asset retirement obligations relate to restoration or rehabilitation of industrial or mining sites, disposal of contaminated material and certain liabilities related to Norwegian power plant concessions to be reverted to the Norwegian Government.

Provisions for employee benefits relate to expected short-term performance bonus payments and short and long-term provisions for expected bonus payments that are based on the number of years of service, primarily for our European operations. Such bonuses are expected to be paid in periods between 10 to 50 years of service, or upon termination of employment.

Insurance provisions relate to insurance contracts issued by Hydro's captive insurance company, Industriforsikring AS, to external parties including associates and joint arrangements. Related reinsurance receivables included in Accounts receivables amounted to NOK 1 million as of December 31, 2014.

Contracts comprise onerous contracts and unfavorable contracts. Onerous contracts relate to rental of premises. Unfavorable contracts as of December 31, 2014 related to power purchase contracts in Sørødal determined to be at unfavorable terms at the time of acquisition date. The provision for these power contracts has been reclassified to Other liabilities, presented as Reversal of unused provisions in the table above.

Other includes provisions for legal and other disputes, and certain exit and disposal activities.

## Note 37 - Contingent liabilities and contingent assets

Hydro is involved in or threatened with various legal and tax matters arising in the ordinary course of business. See note 5 Critical accounting judgment and key sources of estimation uncertainty for a discussion of how such items are assessed and measured.

Hydro is involved in a significant number of tax cases related to various types of taxes. Hydro's widespread business operations expose us to several tax regimes and their interaction. We see that tax authorities challenge transfer prices in an increasing degree. Although Hydro currently has no significant transfer price disputes with tax authorities, our long value chain with a large number of internal transactions and business operations covering multiple tax jurisdictions make us exposed to such disputes, both related to prior and future transactions. Hydro's businesses in Brazil have a large portfolio of cases disputed by tax authorities, of which the majority relates to indirect taxes. This includes cases in the administrative and legal dispute systems with various background and risk of loss. In total known cases amount to about NOK 3.2 billion. About half of the amount is covered by tax indemnifications from acquisition. The final outcome of these cases is not expected until several years into the future, and is highly uncertain. Hydro has provided for individual tax cases where the risk of loss is considered above 50 percent.

Hydro has environmental liabilities related to several sites and issues. Where remediation is acknowledged as Hydro's responsibility or a legal obligation is deemed to exist, a provision for the best estimate of costs to be incurred is established and disclosed in note 36 Provisions. For many of our industrial sites, in particular sites where operation is expected to continue indefinitely, closure and remediation methods have not been assessed in any detail, and cost estimates for such sites are uncertain. For some sites, the exact level of pollution may also be uncertain. For the newly closed Kurri Kurri site in Australia, remediation plans are under development and an approval process with local authorities is started. The probable costs, amounting to about NOK 470 million, have been provided for; though additional costs may be required should our proposed remediation methods not be approved. There is also uncertainty related to possible additional remediation actions and costs for the previous alumina refinery site in Schwandorf, Germany. The currently planned and approved remediation actions ends in 2021, and possible further need and cost is unknown. Additional obligations beyond the provided about NOK 380 million for this site and others may be identified in the future related to existing contamination or other factors.

Hydro is also exposed to legal cases based on contractual or other basis.

Hydro is of the opinion that it is not probable that any liabilities resulting from such possible liabilities will have a material adverse effect on its consolidated results of operations, liquidity or financial position.

### Note 38 - Employee retirement plans

Hydro offers retirement plans that cover the majority of the employees. Plans and benefit levels vary between companies and countries. The majority of Hydro's employees are employed in Brazil, Germany and Norway. In Brazil, Hydro provides defined contribution plans. In Germany, the majority of employees are covered by unfunded defined benefit plans that offer benefits based on final salary level and the number of years in service. In Norway, the employees are either covered by defined contribution plans or funded defined benefit plans, together with unfunded complementary defined benefit plans. Defined benefit plans are also offered in certain other countries with a limited number of participants including Canada, the UK, Italy and the US. The plans provide cash pension payment, for the majority of members such payments are life-long. A limited postemployment medical plan exists in Canada.

Amounts in NOK million	2015				2014			
	Norway	Germany	Other	Total	Norway	Germany	Other	Total
<b>Pension expense</b>								
Defined benefit plans	164	164	3	331	165	124	2	291
Defined contribution plans	80	-	44	124	48	-	32	80
Multiemployer plans	55	-	2	57	37	-	2	39
Termination benefits and other	58	2	14	74	29	4	14	47
Social security cost	41	-	-	41	55	-	-	55
Pension expense	398	166	63	627	334	128	50	512
Interest expense (income)	28	164	23	215	(8)	194	3	189
Remeasurement (gain) loss in other comprehensive income	(609)	(498)	(1)	(1 109)	1 693	1 502	67	3 262

Amounts in NOK million	2015				2014			
	Norway	Germany	Other	Total	Norway	Germany	Other	Total
<b>Recognized defined benefit assets and liability</b>								
Defined benefit obligation major plans	(13 044)	(8 116)	(92)	(21 252)	(13 278)	(8 040)	(87)	(21 405)
Plan assets	12 298	-	108	12 406	11 951	-	94	12 045
Reimbursement rights	325	-	-	325	344	-	-	344
Liability other plans	(57)	(40)	(248)	(345)	(52)	(36)	(269)	(357)
Social security cost	(533)	-	-	(533)	(542)	-	-	(542)
Net defined benefit liability	(1 012)	(8 156)	(232)	(9 400)	(1 577)	(8 076)	(262)	(9 915)
Recognized prepaid pension	3 317	49	16	3 382	2 826	48	7	2 881
Recognized pension liability	(4 329)	(8 205)	(248)	(12 782)	(4 403)	(8 124)	(269)	(12 796)
Net amount recognized	(1 012)	(8 156)	(232)	(9 400)	(1 577)	(8 076)	(262)	(9 915)

Other plans include some minor plans in various entities and countries, including some early retirement benefits in Norway. These plans may be funded or unfunded. None of these plans are considered material, neither individually nor combined.

Amounts in NOK million	2015				2014			
	Norway	Germany	Other	Total	Norway	Germany	Other	Total
<b>Change in defined benefit obligation (DBO)</b>								
Opening Balance	(13 278)	(8 040)	(87)	(21 405)	(11 681)	(6 000)	(69)	(17 751)
Current service cost	(152)	(164)	(4)	(319)	(155)	(111)	(3)	(269)
Past service cost and curtailment gain (loss)	-	-	-	-	-	(13)	-	(13)
Interest expense	(292)	(164)	(3)	(459)	(457)	(194)	(3)	(654)
Actuarial gain (loss) demographic assumptions	-	-	1	1	-	-	-	-
Actuarial gain (loss) economic assumptions	278	513	9	800	(2 125)	(1 521)	(8)	(3 654)
Experience gain (loss)	(161)	(15)	1	(175)	117	19	-	135
Benefit payments	617	257	2	876	595	240	1	836
Termination benefits	(57)	-	-	(57)	(68)	-	-	(68)
Settlements	-	-	-	-	812	-	6	817
Business combinations	-	-	-	-	(315)	-	-	(315)
Effects of foreign currency translation	-	(503)	(11)	(514)	-	(459)	(10)	(469)
Closing Balance	(13 044)	(8 116)	(92)	(21 252)	(13 278)	(8 040)	(87)	(21 405)

**Change in pension plan assets**

Opening Balance	11 951	-	94	12 045	11 868	-	77	11 946
Interest income	269	-	3	272	471	-	3	474
Return on plan assets above (below) interest income	474	-	(2)	471	351	-	5	356
Contributions to plans	88	-	3	91	238	-	4	242
Benefit payments	(483)	-	(2)	(485)	(465)	-	(1)	(465)
Settlements	-	-	-	-	(812)	-	(6)	(818)
Business combinations	-	-	-	-	299	-	-	299
Effects of foreign currency translation	-	-	12	12	-	-	12	12
Closing Balance	12 298	-	108	12 406	11 951	-	94	12 045



Amounts in NOK million	2015				2014			
	Norway	Germany	Other	Total	Norway	Germany	Other	Total
<b>Analysis of the defined benefit obligation (DBO)</b>								
Active members	(3 779)	(3 897)	(47)	(7 724)	(3 899)	(3 845)	(44)	(7 788)
Deferred members	(698)	(592)	(16)	(1 306)	(696)	(648)	(17)	(1 361)
Pensioners	(8 567)	(3 627)	(29)	(12 223)	(8 683)	(3 547)	(25)	(12 256)
Defined benefit obligation	(13 044)	(8 116)	(92)	(21 252)	(13 278)	(8 040)	(87)	(21 405)
Weighted average duration (years)	13.5	18.1			13.9	18.6		

Contributions to funded pension plans, benefit payments from unfunded pension plans, and social security tax imposed on such contributions and payments amounted to a cash outflow of about NOK 750 million for 2015 and about NOK 700 million for 2014. Hydro's cash impact is expected to remain at the level of 2015 over at least the next 3-5 years.

Hydro's main pension plans are offered in Norway and Germany. The plans are described below:

### Norway

In Norway the majority of plan members are covered by defined contribution plans. A significant share of the employees and retired employees are covered by defined benefit plans that offer benefits based on final salary level and the number of years in service, and include benefits for dependents. Contributions to plans providing benefits based on salaries up to a maximum level are subject to tax deduction. These plans are funded; all vested benefits are required by law to be funded for such plans. Benefits based on salaries above this level are covered by unfunded plans. The defined benefit plans are closed for new members, and members below a certain age has been transferred to the defined contribution plans. Employees who converted to the defined contribution plans are paid compensation for the calculated difference in pension capital at normal retirement date as a monthly cash amount. Employees who are covered by defined contribution plans for salaries up to the tax deductible ceiling are covered by additional unfunded contribution based plans for salaries above the ceiling. The main, funded plans are managed by Norsk Hydros Pensjonskasse, a separate, regulated legal entity. Hydro's pension plans complement the public pension schemes in Norway.

Hydro participates in a supplementary pension plan that entitles the majority of its Norwegian employees life-long benefits in addition to other pension benefits. The benefits are financed through a pooled arrangement by private sector employers (avtalefestet pensjon, AFP) where also the Norwegian state contributes. The plan is a defined benefit plan with limited funding and where plan assets are not segregated. The information required to calculate the share of the plan and account for the plan as a defined benefit plan is not available from the plan administrator. Hydro therefore accounts for the plan as if it were a defined contribution plan. The annual contributions have increased since inception and are expected to increase further. The employer contributions are included in Multiemployer plans.

Significant actuarial assumptions for the main Norwegian defined benefit plans include:

Assumptions	Benefit obligation	Benefit expense	Benefit obligation	Benefit expense
	2015	2015	2014	2014
Discount rate	2.60%	2.25%	2.25%	4.00%
Expected salary increase	2.25%	2.25%	2.25%	3.25%
Expected pension increase	1.25%	1.00%	1.00%	1.25%
Mortality basis	K2013	K2013	K2013	K2013

The sensitivities shown in the table below have been calculated for the main Norwegian plans illustrating the effects of changing one assumption while keeping the other assumptions unchanged. Possible correlation between assumptions is not reflected in the calculations.

Sensitivities decrease (increase) benefit obligation year end

Amounts in NOK million, except percent	2015	2015
Discount rate increase 0.5% point	6.4%	835
Salary increase 0.5% point	(1.4%)	(183)
Pension increase 0.5% point	(6.2%)	(809)
One year longer life all members	(4.2%)	(548)

The plan assets in the funded plans provided through Norsk Hydros Pensjonskasse were invested as follows at the end of 2015 and 2014:

Amounts in NOK million, except percent	2015	2015	2014	2014
Cash and cash equivalents	1.5%	179	1.4%	162
Equity instruments Norway	17.2%	2 060	15.7%	1 881
Equity instruments other countries	17.1%	2 048	14.2%	1 692
Debt instruments	36.2%	4 351	39.2%	4 679
Investment funds	7.8%	939	9.8%	1 166
Real estate	20.2%	2 428	19.7%	2 359
Other	-	-	0.1%	13
Total	100.0%	12 005	100.0%	11 951

Real estate consists of office buildings in the Oslo area. A share of the buildings are leased and occupied by Hydro. Investment funds are primarily private equity funds investing in European unlisted companies across various industries, and infrastructure funds investing in the UK, continental Europe and the US. Equity instruments are held through liquid funds invested in listed companies in Norway and globally. Debt instruments are mainly bond issues with maturities up to 10 years and investment grade rating.

To match the shorter maturity of liabilities and high pay-out ratio from the schemes we plan to reduce amounts invested in investment funds and increase debt instruments.

## Germany

In Germany, the majority of plan members are covered by defined benefit plans that offer benefits based on final salary level and the number of years in service. The main plans are unfunded. Hydro's main plans are closed for new entrants, and all new employees are now offered benefits under new defined contribution-oriented plans. These plans are unfunded and treated as defined benefit plans for financial reporting purposes.

Significant actuarial assumptions for the main German plans include:

	Benefit obligation	Benefit expense	Benefit obligation	Benefit expense
Weighted-average assumptions	2015	2015	2014	2014
Discount rate	2.3%	2.1%	2.1%	3.3%
Expected salary increase	2.8%	2.8%	2.8%	2.8%
Expected pension increase	1.7%	2.0%	2.0%	2.0%
Mortality basis	RT 2005 G	RT 2005 G	RT 2005 G	RT 2005 G

The sensitivities shown in the table below have been calculated for the main German plans illustrating the effects of changing one assumption while keeping the other assumptions unchanged. Possible correlation between assumptions is not reflected in the calculations.

Sensitivities decrease (increase) benefit obligation year end

Amounts in NOK million, except percent	2015	2015
Discount rate increase 0.5% point	8.3%	673
Salary increase 0.5% point	(2.2%)	(175)
Pension increase 0.5% point	(6.2%)	(501)
One year longer life all members	(3.9%)	(314)

## Note 39 - Shareholders' equity

### Share capital

Number of shares	Ordinary shares issued	Treasury shares	Ordinary shares outstanding
December 31, 2013	2 068 998 276	(30 209 243)	2 038 789 033
Treasury shares reissued to employees		1 043 255	1 043 255
December 31, 2014	2 068 998 276	(29 165 988)	2 039 832 288
Treasury shares reissued to employees		1 755 404	1 755 404
December 31, 2015	2 068 998 276	(27 410 584)	2 041 587 692

The share capital of Norsk Hydro ASA as of December 31, 2015 and 2014 was NOK 2,271,760,107 consisting of 2,068,998,276 ordinary shares at a par value of NOK 1.098 per share. All shares have equal rights and are freely transferable.

### Treasury shares

The treasury shares may, pursuant to the decision of the General Meeting at the time these shares were acquired, be used as consideration in connection with commercial transactions or share schemes for the employees and representatives of the Corporate Assembly and the Board of Directors.

The treasury shares amount per December 31, 2015 of NOK 913 million was comprised of NOK 30 million share capital and NOK 883 million retained earnings.

### Earnings per share

Basic and diluted earnings per share is computed using Net income attributable to Hydro shareholders and the weighted average number of outstanding shares in each year. There are no significant diluting elements. The weighted average number of outstanding shares used for calculating basic and diluted earnings per share was 2,041,000,645 for 2015 and 2,039,501,461 for the year 2014.

Hydro's outstanding founder certificates and subscription certificates entitle the holders to participate in any share capital increase, provided that the capital increase is not made in order to allot shares to third parties as compensation for their transfer of assets to Hydro. These certificates represent dilutive elements for the earnings per share computation.

### Change in Other components of equity

The table below specifies the changes in Other components of equity for 2015 and 2014.

Amounts in NOK million

2015

2014

**Items that will not be reclassified to income statement:*****Remeasurement postemployment benefits***

January 1	(903)	1 438
Remeasurement postemployment benefits during the year	1 109	(3 262)
Reclassified to retained earnings on sale of subsidiaries	-	(1)
Deferred tax offset	(345)	922
December 31	(140)	(903)

***Remeasurement postemployment benefits equity accounted investments***

January 1	(96)	40
Remeasurement postemployment benefits during the year	126	(150)
Reclassified to retained earnings on sale of subsidiaries	-	14
December 31	30	(96)

**Items that will be reclassified to income statement:*****Currency translation differences***

January 1	(2 451)	(9 455)
Currency translation differences during the year	(2 111)	6 734
Reclassified to Net income on sale of foreign operations	(20)	270
December 31	(4 581)	(2 451)

***Unrealized gain (loss) on securities***

January 1	47	(42)
Unrealized gain on available-for-sale securities	23	138
Reclassified to Net income on sale or impairment of available-for-sale securities	-	-
Tax expense	(8)	(48)
December 31	62	47

***Cash flow hedges - See note 14 Derivative instruments and hedge accounting***

January 1	(345)	(354)
Period gain (loss) recognized in Other comprehensive income	117	(35)
Reclassification of hedging gain (loss) to Net income	(6)	55
Tax expense	(38)	(11)
December 31	(273)	(345)

***Other components of equity in equity accounted investments***

January 1	547	(118)
Period gain recognized in Other comprehensive income	506	666
Reclassified to Net income	(3)	-
December 31	1 050	547

Total other components of equity attributable to Hydro shareholders as of December 31	(2 107)	(2 187)
Total other components of equity attributable to non-controlling interests as of December 31	(1 745)	(1 014)

## Note 40 - Capital management

Hydro's capital management policy is to maximize value creation over time, while maintaining a strong financial position and an investment grade credit rating.

### Credit rating

To secure access to capital markets at attractive terms and remain financially solid, Hydro aims to maintain an investment grade credit rating from the leading agencies, Standard & Poor's (current rating BBB) and Moody's (current rating Baa2, rating under review for possible downgrade. Outcome expected within first quarter 2016). Hydro targets, over the business cycle, a ratio of Funds from operations of at least 40 percent of Adjusted net debt, and an Adjusted net debt to Equity ratio below 55 percent.

### Liquidity management and funding

Hydro manages its funding requirements centrally to cover group operating requirements and long-term capital needs. During 2015 net cash provided by continuing operations was more than sufficient to cover operating requirements and capital expenditures as well as dividend payments.

Hydro has an ambition to access national and international capital markets as primary sources for external long-term funding. Hydro made no capital market transactions in 2015, however the Nordic Investment Bank loan was repaid in full.

Hydro has a syndicated USD 1,700 million revolving credit facility maturing in 2020. As of December 31, 2015 there was no borrowing under the facility.

### Funding of subsidiaries, associates and jointly controlled entities

Normally the parent company, Norsk Hydro ASA, incurs debt and extends loans or equity to wholly-owned subsidiaries to fund capital requirements. Hydro's policy is to finance part-owned subsidiaries and investments in associates and jointly controlled entities according to its ownership share, on equal terms with the other owners. All financing is executed on an arm's-length basis. Project financing is used for certain funding requirements mainly to mitigate risk while also considering partnership and other relevant factors.

### Shareholder return

Long-term return to shareholders should reflect the value created by Hydro, and consists of dividends and share price development. Hydro aims to provide its shareholders with a competitive return compared with alternative investments in similar companies. Our policy is to distribute an average of 40 percent of net income in the form of ordinary dividends over the business cycle. Dividends for a particular year are based on expected future earnings and cash flow, future investment opportunities, the outlook for world markets and Hydro's current financial position. Share buybacks or extraordinary dividends may be used to supplement ordinary dividends during periods of strong financial results after considering the status of the business cycle and capital requirements for future growth.

### Hydro's capital management measures

Hydro's management uses the Adjusted net debt to Equity ratio to assess the group's financial standing and outlook. Net debt is defined as Hydro's short- and long-term interest-bearing debt adjusted for Hydro's liquidity positions. Adjusted net debt is adjusted for liquidity positions regarded unavailable for servicing debt, pension obligations and other obligations which are considered debt-like in nature.

The ability to generate cash compared to financial liabilities is an important measure of risk exposure and financial stability. Hydro's management uses Funds from operations and the ratio Funds from operations to Adjusted net debt as capital management measures. Funds from operations is defined as Operational cash flow before net operating capital changes, with reversal of taxes paid and inclusion of current taxes, pro-rata consolidation of equity accounted investments, and certain other adjustments.

Both financial ratio calculations include adjustments for the indebtedness of Hydro's equity accounted investments. Though Hydro has no financial obligations towards the lenders of its equity accounted investments, the adjustments are considered relevant as the debt and cash flow level in these entities affect Hydro's overall financial risk profile.

Adjusted net debt, Equity and the above mentioned financial ratios are presented in the following table.

**Adjusted net debt to equity**

Amounts in NOK million, except ratio	2015	2014
Cash and cash equivalents	6 917	9 253
Short-term investments	5 752	1 786
Bank loans and other interest-bearing short-term debt	(3 562)	(6 039)
Long-term debt	(3 969)	(5 128)
Net cash (debt)	5 138	(127)
Cash and cash equivalents and short-term investments in captive insurance company <sup>1)</sup>	(1 129)	(1 091)
Net pension obligation at fair value, net of expected income tax benefit <sup>2)</sup>	(7 955)	(8 170)
Operating lease commitments, net of expected income tax benefit <sup>3)</sup>	(1 187)	(1 600)
Short- and long-term provisions net of expected income tax benefit, and other liabilities <sup>4)</sup>	(3 040)	(2 598)
Net debt in EAI <sup>5)</sup>	(8 011)	(7 295)
Adjusted net debt incl. net debt equity accounted investments	(16 184)	(20 882)
Total equity	(79 329)	(79 941)
Adjusted net debt including EAI / Equity	0.20	0.26
Funds from operations / Adjusted net debt including EAI	0.89	0.42

1) Cash and cash equivalents and short-term investments in Hydro's captive insurance company Industriforsikring AS are assumed to not be available to service or repay future Hydro debt, and are therefore excluded from the measure Adjusted net debt.

2) The expected income tax benefit related to the net pension liability is NOK 1,445 million and NOK 1,745 million, respectively, for 2015 and 2014.

3) Operating lease commitments are discounted using a rate of 1.33 percent and 1.41 percent for 2015 and 2014, respectively. The expected tax benefit on operating lease commitments is estimated at 30 percent.

4) Consists of Hydro's short and long-term provisions related to asset retirement obligations, net of an expected tax benefit estimated at 30 percent, and other non-current financial liabilities.

5) Net debt in equity accounted investments is defined as the total of Hydro's relative ownership percentage of each equity accounted investment's short and long-term interest-bearing debt less their cash positions, reduced by total outstanding loans from Hydro to the equity accounted investment. Net debt per individual equity accounted investment is limited to a floor of zero. Currently, the adjustment is related to Qatalum and Sapa.

**Note 41 - Dividends**

Hydro's Board of Directors normally proposes a dividend per share in connection with the fourth quarter results that are published in February each year. The Annual General Meeting considers this proposal, normally in May, and the approved dividend is then paid to the shareholders. Dividends are paid once each calendar year; generally occurring in May. For non-Norwegian shareholders, Norwegian withholding tax will be deducted at source in accordance with the applicable Norwegian tax regulations. For additional information related to Hydro's dividend and shareholder policy see note 40 Capital management.

For fiscal year 2015 the Board of Directors has proposed a dividend of NOK 1.00 per share to be paid in May 2016. The Annual General Meeting, scheduled to be held May 2, 2016, will consider this dividend proposal. If approved, this would be a total dividend of approximately NOK 2,042 million. In accordance with IFRS, the fiscal year 2015 proposed dividend is not recognized as a liability in the 2015 financial statements.

Dividends declared and paid in 2015 and 2014 for the prior fiscal year, respectively, are as follows:

	Paid in 2015 for fiscal year 2014	Paid in 2014 for fiscal year 2013
Dividend per share paid, NOK	1.00	0.75
Total dividends paid, NOK million	2 042	1 530
Date proposed	February 10, 2015	February 11, 2014
Date approved	May 6, 2015	May 7, 2014
Dividend payment date	May 18, 2015	May 19, 2014



Dividends to non-controlling shareholders in Hydro's subsidiaries are reported as dividends in Consolidated statements of changes in equity.

## Note 42 - Guarantees

Amounts in NOK million	2015	2014
Guarantees related to joint ventures	-	26
Sales guarantees	3 581	3 519
Total guarantees not recognized	3 581	3 545

Guarantees in connection with the sale of companies, referred to as sales guarantees in the table above, reflect the maximum contractual amount that Hydro could be liable for in the event of certain defaults or the realization of specific uncertainties. In addition, Hydro has certain guarantees relating to sales of companies that are unspecified in amount and unlimited in time. No amounts relating to such guarantees are included in the table above. Hydro believes that the likelihood of any material liability arising from guarantees relating to sales of companies is remote. A provision of about NOK 100 million is recognized related to the sales guarantee for Sapa, see note 31 Investments in joint arrangements.

## Note 43 - Contractual commitments and other commitments for future investments

Amounts in NOK million	2016	Investments thereafter	Total
Contract commitments for investments in property, plant and equipment	3 200	156	3 356
Additional authorized future investments in property, plant and equipment	1 505	326	1 831
Contract commitments for other future investments	29	-	29
Total	4 734	482	5 216

Additional authorized future investments include projects formally approved for development by the Board of Directors or management. General investment budgets are excluded from these amounts.

Hydro has long-term contractual commitments for the purchase of aluminium, raw materials, electricity, and transportation in addition to long-term sales commitments. The future non-cancellable fixed and determinable obligations under these commitments as of December 31, 2015 are shown in the table below:

Amounts in NOK million	Bauxite, alumina and aluminium	Energy related	Other	Sales commitments
2016	7 054	9 310	2 492	(15 744)
2017	6 101	8 176	2 290	(10 621)
2018	4 987	7 725	1 521	(5 820)
2019	4 183	5 257	1 234	(3 319)
2020	4 239	5 249	843	(2 284)
Thereafter	26 132	24 730	10 575	(13 652)
Total	52 696	60 448	18 955	(51 439)

Amounts relating to contracts which are entirely or partly linked to market prices such as LME are based on the spot price at the balance sheet date.

Long-term sales commitments mainly relate to alumina, aluminium and electricity. The amounts include commitments for the delivery of electricity from power stations that will revert to the Norwegian Government. The volume from these power stations is 547 GWh in 2016 and 13.3 TWh in total. Commitments relating to concession power from stations that are not subject to reversion have an annual volume of 249 GWh.

Hydro also has contractual commitments for the sales and purchase of products from part-owned entities, see note 31 Investments in joint arrangements. These commitments are excluded from the table above. Further has Hydro additional long-term purchase and sales commitments which include variable elements that are not included in the table above.

## Note 44 - Cash flow information

### Reconciliation of cash and cash equivalents

Amounts in NOK million	2015	2014
Cash and cash equivalents	6 917	9 253
Bank overdraft	-	(5)
Cash, cash equivalents and bank overdraft	6 917	9 248

### Cash disbursements and receipts included in cash from operations

Amounts in NOK million	2015	2014
Income taxes paid	1 779	1 814
Interest paid	338	473
Interest received	279	275
Other dividends received	10	21

In 2015 and 2014, non-cash investing activities for asset retirement costs amounted to NOK 290 million and NOK 85 million, respectively.

In 2014, Purchases of other long-term investments amount to net proceeds of NOK 166 million, including cash and cash equivalents in Sørål at the date of acquisition which exceeded Hydro's payment for the shares.

## Note 45 - Auditor remuneration

KPMG is the Group auditor of Norsk Hydro ASA.

The following table shows fees to KPMG for 2015 and 2014. For all categories the reported fee is the recognized expense for the year.

Amounts in NOK million	<sup>1)</sup> Audit	Audit related	Other <sup>2)</sup> services	Tax related	Total
<b>2015</b>					
Norway	12	-	1	-	14
Outside Norway	12	-	-	-	12
Total	25	1	1	-	27
<b>2014</b>					
Norway	11	1	2	-	14
Outside Norway	11	-	-	-	11
Total	22	1	2	-	25

1) Audit includes audit fee to other auditors than KPMG for two subsidiaries.

2) Other services mainly include KPMG's review of viability performance.

## Financial statements Norsk Hydro ASA

Amounts in NOK million	Notes	2015	2014
Revenue		231	229
Gain (loss) on sale of subsidiaries and associates, net		57	-
Total operating income		288	229
Employee benefit expense	2, 3	333	299
Depreciation and impairment	4, 5	22	9
Other		627	337
Total operating expenses		982	645
Operating loss		(694)	(416)
Financial income, net	6	3 387	1 412
Income before tax		2 693	996
Income taxes	7	(314)	(366)
Net income		2 379	630
<b>Appropriation of net income and equity transfers</b>			
Dividend proposed		(2 042)	(2 040)
Retained earnings		(337)	1 410
Total appropriation		(2 379)	(630)

*The accompanying notes are an integral part of the financial statements.*

Amounts in NOK million, December 31	Notes	2015	2014
<b>Assets</b>			
Intangible assets	5	29	39
Intangible assets		29	39
Property, plant and equipment	4	178	190
Shares in subsidiaries	8	56 573	56 666
Receivables from subsidiaries		17 367	15 597
Financial derivatives subsidiaries	11	273	295
Prepaid pension, investments and other non-current assets	2, 10	3 771	3 492
Total financial non-current assets		77 984	76 050
Receivables from subsidiaries		2 698	6 206
Prepaid expenses and other current assets	11	228	235
Short-term investments		4 550	500
Cash and cash equivalents		4 947	7 370
Total current assets		12 423	14 311
Total assets		90 614	90 590
<b>Equity and liabilities</b>			
<b>Paid-in capital</b>			
Share capital	14	2 272	2 272
Treasury shares	14	(30)	(32)
Paid-in premium	14	28 987	28 987
Other paid-in capital	14	81	57
<b>Retained earnings</b>			
Retained earnings	14	27 057	26 518
Treasury shares	14	(883)	(940)
Equity	14	57 484	56 862
Long-term provisions	2, 10	3 463	2 999
Long-term debt	13	2 663	2 976
Payables to subsidiaries		7 152	6 676
Other long-term liabilities		9 815	9 653
Bank loans and other interest-bearing short-term debt		586	575
Dividends payable		2 042	2 040
Payables to subsidiaries		16 553	17 799
Other current liabilities	7	670	662
Total current liabilities		19 851	21 075
Total equity and liabilities		90 614	90 590

The accompanying notes are an integral part of the financial statements.

## Statements of cash flows

Amounts in NOK million	2015	2014
Net income	2 379	630
Depreciation and impairment	22	9
Net foreign exchange gain	(1 236)	(1 202)
Changes in receivables and payables, and other items	1 098	393
Net cash provided by (used in) operating activities	2 263	(170)
Purchases of short-term investments	(5 050)	(1 500)
Proceeds from sales of short-term investments	1 000	2 250
Net sales (purchases) of other investments	148	(30)
Net cash provided by (used in) investing activities	(3 902)	720
Dividends paid	(2 042)	(1 530)
Proceeds from shares issued	35	21
Other financing activities, net	1 010	1 038
Net cash used in financing activities	(997)	(471)
Foreign currency effects on cash	213	212
Net increase (decrease) in cash and cash equivalents	(2 423)	291
Cash and cash equivalents at beginning of year	7 370	7 080
Cash and cash equivalents at end of year	4 947	7 370

*The accompanying notes are an integral part of the financial statements.*

## Notes to the financial statements Norsk Hydro ASA

### Note 1 - Summary of significant accounting policies

The financial statements of Norsk Hydro ASA are prepared in accordance with the Norwegian accounting act and accounting principles generally accepted in Norway (N GAAP). Financial statement preparation requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses as well as disclosures of contingencies. Actual results may differ from estimates. Interest rates used for calculating net present values are rounded to the nearest 10 basis points for post employment benefits and financial instruments, to the nearest 25 basis points for other non financial assets and liabilities. As a result of rounding adjustments, the figures in one or more columns included in the financial statements may not add up to the total of that column.

### Shares in subsidiaries, associates and jointly controlled entities

Shares in subsidiaries, associates and jointly controlled entities are presented according to the cost method. Group relief received is included in dividends from subsidiaries. Dividend from subsidiaries is recognized in the year for which it is proposed by the subsidiary to the extent Norsk Hydro ASA can control the decision of the subsidiary through its share holdings. Shares in subsidiaries, associates and jointly controlled entities are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may exceed the fair value of the investment. An impairment loss is reversed if the impairment situation is deemed to no longer exist.

### Employee retirement plans

Norsk Hydro ASA has adopted the alternative treatment allowed in NRS 6 whereby employee retirement plans are measured as required by IAS 19, see note 2 Significant accounting policies to the consolidated financial statements for additional information.

### Foreign currency transactions

Realized and unrealized currency gains or losses on transactions are included in Financial income, net. Similarly, unrealized currency gains or losses on assets and liabilities denominated in a currency other than the Norwegian kroner are also included in Financial income, net. This is in accordance with NRS' preliminary standard on transactions and accounts in foreign currency.

### Cash and cash equivalents

Cash and cash equivalents includes cash, bank deposits and all other monetary instruments with a maturity of less than three months at the date of purchase.

### Short-term investments

Short-term investments includes bank deposits and all other monetary instruments with a maturity between three and twelve months at the date of purchase and current marketable equity and debt securities. Such securities are considered trading securities and are valued at fair value. The resulting unrealized holding gains and losses are included in Financial income, net. Investment income is recognized when earned.

### Property, plant and equipment

Property, plant and equipment is carried at historical cost less accumulated depreciation and impairment losses. According to NRS' preliminary standard regarding impairment of non-current assets such assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. The impairment of long-lived assets is recognized when the recoverable amount determined as the higher of fair value less cost to sell or value in use of the asset or group of assets is less than the carrying value. The amount of the impairment is the difference between the carrying value and the recoverable amount. An impairment loss is reversed if the impairment situation is deemed to no longer exist.

### Intangible assets

Intangible assets acquired individually or as a group are recognized at fair value when acquired, in accordance with NRS' preliminary standard on intangible assets. Intangible assets are amortized on a straight-line basis over their useful life and tested for impairment whenever indications of impairment are present.



Norsk Hydro ASA accounts for CO<sub>2</sub> emission allowances at cost as an intangible asset. The emission rights are not amortized, impairment testing is done on an annual basis. Sale of CO<sub>2</sub> emission rights is recognized at the time of sale at the transaction price.

### Leased assets

Leases are assessed under NRS 14 Leasing. Lease arrangements that transfer the majority of risks and control to Hydro is considered financial lease, and recognized as asset and liability. Payments under other leases and rental arrangements are expensed over the lease term.

### Derivative instruments

Forward currency contracts and currency options are recognized in the financial statements and measured at fair value at each balance sheet date with the resulting unrealized gain or loss recorded in Financial income, net.

### Provisions

Provisions are recognized when Norsk Hydro ASA has a present obligation (legal or constructive) as a result of a past event, it is probable (more likely than not) that Norsk Hydro ASA will be required to settle the obligation, and a reliable estimate can be made of the amount, taking into account the risks and uncertainties. The provision is measured at the present value of the cash flows estimated to settle the obligation. Uncertain outcomes are measured as the expected value of reasonably possible outcomes.

### Contingencies and guarantees

Norsk Hydro ASA recognizes a liability for the fair value of obligations it has undertaken in issuing guarantees. Contingencies are recognized in the financial statements when probable of occurrence and can be estimated reliably.

### Share-based compensation

Norsk Hydro ASA accounts for share-based payment in accordance with NRS 15A Share-Based Payment. NRS requires share-based payments to be accounted for as required by IFRS 2 Share-based Payment, see note 2 Significant accounting policies to the consolidated financial statements for additional information.

### Risk management

For information about risk management in Norsk Hydro ASA see note 12 Financial and commercial risk management to the consolidated financial statements.

### Income taxes

Deferred income tax expense is calculated using the liability method in accordance with NRS's preliminary standard on Income Taxes. Under the liability method, deferred tax assets and liabilities are measured based on the differences between the carrying values of assets and liabilities for financial reporting and their tax basis which are considered temporary in nature. Deferred income tax related to remeasurements of pension obligations are recognized directly in equity. The tax effect of equity transactions, such as group contribution given, is recognized as a part of the equity transaction and do not affect the income tax expense. Other changes in deferred income tax assets and liability balances during the year represent the deferred income tax expense. Changes resulting from amendments and revisions in tax laws and tax rates are recognized when the new tax laws or rates are enacted.

## Note 2 - Employee retirement plans

In Norsk Hydro ASA the majority of plan members are covered by defined contribution plans, while a significant share is covered by defined benefit plans that offer benefits based on final salary level and the number of years in service, and include benefits for dependents. Contributions to plans providing benefits based on salaries up to a maximum level are subject to tax deduction. These plans are funded; all vested benefits are required by law to be funded for such plans. Benefits based on salaries above this level are covered by unfunded plans. The defined benefit plans are closed for new members. New employees are covered by a defined contribution plan for salaries up to the tax deductible ceiling and unfunded contribution based plans for additional salaries. In December 2013, Hydro decided to transfer additional employee groups to the defined contribution plans with effect from June 1, 2014. About 80 persons were transferred. Employees who converted to the defined contribution plan are paid compensation for the calculated difference in pension capital at normal retirement date as a monthly cash

amount. The main funded plan is managed by Norsk Hydros Pensjonskasse, a separate, regulated legal entity. Hydro's pension plans complement the public pension schemes in Norway. The plans comply with minimum requirements for pension plans in Norway.

Norsk Hydro ASA participates in a pension plan that entitles the majority of its employees life-long benefits in addition to other pension benefits. The benefits are financed through a pooled arrangement by private sector employers (avtalefestet pensjon, AFP) where also the Norwegian state contributes. The plan is a defined benefit plan with limited funding and where plan assets are not segregated. The information required to calculate the share of the plan and account for the plan as a defined benefit plan is not available from the plan administrator. Hydro therefore accounts for the plan as if it were a defined contribution plan. The annual contributions have increased since inception and are expected to increase further. The employer contributions are included in Multiemployer plans.

### Pension cost

Amounts in NOK million	2015	2014
Defined benefit plans	43	41
Defined contribution plans	7	5
Multiemployer plans	3	4
Termination benefits and other	8	(3)
Social security cost	9	11
Pension expense	69	58
Interest expense (income)	(10)	(40)
Remeasurement (gain) loss directly to equity	(274)	667

### Recognized defined benefit assets and liability

Amounts in NOK million	2015	2014
Defined benefit obligation major plans	(5 402)	(5 599)
Plan assets	6 050	5 900
Reimbursement rights	325	344
Liability other plans	(3)	(5)
Social security cost	(301)	(306)
Net defined benefit asset	669	334
Recognized prepaid pension	3 106	2 809
Recognized pension liability	(2 437)	(2 476)
Net amount recognized	669	334

### Change in defined benefit obligation (DBO)

Amounts in NOK million	2015	2014
Opening Balance	(5 599)	(5 193)
Current service cost	(41)	(39)
Interest expense	(122)	(191)
Actuarial gain (loss) economic assumptions	101	(844)
Experience gain (loss)	(46)	54
Benefit payments	313	323
Terminations benefits	(7)	(15)
Settlements	-	307
Closing Balance	(5 402)	(5 599)

### Change in pension plan assets

Amounts in NOK million	2015	2014
Opening Balance	5 900	5 970
Interest income	132	229
Return on plan assets above (below) interest income	219	130
Contributions to plans	25	40
Benefit payments	(226)	(234)
Settlements	-	(236)
Closing Balance	6 050	5 900

### Analysis of the defined benefit obligation (DBO)

Amounts in NOK million	2015	2014
Active members	(1 144)	(1 170)
Deferred members	(414)	(413)
Pensioners	(3 844)	(4 016)
Defined benefit obligation	(5 402)	(5 599)

	Benefit obligation 2015	Benefit expense 2015	Benefit obligation 2014	Benefit expense 2014
Assumptions				
Discount rate	2.60%	2.25%	2.25%	4.00%
Expected salary increase	2.25%	2.25%	2.25%	3.25%
Expected pension increase	1.25%	1.00%	1.00%	1.25%
Mortality basis	K2013	K2013	K2013	K2013

See note 38 Employee retirement plans in notes to the consolidated financial statements for information about sensitivities.

## Note 3 - Management remuneration, employee costs and auditor fees

See note 9 Management remuneration in the notes to the consolidated financial statements for information and details related to the Corporate Management Board remuneration. Costs for some corporate management board members employed by subsidiaries are charged to Norsk Hydro ASA for services rendered as members of the Corporate Management Board.

See note 10 Board of Directors and Corporate Assembly in the notes to the consolidated financial statements for information and details related to the Board of Directors' remuneration.

See note 17 Employee remuneration in the notes to the consolidated financial statements for information on the employee share purchase plan.

Partners and employees of Hydro's appointed auditors, KPMG, own no shares in Norsk Hydro ASA or any of its subsidiaries. Audit fees were NOK 7 million in both 2015 and 2014. Fees for other services were NOK 1 million in both 2015 and 2014.

The average number of employees in Norsk Hydro ASA was 232 in 2015 as compared to 227 in 2014. As of year end 2015 and 2014, Norsk Hydro ASA employed 233 and 231 employees, respectively.

Total loans given by Norsk Hydro ASA to Norwegian employees as of December 31, 2015 were NOK 116 million. Loans to employees consist of NOK 64 million secured loans (home and car loans) with the remainder unsecured. The unsecured loan balance as of December 31, 2015 related to the employee share purchase plan was NOK 13 million.

A substantial number of employees in Norsk Hydro ASA are engaged in activities for other Group companies. The cost for these employees is accounted for on a net basis, reducing Employee benefit expense. Payroll related expenses, on a net basis, are provided in the table below.

Amounts in NOK million	2015	2014
<b>Employee benefit expense:</b>		
Salaries	341	311
Social security costs	46	43
Social benefits	-	2
Pension expense (note 2)	69	58
Internal invoicing of payroll related costs	(123)	(115)
<b>Total</b>	<b>333</b>	<b>299</b>

## Note 4 - Property, plant and equipment

Operating lease expense amounted to NOK 211 million in 2015 and NOK 205 million in 2014. The company has the following future operating lease commitments under non-cancellable leases: 2016: NOK 48 million, 2017: NOK 48 million, 2018: NOK 48 million, 2019: NOK 48 million, 2020: NOK 48 million and thereafter: NOK 8 million.

Amounts in NOK million	Land	Buildings	Machinery, etc	Total
Cost December 31, 2014	6	201	250	456
Additions at cost	-	3	1	4
Retirements	-	-	(3)	(3)
Accumulated depreciation December 31, 2015	-	(98)	(181)	(279)
Carrying value December 31, 2015	6	105	66	178
Depreciation in 2015	-	(6)	(10)	(16)

## Note 5 - Intangible assets

Amounts in NOK million	Cost	Accumulated amortization	Carrying value
Balance December 31, 2014	82	(43)	39
Additions at cost	5		5
Disposals	(15)	6	(9)
Amortization for the year		(7)	(7)
Reversal of impairment loss		1	1
Balance December 31, 2015	72	(43)	29

Intangible assets mainly consist of software and CO<sub>2</sub> emission rights.

## Note 6 - Financial income and expense

Amounts in NOK million	2015	2014
Dividends from subsidiaries	2 036	57
Interest from group companies	430	594
Other interest income	88	94
Interest paid to group companies	(83)	(165)
Other interest expense	(166)	(146)
Net foreign exchange gain (loss)	1 236	1 202
Loss on loans to group companies	(179)	(288)
Other, net	25	64
<b>Financial income, net</b>	<b>3 387</b>	<b>1 412</b>

## Note 7 - Income taxes

The tax effect of temporary differences resulting in deferred tax assets (liabilities) are:

Amounts in NOK million	Temporary differences Tax effect	
	2015	2014
Short-term items	40	18
Long-term receivables from subsidiaries	(1 123)	(779)
Pensions <sup>1)</sup>	(167)	(90)
Long-term debt	131	113
Other long-term items	287	149
Tax loss carryforwards	235	315
Deferred tax assets (liabilities)	(597)	(275)

1) Include NOK (70) million and NOK 180 million of tax benefit (expense) allocated directly to equity in 2015 and 2014 respectively.

In accordance with the preliminary accounting standard for tax, taxable temporary differences and deductible temporary differences, which reverse or may reverse in the same period, can be netted.

### Reconciliation of tax expense

Amounts in NOK million	2015	2014
Income (loss) before taxes	2 693	996
Expected income taxes at statutory tax rate	727	269
Dividend exclusion	(486)	(15)
Effect of tax law change	(20)	-
Permanent differences and other, net	93	112
Income taxes	314	366
<b>Components of income tax</b>		
Current income tax	62	19
Change in deferred tax	252	347
Income tax	314	366

See note 23 Income taxes in the consolidated financial statements for further information.

Taxes payable were NOK 181 million per December 31, 2015 and NOK 150 million per December 31, 2014.

## Note 8 - Shares in subsidiaries

Company name	Currency	Percentage of shares owned by Norsk Hydro ASA	Total share capital of the company (1,000's)	Book value (NOK million)
Hydro Aluminium AS	NOK	100.00	14 472 252	50 826
Hydro Energi AS	NOK	100.00	868 560	5 530
Hydro Aluminium Deutschland GmbH <sup>1)</sup>	EUR	25.04	73 894	92
Herøya Industripark AS	NOK	100.00	9 680	62
Norsk Hydro Plastic Pipe AS	NOK	100.00	10 000	28
Industriforsikring AS	NOK	100.00	20 000	20
Herøya Nett AS	NOK	100.00	1 760	11
Hydro Kapitalforvaltning AS	NOK	100.00	2 500	4
<b>Total</b>				<b>56 573</b>

1) The company is owned 74.96 percent by Norsk Hydro Deutschland GmbH & Co. KG, which is a subsidiary of Hydro Aluminium AS, and 25.04 percent by Norsk Hydro ASA.

Percentage of shares owned equals percentage of voting shares owned. The location of subsidiaries is indicated by the currency code used in the table or by the name of the subsidiary. Several of the above-mentioned companies also own shares in other companies.

## Note 9 - Related party information

See note 11 Related party information in the notes to the consolidated financial statements for identification of related parties and primary relationships with those parties.

The Norwegian state is a related party to Norsk Hydro ASA as its shareholding represents a significant influence in Norsk Hydro ASA.

Norsk Hydro ASA operates the cash pooling arrangements in Hydro. Further, Norsk Hydro ASA extends loans to subsidiaries, associates and jointly controlled entities at terms and conditions reflecting prevailing market conditions for corresponding services, allowing for a margin to cover administration and risk. See note 6 Financial income and expense for information on interest paid to and received from group companies.

Norsk Hydro ASA allocates costs for corporate staff services and shared services to subsidiaries. The total amount allocated was NOK 112 million in 2015 and NOK 97 million in 2014. Receivables related to such costs amounted to NOK 95 million and NOK 92 million per December 31, 2015 and 2014, respectively.

Transactions with associates and jointly controlled entities consist mainly of loans to such entities owned by subsidiaries of Norsk Hydro ASA.

For information on transactions with employees and management, see note 3 Management remuneration, employee costs and auditor fees and note 9 Management remuneration in the notes to the consolidated financial statements. For information on transactions with Board of Directors and Corporate Assembly see note 10 Board of Directors and Corporate Assembly in the notes to the consolidated financial statements.



## Note 10 - Specification of balance sheet items

Amounts in NOK million	2015	2014
Securities	546	547
Prepaid pension	3 106	2 809
Other non-current assets	119	135
Total prepaid pension, investments and other non-current assets	3 771	3 492
Pension liability	2 437	2 476
Deferred tax liabilities	597	275
Other long-term provisions	429	248
Long-term provisions	3 463	2 999

Other long-term provisions relate primarily to an onerous contract of office space, see note 11 Related party information in the notes to the consolidated financial statements.

## Note 11 - Financial instruments

Norsk Hydro ASA offers currency derivatives to subsidiaries using such instruments for risk management. Contracts are recognized at estimated market value, determined by calculating the contractual cash flows using currency rates at the balance sheet date and discounting those cash flows to a present value. At the end of 2015 and 2014, the value of currency forward contracts outstanding with subsidiaries were as follows:

Amounts in NOK million	2015	2014
Currency forward contracts, short-term	25	76
Currency forward contracts, long-term	273	295
Financial income, net	298	371

In addition, Norsk Hydro ASA had contracts with a negative value of NOK 1 million towards the previous subsidiary Hydro Aluminium Slim S.p.A, now SLIM Aluminium S.p.A.

The contracts represent exposure mainly in US dollar and Euro. In addition, there are some contracts with exposure to Swiss franc, Danish krone, Swedish krone and Japanese yen, representing lower amounts. The contracts matures no later than 2019.

## Note 12 - Guarantees

Norsk Hydro ASA provides guarantees arising in the ordinary course of business including stand-by letters of credit, performance bonds and various payment or financial guarantees. All commercial guarantees are on behalf of subsidiaries. Guarantees in connection with the sale of companies, referred to as sales guarantees in the table below, reflect the maximum contractual amount that Norsk Hydro ASA could be liable for in the event of certain defaults or the realization of specific uncertainties. See note 42 Guarantees in the consolidated financial statements for additional information.

Amounts in NOK million	2015	2014
Guarantees related to jointly controlled entities	24	48
Commercial guarantees	4 655	4 192
Sales guarantees	1 501	1 500
Total guarantees not recognized	6 180	5 741

## Note 13 - Long-term debt

As of December 31, 2015, long-term debt amounted to NOK 2,663 million, of which nothing falls due after 2020. As of December 31, 2014, long-term debt amounted to NOK 2,976 million. See note 35 Long-term debt in notes to the consolidated financial statements for further information.

## Note 14 - Number of shares outstanding, shareholders and equity reconciliation

The share capital of Norsk Hydro ASA as of December 31, 2015 was NOK 2,271,760,107 consisting of 2,068,998,276 ordinary shares at NOK 1.098 per share. As of December 31, 2015 Norsk Hydro ASA had purchased 27,410,584 treasury shares at a cost of NOK 913 million. See Consolidated statements of changes in equity and note 39 Shareholders' equity for additional information.

The table shows shareholders holding one percent or more of the total 2,041,587,692 shares outstanding as of December 31, 2015, according to information in the Norwegian securities' registry system (Verdipapirsentralen).

Name	Number of shares
The Ministry of Trade, Industry and Fisheries of Norway	708 865 253
Folketrygdfondet	128 283 170
Clearstream Banking S.A. <sup>1)</sup>	59 085 172
The Northern Trust Co. <sup>1)</sup>	58 204 857
State Street Bank and Trust Co I <sup>1)</sup>	31 514 155
The Bank of New York Mellon SA/NV <sup>1)</sup>	29 680 261
State Street Bank and Trust Co. II <sup>1)</sup>	26 370 121
J.P. Morgan Chase Bank N.A. London <sup>1)</sup>	24 225 148
State Street Bank & Trust Co. III <sup>1)</sup>	23 891 646
Euroclear Bank S.A./N.V. ('BA') <sup>1)</sup>	23 090 654

1) Nominee accounts.

### Changes in equity

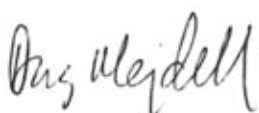
Amounts in NOK million	Paid-in capital	Retained earnings	Total equity
December 31, 2014	31 285	25 578	56 862
Net income		2 379	2 379
Remeasurement postemployment benefits		204	204
Dividend paid in 2015 not accrued <sup>1)</sup>		(2)	(2)
Dividend proposed		(2 042)	(2 042)
Treasury shares	25	57	82
December 31, 2015	31 310	26 174	57 484

1) Owners of shares sold from treasury shares in April 2015 received dividends for those shares in May 2015. However, this was not accrued in 2014.

## Responsibility Statement

We confirm to the best of our knowledge that the consolidated financial statements for 2015 have been prepared in accordance with IFRS as adopted by the European Union, as well as additional information requirements in accordance with the Norwegian Accounting Act, that the financial statements for the parent company for 2015 have been prepared in accordance with the Norwegian Accounting Act and generally accepted accounting practice in Norway, and that the information presented in the financial statements gives a true and fair view of the assets, liabilities, financial position and result of Norsk Hydro ASA and the Hydro Group for the period. We also confirm to the best of our knowledge that the Board of Directors' Report includes a true and fair review of the development, performance and financial position of Norsk Hydro ASA and the Hydro Group, together with a description of the principal risks and uncertainties that they face, and that the country by country report for 2015 has been prepared in accordance with the Norwegian Accounting Act §3-3d and the Norwegian Security Trading Act §5-5a.

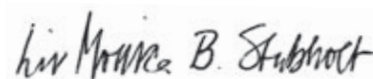
Oslo, March 10, 2016



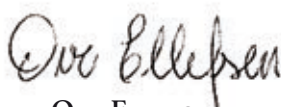
**DAG MEJDELL**  
Chair



**INGE K. HANSEN**  
Deputy chair



**LIV MONICA BARGEM STUBBHOLT**  
Board member



**OVE ELLEFSEN**  
Board member



**BILLY FREDAGSVIK**  
Board member



**FINN JEBSEN**  
Board member



**STEN ROAR MARTINSEN**  
Board member



**EVA PERSSON**  
Board member



**PEDRO JOSÉ RODRIGUES**  
Board member



**IRENE RUMMELHOFF**  
Board member



**SVEIN RICHARD BRANDTZÆG**  
President and CEO

## Auditor's report



To the Annual Shareholders' Meeting of Norsk Hydro ASA

### INDEPENDENT AUDITOR'S REPORT

#### Report on the Financial Statements

We have audited the accompanying financial statements of Norsk Hydro ASA, which comprise the financial statements of the parent company Norsk Hydro ASA and the consolidated financial statements of Norsk Hydro ASA and its subsidiaries. The parent company's financial statements comprise the balance sheet as at 31 December 2015, the income statement and cash flow statement for the year then ended, and a summary of significant accounting policies and other explanatory information. The consolidated financial statements comprise the balance sheet as at 31 December 2015, and the income statement and the statement of comprehensive income, statement of changes in equity and cash flow statement for the year then ended, and a summary of significant accounting policies and other explanatory information.

#### *The Board of Directors and the President and CEO's Responsibility for the Financial Statements*

The Board of Directors and the President and CEO are responsible for the preparation and fair presentation of the parent company financial statements in accordance with the Norwegian Accounting Act and accounting standards and practices generally accepted in Norway and for the consolidated financial statements in accordance with International Financial Reporting Standards as adopted by the EU, and for such internal control as the Board of Directors and the President and CEO determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

#### *Auditor's Responsibility*

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with laws, regulations, and auditing standards and practices generally accepted in Norway, including International Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### *Opinion on the separate financial statements*

In our opinion, the parent company's financial statements are prepared in accordance with the law and regulations and give a true and fair view of the financial position of Norsk Hydro ASA as at 31 December 2015, and of its financial performance and its cash flows for the year then ended in accordance with the Norwegian Accounting Act and accounting standards and practices generally accepted in Norway.

#### *Opinion on the consolidated financial statements*

In our opinion, the consolidated financial statements are prepared in accordance with the law and regulations and give a true and fair view of the financial position of Norsk Hydro ASA and its subsidiaries as at 31 December 2015, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the EU.

## Report on Other Legal and Regulatory Requirements

### *Opinion on the Board of Directors' report and the statement on Corporate Governance*

Based on our audit of the financial statements as described above, it is our opinion that the information presented in the Board of Directors' report and in the statement on Corporate Governance concerning the financial statements and the going concern assumption is consistent with the financial statements and complies with the law and regulations.

### *Opinion on Accounting Registration and Documentation*

Based on our audit of the financial statements as described above, and control procedures we have considered necessary in accordance with the International Standard on Assurance Engagements (ISAE) 3000, «Assurance Engagements Other than Audits or Reviews of Historical Financial Information», it is our opinion that the management has fulfilled its duty to produce a proper and clearly set out registration and documentation of the company's accounting information in accordance with the law and bookkeeping standards and practices generally accepted in Norway.

Oslo, 10 March 2016

KPMG AS

Arne Frogner

*State Authorized Public Accountant*

[Translation has been made for information purposes only]

## Statement of the Corporate Assembly to the Annual general meeting of Norsk Hydro ASA

The Board of Directors' proposal for the financial statements for the financial year 2015 and the Auditors' report have been submitted to the corporate assembly.

The Corporate Assembly recommends that the directors' proposal regarding the financial statements for 2015 for the parent company, Norsk Hydro ASA, and for Norsk Hydro ASA and its subsidiaries be approved by the annual general meeting, and that the net income for 2015 of Norsk Hydro ASA be appropriated as recommended by the directors.

Oslo, March 10, 2016

Terje Venold

# Appendix

## Terms and definitions

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
AMPS	Aluminium Metal Production System. Hydro's best practice system and standard for world-class production and improvement in our primary metal business
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
BABS	Bauxite & Alumina's best practice system, based on AMPS (see above) and adjusted to B&A needs
BAT	Best Available Techniques for pollution prevention and control
B&A	Hydro's Bauxite & Alumina business area
CO <sub>2</sub> equivalents (CO <sub>2</sub> e)	A measure used to compare the emissions from various greenhouse gases based upon their global warming potential
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
Consolidated Financial Statements	The consolidated financial statements and notes included in the Company's annual report to shareholders
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
CSR	Corporate Social Responsibility
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
EU	European Union
HSE	Health, security, safety and environment
Hydro	Norsk Hydro ASA and its consolidated subsidiaries
Hydro Aluminium	The aluminium business of Hydro, comprising the sub-segments Metals, Rolled Products, and Extrusion and Automotive
Hydro Monitor	Hydro's employee satisfaction survey, performed for all employees every second year
kWh	Kilowatt hour
LME	London Metal Exchange
mm	Millimeter
My Way	The process we use at Hydro for employee feedback and development. This process consists of regular dialogues between employee and leader, as well as a system tool.
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
OSE	Oslo Stock Exchange
tonne, mt	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
VPS or VPS System	The Norwegian Central Securities Depository, Verdipapirsentralen
WTO	World Trade Organization
Yara	Yara International ASA



## Cautionary note in relation to certain forward-looking statements

Certain statements included within this annual report contain forward-looking information, including, without limitation, those relating to (a) forecasts, projections and estimates, (b) statements of management's plans, objectives and strategies for Hydro, such as planned expansions, investments or other projects, (c) targeted production volumes and costs, capacities or rates, start-up costs, cost reductions and profit objectives, (d) various expectations about future developments in Hydro's markets, particularly prices, supply and demand and competition, (e) results of operations, (f) margins, (g) growth rates, (h) risk management, as well as (i) statements preceded by "expected", "scheduled", "targeted", "planned", "proposed", "intended" or similar statements.

Although we believe that the expectations reflected in such forward-looking statements are reasonable, these forward-looking statements are based on a number of assumptions and forecasts that, by their nature, involve risk and uncertainty. Various factors could cause our actual results to differ materially from those projected in a forward-looking statement or affect the extent to which a particular projection is realized. Factors that could cause these differences include, but are not limited to: our continued ability to reposition and restructure our upstream and downstream aluminium business; changes in availability and cost of energy and raw materials; global supply and demand for aluminium and aluminium products; world economic growth, including rates of inflation and industrial production; changes in the relative value of currencies and the value of commodity contracts; trends in Hydro's key markets and competition; and legislative, regulatory and political factors.

No assurance can be given that such expectations will prove to have been correct. Hydro disclaims any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Hydro is a global aluminium company with production, sales and trading activities throughout the value chain, from bauxite, alumina and energy generation to the production of primary aluminium and rolled products as well as recycling. Based in Norway, the company has 13,000 employees involved in activities in more than 50 countries on all continents. Rooted in more than a century of experience in renewable energy production, technology development and progressive partnerships, Hydro is committed to strengthening the viability of the customers and communities we serve.

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**HYDRO**

*Infinite aluminium*