

## Fourth quarter 2019 Presentation



## **Cautionary note**



Certain statements included in this announcement contain forward-looking information, including, without limitation, information relating to (a) forecasts, projections and estimates, (b) statements of Hydro management concerning plans, objectives and strategies, such as planned expansions, investments, divestments, curtailments 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, and (i) qualified statements such as "expected", "scheduled", "targeted", "planned", "proposed", "intended" or similar.

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 businesses; 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.



### Fourth quarter results 2019

# Firm response in weak markets

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Hilde Merete Aasheim, President and CEO

## Fourth quarter highlights

- Underlying EBIT of NOK 560 million
- Challenging markets weighing on results
- BNOK 1 in improvement program delivered in 2019, above target of BNOK 0.5
- Cash release in 2019
  - Net operating capital release of BNOK 5.6
  - Capex 9.6 BNOK, reduced from 10.5 BNOK guidance
- Increasing sales of low-carbon products
- Proposed dividend for 2019 of NOK 1.25 per share<sup>\*</sup>



## Macroeconomic uncertainty affects our markets



Climate policies and Green Deal create opportunities for Hydro



## Lower Extruded Solutions sales in 2019

Challenging markets continuing into 2020





### **Extruded Solutions volume decline in 2019**

- Declining market demand
- Cyber attack impact

### Extrusion market outlook 2020

- Declining trend in 2019 expected to continue into 2020 on overall economic uncertainty
- European market affected by weak automotive and transportation markets, low industrial activity in general
- North American market heavily affected by negative development in truck & trailer
- Limited visibility going forward

## Stable Rolled Products total sales in 2019

Portfolio shift towards higher-margin segments





### **Stable Rolled Products volumes in 2019**

- Strategic growth in automotive and beverage can supported by market substitution
- General engineering, foil and litho down on soft demand and higher competition from China

### Rolling market outlook 2020

- Overall flat development expected for 2020 in Europe amid economic uncertainty
- Automotive light-weighting continues to drive demand, but negatively affected by current economic environment
- Solid growth rates in packaging, driven by beverage can substitution
- Continued soft demand for general engineering, foil and litho

# Surplus expected for 2020 amid higher Chinese production growth and largely balanced market outside China



2020 global demand growth expected at 0 - 2%



## Improvement program ahead of target



## Realizing BNOK 1 in improvements, ahead of BNOK 0.5 BNOK target for 2019



\* Excludes negative effects of cyber attack for Extruded Solutions ~10-11 BNOK in capex required to meet the improvement targets

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## Cash release ahead of target



- Net operating capital release of BNOK 5.6 in 2019, above targeted BNOK ~4
- Inventories reduced across all business areas
- Seasonal increase in net operating capital expected in Q1



### NOC book value in BNOK

### 2019 capex BNOK 0.9 below Investor Day estimate

Capital expenditure in BNOK

 Capex optimization – moving majority out in time, while evaluating further capex reduction measures





# Bauxite & Alumina improvements ahead of schedule on faster than planned Alunorte ramp-up

2.7 2023

Implied alumina cost at pre-curtailment levels

Successful ramp-up at Alunorte, 9<sup>th</sup> pressfilter in operation In million mt



Ramp up continues, high focus on cash

- Alunorte plan to produce at 90-95% of nameplate in 2020
- Large investments postponed and further capex reduction measures evaluated
- 2019 net operating capital release of BNOK 0.9

### XX% Capacity utilization

1) Realized alumina price minus underlying EBITDA for B&A, per mt alumina sales

2) Realized alumina price





- Implied alumina cost mainly stable in Q419 vs Q319
- Increased production, reduced alumina sourcing costs and positive currency effects from weakening BRL vs USD, offset by increased costs, including Paragominas power outage

Implied EBITDA cost per mt 1)

EBITDA margin per mt

# Primary Metal improves operations, while taking action in challenging markets and preserving cash

Implied costs return to pre-curtailment levels

Operational parameters improving through 2019 Current efficiency Norwegian primary smelters, in %



Responding to challenging markets, high focus on cash

- Reduced casthouse production
- 20% curtailment of Slovalco
- 2019 net operating capital release of BNOK 2.81)



 Implied primary cost down in Q419 vs Q319 on reduced raw material costs, mainly alumina

All-in Implied EBITDA cost per mt<sup>2)</sup>

LME Implied EBITDA cost per mt<sup>3)</sup> All-in El

All-in EBITDA margin per mt

5) Realized LME, including Qatalum

Implied primary cost and margin rounded to nearest USD 25

4) Realized LME plus realized premiums, including Qatalum

**1.6** 2023

PM

<sup>1)</sup> Primary Metal and Metal Markets

<sup>2)</sup> Realized all-in aluminium price less underlying EBITDA margin, incl Qatalum, per mt aluminium sold.3) Realized LME aluminium price less underlying EBITDA margin, incl Qatalum, per mt primary aluminium produced

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## Improvement activities at full speed in Rolled Products

### Strategic review continues

### Improvement initiatives

- Restructuring of Grevenbroich well on its way
  - One foil line closed, additional foil line to close during 2020
- Executing on manning reductions ~25% signed
- Significant pipeline of procurement initiatives, maturing to implementation, with first savings confirmed
- Targeting metal cost improvements through increased recycling and UBC improvements delivered in 2019
- Shifting volumes from foil and litho to more attractive market segments, such as automotive and can

### Cash release

• 2019 net operating capital release of BNOK 0.6

### Strategic review ongoing



Rolled Products improvements per year and category In MNOK



## Extruded Solutions delivering improvements through restructuring and cost improvements

### Improvement initiatives

- 2019 actions to optimize and streamline portfolio:
  - Full plant closures in Redditch (UK), Rotherham (UK), Pinto (Spain), Belton (US), Kalamazoo (US)
  - Warehouse closures in Wakefield (UK), Lodz (Poland), Bangalore (India)
  - Office closure in Dusseldorf (Germany)
  - Considerable simplification and demanning in Tewkesbury (UK), Drunen (Netherlands), Szekesfehervar (Hungary), Tønder (Denmark), Vetlanda (Sweden), Itu (Brazil), Tubarao (Brazil), Utinga (Brazil), Kuppam (India)
  - Divestment of operations in Santa Oliva (Spain), Ho Chi Minh JV (Vietnam), Chisineu Cris (Romania)
- 2020 impact of initiatives above estimated to MNOK ~300, supporting ongoing BNOK 1.0 improvement target
- Additional restructuring and cost reduction initiatives under way

### Cash release

- 2019 net operating capital release of BNOK 2.1
- Total sales proceeds from 2019 divestments of MNOK ~300



Hvdro

## **Proposing dividend of NOK 1.25<sup>\*</sup> per share for 2019**

- Aiming for competitive shareholder returns and dividend yield compared to alternative investments in peers
- Reflects a robust financial situation, taking into account a demanding year for the company and the volatility in the aluminium industry
- Average five-year payout ratio<sup>\*\*</sup> of ~68%
  - Dividend policy 40% payout ratio of reported net income over the cycle with 1.25 NOK/share considered as floor
- Represents payout of ~NOK 2.6 billion

Aluminium peer group dividend yield\*\*\*, %



\*\* Dividend paid divided by net income from continuing operations attributable to equity holders, including proposed 2019 dividend

\*\*\* Dividend yield defined as dividend per share/share price year end, latest available data (2019 if reported, otherwise 2018).

Peer group includes (in alphabetical order): Upstream: Alcoa, Century, Chalco, Hindalco, Rusal. Downstream: Alcoa, Amag, Constellium, Kaiser Source: Nasdaq IR Insight

<sup>\*</sup> Pending approval from the AGM on May 11, 2020

## Sustainability dashboard 2019





# Growing demand for Hydro's greener products in building facades



60 Hydro CIRCAL projects landed in one year





# Financial update

Pål Kildemo, Executive Vice President and CFO

# Stable results as lower raw material costs and higher volumes upstream were offset by lower sales prices



Year-on-year results

Q4 2019 vs Q4 2018

NOK billion



# Results down on lower realized prices and weak downstream results



Quarter-on-quarter results

### Q4 2019 vs Q3 2019

NOK billion



# Results down as improvements are offset by lower realized prices



Year 2019 vs year 2018







NOK million	Q4 2019	Q4 2018	Q3 2019	Year 2019	Year 2018
Revenue	35 490	38 386	37 517	149 766	159 377
Underlying EBIT	560	534	1 366	3 359	9 069
Items excluded from underlying EBIT	959	356	1 144	2 860	547
Reported EBIT	(399)	178	222	499	8 522
Reported EBITDA	2 617	1 854	2 430	9 878	15 796
Underlying EBITDA	2 792	2 210	3 479	11 832	16 344
Financial income (expense)	231	(721)	(1 628)	(2 055 <b>)</b>	(2 060)
Income (loss) before tax	(168)	(543)	(1 407)	(1 556)	6 462
Income taxes	(497)	(207)	16	(813)	(2 139)
Net income (loss)	(665)	(750)	(1 390)	(2 370)	4 323
Underlying net income (loss)	(303)	(175)	606	708	5 819
Reported EPS, NOK	(0.23)	(0.34)	(0.62)	(0.88)	2.08
Underlying EPS, NOK	(0.12)	(0.06)	0.33	0.52	2.75

## Excluded a loss of NOK~1 billion from Underlying EBIT



Impairment charges, rationalization and closure costs

NOK million	Q4 2019	Q4 2018	Q3 2019	Year 2019	Year 2018
Underlying EBIT	560	534	1 366	3 359	9 069
Unrealized derivative effects on LME related contracts	(1)	(22)	120	(91)	(39)
Unrealized derivative effects on power and raw material contracts	(8)	82	46	99	260
Metal effect, Rolled Products	23	(93)	(123)	(370)	73
Significant rationalization charges and closure costs	(78)	(79)	(1 206)	(1 484)	(79)
Impairment charges	(783)	-	(95)	(906)	-
Alunorte agreements – provisions	-	-	(30)	(80)	(519)
Transaction related effects	14	-	-	(21)	-
Pension	-	(40)	62	62	(40)
Other effects	(125)	(203)	82	(68)	(203)
Reported EBIT	(399)	178	222	499	8 522

## **Bauxite & Alumina**

## Results down on lower realized alumina prices

Key figures	Q4 2019	Q4 2018	Q3 2019
Alumina production, kmt	1 430	786	1 320
Total alumina sales, kmt	2 164	1 982	2 124
Realized alumina price, USD/mt	281	463	310
Implied alumina cost, USD/mt1)	255	409	253
Bauxite production, kmt	2 222	1 254	2 152
Underlying EBITDA, NOK million	504	877	1 071
Underlying EBIT, NOK million	(75)	493	481
Underlying RoaCE, % LTM <sup>2)</sup>	2.5%	6.0%	3.9%

### Underlying EBIT

NOK million





### Results Q4 19 vs Q4 18

- Lower realized alumina price
- Higher alumina and bauxite production on ongoing ramp-up
  - Alunorte producing at ~90% of nameplate capacity
- Lower raw material and fixed unit costs
- Positive currency effects
- Negative impact from Paragominas power outage

### Outlook Q1 20

• Alunorte expected to produce at ~90-95% of nameplate capacity

1) Realized alumina price minus underlying EBITDA for B&A, per mt alumina sales

2) URoaCE calculated as underlying EBIT last 4 quarters less 25% tax / Average capital employed last 4 quarters

## **Primary Metal**

### Results up on lower raw material costs

Key figures	Q4 2019	Q4 2018	Q3 2019
Primary aluminium production, kmt	545	490	522
Total sales, kmt	529	503	537
Realized LME price, USD/mt	1 754	2 041	1 784
Realized LME price, NOK/mt	15 913	17 038	15 732
Realized premium, USD/mt	257	362	305
Implied all-in primary cost, USD/mt 1)	1 775	2 350	1 900
Underlying EBITDA, NOK million	812	(176)	550
Underlying EBIT, NOK million	155	(677)	(39)
Underlying RoaCE, % LTM <sup>2)</sup>	(2.6)%	4.7%	(4.5)%

### Underlying EBIT

NOK million



- Realized all-in aluminium price minus underlying EBITDA margin, including Qatalum, per mt aluminium sold. Including Qatalum volumes.
- 2) URoaCE calculated as underlying EBIT last 4 quarters less 25% tax / Average capital employed last 4 quarters
  3) Bookings as per 31.12.2019



### Results Q4 19 vs Q4 18

- Lower raw material costs
- Lower realized LME price and premium
- Higher sales volumes on completed Albras ramp-up
- Positive currency effects

### Outlook Q1 20

- ~ 50% of primary production for Q1 priced at USD ~1 750 per mt <sup>3)</sup>
- ~ 55% of premiums affecting Q1 booked at USD ~260 per mt <sup>3)</sup>
  Q1 realized premium expected in the range of USD 200-250 per mt
- Raw material costs trending downwards
- Slovalco partially curtailed
- Husnes restart commencing as planned in H1 2020

## **Metal Markets**

Results down on lower results from remelters and negative currency effects

Key figures	Q4 2019	Q4 2018	Q3 2019
Remelt production, kmt	121	135	125
Metal products sales, kmt <sup>1)</sup>	648	682	662
Underlying EBITDA, NOK million	167	301	395
Underlying EBIT excl currency and inventory valuation effects, NOK million	184	217	338
Underlying EBIT, NOK million	132	275	362
Underlying RoaCE, % LTM <sup>2)</sup>	27.3%	19.4%	28.8%

### Underlying EBIT NOK million



1) Includes external and internal sales from primary casthouse operations, remelters and third-party metal sources.

2) URoaCE calculated as underlying EBIT last 4 quarters less 25% tax / Average capital employed last 4 quarters



### Results Q4 19 vs Q4 18

- Weaker results from remelters on lower volumes and margins
- Currency and inventory valuation effects negative NOK (52) million in Q4 19 vs positive NOK 58 million in Q4 18

### Outlook Q1 20

- Softening market conditions for remelters
- Volatile trading and currency effects

## **Rolled Products**

Results up on lower raw material costs in Neuss smelter

Key figures	Q4 2019	Q4 2018	Q3 2019
External sales volumes, kmt	219	220	245
Underlying EBITDA, NOK million	308	133	430
Underlying EBIT, NOK million	34	(113)	166
Underlying RoaCE, % LTM <sup>1)</sup>	2.4%	2.3%	1.5%



### Results Q4 19 vs Q4 18

- Stable results from the rolling mills
- Improved results from Neuss smelter on lower raw material costs

### Outlook Q1 20

- Continued market demand weakness
- Neuss results driven by all-in metal and raw material price development

## Underlying EBIT



## **Extruded Solutions**

Results down on 14% lower volumes Cyber insurance compensation of 187 MNOK

Key figures	Q4 2019	Q4 2018	Q3 2019
External sales volumes, kmt	272	318	316
Underlying EBITDA, NOK million	655	645	1 099
Underlying EBIT, NOK million	85	202	559
Underlying RoaCE, % LTM <sup>1)</sup>	5.7%	7.2%	5.9%





### Results Q4 19 vs Q4 18

- 187 MNOK in cyber insurance compensation
- 14% lower volumes due to weaker market demand
- Higher margins driven by value-over-volume strategy

### Outlook Q1 20

- Declining market demand in Europe and North America
- Q1 19 affected by the cyber attack

## Energy

### Results down on lower volumes and prices

Key figures	Q4 2019	Q4 2018	Q3 2019
Power production, GWh	2 332	2 822	2 273
Net spot sales, GWh	520	1 166	582
Southwest Norway spot price (NO2), NOK/MWh	392	455	328
Underlying EBITDA, NOK million	365	566	319
Underlying EBIT, NOK million	296	500	254
Underlying RoaCE, % LTM <sup>1)</sup>	12.9% <sup>2)</sup>	18.8%	21,3%

### **Underlying EBIT** NOK million



URoaCE calculated as underlying EBIT last 4 quarters less 70% tax/ Average capital employed last 4 quarters 80% tax rate applied for full year 2019 1)

2)



### Results Q4 19 vs Q4 18

- Significantly lower volumes
- Lower power prices
- Positive commercial contribution

### Outlook Q1 20

- Volume and price uncertainty
- Average NO2 power price 244 NOK/MWh in January



## **Other and Eliminations**

Underlying EBIT, NOK million	Q4 2019	Q4 2018	Q3 2019
Other	(223)	(299)	(160)
Eliminations	156	154	(257)
Other and Eliminations	(67)	(145)	(417)

Underlying EBIT



## Net debt 2.7 BNOK down in Q4 2019

Further NOC release and reduced investments



#### NOK billion



## Net debt stable in 2019

Significant net operating capital release



)))) Hydro

## Adjusted net debt down in Q4

Lower net debt, net pension liability and net debt in Qatalum

NOK billion	Dec 31, 2019	Sep 30, 2019	Jun 30, 2019	Dec 31, 2018 <sup>2)</sup>
Cash and cash equivalents	12.3	10.6	10.6	6.0
Short-term investments	1.0	0.9	1.1	1.0
Short-term debt	(6.2)	(6.1)	(8.2)	(9.4)
Long-term debt	(18.9)	(20.0)	(18.6)	(9.3)
Net cash/(debt)	(11.8)	(14.5)	(15.1)	(11.7)
Net pension liability at fair value, net of expected tax benefit	(8.6)	(10.3)	(8.8)	(8.8)
Other adjustments <sup>1)</sup>	(5.1)	(4.8)	(4.0)	(4.0)
Adjusted net debt ex. EAI	(25.4)	(29.6)	(27.9)	(24.5)
Net debt in EAI	(4.7)	(5.4)	(5.4)	(5.6)
Adjusted net debt incl. EAI	(30.1)	(35.0)	(33.3)	(30.1)



"Other adjustments" include, e.g., asset retirement obligations, cash and short-term investments in Industriforsikring Restated with implementation of IFRS16 - Leases 1)

2)

## **Capital return dashboard 2019**

Hydro targets URoaCE above 10% over the cycle



1) Graph excludes (6.8) BNOK in capital employed in Other & Elimination 2) URoaCE Hydro (Annual definition) calculated as underlying EBIT last 4 quarters less Income tax expense adjusted for tax on financial items/ Average capital employed last 4 quarters.

3) Funds from operation LTM/Average LTM adjusted net debt

4) Free cash flow - operating cash flow less investing cash fllow excl. sales/purchases of short-term investments

5) Pending approval from the AGM on May 11, 2020

Hydro



## Lifting profitability, driving sustainability

## **2020 Priorities**

- Safe and efficient operations
- Delivering on improvement programs
- Cash focus through strict capital discipline
- Proactive measures in challenging markets
- Commercializing on low-carbon position



# Additional information
# **Driving long-term shareholder value**

Financial ambitions and targets

# Financial strength and flexibility

- Maintain investment grade credit rating
  - Curently BBB (S&P), Baa2 (Moody's<sup>1)</sup>)
- Balance sheet ratio targets over the cycle:
  - Funds from operations to adjusted net debt > 40%
  - Adjusted net debt to equity < 55%
- Strong liquidity

# Roadmap to profitability targets

- URoaCE > 10% over the cycle for Hydro group
- URoaCE> CoC for business areas over the cycle
- Differentiated return requirements by and within business areas



### Robust shareholder payout

- 40% payout ratio of Net Income over the cycle
- Dividend floor of 1.25 NOK/share
- Supplementary share buybacks or extraordinary dividends

# Clear principles for capital allocation

- Capital allocation in line with strategic priorities and return requirements by business area
- Competitive and affordable sustaining capex
- Strict prioritization, continuous review and reallocation

1) Moody's revised Hydro's credit rating outlook from stable to negative on March 28, 2019

2) Compared to CMD 2018

Hydro

## **Clear principles for capital allocation**



	Evaluate funds available for allocation	
Review	Projected funds from operations in several market scenarios Strong balance sheet Dividend commitments to shareholders	Strategy
	Sustaining capex License to operate (HSE, CSR, compliance) External and internal benchmarking Affordability	
	Excess cash flow	
	Key considerations affecting growth capital availability	
	Net operating capitalPortfolio review and divestmentsExtraordinary dividends Share buybacks	
	Organic and inorganic growth	
Execution	Aligned with strategic priorities for each business area Stringent return requirements by and within business area	Planning
	Other criteria - risk, market outlook, historical profitability, sustainability impact	

# Shareholder and financial policy

# **Hedging policy**



- Aiming for competitive shareholder returns and dividend yield compared to alternative investments in peers
- Dividend policy
  - Average ordinary payout ratio: 40% of reported net income over the cycle
  - 1.25 NOK/share to be considered as a floor, as of Q4 2016
  - Share buybacks and extraordinary dividends as supplement in periods with strong financials and outlook
  - 2019 dividend 1.25 NOK/share <sup>1)</sup>
  - Five-year average ordinary pay-out ratio 2015-2019 of ~68%<sup>1)</sup>
- Maintain investment-grade credit rating
  - Currently: BBB stable (S&P) & Baa2 negative <sup>2)</sup>(Moody's)
  - Competitive access to capital is important for Hydro's business model (counterparty risk and partnerships)
- Financial ratios over the business cycle
  - Funds from operations to adjusted net debt > 40%
  - Adjusted net debt to equity < 55%
- Strong liquidity
  - NOK 12.3 billion in cash and cash equivalents, end-Q4 2019
  - USD 1.6 billion in multi-currency revolving credit facility maturing in 2025

- Hedging strategy
  - Fluctuating with the market: primarily exposed to LME and USD
  - Volatility mitigated by strong balance sheet
  - Strengthening relative position to ensure competitiveness
- Diversified business
  - Upstream cyclicality balanced with more stable earnings downstream
  - Exposed to different markets and cycles
- Bauxite & Alumina
  - Currency exposure, mainly USD and BRL
  - Exposed to LME and Platts alumina index prices
- Primary Metal
  - Operational LME hedging one-month forward sales
  - Currency exposure, mainly USD, NOK and BRL
- Metal Markets, Rolled Products
  - Operational LME and currency hedging to secure margin
- Flexibility to hedge LME or currency in certain cases

<sup>1)</sup> Pending approval from the AGM on May 11, 2020

<sup>2)</sup> Moody's revised Hydro's credit rating outlook from stable to negative on March 28, 2019

# Maintaining a solid balance sheet and investment-grade credit rating



<55%



# Adjusted net debt / Equity

#### 36 % 33 % 26 % 26 % 24 % 22 % 20 % 19 % 14 % 11 % $2018^{2}$ 2019 2013 2014 2015 2017 2009 2010 2011 2012 2016

### Funds from operations / Adjusted net debt



1) 2015 and 2019 FFO/aND ratio has been restated due to changes in definition.

2) 2018 ratios restated for the IFRS16 Leases effect

Extruded Solutions reflected as 50% equity accounted investment Q1-Q3 2017 and fully consolidated in Q4 2017

# Project pipeline to be based on updated capital allocation framework and strategic priorities

Majority of sustaining capex allocated upstream



Karmøy technology pilot (net of ENOVA support)

Growth projects and incremental growth

Sustaining capex

\*Excluding the Pis/Cofins adjustments in Brazil in 2018. Including the adjustment, 2018 capex amounted to BNOK 7.0 Capex including Extruded Solutions Growth and return-seeking capex guidance only includes capex necessary for delivering on targeted improvement ambitions



### Main sustaining projects

- Alunorte robustness
- Pipeline replacement in B&A
- Smelter relining and asset integrity in PM
- Paragominas new mine area (from 2022)

# Main growth and return-seeking projects

- Husnes restart and upgrade
- Automation, process control and efficiency in PM
- Selected customer-driven growth in ES
- Energy wind and battery storage
- Fuel switch project in B&A

# Significant exposure to commodity and currency fluctuations





### Other commodity prices, sensitivity +10%<sup>1)</sup>



### Currency sensitivities +10%

Sustainable effect:

NOK million	USD	BRL	EUR
UEBIT	3 280	(1 100)	(220)
One-off reevaluation effect:			
Financial items	(60)	830	(3 570)

- Annual sensitivities based on normal annual business volumes (incl. 100% production at Alunorte, Paragominas and Albras) and Q419 realized prices as a starting point LME USD 1 750 per mt, standard ingot premium 140 USD/mt, PAX 285 USD/mt, fuel oil USD 510 per mt, petroleum coke USD 255 per mt, pitch 650 USD/t, caustic soda USD 270 per mt, coal USD 50 per mt, USD/NOK 9.07, BRL/NOK 2.21, EUR/NOK 10.09
- 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
- 2020 Platts alumina index (PAX) exposure used
- U NI sensitivity calculated as U EBIT sensitivity after 30% tax

# **Bauxite & Alumina sensitivities**



# Annual sensitivities on underlying EBIT if +10% in price NOK million



### Revenue impact

- ~14% of 3-month LME price per tonne alumina with one month lag
- Realized alumina price lags PAX by one month

### Cost impact

### Bauxite

- ~2.45 tonnes bauxite per tonne alumina
- Pricing partly LME-linked

#### Caustic soda

- ~0.1 tonnes per tonne alumina
- Prices based on IHS Chemical, pricing mainly monthly per shipment

### Energy

- ~0.12 tonnes coal per tonne alumina, Platts prices, one year volume contracts, weekly per shipment pricing
- ~0.11 tonnes heavy fuel oil per tonne alumina, prices set by ANP/Petrobras in Brazil, weekly pricing (ANP) or anytime (Petrobras)
- Increased use of coal as energy source in Alunorte

Annual sensitivities based on normal annual business volumes (incl. 100% production at Alunorte, Paragominas and Albras) and Q419 realized prices as a starting point LME USD 1 750 per mt, standard ingot premium 140 USD/mt, PAX 285 USD/mt, fuel oil USD 510 per mt, petroleum coke USD 255 per mt, pitch 650 USD/t, caustic soda USD 270 per mt, coal USD 50 per mt, USD/NOK 9.07, BRL/NOK 2.21, EUR/NOK 10.09 BRL sensitivity calculated on a long-term basis with fuel oil assumed in USD. In the short-term, fuel oil is BRL-denominated. 2020 Platts alumina index (PAX) exposure used

# **Primary Metal sensitivities**



## Annual sensitivities on underlying EBIT if +10% in price NOK million



### Revenue impact

- Realized price lags LME spot by ~1-2 months
- Realized premium lags market premium by ~2-3 months

### Cost impact

#### Alumina

- ~1.9 tonnes per tonne aluminium
- ~14.5% of 3-month LME price per tonne alumina, increasing volumes priced on Platts index
- ~ 2-3 months lag

#### Carbon

- ~0.40 tonnes petroleum coke per tonne aluminium, Pace Jacobs Consultancy, 2-3 year volume contracts, quarterly or half yearly pricing
- ~0.08 tonnes pitch per tonne aluminium, CRU, 2-3 year volume contracts, quarterly pricing

#### Power

- 13.9 MWh per tonne aluminium
- Long-term power contracts with indexations

# Items excluded from underlying results - 2019



Aluncing agreements - provisionBauxite & Alumina3514000.16000Inpairment drugosBauxite & Alumina35140.06145145Total ImpactPrimary Metal120.160.270.000.00Inmalized divisitive effects on power contractsPrimary Metal220.680.420.090.00Inmalized divisitive effects on LME related contractsPrimary Metal220.690.699.570.57	NOK million (+=loss/()=gain)		Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year 2019
Total inpactBaudie & Alumina351430145225Unrealized derivative effects on LME related contractsPrimary Metal22(15)(27)1090Impairment chargesPrimary Metal22(15)(24)33(17)Impairment chargesPrimary Metal606606Total InpactPrimary Metal120(16)(16)94235Unrealized derivative effects on LME related contractsMetal Markets22(16)(14)(16)Unrealized derivative effects on LME related contractsRolled Products(77)20(14)(16)Unrealized derivative effects on LME related contractsRolled Products(16)(17)(16)Unrealized derivative effects on LME related contractsRolled Products(18)(17)(18)Unrealized derivative effects on LME related contractsRolled Products(18)(17)(18)Unrealized derivative effects on LME related contractsExtruded Solutions(18)(18)(18)Unrealized derivative effects on p	Alunorte agreements - provision	Bauxite & Alumina	35	14	30	-	80
Unrelated derivative effects on LME related contractsPrimary Metal12(15)(27)(10)90Unrelated effects on power contractsPrimary Metal500	Impairment charges	Bauxite & Alumina	-	-	-	145	145
Innealized effects on power contractsPrimary Metal27(36)(42)(38)(17)Impairment chargesPrimary Metal506506Total ImpactPrimary Metal(42)(40)(40)(40)423Unrealized derivative effects on LME related contractsMetal Markets222(62)(19)944235Unrealized derivative effects on LME related contractsRolled Products(77)60(24)(41)(42)Unrealized derivative effects on LME related contractsRolled Products26731145(25)1088Significant rationalization charges and closure costsRolled Products26731145(26)1088Other effectsNEL Related contractsRolled Products(99)-(99)1081Total ImpactRolled Products77727(44)(70)(16)1277Unrealized derivative effects on LME related contractsExtruded Solutions77727(44)(70)(16)Unrealized derivative effects on LME related contractsExtruded Solutions-20061135306PensionExtruded Solutions600-6020612061Charler fetesExtruded Solutions26-602061206120612061206120612061206120612061 <td>Total impact</td> <td>Bauxite &amp; Alumina</td> <td>35</td> <td>14</td> <td>30</td> <td>145</td> <td>225</td>	Total impact	Bauxite & Alumina	35	14	30	145	225
Inpand Inpand Total impactPrimary MetalImpactImpactSoleSoleTotal impactPrimary Metal142(G)(G)509509Unrealized divitative effects on LME related contractsMetal Markets222(G2)(G)(G)42255Total impactMetal Markets222(G2)(G)(G)(G)3070Unrealized divitative effects on LME related contractsRolled Products2673123(G3)370Significant rationalization charges and closure costsRolled Products2673123(G)1088Other effectsRolled Products164(G)(G)1081Unrealized divitative effects on LME related contractsRolled Products17027(H)(G)1081Unrealized divitative effects on LME related contractsExtruded Solutions-2895132255Significant rationalization charges and closure costsExtruded Solutions-200(G2)(G2)(G2)Total impactExtruded Solutions-289.513225520925209252092520925209252092520925209252092520925209262520926252092625209262520926252092625209262520926<	Unrealized derivative effects on LME related contracts	Primary Metal	122	(15)	(27)	10	90
Total impactPrimary Metal Markets149(50)(66)549979Unrealized derivative effects on LME related contractsMetal Markets222(62)(19)94235Total impactMetal Markets222(62)(19)94(235Unrealized derivative effects on LME related contractsRolled Products(77)600(24)(41)(82)Metal effectRolled Products(77)3123(23)310 <td>Unrealized effects on power contracts</td> <td>Primary Metal</td> <td>27</td> <td>(35)</td> <td>(42)</td> <td>33</td> <td>(17)</td>	Unrealized effects on power contracts	Primary Metal	27	(35)	(42)	33	(17)
Unrealized derivative effects on LME related contractsMetal Markets222(62)(19)94235Total inpactMetal Markets222(62)(19)94235Unrealized derivative effects on LME related contractsRolled Products77)60(24)(41)(82)Metal effectRolled Products2673123(23)370370Significant rationalization charges and closure costsRolled Products2673144(57)1088Other effectsRolled Products191631145(120)1277(14)(70)127(14)(70)163135396Total inpactRolled Products(77)27(44)(70)(63)25539631633963	Impairment charges	Primary Metal	-	-	-	506	506
Total impactMetal Markets222662(19)94235Unrealized derivative effects on LME related contractsRolled Products(77)60(24)(41)(82)Metal effectRolled Products1145(67)1088Significant rationalization charges and closure costsRolled Products(19)-(19)Other effectsRolled Products(14)(12)(17)(163)ImpactRolled Products(77)27(14)(17)(163)(163)Impairment chargesExtruded Solutions(77)27(14)(17)(163)Significant rationalization charges and closure costsExtruded Solutions-28095332255Significant rationalization charges and closure costsExtruded Solutions-20061135398PensionExtruded Solutions(162)145(20)(162)145209Total impactExtruded Solutions59125209	Total impact	Primary Metal	149	(50)	(69)	549	579
Unrealized derivative effects on LME related contractsRolled Products(77)60(24)(41)(82)Metal effectRolled Products2673123(23)370Significant rationalization charges and closure costsRolled Products-1145(67)1088Other effectsRolled Products191631145(170)(173)Total impactRolled Products191631145(170)(173)Inrealized derivative effects on LME related contractsExtruded Solutions-2895132255Significant rationalization charges and closure costsExtruded Solutions-0611353096PensionExtruded Solutions623-(14)21Other effectsExtruded Solutions-35-(14)21Total impactExtruded Solutions-35-(14)21Other effectsExtruded Solutions-35-(14)21Other effectsExtruded Solutions-35-(14)21Other effectsExtruded Solutions-35-(14)21Other effectsOther and eliminations(21)(39)(5)(10)(75)Unrealized derivative effects on power contractsOther and eliminations101(77)711Unrealized derivative effects on LME related contractsOther and eliminations101(7	Unrealized derivative effects on LME related contracts	Metal Markets	222	(62)	(19)	94	235
Metal effectRolled Products2673123(23)370Significant rationalization charges and closure costsRolled Products-1145(67)1088Other effectsRolled Products-191631145(120)1277Unrealized derivative effects on LME related contractsExtruded Solutions(77)27(44)(70)(163)Impairment chargesExtruded Solutions(77)27(44)(70)(163)Significant rationalization charges and closure costsExtruded Solutions-200661135396PensionExtruded Solutions-35-(14)21Other effectsExtruded Solutions2659132205Total impactExtruded Solutions-35-(14)21Other effectsExtruded Solutions2659132205Total impactExtruded Solutions26-6920(62)Other effectsExtruded Solutions26-(14)21Other effectsExtruded Solutions6128109308656Unrealized derivative effects on power contractsEnergy62(14)(15)(61)Unrealized derivative effects on power contractsOther and eliminations(21)(39)(15)(16)(16)Unrealized derivative effects on power contractsOther and eliminations(11)(39)(12)(26) <t< td=""><td>Total impact</td><td>Metal Markets</td><td>222</td><td>(62)</td><td>(19)</td><td>94</td><td>235</td></t<>	Total impact	Metal Markets	222	(62)	(19)	94	235
Significant rationalization charges and closure costsRolled Products-1 145(57)1 088Other reflectsRolled Products19163145(120)1277Unrealized derivative effects on LME related contractsExtruded Solutions(77)27(44)(70)(163)Impairment chargesExtruded Solutions(77)27(44)(70)(163)Significant rationalization charges and closure costsExtruded Solutions-2895132255Significant rationalization charges and closure costsExtruded Solutions-20061135398PensionExtruded Solutions-35-(14)21Other effectsExtruded Solutions26-919308666Unrealized derivative effects on power contractsEnergy621(15)(6)Other effectsEnergy621(15)(6)(7)7(14)Unrealized derivative effects on power contractsOther and eliminations(21)(39)(5)(10)(75)(14)(15)(48)Unrealized derivative effects on power contractsOther and eliminations(21)(39)(5)(10)(75)(14)(15)(48)Unrealized derivative effects on power contractsOther and eliminations(21)(39)(5)(10)(75)(16)Unrealized derivative effects on power contractsOther and eliminations(21) <t< td=""><td>Unrealized derivative effects on LME related contracts</td><td>Rolled Products</td><td>(77)</td><td>60</td><td>(24)</td><td>(41)</td><td>(82)</td></t<>	Unrealized derivative effects on LME related contracts	Rolled Products	(77)	60	(24)	(41)	(82)
Other effectsRolled Products···(99)·(99)Total inpactRolled Products191631145(120)1277Unrealized derivative effects on LME related contractsExtruded Solutions(77)27(44)(70)(15)Inpairment chargesExtruded Solutions.20061135396Significant rationalization charges and closure costsExtruded Solutions	Metal effect	Rolled Products	267	3	123	(23)	370
Total impactRolled Products191631145(120)1277Unrealized derivative effects on LME related contractsExtruded Solutions(77)27(44)(70)(163)Impairment chargesExtruded Solutions-28953132255Significant rationalization charges and closure costsExtruded Solutions-2066135366PensionExtruded Solutions-35-(14)21Other effectsExtruded Solutions26-59125209Total impactExtruded Solutions26-59125209Total impactExtruded Solutions26-59125209Total impactEnergy621(15)(66)Other effects on power contractsEnergy(42)-(42)Unrealized derivative effects on power contractsEnergy62(41)(15)(48)Unrealized derivative effects on LME related contractsOther and eliminations(21)(39)(12)(2)(64)Unrealized derivative effects on LME related contractsOther and eliminations(11)(39)(12)(2)(64)Unrealized derivative effects on LME related contractsOther and eliminations(11)(39)(12)(2)(64)Unrealized derivative effects on LME related contractsOther and eliminations(11)(39)(12)(2)(64) <td< td=""><td>Significant rationalization charges and closure costs</td><td>Rolled Products</td><td>-</td><td>-</td><td>1 145</td><td>(57)</td><td>1 088</td></td<>	Significant rationalization charges and closure costs	Rolled Products	-	-	1 145	(57)	1 088
Unrealized derivative effects on LME related contractsExtruded Solutions(77)27(44)(70)(163)Impairment chargesExtruded Solutions-2895132255Significant rationalization charges and closure costsExtruded Solutions-2006135396PensionExtruded Solutions-35(14)21Other effectsExtruded Solutions26-59125209Tansaction related effectsExtruded Solutions26-59125209Total impactEnergy6214161(6)Other effectsEnergy62(41)(15)(6)Other and eliminations(21)(39)(5)(10)(77)11Total impactOther and eliminations(11)(39)(12)(2)(6)Unrealized derivative effects on LME related contractsOther and eliminations(11)(39)(12)(2)(6)Unrealized derivative effects on LME related contractsOther and eliminations(11)(39)(12)(2)(6)Intensexcluded from underlying EBITHydro5321911449592 860Net foreign excluded from underlying income (loss) before taxHydro336702 5475174 064Calculated income tax effectHydro(33)(198)(550)(154)(198)	Other effects	Rolled Products	-	-	(99)	-	(99)
Impairment chargesExtruded Solutions-2895132255Significant rationalization charges and closure costsExtruded Solutions-20061135306PensionExtruded Solutions-06206262662Transaction related effectsExtruded Solutions-35-140210Other effectsExtruded Solutions51289109308665Unrealized derivative effects on power contractsEnergy6211(15)(6)Other effectsEnergy6241(15)(6)Unrealized derivative effects on power contractsEnergy6241(15)(48)Unrealized derivative effects on power contractsOther and eliminations101(7)711Total impactOther and eliminations101(7)711Total impactOther and eliminations101(7)711Total impactOther and eliminations101(3)(12)(28)(64)Item seculded from underlying EBITHydro532191403(442)2460Item seculded from underlying income (isos) before taxHydro(38)(18)(19)(55)(16)(4064)Calculated income tax effectHydro(83)(198)(55)(15)(4064)(4064)Other and eliminations(11)(39) <td< td=""><td>Total impact</td><td>Rolled Products</td><td>191</td><td>63</td><td>1 145</td><td>(120)</td><td>1 277</td></td<>	Total impact	Rolled Products	191	63	1 145	(120)	1 277
Significant rationalization charges and closure costsExtruded Solutions-20061135396PensionExtruded Solutions<	Unrealized derivative effects on LME related contracts	Extruded Solutions	(77)	27	(44)	(70)	(163)
PensionExtruded Solutions-(62)-(62)Transaction related effectsExtruded Solutions-35-(14)21Other effectsExtruded Solutions26-59125209Total impactExtruded Solutions(51)289109308656Unrealized derivative effects on power contractsEnergy621(15)(62)Other effectsEnergy62(42)-(42)(42)Total impactEnergy62(41)(15)(48)Unrealized derivative effects on power contractsOther and eliminations(21)(39)(5)(10)(75)Unrealized derivative effects on LME related contractsOther and eliminations101(77)711Total impactOther and eliminations(11)(39)(12)(22)(64)Items excluded from underlying EBITHydro53921911403(442)1204Items excluded from underlying income (loss) before taxHydro3167025475174064Calculated income tax effectHydro68(198)(150)(154)(198)(198)	Impairment charges	Extruded Solutions	-	28	95	132	255
Transaction related effects     Extruded Solutions     -     35     -     (14)     21       Other effects     Extruded Solutions     26     -     59     125     209       Total impact     Extruded Solutions     (51)     289     109     308     656       Unrealized derivative effects on power contracts     Energy     6     2     1     (15)     (6)       Other effects     Energy     6     2     (41)     (15)     (6)       Other effects on power contracts     Energy     6     2     (41)     (15)     (6)       Other adle eliminations     (21)     (39)     (5)     (10)     (75)       Unrealized derivative effects on power contracts     Other and eliminations     (21)     (39)     (12)     (2)     (6)       Unrealized derivative effects on LME related contracts     Other and eliminations     10     17)     7     11       Total impact     Other and eliminations     10     139     (12)     (2)     (6)       Items excluded from underlying EBIT     Hyd	Significant rationalization charges and closure costs	Extruded Solutions	-	200	61	135	396
Chter effects     Extruded Solutions     26     -     59     125     209       Total inpact     Extruded Solutions     (51)     289     109     308     656       Unrealized derivative effects on power contracts     Energy     6     2     1     (15)     (6)       Other effects     Energy     6     2     (42)     -     (42)       Total inpact     Energy     6     2     (41)     (15)     (48)       Unrealized derivative effects on power contracts     Other and eliminations     (21)     (39)     (5)     (10)     (75)       Unrealized derivative effects on DWEr contracts     Other and eliminations     (21)     (39)     (50)     (10)     (75)       Unrealized derivative effects on LME related contracts     Other and eliminations     (11)     (39)     (12)     (22)     (28)       Items excluded from underlying EBIT     Hydro     533     219     1144     959     2 860       Net foreign exchange (gain)/loss     Hydro     331     670     2 547     517     4 064	Pension	Extruded Solutions	-	-	(62)	-	(62)
Total impactExtruded Solutions(51)289109308656Unrealized derivative effects on power contractsEnergy621(15)(6)Other effectsEnergy-(42)-(42)(41)(42)Total impactEnergy62(41)(15)(48)Unrealized derivative effects on power contractsOther and eliminations(21)(39)(5)(10)(75)Unrealized derivative effects on LME related contractsOther and eliminations101(77)711Total impactOther and eliminations(11)(39)(12)(2)(64)Items excluded from underlying EBITHydro53921911449592 860Net foreign exchange (gain)/lossHydro(208)4511 403(442)1 204Items excluded from underlying income (loss) before taxHydro3316702 5475174 064Calculated income tax effectHydro(83)(198)(550)(154)(986)	Transaction related effects	Extruded Solutions	-	35	-	(14)	21
Unrealized derivative effects on power contractsEnergy621(15)(6)Other effectsEnergy62(42)-(42)Total inpactEnergy62(41)(15)(48)Unrealized derivative effects on power contractsOther and eliminations(21)(39)(5)(10)(75)Unrealized derivative effects on LME related contractsOther and eliminations101(7)711Total inpactOther and eliminations(11)(39)(12)(22)(64)Items excluded from underlying EBITHydro53921911449592860Net foreign exchange (gain)/lossHydro(208)4511403(442)1204Items excluded from underlying income (loss) before taxHydro33167025475174064Calculated income tax effectHydro(83)(198)(550)(154)(986)	Other effects	Extruded Solutions	26	-	59	125	209
Other effectsEnergy-(42)-(42)Total impactEnergy62(41)(15)(48)Unrealized derivative effects on power contractsOther and eliminations(21)(39)(5)(10)(75)Unrealized derivative effects on LME related contractsOther and eliminations101(7)711Total impactOther and eliminations(11)(39)(12)(22)(64)Items excluded from underlying EBITHydro53921911449592860Net foreign exchange (gain)/lossHydro(20)(20)4511403(442)1204Items excluded from underlying income (loss) before taxHydro33167025475174064Calculated income tax effectHydro(83)(198)(550)(154)(986)	Total impact	Extruded Solutions	(51)	289	109	308	656
Total impactEnergy62(41)(15)(48)Unrealized derivative effects on power contractsOther and eliminations(21)(39)(5)(10)(75)Unrealized derivative effects on LME related contractsOther and eliminations101(7)711Total impactOther and eliminations(11)(39)(12)(2)(64)Items excluded from underlying EBITHydro53921911449592860Net foreign excluded from underlying income (loss) before taxHydro33167025475174 064Calculated income tax effectHydro683(198)(550)(154)(986)	Unrealized derivative effects on power contracts	Energy	6	2	1	(15)	(6)
Unrealized derivative effects on power contractsOther and eliminations(21)(39)(5)(10)(75)Unrealized derivative effects on LME related contractsOther and eliminations101(7)711Total impactOther and eliminations(11)(39)(12)(2)(64)Items excluded from underlying EBITHydro53921911449592860Net foreign exchange (gain)/lossHydro(208)4511403(442)1204Items excluded from underlying income (loss) before taxHydro33167025475174064Calculated income tax effectHydro(83)(198)(550)(154)(986)	Other effects	Energy	-	-	(42)	-	(42)
Unrealized derivative effects on LME related contractsOther and eliminations101(7)711Total impactOther and eliminations(11)(39)(12)(2)(64)Items excluded from underlying EBITHydro53921911449592 860Net foreign exchange (gain)/lossHydro(208)4511 403(442)1 204Items excluded from underlying income (loss) before taxHydro3316702 5475174 064Calculated income tax effectHydro(83)(198)(550)(154)(986)	Total impact	Energy	6	2	(41)	(15)	(48)
Total impactOther and eliminations(11)(39)(12)(2)(64)Items excluded from underlying EBITHydro53921911449592 860Net foreign exchange (gain)/lossHydro(208)4511 403(442)1 204Items excluded from underlying income (loss) before taxHydro3316702 5475174 064Calculated income tax effectHydro(83)(198)(550)(154)(986)	Unrealized derivative effects on power contracts	Other and eliminations	(21)	(39)	(5)	(10)	(75)
Items excluded from underlying EBITHydro5392191 1449592 860Net foreign exchange (gain)/lossHydro(208)4511 403(442)1 204Items excluded from underlying income (loss) before taxHydro3316702 5475174 064Calculated income tax effectHydro(83)(198)(550)(154)(986)	Unrealized derivative effects on LME related contracts	Other and eliminations	10	1	(7)	7	11
Net foreign exchange (gain)/loss     Hydro     (208)     451     1 403     (442)     1 204       Items excluded from underlying income (loss) before tax     Hydro     331     670     2 547     517     4 064       Calculated income tax effect     Hydro     (83)     (198)     (550)     (154)     (986)	Total impact	Other and eliminations	(11)	(39)	(12)	(2)	(64)
Items excluded from underlying income (loss) before tax     Hydro     331     670     2 547     517     4 064       Calculated income tax effect     Hydro     (83)     (198)     (550)     (154)     (986)	Items excluded from underlying EBIT	Hydro	539	219	1 144	959	2 860
Calculated income tax effect     Hydro     (83)     (198)     (550)     (154)     (986)	Net foreign exchange (gain)/loss	Hydro	(208)	451	1 403	(442)	1 204
	Items excluded from underlying income (loss) before tax	Hydro	331	670	2 547	517	4 064
Items excluded from underlying net income (loss)     Hydro     248     472     1 996     362     3 078	Calculated income tax effect	Hydro	(83)	(198)	(550)	(154)	(986)
	Items excluded from underlying net income (loss)	Hydro	248	472	1 996	362	3 078

# Items excluded from underlying results - 2018



NOK million (+=loss/()=gain)		Q1 2018	Q2 2018	Q3 2018	Q4 2018	Year 2018
Alunorte agreements - provision	Bauxite & Alumina	-	-	519	-	519
Total impact	Bauxite & Alumina	-	-	519	-	519
Unrealized derivative effects on LME related contracts	Primary Metal	(114)	(41)	101	(89)	(143)
Unrealized effects on power contracts	Primary Metal	20	20	(194)	(64)	(218)
Total impact	Primary Metal	(94)	(21)	(93)	(153)	(361)
Unrealized derivative effects on LME related contracts	Metal Markets	(128)	(32)	104	(144)	(200)
Total impact	Metal Markets	(128)	(32)	104	(144)	(200)
Unrealized derivative effects on LME related contracts	Rolled Products	108	(82)	11	74	111
Metal effect	Rolled Products	47	(60)	(153)	93	(73)
Significant rationalization charges and closure costs	Rolled Products	-	-	-	39	39
Total impact	Rolled Products	154	(142)	(141)	206	77
Unrealized derivative effects on LME related contracts	Extruded Solutions	47	(151)	211	192	299
Significant rationalization charges and closure costs	Extruded Solutions	-	-	-	40	40
Pension	Extruded Solutions	-	-	-	40	40
Other effects	Extruded Solutions	-	-	-	237	237
Total impact	Extruded Solutions	47	(151)	211	509	616
Unrealized derivative effects on power contracts	Energy	-	-	-	(7)	(7)
Total impact	Energy	-	-	-	(7)	(7)
Unrealized derivative effects on power contracts	Other and eliminations	(107)	72	11	(11)	(36)
Unrealized derivative effects on LME related contracts	Other and eliminations	(26)	1	8	(11)	(27)
Other effects	Other and eliminations	-	-	-	(34)	(34)
Total impact	Other and eliminations	(134)	73	19	(56)	(97)
Items excluded from underlying EBIT	Hydro	(155)	(274)	620	356	547
Net foreign exchange (gain)/loss	Hydro	333	306	257	408	1 303
Items excluded from underlying income (loss) before tax	Hydro	178	32	877	764	1 851
Calculated income tax effect	Hydro	(54)	(8)	(105)	(188)	(355)
Items excluded from underlying net income (loss)	Hydro	125	24	772	575	1 495



### Underlying EBIT

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year 2017	Year 2018	Year 2019
Bauxite & Alumina	756	662	413	1 872	741	364	685	493	153	415	481	(75)	3 704	2 282	974
Primary Metal	900	1 486	1 298	1 377	823	755	861	(677)	(771)	(604)	(39)	155	5 061	1 762	(1 259)
Metal Markets	24	244	91	185	178	237	(3)	275	190	299	362	132	544	686	983
Rolled Products	106	84	95	95	232	212	82	(113)	138	75	166	34	380	413	413
Extruded Solutions	281	329	209	284	734	957	497	202	593	772	559	85	1 103	2 390	2 009
Energy	423	284	368	457	278	417	652	500	517	176	254	296	1 531	1 846	1 243
Other and Eliminations	(207)	(159)	(28)	(715)	161	(229)	(97)	(145)	(261)	(258)	(417)	(67)	(1 108)	(310)	(1 003)
Total	2 284	2 930	2 446	3 555	3 147	2 713	2 676	534	559	875	1 366	560	11 215	9 069	3 359

### Underlying EBITDA

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year 2017	Year 2018	Year 2019
Bauxite & Alumina	1 334	1 248	1 057	2 551	1 370	937	1 193	877	758	1 004	1 071	504	6 190	4 377	3 337
Primary Metal	1 392	1 991	1 795	1 900	1 349	1 309	1 424	(176)	(180)	(27)	550	812	7 078	3 906	1 155
Metal Markets	47	268	114	209	201	262	22	301	219	328	395	167	638	786	1 110
Rolled Products	307	297	312	325	456	438	314	133	384	326	430	308	1 240	1 340	1 448
Extruded Solutions	281	329	209	728	1 155	1 383	931	645	1 099	1 279	1 099	655	1 547	4 114	4 132
Energy	476	337	424	519	339	479	716	566	583	242	319	365	1 757	2 100	1 509
Other and Eliminations	(200)	(151)	(21)	(708)	169	(223)	(90)	(135)	(231)	(224)	(385)	(19)	(1 081)	(280)	(859)
Total	3 637	4 319	3 889	5 524	5 038	4 586	4 510	2 210	2 633	2 928	3 479	2 792	17 369	16 344	11 832



EBIT

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year 2017	Year 2018	Year 2019
Bauxite & Alumina	756	662	413	1 872	741	364	166	493	118	401	450	(221)	3 704	1 763	749
Primary Metal	797	1 538	1 282	1 112	917	776	954	(524)	(919)	(554)	30	(394)	4 729	2 123	(1 838)
Metal Markets	(13)	282	59	158	305	270	(107)	419	(31)	361	381	38	485	886	748
Rolled Products	450	84	(22)	-	78	353	223	(319)	(53)	12	(978)	155	512	336	(865)
Extruded Solutions	313	273	215	1 722	687	1 109	286	(307)	644	483	449	(223)	2 522	1 774	1 353
Energy	423	284	368	457	278	417	652	507	510	174	295	312	1 531	1 853	1 291
Other and Eliminations	(316)	(176)	7	(810)	295	(303)	(117)	(89)	(249)	(220)	(405)	(65)	(1 295)	(214)	(939)
Total	2 410	2 946	2 323	4 511	3 301	2 986	2 057	178	20	656	222	(399)	12 189	8 522	499

### EBITDA

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year 2017	Year 2018	Year 2019
Bauxite & Alumina	1 334	1 248	1 057	2 551	1 370	937	674	877	724	989	1 040	504	6 190	3 858	3 258
Primary Metal	1 289	2 043	1 779	1 635	1 443	1 330	1 517	(23)	(328)	23	619	769	6 747	4 267	1 081
Metal Markets	9	306	82	182	329	295	(82)	445	(2)	390	414	73	579	986	875
Rolled Products	651	296	196	230	302	580	455	(73)	194	263	(715)	429	1 372	1 263	170
Extruded Solutions	313	273	215	2 166	1 108	1 534	720	136	1 150	1 017	1 085	479	2 966	3 498	3 731
Energy	476	337	424	519	339	479	716	573	576	240	361	380	1 757	2 107	1 558
Other and Eliminations	(310)	(168)	13	(803)	302	(296)	(110)	(80)	(219)	(186)	(373)	(17)	(1 268)	(183)	(795)
Total	3 762	4 335	3 766	6 481	5 193	4 860	3 890	1 854	2 094	2 737	2 430	2 617	18 344	15 796	9 878



### Total revenue

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year 2017	Year 2018	Year 2019
Bauxite & Alumina	5 911	5 858	5 612	8 040	6 309	6 877	6 749	8 613	4 866	5 745	6 211	5 983	25 421	28 548	22 805
Primary Metal	8 641	9 575	8 958	9 291	10 170	10 083	9 984	9 196	9 023	8 937	8 718	8 497	36 466	39 434	35 175
Metal Markets	12 149	13 604	11 862	12 991	13 898	14 205	13 230	12 903	12 959	13 301	12 326	11 866	50 606	54 237	50 452
Rolled Products	6 277	6 569	6 435	6 434	6 797	7 145	6 791	6 223	6 844	6 623	6 672	6 192	25 715	26 955	26 331
Extruded Solutions				14 153	15 911	16 980	15 976	15 218	16 013	17 270	15 233	13 835	14 153	64 085	62 351
Energy	1 955	1 750	1 831	2 169	1 762	2 163	2 488	2 267	2 261	1 815	1 990	2 155	7 705	8 681	8 221
Other and Eliminations	(11 906)	(12 765)	(11 900)	(14 276)	(14 877)	(16 198)	(15 452)	(16 034)	(14 382)	(14 515)	(13 633)	(13 039)	(50 847)	(62 562)	(55 569)
Total	23 026	24 591	22 799	38 803	39 971	41 254	39 766	38 386	37 583	39 176	37 517	35 490	109 220	159 377	149 766

### External revenue

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year 2017	Year 2018	Year 2019
Bauxite & Alumina	3 382	3 417	3 293	5 095	3 509	3 640	3 016	4 232	2 370	2 692	3 684	3 509	15 188	14 396	12 255
Primary Metal	1 700	1 944	1 865	2 068	2 018	1 993	2 312	1 505	1 390	1 457	1 642	1 651	7 578	7 829	6 141
Metal Markets	11 094	12 080	10 675	10 414	10 901	10 905	10 575	10 121	10 139	10 577	9 742	9 706	44 264	42 502	40 164
Rolled Products	6 153	6 629	6 380	6 375	6 870	7 011	6 773	6 287	6 777	6 654	6 639	6 109	25 538	26 940	26 179
Extruded Solutions				14 083	15 932	16 877	15 934	15 280	15 924	17 271	15 214	13 801	14 083	64 023	62 211
Energy	687	514	582	767	738	823	1 151	961	983	519	594	712	2 550	3 673	2 808
Other and Eliminations	9	6	3	-	4	6	5	(1)	-	5	1	2	18	14	8
Total	23 026	24 591	22 799	38 803	39 971	41 254	39 766	38 386	37 583	39 176	37 517	35 490	109 220	159 377	149 766



### Internal revenue

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year 2017	Year 2018	Year 2019
Bauxite & Alumina	2 528	2 441	2 320	2 944	2 800	3 237	3 733	4 381	2 496	3 052	2 527	2 474	10 234	14 152	10 550
Primary Metal	6 941	7 631	7 093	7 223	8 152	8 090	7 672	7 691	7 633	7 480	7 075	6 846	28 888	31 605	29 035
Metal Markets	1 054	1 523	1 187	2 577	2 997	3 301	2 656	2 781	2 820	2 724	2 584	2 160	6 341	11 735	10 287
Rolled Products	124	(61)	55	59	(72)	134	18	(64)	66	(31)	33	83	178	15	152
Extruded Solutions				70	(21)	103	42	(62)	89	(1)	18	34	70	61	140
Energy	1 267	1 236	1 249	1 403	1 024	1 340	1 337	1 306	1 278	1 296	1 397	1 444	5 155	5 007	5 414
Other and Eliminations	(11 915)	(12 772)	(11 903)	(14 276)	(14 881)	(16 204)	(15 457)	(16 033)	(14 382)	(14 520)	(13 634)	(13 040)	(50 865)	(62 576)	(55 577)
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

### Share of profit /(loss) in equity accounted investments

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year 2017	Year 2018	Year 2019
Bauxite & Alumina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Primary Metal	98	231	159	258	210	280	238	(5)	32	24	150	65	745	722	270
Metal Markets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rolled Products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Extruded Solutions	313	273	215	12	17	11	14	10	12	5	-	-	812	53	18
Energy	-	-	-	(7)	(10)	(11)	(4)	(11)	(9)	(9)	(4)	(7)	(7)	(35)	(29)
Other and Eliminations	(1)	(13)	(3)	(7)	3	5	(20)	35	(32)	27	(23)	10	(24)	24	(18)
Total	409	491	371	256	221	286	229	30	3	47	123	68	1 527	765	241



### Return on average capital employed <sup>1)</sup> (RoaCE)

				Rep	orted RoaCE		Underlying RoaCE									
	2019	2018	2017	2016	2015	2014	2013	2019	2018	2017	2016	2015	2014	2013		
Bauxite & Alumina	1.9%	4.6%	8.5%	2.7 %	5.3 %	(0.1) %	(2.5) %	2.5%	6.0%	8.5%	2.8 %	5.3 %	(0.1) %	(2.2) %		
Primary Metal	(3,9%)	5.6%	11.8%	5.2 %	10.7 %	10.4 %	2.3 %	(2.6%)	4.7%	12.6%	5.2 %	11.0 %	10.4 %	3.9 %		
Metal Markets	20,7%	25.1%	18.6%	19.6 %	5.4 %	21.9 %	22.3 %	27.3%	19.4%	20.9%	15.9 %	11.4 %	19.4 %	19.9 %		
Rolled Products	(5,0%)	1.9%	3.2%	6.2 %	1.1 %	8.6 %	0.7 %	2.4%	2.3%	2.4%	4.6 %	7.8 %	5.3 %	5.2 %		
Extruded Solutions <sup>2)</sup>	3,8%	5.3%	13.4%					5.7%	7.2%	6.6%						
Energy	14,7%	19.4%	17.5%	18.1 %	17.2 %	17.4 %	36.1 %	12.8%	19.3%	17.5%	18.1 %	17.3 %	17.4 %	36.1 %		
Hydro Group	(0,9%)	6.0%	11.2%	6.5 %	7.5 %	4.9 %	1.1 %	1.3%	6.6%	9.6%	5.1 %	9.2 %	5.2 %	2.3 %		

### Capital employed – upstream focus

NOK million	Dec 31, 2019
Bauxite & Alumina	27 794
Primary Metal	33 326
Metal Markets	2 464
Rolled Products	11 742
Extruded Solutions	25 660
Energy	1 495
Other and Eliminations	(6 824)
Total	95 841



Energy 1%

Graph excludes BNOK (6.8) in capital employed in Other and Eliminations

1) RoaCE at business area level is calculated using 25% tax rate (30% tax rate applied for years prior to 2017). For Energy, 70% tax rate is used for 2018, 65% for 2017, 60% for 2016 and 55% for prior years.

2018 RoaCE has been restated due to the change in definition.

2) Extruded Solutions reflected as 50% equity accounted investment Q1-Q3 2017 and fully consolidated from Q4 2017



### Depreciation, amortization and impairment

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year 2017	Year 2018	Year 2019
Bauxite & Alumina	577	586	644	679	630	573	509	384	605	589	590	725	2 486	2 095	2 509
Primary Metal	492	505	504	526	546	575	583	548	619	605	616	1 191	2 026	2 253	3 030
Metal Markets	23	24	24	24	24	25	25	26	29	29	33	37	95	101	129
Rolled Products	201	212	217	230	223	227	231	246	247	251	264	274	860	927	1 036
Extruded Solutions				444	421	425	434	443	506	535	639	704	444	1 723	2 384
Energy	53	54	56	60	58	59	61	63	62	62	62	66	223	239	253
Other and Eliminations	6	7	7	7	7	7	7	10	30	34	32	48	28	30	144
Total	1 352	1 389	1 450	1 970	1 909	1 891	1 851	1 719	2 098	2 105	2 236	3 045	6 162	7 369	9 485

### Indicative depreciation currency exposure by business area

Percent	USD	EUR	BRL	NOK & Other
Bauxite & Alumina			100%	
Primary Metal	20%	5%	20%	55%
Metal Markets	35%	50%		15%
Rolled Products		90%		10%
Extruded Solutions	30%	40%		30%
Energy				100%
Other & Eliminations		35%	5%	60%

### Depreciation by business area 2019, 9.5 BNOK



### **Income statements**



NOK million								Q4 2019	C	4 2018	Q3 2019	Yea	r 2019	Year 2018
Revenue								35 490		38 386	37 517	14	9 766	159 377
Share of the profit (loss) in equity accounted invest	ments							68		30	123		241	765
Other income, net								409		264	268		1 000	772
Total revenue and income								35 967		38 680	37 908	15	51 007	160 913
Raw material and energy expense								22 328		25 164	24 090	ç	97 474	102 523
Employee benefit expense								5 928		5 926	6 728	2	24 871	23 176
Depreciation and amortization expense								2 258		1 719	2 142		8 572	7 369
Impairment of non-current assets								786		-	95		912	-
Other expenses								5 065		5 694	4 632	1	8 678	19 324
Earnings before financial items and tax (EBIT)								(399)		178	222		499	8 522
Financial income								140		45	72		365	255
Financial expense								92		(766)	(1 700)	(,	2 420)	(2 315)
Income (loss) before tax								(168)		(543)	(1 407)	(	1 556)	6 462
Income taxes								(497)		(207)	16		(813)	(2 139)
Net income (loss)								(665)		(750)	(1 390)	(	2 370)	4 323
Net income (loss) attributable to non-controlling inte	erests							(189)		(57)	(131)		(558)	67
Net income (loss) attributable to Hydro shareholder	S							(476)		(693)	(1 259)	(	1 811)	4 256
Earnings per share attributable to Hydro shareh	olders							(0.23)		(0.34)	(0.62)		(0.88)	2.08
NOK million Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year 2017	Year 2018	Year 2019
Net income (loss) 1 838	1 562	2 184	3 600	2 076	2 073	925	(750)	(124)	(190)	(1 390)	(665)	9 184	4 323	(2 370)
Underlying net income (loss) 1 580	2 214	1 785	2 816	2 201	2 096	1 696	(175)	124	281	606	(303)	8 396	5 819	708
Earnings per share 0.86	0.73	1.00	1.71	1.02	1.03	0.37	(0.34)	0	(0.04)	(0.62)	(0.23)	4.30	2.08	(0.88)
Underlying earnings per share 0.75	1.04	0.82	1.33	1.06	1.02	0.74	(0.06)	0.13	0.19	0.33	(0.12)	3.95	2.75	0.52

### **Balance sheet**



NOK million	Dec 31, 2019	Sep 30, 2019	Jun 30, 2019	Mar 31, 2019	Dec 31 20181)	Sep 30 2018	Jun 30 2018	Mar 31 2018
Cash and cash equivalents	12 286	10 581	10 590	6 099	5 995	6 846	5 682	9 371
Short-term investments	969	929	1 090	1 274	975	1 176	1 136	1 031
Accounts receivable	18 959	23 007	23 186	23 542	20 744	21 727	23 442	22 785
Inventories	20 816	21 679	22 718	25 004	26 483	23 916	22 337	20 626
Other current assets	635	700	471	349	801	738	978	818
Property, plant and equipment	74 243	74 025	73 193	72 882	74 369	66 251	66 683	69 945
Intangible assets	11 501	11 695	11 485	11 133	11 443	10 695	11 660	12 133
Investments accounted for using the equity method	11 501	11 809	10 936	11 349	11 570	11 094	11 140	10 551
Prepaid pension	6 676	5 721	5 986	5 854	5 162	6 857	6 322	5 933
Other non-current assets	6 815	6 877	7 322	7 157	7 385	5 962	5 780	5 588
Total assets	164 401	167 025	166 978	164 644	164 928	155 261	155 159	158 781
Bank-loans and other interest-bearing short-term debt	6 157	6 074	8 177	8 913	9 373	6 607	4 969	5 269
Trade and other payables	18 692	19 716	21 014	22 146	20 381	19 906	21 351	20 621
Other current liabilities	4 842	4 095	3 688	4 674	6 062	5 897	4 976	4 852
Long-term debt	18 858	19 985	18 620	10 559	9 342	7 886	9 377	8 746
Provisions	6 515	6 283	5 577	5 673	5 588	5 358	5 532	5 652
Pension liabilities	17 099	17 879	16 646	15 981	15 648	14 416	14 665	14 911
Deferred tax liabilities	3 132	2 911	3 123	3 052	3 031	3 952	3 456	3 522
Other non-current liabilities	5 025	5 435	4 536	4 252	4 746	3 756	3 673	4 084
Equity attributable to Hydro shareholders	79 932	80 275	81 143	84 692	85 820	83 012	82 676	86 233
Non-controlling interests	4 148	4 371	4 452	4 703	4 936	4 472	4 486	4 891
Total liabilities and equity	164 401	167 025	166 978	164 644	164 928	155 261	155 159	158 781

### **Operational data**



Bauxite & Alumina	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year 2017	Year 2018	Year 2019
Alumina production (kmt)	1 523	1 576	1 605	1 693	1 277	829	821	786	805	932	1 320	1 430	6 397	3 712	4 487
Sourced alumina (kmt)	600	645	667	610	900	985	907	1 163	711	704	660	769	2 522	3 954	2 845
Total alumina sales (kmt)	2 129	2 196	2 251	2 344	2 071	1 842	1 711	1 983	1 423	1 668	2 124	2 164	8 920	7 607	7 379
Realized alumina price (USD) <sup>1)</sup>	309	295	297	398	371	430	460	463	373	365	310	281	326	429	326
Implied alumina cost (USD) 2)	235	228	237	265	287	367	376	409	311	296	253	255	242	358	275
Bauxite production (kmt) 3)	2 400	2 943	3 043	3 049	2 326	1 348	1 286	1 254	1 361	1 624	2 152	2 222	11 435	6 214	7 360
Sourced bauxite (kmt) 4)	1 675	1 809	2 013	2 103	1 317	1 250	905	1 730	1 029	1 315	1 563	1 669	7 601	5 202	5 576
Underlying EBITDA margin <sup>11)</sup>	22.6%	21.3%	18.8%	31.7%	21.7%	13.6%	17.7%	10.2%	15.6%	17.5%	17.2%	8.4%	24.3%	15.3%	14.6%
Primary Metal <sup>5)</sup>	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year 2017	Year 2018	Year 2019
Realized aluminium price LME, USD/mt	1 757	1 902	1 921	2 092	2 140	2 183	2 194	2 041	1 912	1 858	1 784	1 754	1 915	2 140	1 827
Realized aluminium price LME, NOK/mt7)	14 798	16 265	15 496	17 066	16 929	17 292	17 905	17 038	16 291	15 959	15 732	15 913	15 888	17 282	15 975
Realized premium above LME, USD/mt <sup>6)</sup>	266	273	261	259	295	364	367	362	344	326	305	257	265	346	308
Realized premium above LME, NOK/mt <sup>6)7)</sup>	2 236	2 330	2 106	2 116	2 335	2 881	2 999	3 025	2 935	2 802	2 688	2 333	2 197	2 791	2 695
Realized NOK/USD exchange rate 7)	8.42	8.55	8.07	8.16	7.91	7.92	8.16	8.35	8.52	8.59	8.82	9.07	8.30	8.08	8.74
Implied primary cost (USD) <sup>8)</sup>	1 350	1 375	1 425	1 575	1 725	1 775	1 750	2 000	1 850	1 775	1 600	1 525	1 425	1 825	1 675
Implied all-in primary cost (USD) 9)	1 675	1 700	1 725	1 850	2 075	2 175	2 150	2 350	2 200	2 100	1 900	1 775	1 725	2 175	2 000
Primary aluminium production, kmt	516	523	527	528	514	492	497	490	485	486	522	545	2 094	1 993	2 038
Casthouse production, kmt	521	551	548	550	531	523	507	496	473	477	509	523	2 169	2 058	1 982
Total sales, kmt <sup>10)</sup>	577	579	568	554	578	549	516	503	534	527	537	529	2 278	2 145	2 127
Underlying EBITDA margin <sup>11)</sup>	16.1%	20.8%	20.0%	20.4%	13.3%	13.0%	14.3%	(1.9)%	(2.0)%	(0.3)%	6.3%	9.6%	19.4%	9.9%	3.3%

 Weighted average of own production and third party contracts, excluding hedge results. The majority of the alumina is sold linked to either the LME prices or alumina index with a one month delay. Sourced alumina volumes have been re-calculated, with Q1 2018 being adjusted accordingly.

2) Implied alumina cost (based on EBITDA and sales volume) replaces previous apparent alumina cash cost

3) Paragominas production, on wet basis

4) 40 percent MRN offtake from Vale and 5 percent Hydro share on wet basis

5) Operating and financial information includes Hydro's proportionate share of production and sales volumes in equity accounted investments. Realized prices, premiums and exchange rates exclude equity accounted investments 6) Average realized premium above LME for casthouse sales from Primary Metal.

7) Including strategic hedges /hedge accounting applied

- Realized LME price minus Underlying EBITDA margin (incl. Qatalum) per mt primary aluminium produced. Includes net earnings from primary casthouses
- Realized all-in price minus Underlying EBITDA margin (incl. Qatalum) per mt primary aluminium sold. Includes net earnings from primary casthouses
- 10) Total sales replaces previous casthouse sales due to change of definition

11) Underlying EBITDA divided by total revenues

## **Operational data**



Metal Markets	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year 2017	Year 2018	Year 2019
Remelt production (1 000 mt)	143	152	136	137	150	153	126	135	131	139	125	121	568	563	516
Third-party Metal Products sales (1 000 mt)	79	80	74	86	70	77	83	73	70	83	82	82	319	304	317
Metal Products sales excl. ingot trading (1 000 mt) <sup>1)</sup>	735	759	707	720	745	746	685	682	683	707	662	648	2 921	2 859	2 700
Hereof external sales excl. ingot trading (1 000 mt)	672	675	639	589	580	563	543	532	539	556	517	536	2 575	2 217	2 149
External revenue (NOK million)	11 094	12 080	10 675	10 414	10 901	10 905	10 575	10 121	10 139	10 577	9 742	9 706	44 264	42 502	40 164
Rolled Products	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year 2017	Year 2018	Year 2019
Rolled Products external shipments (1 000 mt)	241	239	236	224	245	251	235	220	246	242	245	219	940	951	952
Rolled Products – Underlying EBIT per mt, NOK	442	351	400	424	949	844	349	(512)	560	309	678	156	404	435	434
Underlying EBITDA margin 2)	4.9%	4.5%	4.8%	5.0%	6.7%	6.1%	4.6%	2.1%	5.6%	4.9%	6.4%	5.0%	4.8 %	5.0%	5.5%
Extruded Solutions <sup>3)</sup>	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year 2017	Year 2018	Year 2019
Extruded Solutions external shipments (1 000 mt)	355	359	339	318	362	373	343	318	333	348	316	272	1 372	1 396	1 269
Extruded Solutions – Pro-forma underlying EBIT per mt, NOK	1 973	2 328	1 505	893	2 028	2 566	1 449	635	1 781	2 219	1 769	311	1 699	1 712	1 583
Underlying EBITDA margin 2)	7.7%	8.2%	6.5%	5.2%	7.3%	8.1%	5.8%	4.2%	6.9%	7.4%	7.2%	4.7%	6.9%	6.4%	6.6%
Energy	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year 2017	Year 2018	Year 2019
Power production, GWh	2 869	2 369	2 509	3 089	2 433	2 550	2 888	2 822	2 553	1 993	2 273	2 332	10 835	10 693	9 150
Net spot sales, GWh	1 409	996	1 168	1 633	763	961	1 315	1 166	770	289	582	520	5 206	4 204	2 161
Nordic spot electricity price, NOK/MWh	280	257	266	294	372	373	484	460	457	346	342	390	274	423	384
Southern Norway spot electricity price (NO2), NOK/MWh	278	252	258	287	361	369	475	455	468	360	328	392	269	415	387
Underlying EBITDA margin 2)	24.4%	19.3%	23.1%	23.9 %	19.2%	22.2%	28.8%	24.9%	25.8%	13.4%	16.0%	16.9%	22.8%	24.2%	18.4%

Includes external and internal sales from primary casthouse operations, remelters and third party Metal sources
Underlying EBITDA divided by total revenues
FY 2017 and historical operational data based on pro forma figures

## **Extruded Solutions, information by business area**



Historical Sapa information (100% basis) Q1 2017 – Q3 2017 Extruded Solutions, fully consolidated in Hydro since Q4 2017<sup>1)</sup>

Precision Tubing	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	2019	Extrusion Europe	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	2019
Volume (kmt)	36	38	36	35	37	41	41	38	157	34	36	34	31	134	Volume (kmt)	154	155	142	134	159	160	138	129	586	139	142	120	106	503
Operating revenues (NOKm)	1 651	1 734	1 601	1 645	1 700	1 910	1 873	1 722	7 205	1 623	1 788	1 540	1 532	6 482	Operating revenues (NOKm)	5 553	5 999	5 460	5 541	6 600	6 664	5 867	5 719	24 850	6 328	6 461	5 579	5 027	23 395
Underlying EBITDA (NOKm)	180	193	157	138	168	120	121	98	507	86	146	140	84	456	Underlying EBITDA (NOKm)	390	416	290	240	417	504	263	201	1 385	346	348	215	203	1 111
Underlying EBIT (NOKm)	123	136	67	66	103	55	50	30	237	18	87	74	19	198	Underlying EBIT (NOKm)	274	292	164	59	246	333	98	27	705	141	144	6	(25)	266
Building Systems	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	2019	Extrusion North America	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018		2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	2019
Volume (kmt)	20	21	19	19	20	21	18	19	78	18	22	19	20	79	Volume (kmt)	150	151	148	134	152	157	152	137	598	146	148	142	116	553
Operating revenues (NOKm)	1 830	2 044	1 765	1 960	2 057	2 124	1 919	2 045	8 145	1 973	2 328	2 104	2 148	8 554	Operating revenues (NOKm)	5 514	5 753	5 369	5 211	5 882	6 519	6 541	6 091	25 033	6 306	7 053	6 267	5 335	24 961
Underlying EBITDA (NOKm)	155	219	118	137	167	198	130	155	650	104	233	189	148	674	Underlying EBITDA (NOKm)	437	466	390	248	448	606	439	310	1 802	619	648	532	211	2 082
Underlying EBIT (NOKm)	119	183	85	85	116	146	70	99	430	22	143	79	47	291	Underlying EBIT (NOKm)	330	353	284	119	325	481	314	176	1 295	469	498	378	40	1 385
Other and eliminations	Q1 2017			Q4 2017					4 3 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	2019															
Underlying EBITDA (NOKm)	(63)	(43)	(41)	(35)	(45)	(46)	(21)	(118	) (230)	(56)	(96)	24	9	(118)															
Underlying EBIT (NOKm)	(69)	(49)	(42)	(45)	(55)	(58)	(35)	(130	) (278)	(58)	(99)	21	3	(132)															

1) Includes certain effects of the acquisition such as increased depreciation and amortization following fair value adjustments related to longlived assets. Estimate increased depreciation of around MNOK 300 per annum for Extruded Solutions vs "old Sapa".

# **Investor Relations in Hydro**

# Next events First quarter results April 29, 2020

For more information see www.hydro.com/ir



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