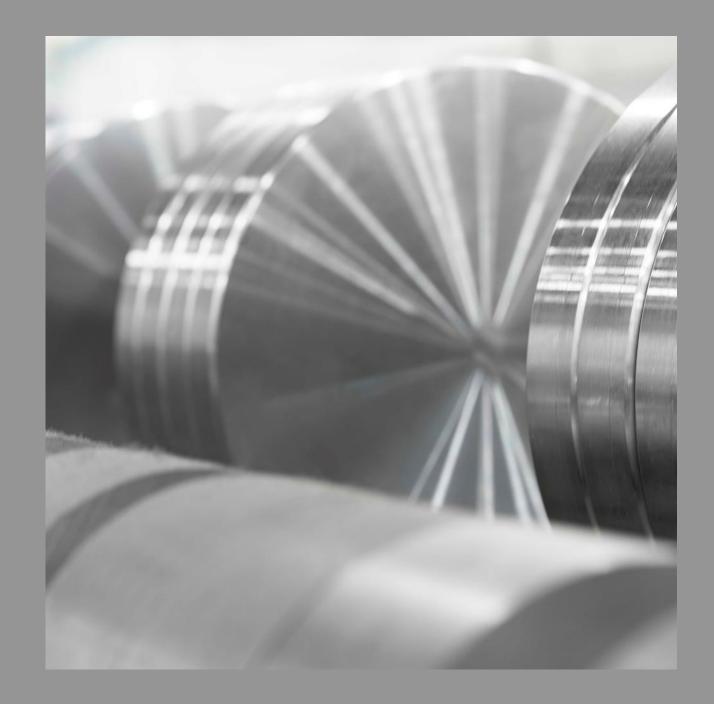


### Second quarter 2024 Investor presentation



July 23, 2024

### Table of contents

First quarter results 2024	
Additional slides	29
Position, Strategy and Ambitions	30
Market and Trends	50
Sustainable Operations	69
Financial Framework	88
Appendix – Business Areas	107
Bauxite & Alumina	109
Energy	125
Aluminium Metal	148
Metal Markets	159
Extrusions	17
Additional information	187
Next event & Contact info	203

#### 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.



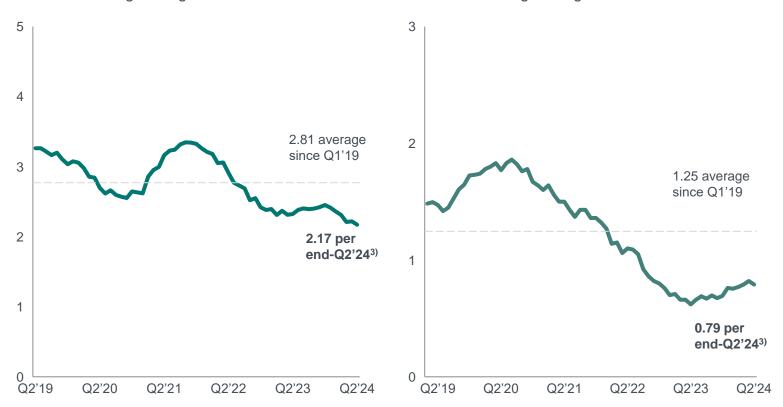
## Solid upstream results, mixed markets

Eivind Kallevik President & CEO

July 23, 2024

### Safety our key priority

**TRI<sup>1)</sup> per million hours worked** 12 months rolling average



1) Total Recordable Injuries includes own employees and contractors

2) High Risk Incidents included own employees and contractors

3) Average over period

#### HRI<sup>2)</sup> per million hours worked 12 months rolling average



## Q2 2024 highlights | Adjusted EBITDA NOK 5.8 billion



Free cash flow NOK 2.8 billion, adjusted RoaCE<sup>1)</sup> 4.4%

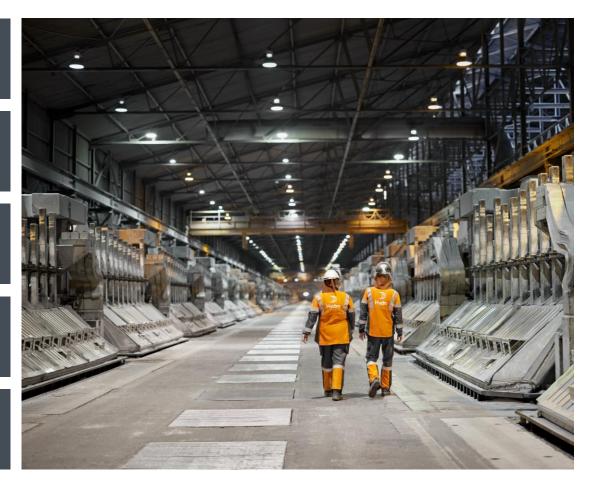
Revenue drivers continue to rise, supporting solid upstream results

Weak demand and low recycling margins impacting downstream results, mitigating measures in place

Hydro Rein joint venture established, supporting industrial decarbonization and long-term value creation

Strong demand for Hydro CIRCAL, scaling up recycling to meet increased demand

Shaping the greener aluminium market in partnership with Porsche



### We operate in a complex environment

Hydre

Top tech CFO says AI is no 'blip or hype,' it's tech's historic moment—and his numbers back that up Ukraine war briefing: Russian western airstrikes pound central and western airstrikes pound centralities Ukraine warbriefing Russian we

Nature and climate crises: two sides of the same coir

How China's EV Book

The world's electric c

continues to grows

2024 sales set to re

million

China way 2027

at the Wheel

Us targets China's influence over

US power grids must adapt to rapid

38% of the world population to live

resources in 'new Cold War'

electrification, operators say

ansurves pouna central an Ukrainian powerfacilities

COP28 concludes with historic agreement to try to tackle the climate crisis



Hydro 2030:

## Pioneering the green aluminium transition, powered by renewable energy

#### Key priorities towards 2030



Step up growth investments in Recycling and Extrusions to take lead in the market opportunities emerging from the green transition



Step up ambitions within renewable power generation



Execute on ambitious decarbonization and technology road map, and step up to contribute to nature positive and a just transition



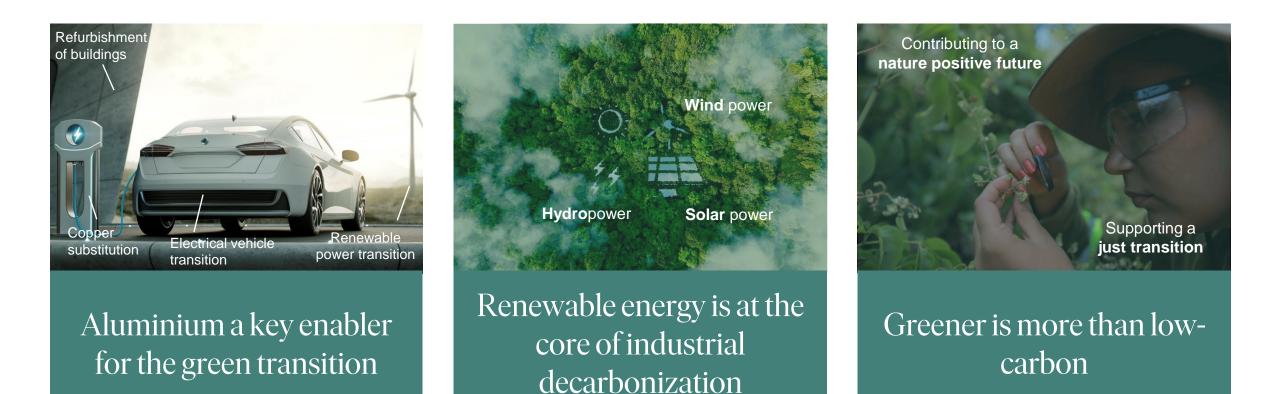
Shape the market for greener aluminium in partnership with customers

## It's time to accelerate. Growth. Value creation. Sustainability.

## Green transition driving future growth and value creation



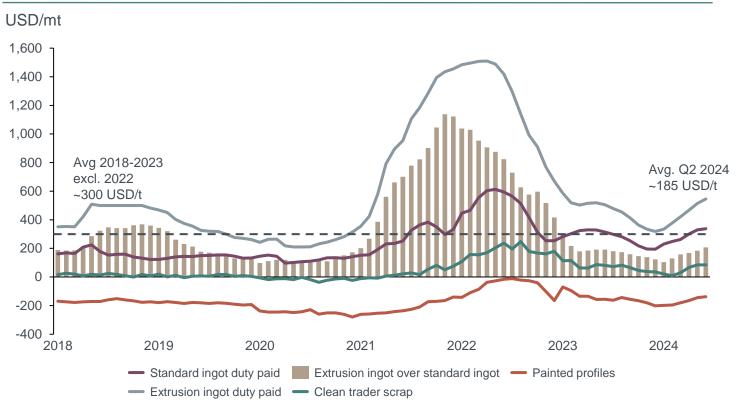
Hydro is uniquely positioned to drive value creation on the shoulders of the green transition



## Widening extrusion ingot over standard ingot spread

Scrap availability remains tight on low scrap generation

Increasing market premiums and widening spreads



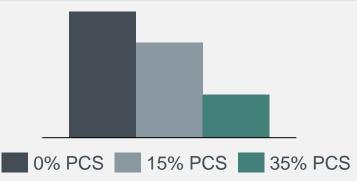
#### Sources: Fastmarkets, MetalBulletin, Hydro

1) Simplified example. Based on the average input mix above conversion for a European recycling plant, irrespective of the conversion share and plant size. Weighted average cost above LME calculated using market references and painted scrap price as a proxy for mixed scrap types. There are large regional and plant differences in scrap composition, usage and pricing.

Hydro Recycling with competitive advantages

- **Metallurgical competence** and production optimization tools
- Technology enabling usage of mixed scrap
- Customer relations and market insight increasing sales of recycling friendly alloys allowing for higher scrap content
- Supplier relations and scrap procurement competence – identifying and sourcing mixed scrap types
- Large primary and recycling portfolio enabling scale effects, flexibility and optimization

#### Average metal input cost above LME<sup>1)</sup>



## Scaling up recycling to meet increased demand for Hydro CIRCAL

#### Growing volumes in Europe

Luce to invest ~EUR 8 million in modernization enabling higher Hydro CIRCAL production in France



Atessa to invest ~EUR 15 million to enable production of Hydro CIRCAL in Italy



#### Gaining momentum in the U.S.

First Commercial sale of Hydro CIRCAL in the U.S.



Alusort JV completed HySort installation – supplying the U.S. plants with PCS

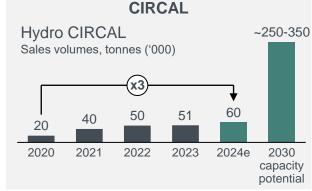


#### Delivering to customers

Supplying Brompton bicycle rims with Hydro CIRCAL 100R

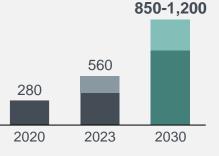


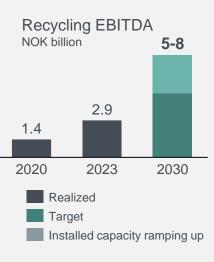
Increasing demand for Hydro



## On track to deliver on 2030<sup>1)</sup> targets

PCS usage capacity Tonnes ('000)





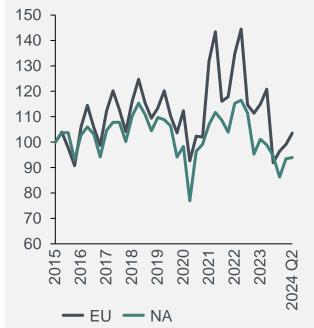
1) Range based on capex. High-range include ~70% of further potential capex given market and M&A. Including Alumetal from July 2023

## Hydro Extrusions positioning for growth, adressing weak markets



#### Mitigating weak extrusion markets

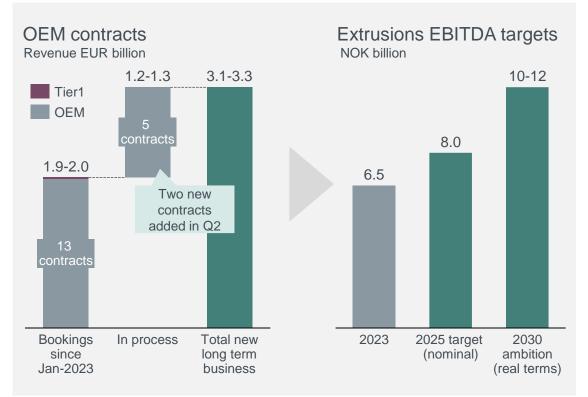
Extrusion demand volume Indexed Q1 2015 = 100



- Strong margin management
- Continuous adaption of extrusion capacity to demand through reduced number of shifts
- Manning reductions in Europe and North America to manage cost in challenging market
- Increased investments in automation
  - Utilizing short-term flexibility in recyclers

•

#### Growing with the customers



## Hydro Rein transaction completed

Uniquely positioned for long-term value creation in partnership with Macquarie Asset Management

Today



#### Going forward

- Become the preferred supplier of renewable energy solutions to industrial customers in core markets key enabler for decarbonization of Hydro
- Focus on growing in the Nordics and develop in selected markets in Europe, strong foothold in Brazil established
- Safe and sustainable project execution in close collaboration with partners
- Drive performance through organizational excellence and commercial expertise in renewables markets
- Fully funded for projects under construction and in the pipeline in the coming years, with an ambition to be self-funded long-term

#### $2030\,vision\,of\,continued\,profitable\,growth$

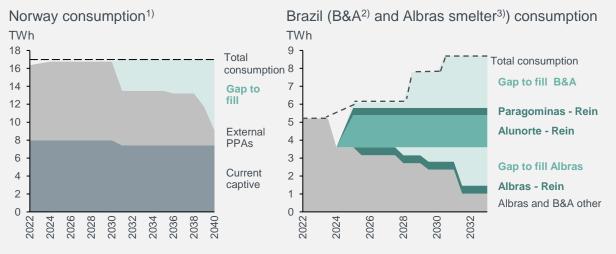
Sustainable & attractive risk-adjusted returns 10-20% platform eIRR

> Balanced portfolio Between geographies and technologies

Services and capabilities Covering the full value chain, capturing developer margin

> **Regional leadership** Leading player in core geographies

#### Contribute to securing power for Hydro's portfolio



1) Net ~8 TWh captive assumed available for smelters. 2) Total Alunorte and Paragominas, all consumption sourced through Hydro. 3) Albras (51%).

## Hydro Alunorte fuel switching well underway



10 boilers and calciners converted, and operating with liquid natural gas – Bayer process (all boilers) officially oil-free



Remaining 3 calciners and complete conversion expected by Q4 2024

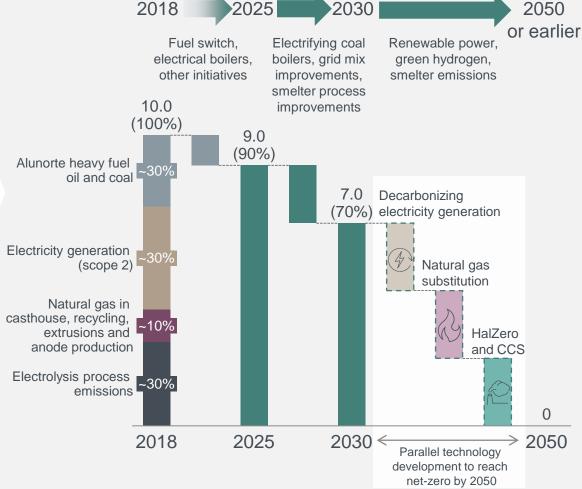
USD 160-190 million annual savings when fully implemented<sup>1)</sup> (~USD 25 per tonne cash cost saving) Upon full conversion, 700,000 tonnes reduced CO2 emissions annually

Moving from Brent index (oil) to Henry Hub (gas), reducing price volatility



On track to achieve 30% carbon emissions reduction by 2030

GHG emissions – ownership equity<sup>1)</sup> Million tonnes CO<sub>2</sub>e (% of 2018 baseline emissions<sup>2)</sup>) 2018 2025 2030



## Shaping the greener aluminium market with Porsche

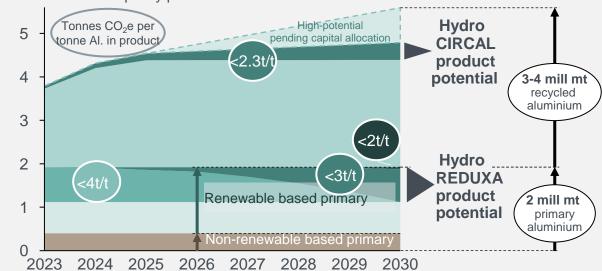
#### New business model agreement signed in July

#### Hydro`s low-carbon aluminium will drive sustainability and transparency in the automotive industry

- Allows Porsche's supply chain to source aluminium from reserved capacities, for which Hydro gets compensated through green premiums
- Scope includes both Hydro REDUXA 3.0 low-carbon and Hydro CIRCAL 75R recycled aluminium to go into the production of Porsche's future sports cars
- Includes technical collaboration on development of new alloys with higher recycled content for use in vehicle components



#### Greener earnings uplift potential 2030: NOK 2 billion<sup>1)</sup>



1) Based on 2030 EU ETS cost and relative  $CO_2$  reduction vs Hydro REDUXA 4.0 at current industry traded upcharge. Hydro REDUXA and CIRCAL potential based on estimated certification capacity. Primary capacity based on equity share renewable power. Hydro CIRCAL products have post-consumer scrap content > 75%

Million tonnes capacity potential

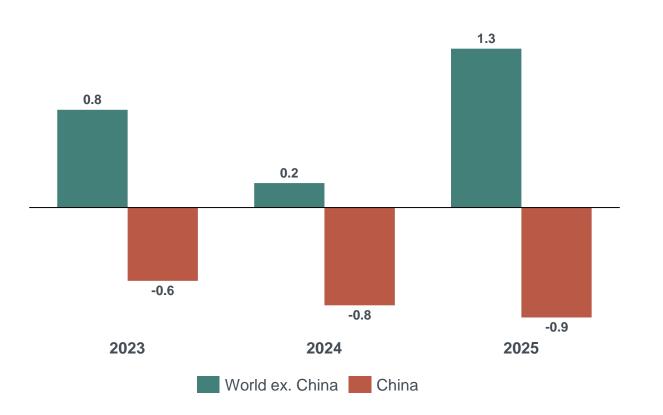


## Financial update

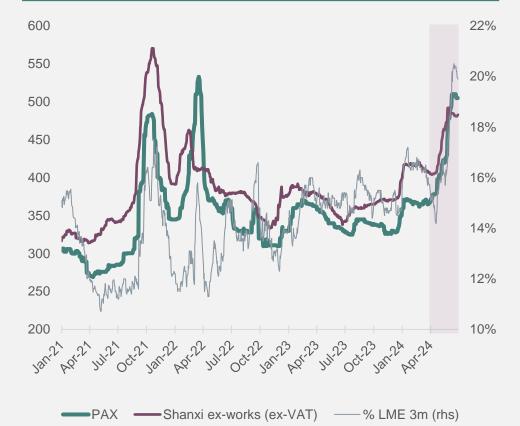
Trond Olaf Christophersen Executive Vice President & CFO

## Tightness in alumina markets drives price up

Estimated smelter grade alumina market balance (Mt)



#### Platts alumina index (PAX)

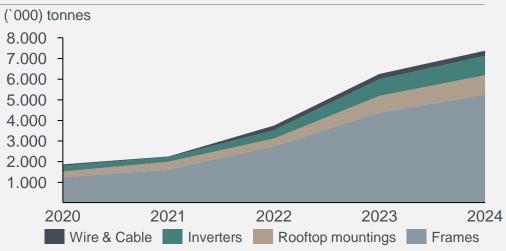


## Chinese primary demand expected to grow strongly this year

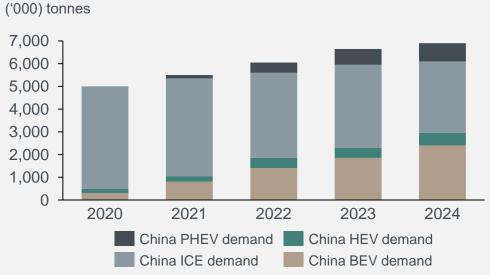
Full year forecasts taken down in Europe and North America

Annual primary consumption growth Y/Y5% 4% 3% 1% 0% 0% -7% -9% 2023 2024 North America China World Europe

Chinese aluminium demand from solar PV



Chinese automotive semis demand driven by EVs



Source: CRU, Hydro analysis

### Weak extrusion demand in transport and automotive

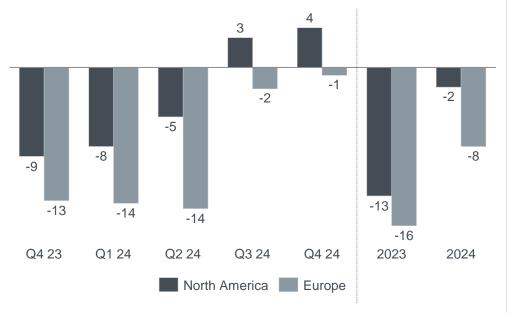


Some improvements expected in North America in second half, still challenging outlook in Europe

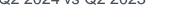
#### External market forecasts\*

Year over Year

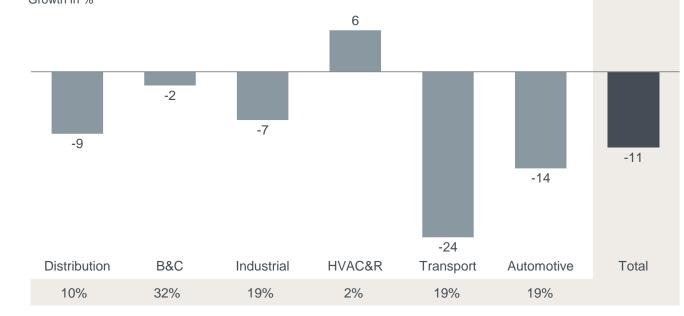
Extrusion market growth per quarter and annually Growth in %



#### Extrusion sales volumes Q2 2024 vs Q2 2023



#### Hydro Extrusions segment sales volume Growth in %

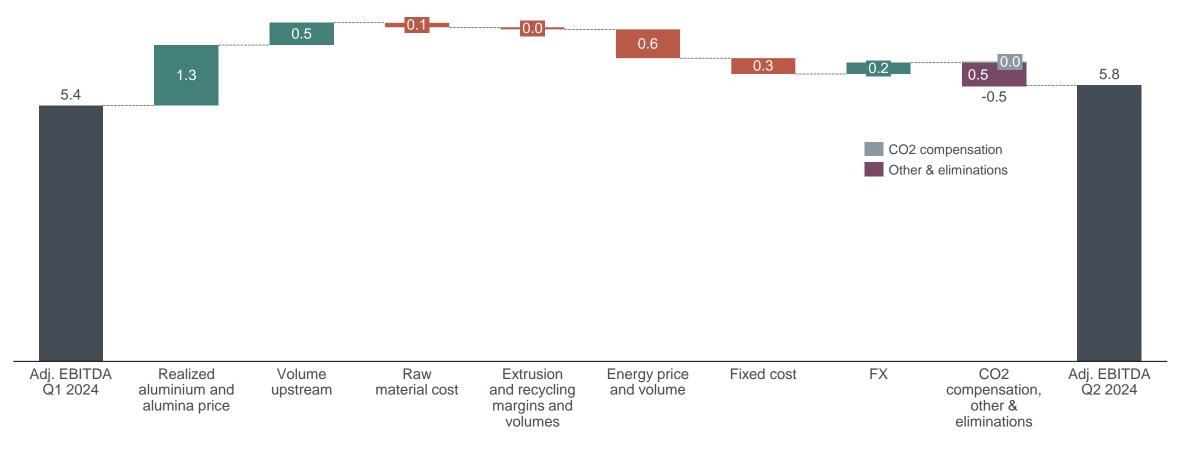


Share of Q2 2024 Hydro Extrusions sales

## Adj. EBITDA up on higher upstream prices and volume, partly offset by decreased energy spot sales



Q2 2024 vs Q1 2024



### Key financials



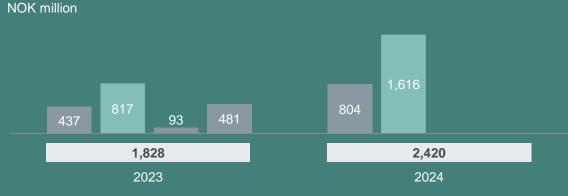
NOK million	Q2 2024	Q2 2023	Q1 2024	Year 2023
Revenue	50 944	53 630	47 545	193 619
Reported EBITDA	6 044	10 249	5 511	23 291
Adjusting items to EBITDA	(205)	(3 152)	(100)	(1 033)
Adjusted EBITDA	5 839	7 098	5 411	22 258
Reported EBIT	3 557	7 939	3 066	9 592
Adjusted EBIT	3 353	4 788	2 966	12 983
Financial income (expense)	(1 398)	(953)	(1 919)	(3 046)
Reported Income (loss) before tax	2 160	6 986	1 148	6 546
Income taxes	(739)	(1 930)	(720)	(3 742)
Reported Net income (loss)	1 421	5 056	428	2 804
Adjusted net income (loss)	1 677	3 410	1 498	7 835
Earnings per share	1.07	2.56	0.47	1.77
Adjusted earnings per share	0.97	1.77	0.93	4.26

### Hydro Bauxite & Alumina

Results up on higher alumina price, lower variable costs, particularly driven by fuel switch improvements

Key figures	Q2 2024	Q2 2023	Q1 2024
Alumina production, kmt	1,492	1,542	1,503
Total alumina sales, kmt	2,722	2,153	2,574
Realized alumina price, USD/mt	400	373	366
Implied alumina cost, USD/mt <sup>1)</sup>	345	336	337
Bauxite production, kmt	2,730	2,630	2,600
Adjusted EBITDA, NOK million	1,616	817	804
Adjusted EBIT, NOK million	841	88	43
Adjusted RoaCE, % LTM <sup>2)</sup>	0.0 %	-1.8 %	-1.9 %

#### Adjusted EBITDA



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

Adjusted RoaCE calculated as Adjusted EBIT last 4 quarters less 25% tax / Average capital employed last 4 quarters
 Realized alumina price

#### Implied alumina cost and margin USD/mt<sup>1)</sup>



Implied EBITDA cost per mt<sup>1)</sup>

All-in EBITDA margin per mt

#### Results Q2 24 vs Q2 23

- Higher alumina price
- Higher sales volume
- Lower raw material costs
- Weaker BRL against USD

- Stable production volume
- Higher alumina price
- · Lower raw material costs

### Hydro Aluminium Metal

Results down driven by lower contribution from power sales, increased alumina and energy cost, and inflation on fixed cost, partly offset by reduced carbon cost

Key figures	Q2 2024	Q2 2023	Q1 2024
Primary aluminium production, kmt	507	506	505
Total sales, kmt	584	577	540
Realized LME price, USD/mt <sup>1)</sup>	2,377	2,273	2,248
Realized LME price, NOK/mt <sup>1)</sup>	25,526	24,417	23,609
Realized premium, USD/mt	365	456	358
Implied all-in primary cost, USD/mt <sup>2)</sup>	2,300	2,250	2,225
Adjusted EBITDA, NOK million	2,520	3,215	1,965
Adjusted EBITDA including Qatalum 50% pro rata, NOK million	3,050	3,761	2,470
Adjusted EBIT, NOK million	1,834	2,550	1,306
Adjusted RoaCE, % LTM <sup>3)</sup>	9.3 %	25.9 %	10.3 %

#### **Adjusted EBITDA**





- Includes pricing effects from LME strategic hedge program
- Realized all-in aluminium price minus Adjusted EBITDA margin, including Qatalum, per mt aluminium sold
- Adjusted RoaCE calculated as Adjusted EBIT last 4 quarters less 25% tax / Average capital employed last 4 quarters
- Implied primary costs and margin rounded to nearest USD 25
- Realized LME aluminium price less Adjusted EBITDA margin, incl Qatalum, per mt primary aluminium produced

All-in implied primary cost and margin USD/mt<sup>1,4)</sup>



#### Results Q2 24 vs Q2 23

- Lower raw material cost
- Inflation on fixed cost •
- Lower contribution from power sales

- ~63% of primary production for Q3 2024 priced at USD 2 432 per mt<sup>-8)</sup>
- ~42% of premiums affecting Q3 2024 booked at USD ~ 494 per mt.
  - Q3 realized premium expected in the range of USD 380 and 430 per mt.
- Higher raw material cost
- Lower sales volumes
- Realized LME plus realized premiums, including Qatalum 6)
- 7) % of volumes extrusion ingot, foundry alloy, sheet ingot, wire rod of total sales volumes 8)
- Bookings, also including pricing effects from LME strategic hedging program as per 31.12.2023 Excluding power sales Slovalco and Norwegian smelters and CO2 catch-up Q3 2022 and Q4 2023 9)

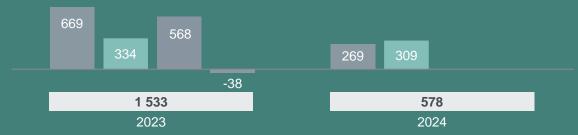
### Metal Markets

Results down driven by lower results from recyclers and negative currency effects, partly offset by positive results from sourcing and trading activities

Key figures	Q2 2024	Q2 2023	Q1 2024
Recycling production, kmt	202	146	179
Metal products sales, kmt <sup>1)</sup>	682	691	622
Adjusted EBITDA Recycling (NOK million)	41	299	58
Adjusted EBITDA Commercial (NOK million)	268	35	211
Adjusted EBITDA Metal Markets (NOK million)	309	334	269
Adjusted EBITDA excl. currency and inventory valuation effects	357	265	224
Adjusted EBIT (NOK million)	146	290	68
Adjusted RoaCE, % LTM <sup>2)</sup>	3.5 %	17.8 %	5.0 %



NOK million



Includes external and internal sales from primary casthouse operations, remelters and third-party metal sources
 Adjusted RoaCE calculated as Adjusted EBIT last 4 quarters less 25% tax / Average capital employed last 4 quarters



#### Results Q2 24 vs Q2 23

- · Main driver is lower results from recycling
- Negative currency effects
- · Positive results from sourcing and trading activities

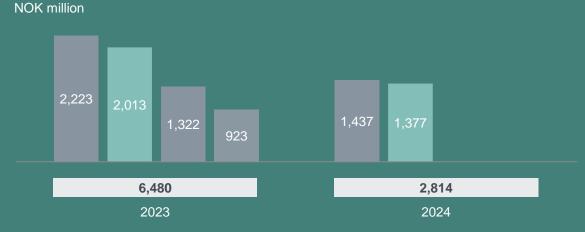
- · Seasonally lower volumes and continued margin pressure in the recyclers
- · Lower results from sourcing and trading activities
- Continued volatile trading and currency effects
- Guidance for YE Commercial Adjusted EBITDA excl. currency and inventory of 600 - 800 MNOK

### Hydro Extrusions

Results down on lower sales volumes, lower recycling margins, higher costs and currency effects, partly offset by strong sales margins and strict cost measures

Key figures	Q2 2024	Q2 2023	Q1 2024
External sales volumes, kmt	262	293	266
Adjusted EBITDA, NOK million	1,377	2,013	1,437
Adjusted EBIT, NOK million	609	1,228	690
Adjusted RoaCE, % LTM <sup>1)</sup>	5.0 %	9.4 %	6.6 %

#### Adjusted EBITDA



 Adjusted RoaCE calculated as Adjusted EBIT last 4 quarters less 25% tax / Average capital employed last 4 quarters. Previous periods have been restated following a change to the capital employed definition.



#### Results Q2 24 vs Q2 23

- Higher sales margins
- · Lower sales volumes and recycling margins
- · Positve metal effect
- Negative currency effects

- Continued strong margins
- · Lower sales volumes and recycling margins
- Higher variable costs
- · Continued soft extrusions markets

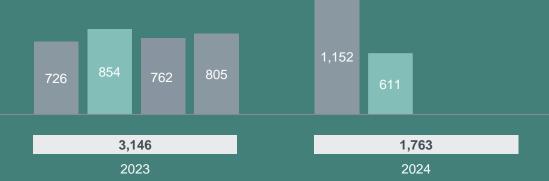
### Hydro Energy

Results down on lower production, prices and gain on price area differences

Key figures	Q2 2024	Q2 2023	Q1 2024
Power production, GWh	1,929	2,431	2,843
Net spot sales, GWh <sup>3)</sup>	-146	333	844
Southwest Norway spot price (NO2), NOK/MWh	519	958	736
Adjusted EBITDA, NOK million	611	854	1,152
Adjusted EBIT, NOK million	545	805	1,103
Adjusted RoaCE, % LTM <sup>1),2)</sup>	9,9 %	18.9 %	12.4 %

#### Adjusted EBITDA

NOK million



Adjusted RoaCE calculated as Adjusted EBIT last 4 quarters less tax/ Average capital employed last 4 quarters
 50% tax rate applied for 2023 and 2024
 Volume affected by disrupted delivery from a long-term power purchase agreement in the northern part of the

Nord Pool area. The non-delivered volume were 0.3 TWh in the guarter



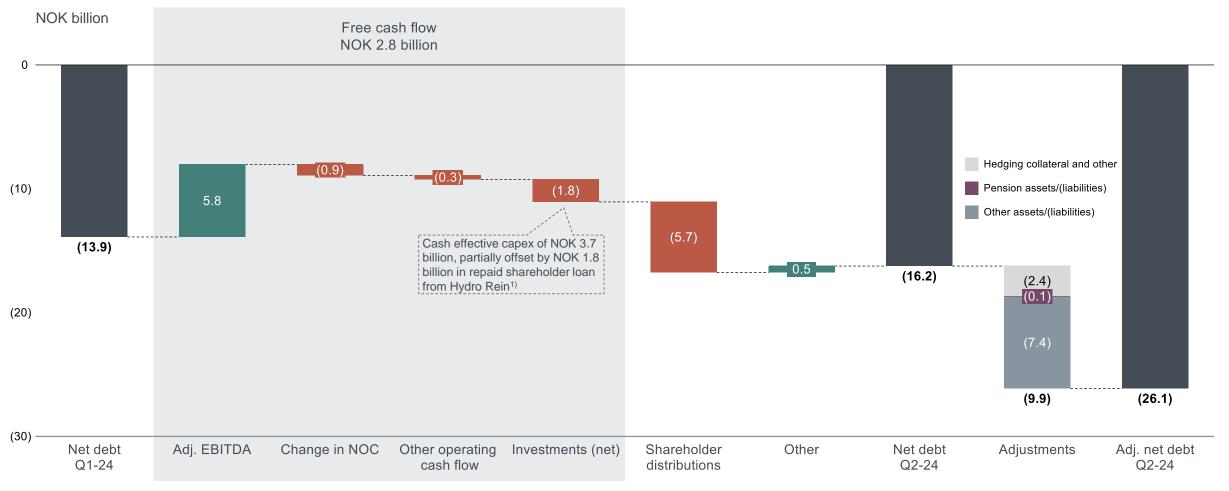
- No Aluminium Metal buy-back contract
- Lower trading and hedging results

- Stable production
- Somewhat lower Nordic power prices
- Price and volume uncertainty

## Net debt increase of NOK 2.3 billion during Q2



Increase in net debt mainly driven by shareholder distributions, partially offset by positive free cash flow and proceeds from Rein transaction



Free cash flow: Excludes hedging collateral (LT/ST restricted cash) and net purchases of money market funds

Collateral: Includes collateral for short-term and long-term liabilities, mainly related to strategic hedges and the operational hedging activity

1) Gross figure. Net proceeds from sale of shares in Hydro Rein is NOK 1.7 billion when deducting Hydro Rein Capex Q2 (Q2 shareholder loan)

## Our priorities

#### 1.

Health and safety first

#### 2.

Maintain robustness while maneuvering mixed markets

#### 3.

Deliver on Recycling, Extrusions, and renewable growth ambitions

#### 4.

Execute on decarbonization and technology road map Seize opportunities in greener aluminium at premium pricing

5.

Accelerating growth, value creation and sustainability



## Additional slides

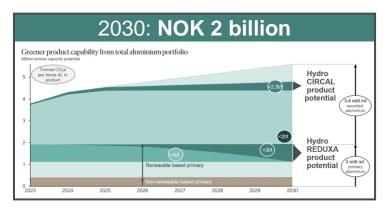


# Position, Strategy and Ambitions

## Why invest in Hydro?



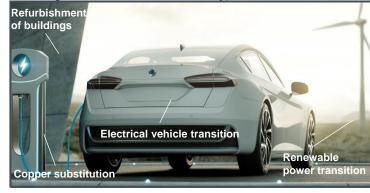
#### Greener earnings uplift potential 2030



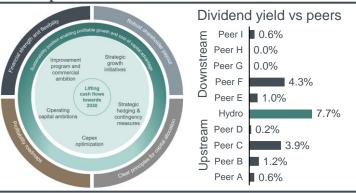
Robust positioning with ambition to strengthen competitiveness



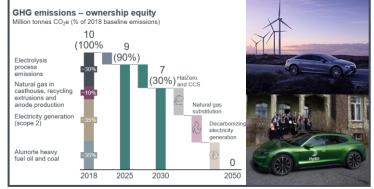
Portfolio of profitable growth projects as key enablers for the green transition



Resilient financial framework and competitive shareholder distribution

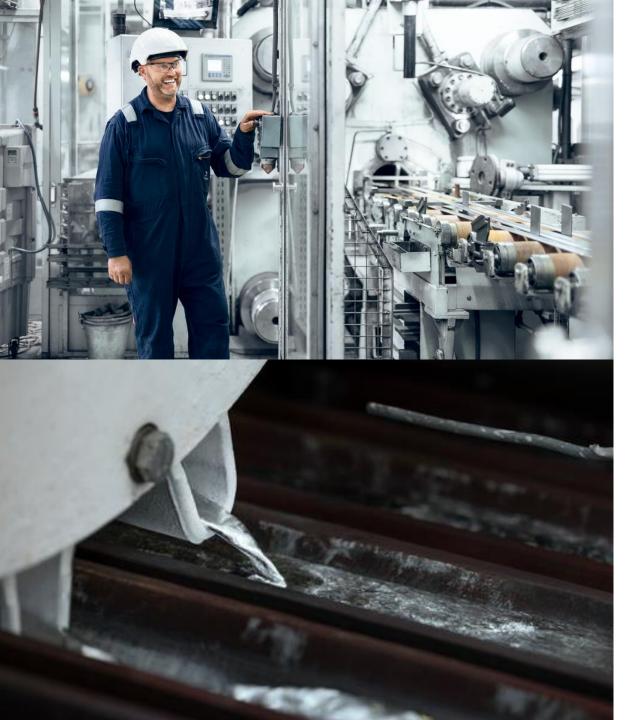


## Pathway to net-zero aluminium products supported by partnerships



### Good track record on relative shareholder value creation





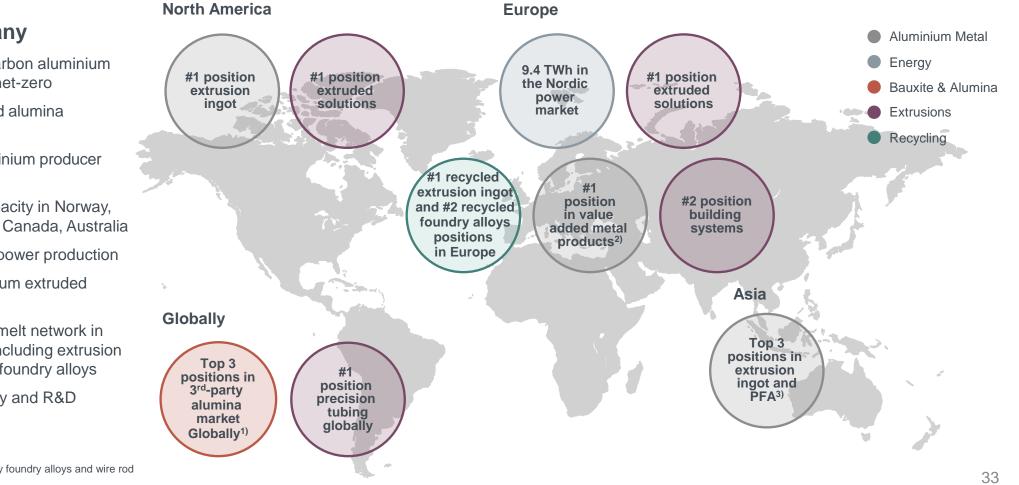
## Hydro has a unique position to succeed in the new reality

118 years of industrial experience, solving global challenges through innovation, technological advances and strong commercial mindset

- Market leading position in low-carbon aluminium with a concrete roadmap towards zero
- Unique position with captive renewable energy resources and competence
- Low and robust cost position, and strong track record on shareholder value creation
- Preferred supplier and sustainability partner on the way to zero, integrated value chain enables traceability "under one roof"
- Strong positions within the main markets in the EU and North America

## Strong global presence throughout the aluminium value chain

Built on market understanding, customer closeness and competence



Hydro

The complete aluminium company

- Market leader in low-carbon aluminium with clear roadmap to net-zero
- High-quality bauxite and alumina production in Brazil
- The fourth largest aluminium producer outside China
- Primary production capacity in Norway, Qatar, Slovakia, Brazil, Canada, Australia
- 9.4 TWh captive hydropower production
- World leader in aluminium extruded profiles
- Broad recycling and remelt network in Europe and the U.S., including extrusion ingot and scrap-based foundry alloys
- Unparalleled technology and R&D organization

Outside China
 Extrusion ingot, sheet ingot, primary foundry alloys and wire rod

3) Primary Foundry Allovs

## Unique value proposition in aluminium

Combined offering of primary and recycled aluminium with a full product spectrum and with tailor-made alloys



#### Providing products with low emissions

Primary aluminium produced on renewable energy



4-6 times lower than the world global primary average Recycled aluminium from Hydro



8 times for 75R, and 33 times for 100R lower than the world global primary average

Kilos of CO2e emissions per kilo aluminium

20.3



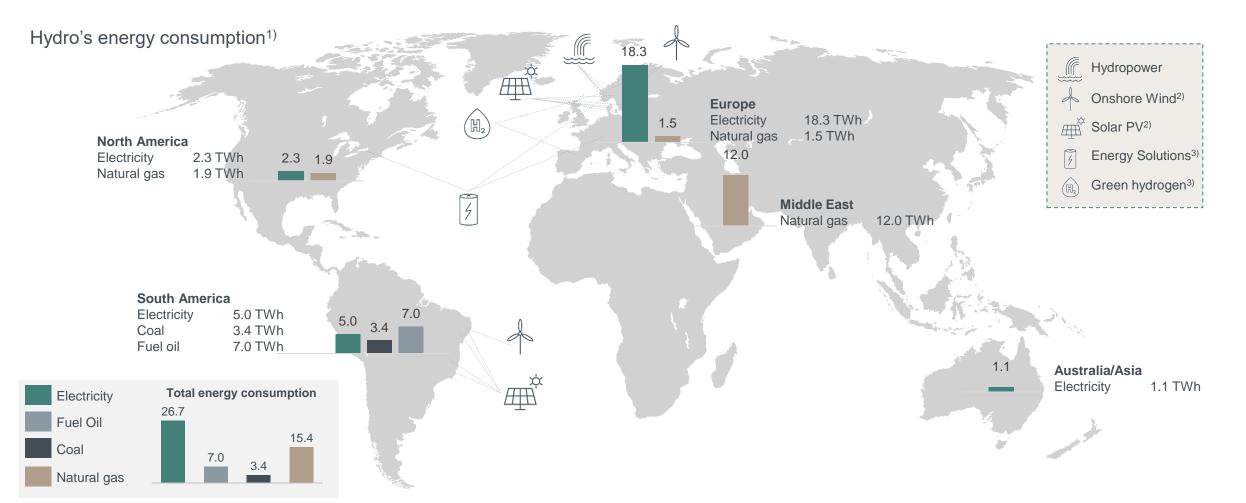
## Uniquely positioned with an integrated value chain



	onization capabilities				
Business	Bauxite & Alumina	Aluminium Metal	Recycling	Energy	Extrusions
Strong starting point	1 <sup>st</sup> quartile CO <sub>2</sub> e emissions	Primary production with CO <sub>2</sub> e content 65% lower than global average	Leading in PCS recycling for extrusion ingots Advanced sorting technology	Captive renewable power Leader in industrial PPAs	World's largest extrusion company with integrated recycling capacity EcoDesign driving circularity
Ambitious roadmap	1 <sup>st</sup> decile by 2025	Advanced HalZero and CCS technology to further reduce smelting emissions	Increasing PCS recycling up to 850-1,200 kt by 2030	Renewables developer, including batteries and hydrogen	Greener local energy sourcing Increased recycling

Certified, traceable, low-carbon aluminium

### Pioneering the green aluminium transition, powered by renewable energy



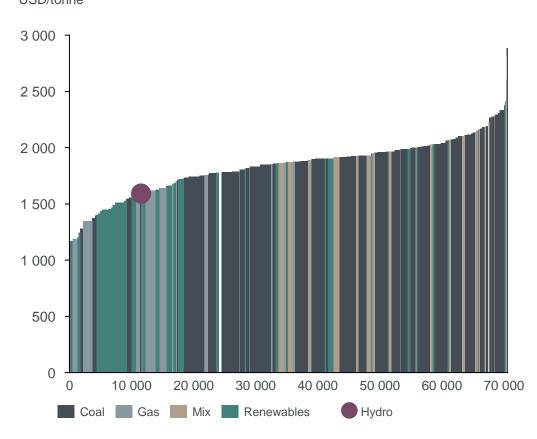
1) Based on equity-adjusted 2022 values for Norsk Hydro's bauxite mines, alumina refineries, smelters, remelters and extrusion plants.

2) Only projects in operation and under construction or announced. 3) Only pilot projects

**Hydro** 

# Long-term renewable power contracts ensure robustness

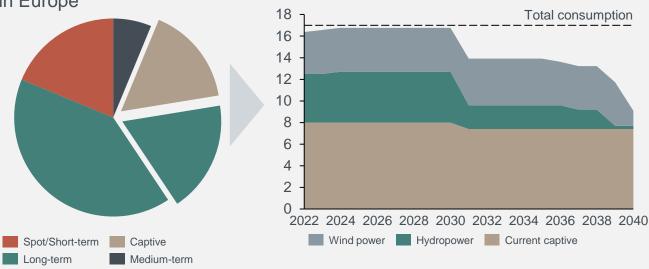
Smelter business operating cost curve 2023 USD/tonne



Source: CRU, Hydro analysis

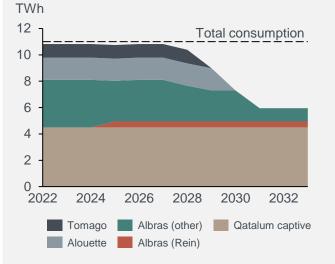
1) Net ~8 TWh captive assumed available for smelters. 2) Hydro Share: Qatalum captive (50%), Alouette (20%), Tomago (12.4%), Albras (51%). 3) Total Alunorte and Paragominas – all consumption sourced through Hydro

Power sourcing for smelters in Europe



TWh

Power sourcing for Hydro JV smelters<sup>2</sup>) Power sourcing for Hydro B&A<sup>3</sup>)



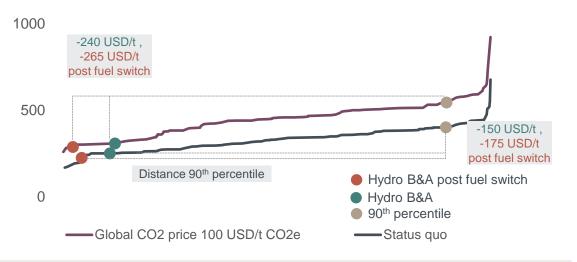
TWh Total consumption 5 4 3 2 1 0 2026 2022 2024 2028 2030 2032 Paragominas - Rein Alunorte - Rein Paragominas (short-term) Alunorte (short-term)

Power sourcing for Hydro smelters in Norway<sup>1)</sup>

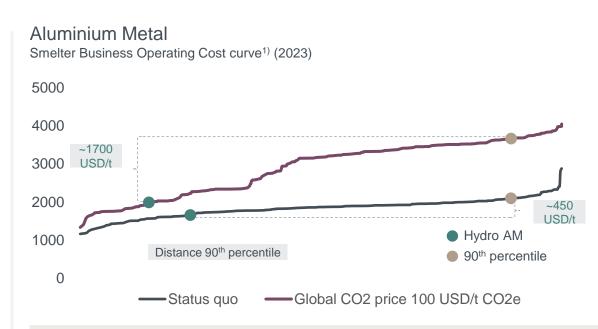
# Steeper cost curve, low-carbon demand and robust position drive margin potential



#### Bauxite & Alumina Alumina Business Operating Cost curve (2023)



- Competitively positioned on the global cost curve at the 30<sup>th</sup> percentile
- Fuel switch & electrical boilers lower costs, and reduce carbon emissions by 30% by 2025
- Global carbon price would improve relative competitive position in Hydro B&A

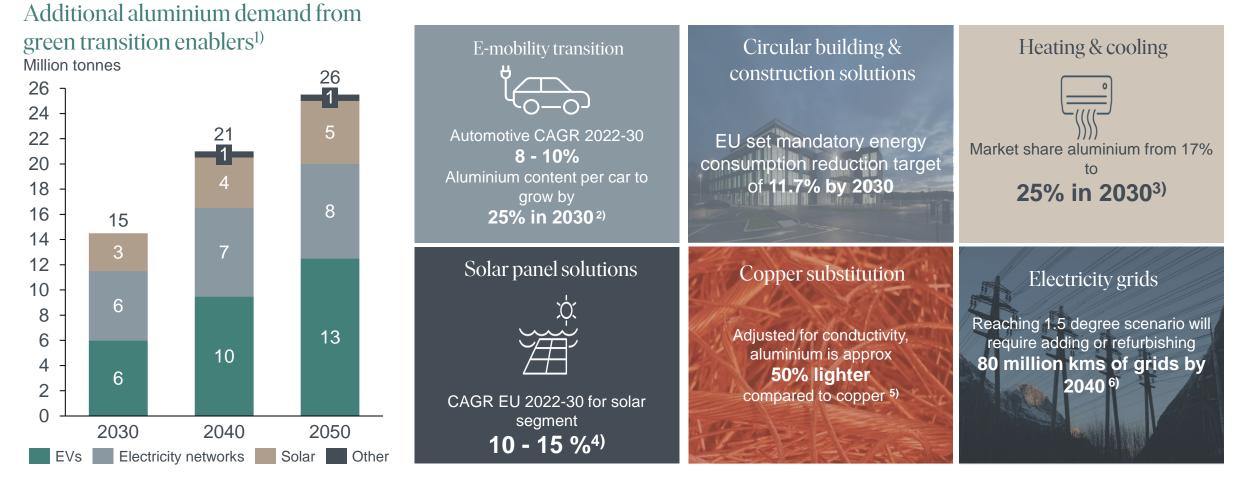


- Competitive relative position on the global cost curve at the 20th percentile
- Strong portfolio of low-carbon smelters
- Global carbon price would improve relative competitive position in Aluminium Metal

## Aluminium is a key enabler for the entire green transition



2030 energy transition will require 15-22 million tonnes aluminium, increasing to 25-42 million tonnes by 2050



1) Additional demand related to green transition technologies in STEPS scenario. Sources: 2) Ducker 3) Hydro analysis 4) BNEF 5) CRU 6) IEA

### Shifting gear to capture opportunities in a new reality



Key steps for Hydro to lead the green aluminium transition towards 2030



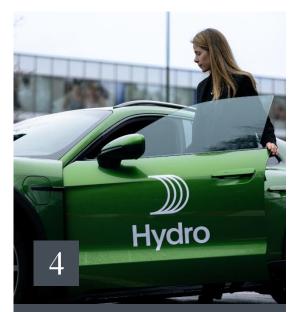
Step up growth investments in Recycling and Extrusions to take lead in the market opportunities emerging from the green transition



Step up ambitions within renewable power generation



Execute on ambitious decarbonization and technology road map, and step up to contribute to nature positive and a just transition



Shape the market for greener aluminium in partnership with customers

# Step up growth investments in Extrusions

#### 1 2 3 4



 Increase market share in high-growth, noncommoditized segments leveraging innovation and solution offerings



• Develop and grow capacity and capabilities through investments in new presses, fabrication, value added services, and recycling



 Commercial opportunities from sustainability, through segmentation and greener offerings



 Increase digitalization and standardization to drive procurement excellence and reduce energy consumption



**Extrusions EBITDA** 

NOK billion (real 2023)

10.0-12.0 25% 2.0-4.0 40% 8.0 20% 1.5 6.5 15% Underlying market recovery & growth EBS & Procurement Commercial Growth uplift 2023 2025 2030 target target1) (nominal)

1) Target 2025 in nominal terms as communicated in 2021. Range target for 2030 in real terms

# Step up growth investments in Recycling





Strengthen scrap sorting capabilities, secure feedstock



Expand global asset base across the value chain

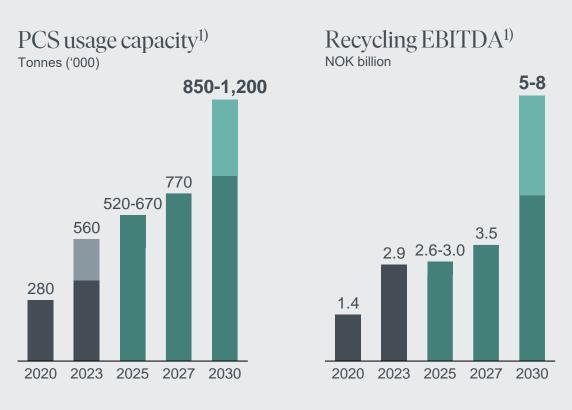


Diversify product portfolio, develop innovative solutions



Shape market for recycled products in partnership with customers





Realized Targ

Target Installed capacity ramping up

1) Range based on capex. High-range include ~70% of further potential capex given market and M&A. Including Alumetal for July 2023

# Step up our ambitions and efforts in renewable power generation

#### 1 2 3 4

Secure access to renewable power through hydropower system upgrades and expansions



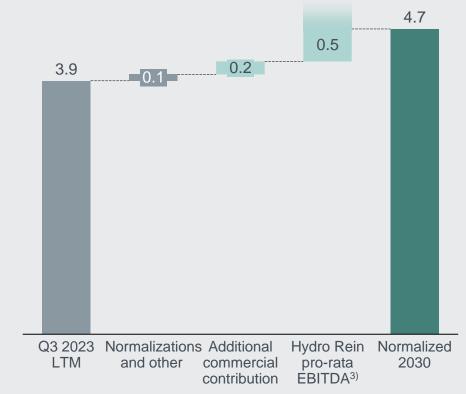
- Grow and upgrade existing hydropower plants to capture peak prices, increasing value of flexibility
- Expand market operations and commercial ambitions based on hydropower reservoir capacity, balancing power from wind and solar, and commercial positions

Hydro Rein to deliver onshore wind and solar projects, main focus in the Nordics and Europe



- Pursue profitable projects through JV owned by Hydro and Macquarie Asset Management
- Current portfolio<sup>1)</sup> add 2.4 TWh to Rein's captive power and 5.3 TWh long term PPAs to Hydro
- Sustainable and attractive riskadjusted returns of eIRR 10-20%

### $EBITDA\ 2030\ Hydro\ Energy\ Classic\ and\ Hydro\ Rein \\ \text{NOK\ billion}^{2)}$



1) Projects in construction and secured 2) Commercial contribution in AEBITDA Q3-23 LTM of NOK 0.5 billion included 3) Hydro's share of joint venture EBITDA from assets. Level pending margins, farm downs, growth, debt level/other funding

# Execute on ambitious decarbonization and technology road map, step up to contribute to nature positive and a just transition



Forcefully deliver on net-zero roadmap, decarbonizing value chain from mine-tocomponents

- Net-zero scope 1 and 2 GHG emissions by 2050 or earlier
- On track to meet 30 percent reduction in scope 1 and 2 CO2e by 2030
- 30% reduction of upstream scope 3 GHG emissions per tonne aluminium by 2030
- 850-1200 kTonnes post-consumer scrap recycling capacity by 2030



Contribute to a nature positive future through initiatives on biodiversity, emissions reduction and supply chain management

- No Net-Loss of biodiversity for Hydro's bauxite mine, from a 2020 baseline
- No Net-Loss of biodiversity for new projects
- 1:1 reforestation on track
- 50% reduction in material non-GHG emissions by 2030
- Eliminate landfill of all recoverable waste by 2040

#### Social



Improve lives and livelihoods wherever Hydro operates by supporting a just transition

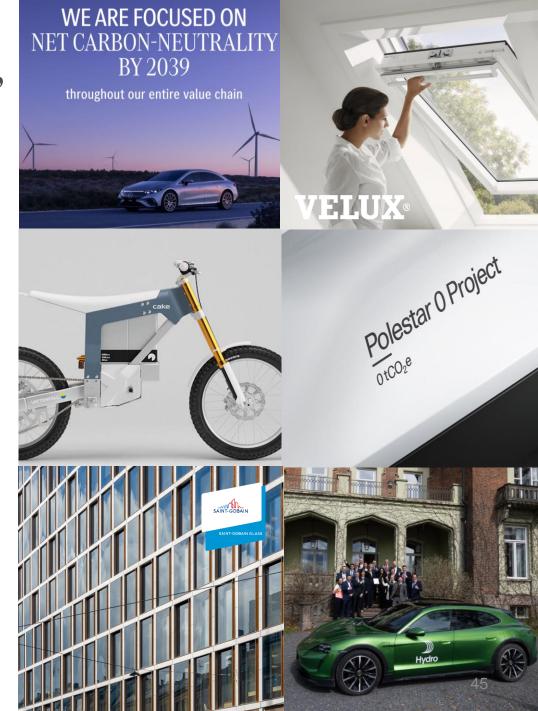
- On track to deliver on target of empowering 500,000 people with skills and education by 2030
- Significant social projects completed in Brazil
- Transparency and traceability of key product sustainability data by 2025 or earlier

## Shape market for greener aluminium, in partnership with customers

Utilize Hydro's combined strengths as a fully integrated company from mine to metal

Partner with strategic customers to grow market for greener aluminium

Partner with Original Equipment Manufacturers to champion joint decarbonization targets



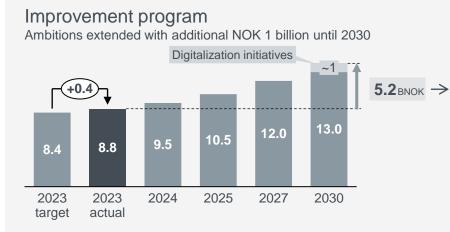
# Partnering with designers, shaping a greener market

- Partnering up across the value chain is key for more sustainable production and consumption
- Through working with leading designers, Hydro wants to challenge the way things are made and pull the industry in a greener direction through getting more manufacturers to understand how to select materials based on sustainability aspects
- At the Milan Design Week 2024, Hydro has collaborated with seven world renowned designers to create objects using extruded profiles made of Hydro CIRCAL 100R, the world's first aluminium made from entire post-consumer scrap
- The designs will be showcased at Hydro's exhibition 100R
- Hydro is the only aluminium company present in such a way and has already made it to the list of "Twenty unmissable installations and exhibitions at this year's Milan design week" by a renowned design magazine



## Extended improvement ambitions

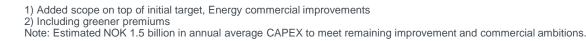
Strengthening future competitiveness and positioning with additional potential from digitalization, greener premiums and commercial improvements in Energy

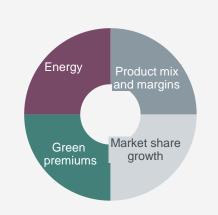


#### Commercial initiatives

Ambition increased in 2025 and 2027, and extended with additional NOK 0.4 billion until 2030







Operational

excellence

2.6

New digitalization

Fixed cost 0.2

Procurement

~1.0

1.4



### Extending the improvement ambitions to 2030



Targeting NOK 14.0 billion in accumulated improvements and NOK 6.1 billion in commercial ambitions by 2030

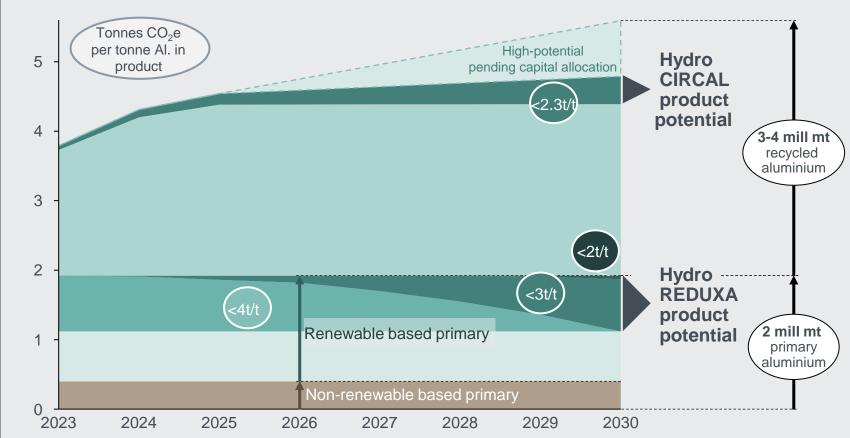


## Hydro is pioneering the green aluminium transition

## Greener earnings uplift potential 2030 NOK 2 billion<sup>1</sup>)



Greener product capability from total aluminium portfolio<sup>1)</sup> Million tonnes capacity potential



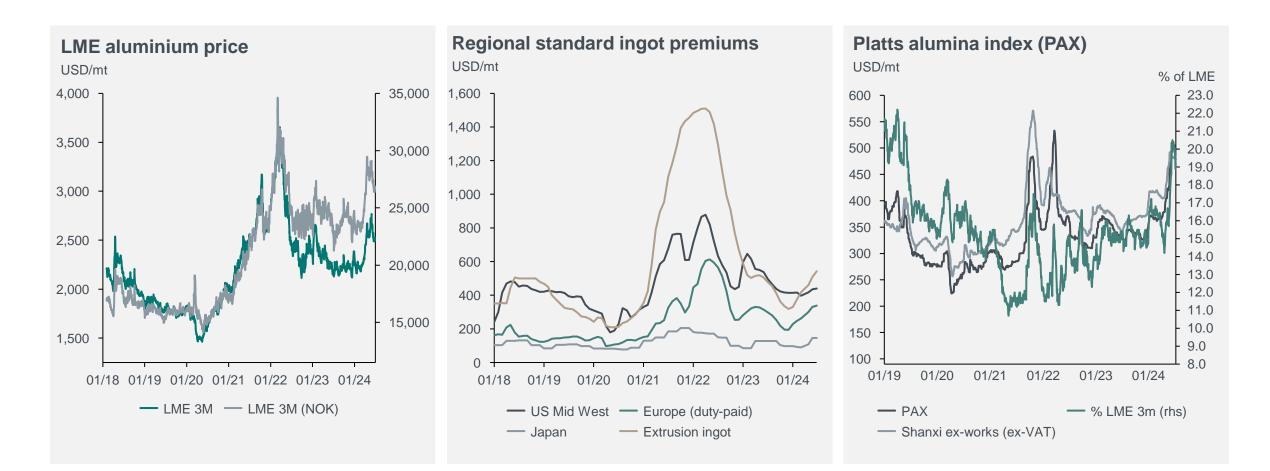
1) Based on 2030 EU ETS cost and relative CO<sub>2</sub> reduction vs Hydro REDUXA 4.0 at current industry traded upcharge. Hydro REDUXA and CIRCAL potential based on estimated certification capacity. Primary capacity based on equity share renewable power. Hydro CIRCAL products have post-consumer scrap content > 75% 49



# Market and trends

### Revenue drivers through Q2 2024



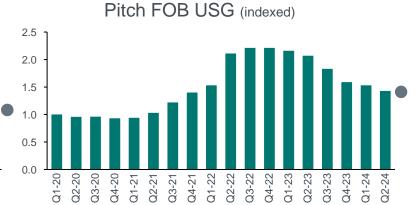


### Market raw material costs in Q2 2024

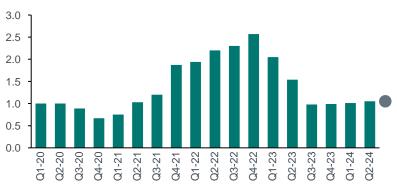








Caustic soda (indexed)



Indication of current market prices



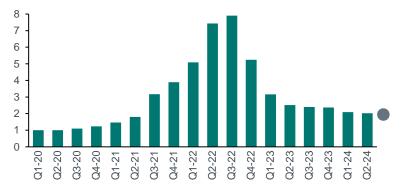




Alumina PAX index (indexed)



Steam coal (indexed)

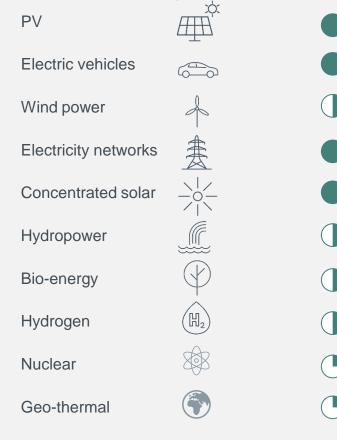


# Macro trends and favorable properties drive aluminium demand

Hydro's strategic direction aims to realize full potential of aluminium's strong qualities and versatility



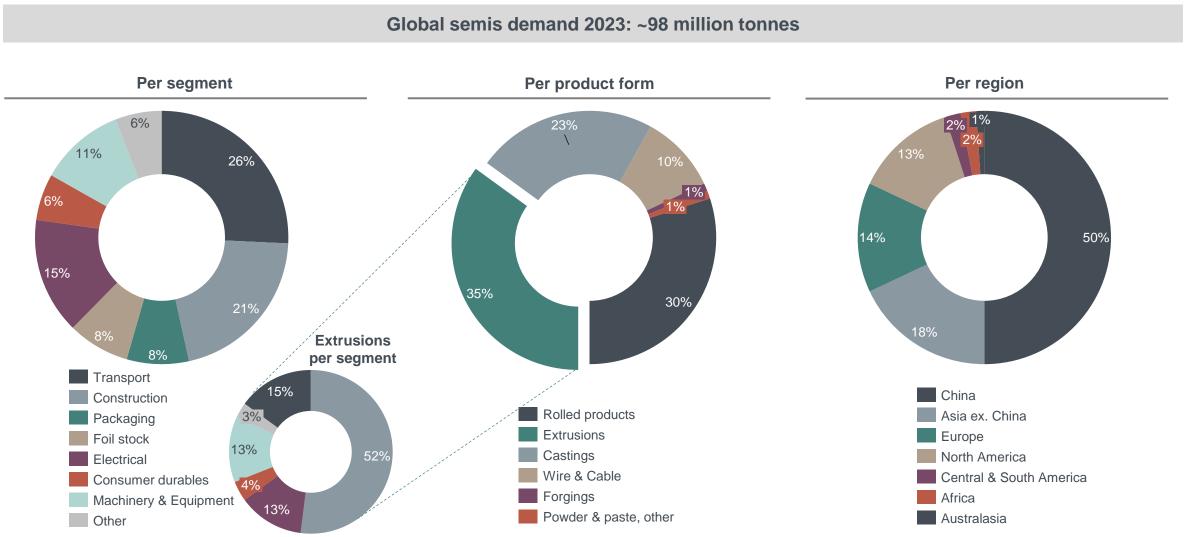
Importance of aluminium within key green transition technologies<sup>1</sup>



## Transport & construction key semis demand segments



#### Source: CRU, Hydro Analysis

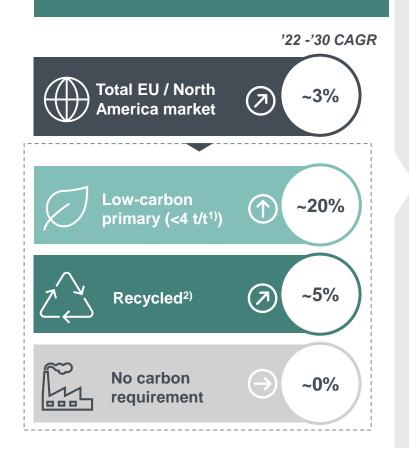


## Highest growth for low-carbon and recycled material



Low-carbon and recycled aluminium to make up majority of EU and North America market by 2030

Greener demand growth is outpacing the rest of the market



#### Estimated demand based on currently stated ambitions

Europe and North America low-carbon<sup>1)</sup> and recycled aluminium demand by sector (million tonnes) - estimate

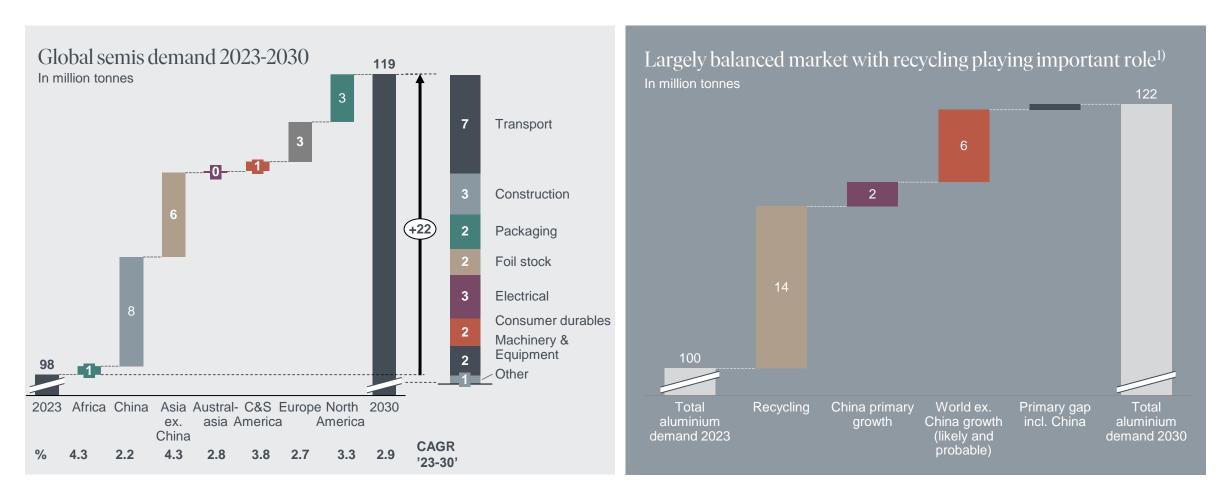
		<u>GAGR</u> ('22-'30)	Share of low-carbon <sup>1)</sup> and recycled
	18	~6%	50-60%
	Other	~3%	35-45%
	Consumer dur.	~5%	70-80%
	Electrical	~9%	30-40%
11	Packaging and foil stock	~3%	60-70%
	Construction	~6%	60-70%
	Transport	~10%	40-50%
2022	2030	-	

Examples of front runners with ambitious 2030 targets				
S	Scope 3 reduction targets	Specific aluminium commitments		
<b>É</b>	CO2e neutral value chain	10% of primary at <3 t/t		
Vestas.	45% per MWh generated			
lightsource bp	52% per MW constructed			
PEPSICO		10% of primary at <3 t/t		
Ball		10% of primary at <3 t/t		
VELUX	<b>50%</b> for absolute emissions	Max. 2.0 kg carbon emitted / kg		
BOUYOUES	30% for absolute emissions			
	20% for absolute emissions			
PORSCHE	CO2e neutral balance sheet			
Mercedes-Benz	CO <sub>2</sub> e neutral (2039)			
(var.e.)	25% per vehicle (2025)	10% of primary at <3 t/t		
٢	22% per vehicle			
RENAULT	30% per vehicle			

### Largely balanced markets towards 2030

)))) Hydro

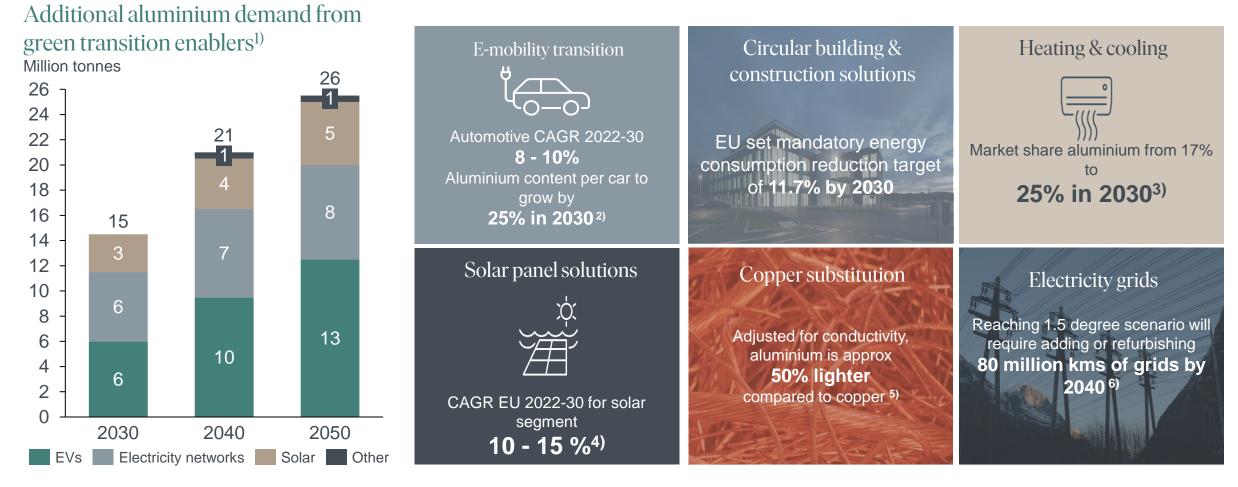
Healthy demand outlook driven by transport and electrical



## Aluminium is a key enabler for the entire green transition



2030 energy transition will require 15-22 million tonnes aluminium, increasing to 25-42 million tonnes by 2050



1) Additional demand related to green transition technologies in STEPS scenario. Sources: 2) Ducker 3) Hydro analysis 4) BNEF 5) CRU 6) IEA

#### Source: IEA, Ducker, analysis based on EU27+UK

1990

1980

### EV transition driving strong growth in aluminium demand

EV sales penetration, %

While EV share of sales is growing exponentially

Key choices on component design and material selection are being matured now

#### Aluminium content per car growing Aluminium in car, kg

350

300

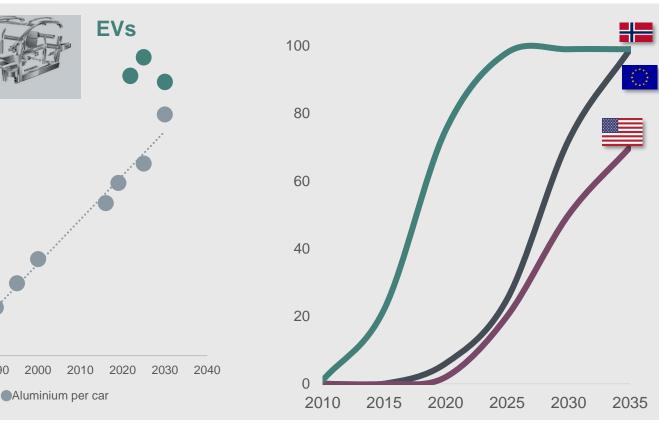
250

200

150

100

50



Average aluminium content per car will grow from **205 kg/car in 2022** to **256 kg/car in 2030** 

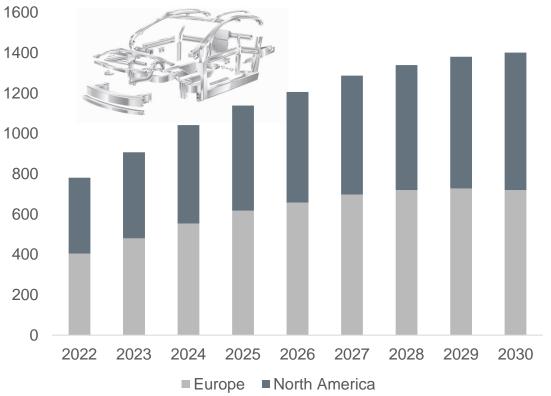
Demand for aluminium from European and American automotive industry to increase by 2.9 million tonnes from 2022-2030

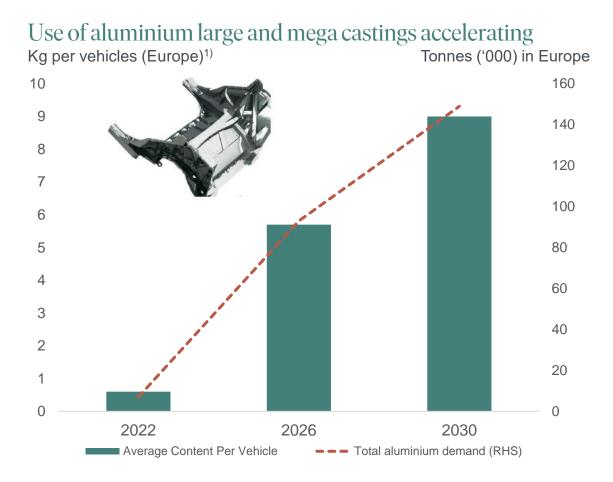
Hvdro

# EVs are not built the same way as internal combustion engines cars

Radical change in design leading to changing dynamics for aluminium usage

#### Aluminium demand from extrusions driven by switch to EVs Tonnes ('000)

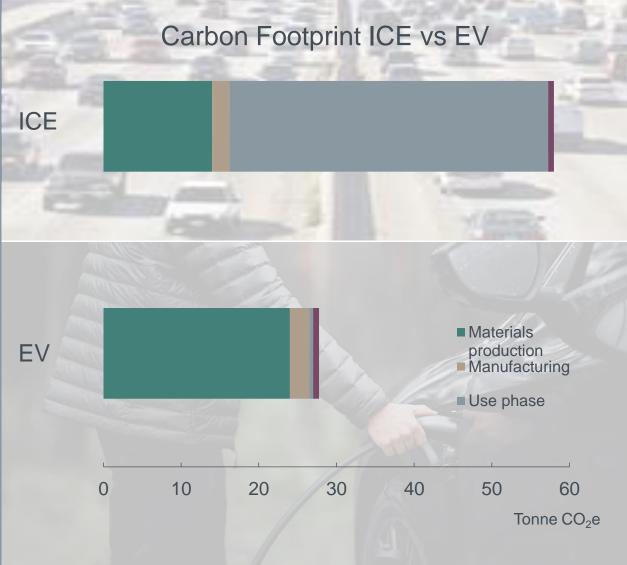




Hydro



## From cutting tailpipe emissions to cutting embedded emissions



83%

Of the embedded emissions from aluminium, steel and polymer

+40%

Emissions from materials, including batteries, increase 40% from ICE to EV<sup>1)</sup>

1) Polestar Life Cycle Assessment report

### Transition to EVs enables substitution opportunities



EVs contain considerably more copper than combustion engines



**Price, Weight, Emissions** 

60-80kg



Copper content in electric vehicles

#### **4**x

Copper content compared to typical combustion engine vehicle

#### **Application A**

Replacing complex copper cabling with approx. 3kg of aluminium solution

Potential additional global demand in 2030 100kt

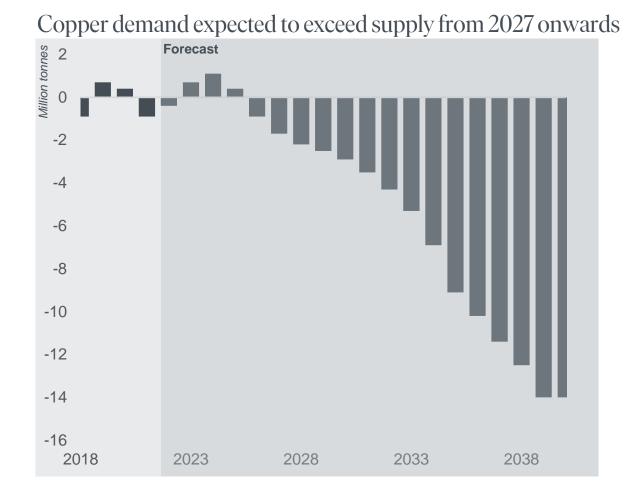
#### **Application B**

Replacing flexible copper cabling with approx. 5 kg of aluminium solution

Potential additional global demand in 2030 **180kt** 

### Aluminium is an attractive substitute for copper

Especially in segments with high growth from green transition



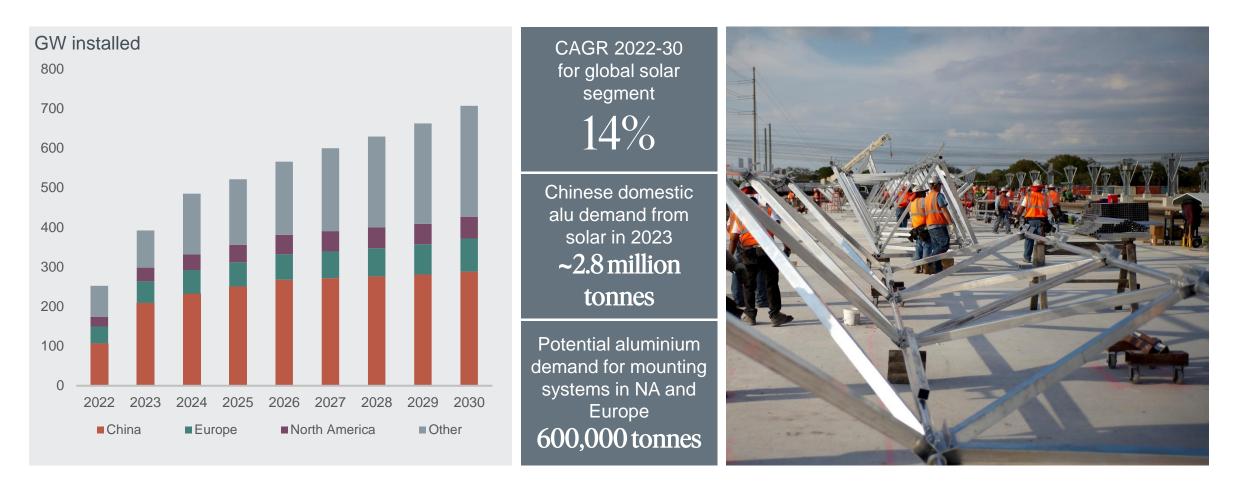
#### Key substitution facts



**Hydro** 

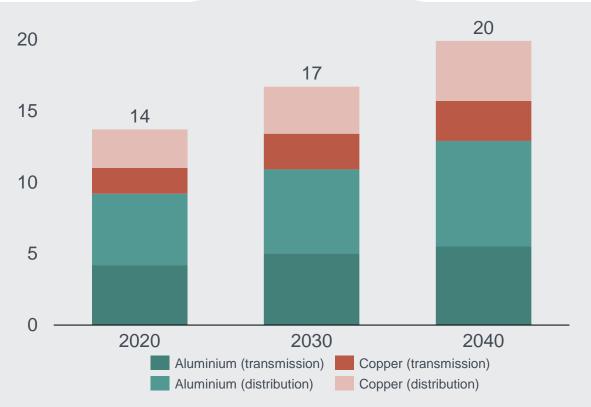
### Solar market provides strong growth potential for aluminium $\mathbb{J}_{Hydro}$

Regional growth potential within aluminium mounting systems



### Green transition drives substantial expansion of electricity grids

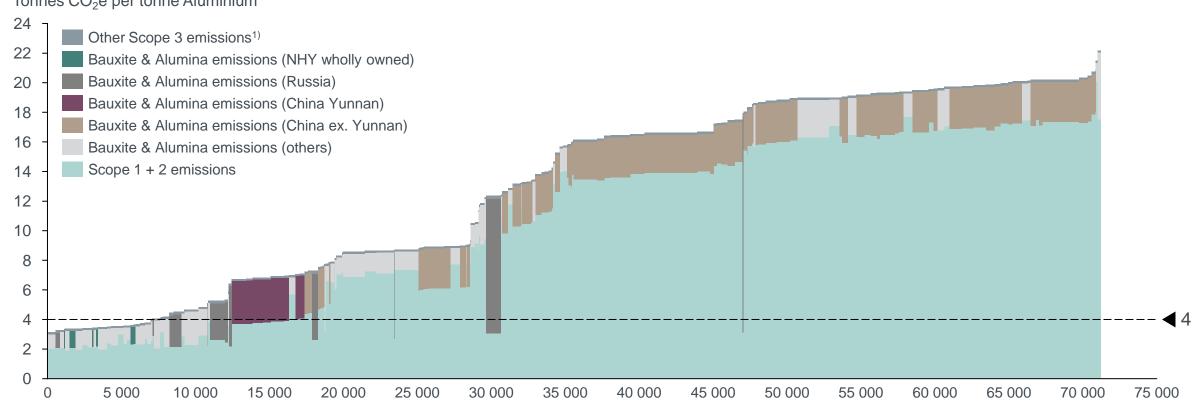
Average annual demand for aluminium by 2040 in stated policies scenario Million tonnes



#### Reaching 1.5 degree scenar res adding or refurbis onkms of grids by 2040 International Energy Agency 2023, Electricity Grids and Secure **Energy Transitions**

# Full value chain perspective: 7 million mt of primary production with embedded emissions below $4.0 \text{ kgCO}_2/\text{kg}$ aluminium

#### Cradle-to-gate emissions curve 2023 Tonnes CO<sub>2</sub>e per tonne Aluminium



### Scrap loophole undermines CBAM and climate goals

- The Carbon Border Adjustment Mechanism (CBAM) extends ETS carbon pricing to import products from 2026, protecting EU industry from carbon leakage.
- As part of the scheme, <u>CBAM will recognize and price emissions</u> from imported aluminium based on re-melted industrial scrap.
- Correct allocation of carbon emissions in products is necessary for CBAM to mirror the EU-ETS and function properly.
- <u>We believe re-melted industrial scrap should be assigned the same</u> <u>emissions as primary aluminium.</u> EU producers pay for these emissions, so should importers.
- Currently, <u>CBAM does not recognize that re-melted industrial scrap has</u> <u>carbon emissions.</u>
- The loophole is substantial, as there are more than enough re-melted industrial scrap available globally to satisfy EU aluminium demand.
- Furthermore, the loophole undermines low-carbon aluminium production in Europe, and deprives Member States of CBAM revenue.
- European recyclers are facing the biggest risk from the loophole.

CBAM extending carbon pricing to imported products to level out ETS effects

October 1, 2023 CBAM transitional period starting

> Indirect CO<sub>2</sub> compensation remains

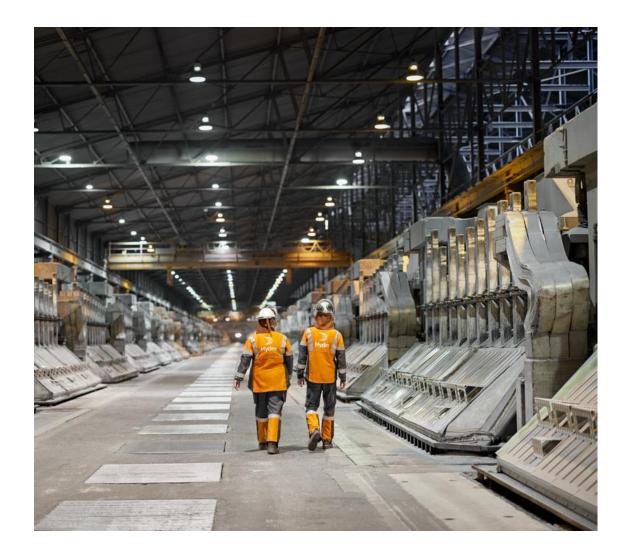
> > 2025 Re-evaluation of indirect CO cost compensation

April 2023

**CBAM** adopted

**2026-2034** CBAM to replace free quotas

## EU agenda supporting Hydro's strategy



#### Regulatory framework supporting strategic direction

#### Critical Raw Material Act

- Aluminium expected to be defined as a Strategic Raw
  Material upon final adoption
  - Important recognition of aluminium's role for EU strategic autonomy and the green transition

#### Sustainability legislation

- Stricter regulations on Green Claims and Corporate Sustainability
   Due Diligence favor sustainability frontrunners
- End-of-life vehicles regulation supports Hydro's recycling ambitions



#### **Renewable energy**

- High ambitions for renewable energy production in EU
- Supports Hydro's internal decarbonization and strengthens
- demand for aluminium from renewables market segment

#### Regulatory changes needed to support green transition

P

#### **CBAM – Carbon Border Adjustment Mechanism** • Labelling remelted industrial scrap as zero-carbon material on

- Labelling remelted industrial scrap as zero-carbon material on import creates a large loophole in CBAM
- Unless changed it will undermine intention of CBAM on climate and competetiveness

#### Securing level playing field Three key challenges and solutions for CBAM to 2040

#### 1. Scrap loophole

- Imports based on remelted industrial scrap is assigned zero emission, creating a giant loophole
- CBAM must recognize the emissions from imported, re-melted industrial and process scrap

#### 2. Product scope

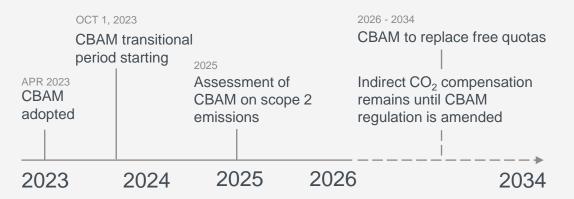
- Products outside the CBAM scope are at clear risk of carbon leakage
- The product scope must be expanded to more aluminium products and other materials

#### 3. Negative impact on EU smelters

- If implemented, CBAM on scope 2 will have a negative impact on EU smelters running on low-carbon electricity
- CO<sub>2</sub> compensation is superior both as climate and carbon leakage instrument



## CBAM: Extending carbon pricing to imported products to level out ETS effects



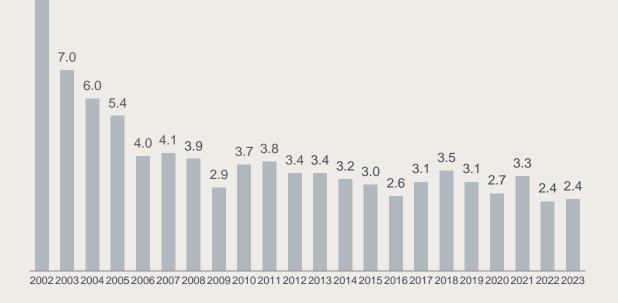


# Sustainable Operations

### Safe and responsible operations is a top priority

Leadership in health and safety, social responsibility, and compliance as a license to operate

## TRI Rate<sup>1)</sup> 10.3





Continuing efforts within ESG performance

Sustainability is fully integrated in Hydro's strategy

Work in progress to prepare for implementation of the

EU Corporate Sustainability Reporting Directive (CSRD)

Transparent and consistent reporting approach for more than

17.8 (Low risk) #3 in sector (3/224)

three decades

Member of Dow Jones Sustainability Indices

Powered by the S&P Global CSA 68% Europe Index inclusion **DJSI** inclusion since 1999

Moody's **ESG Solutions** 73/100



AA rating "Leading initiatives to achieve carbon-free aluminium"

ecovadis



ecovadis

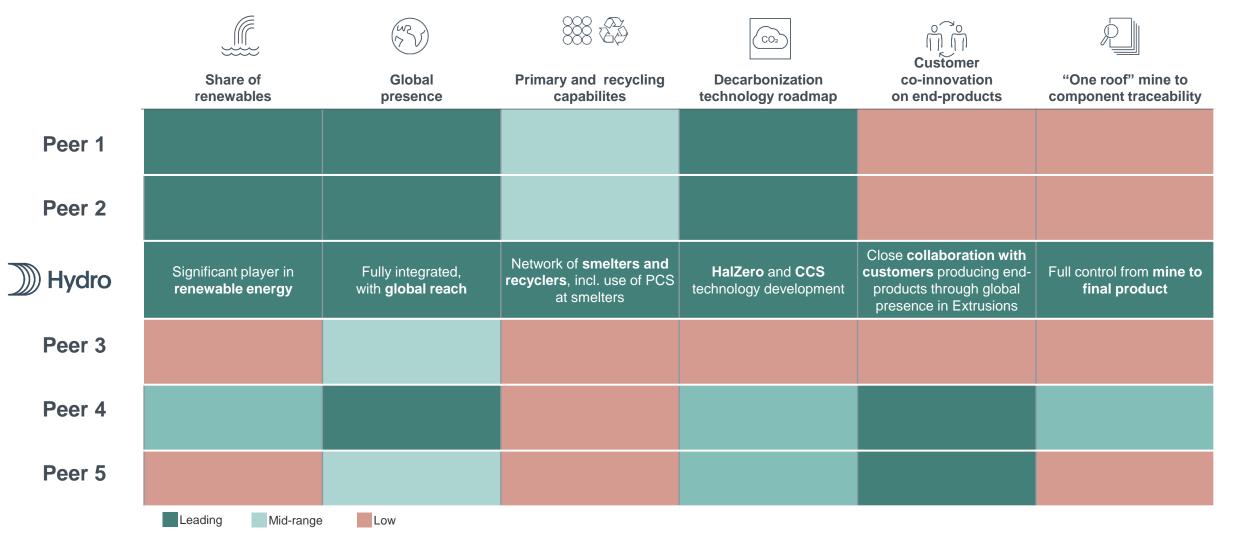
Hvdro



**B** rating **Corporate Rating: Prime Status** 

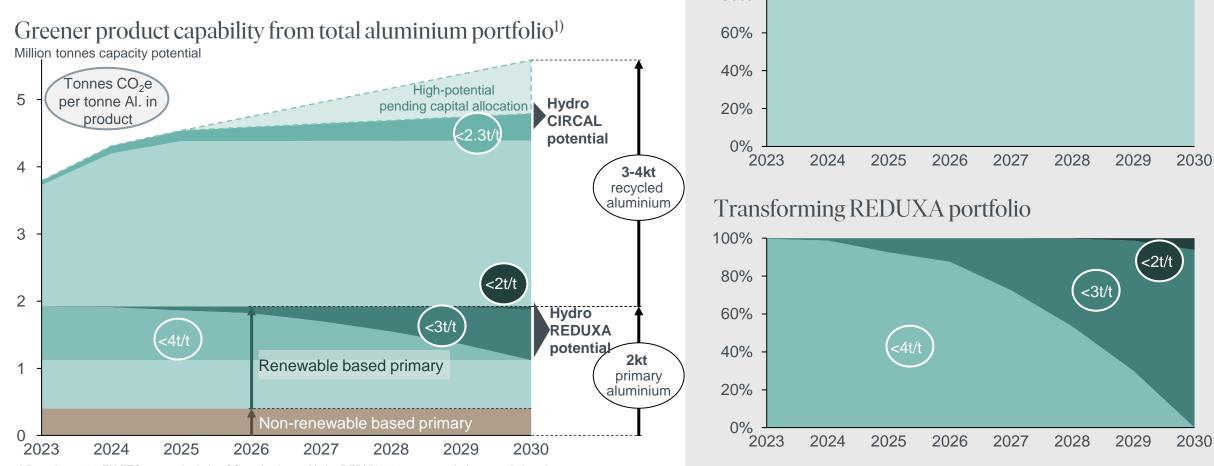
## Many vying to take sustainable aluminium leading positions $\mathcal{J}_{Hydro}$

Only Hydro with integrated advantage



# Positioning Hydro to pioneer the green aluminium transition

Earnings uplift potential 2030 of NOK 2 billion<sup>1)</sup>



Growing recycling capabilities

<2.3t/

100%

80%

1) Based on 2030 EU ETS cost and relative  $CO_2$  reduction vs Hydro REDUXA 4.0 at current industry traded upcharge. Hydro REDUXA and CIRCAL potential based on estimated certification capacity. Primary capacity based on equity share renewable power. Hydro CIRCAL products have post-consumer scrap content > 75%

# Execute on ambitious decarbonization and technology road map, step up to contribute to nature positive and a just transition



Forcefully deliver on net-zero roadmap, decarbonizing our value chain from mine-tocomponents

- Net-zero scope 1 and 2 GHG emissions by 2050 or earlier
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### Social

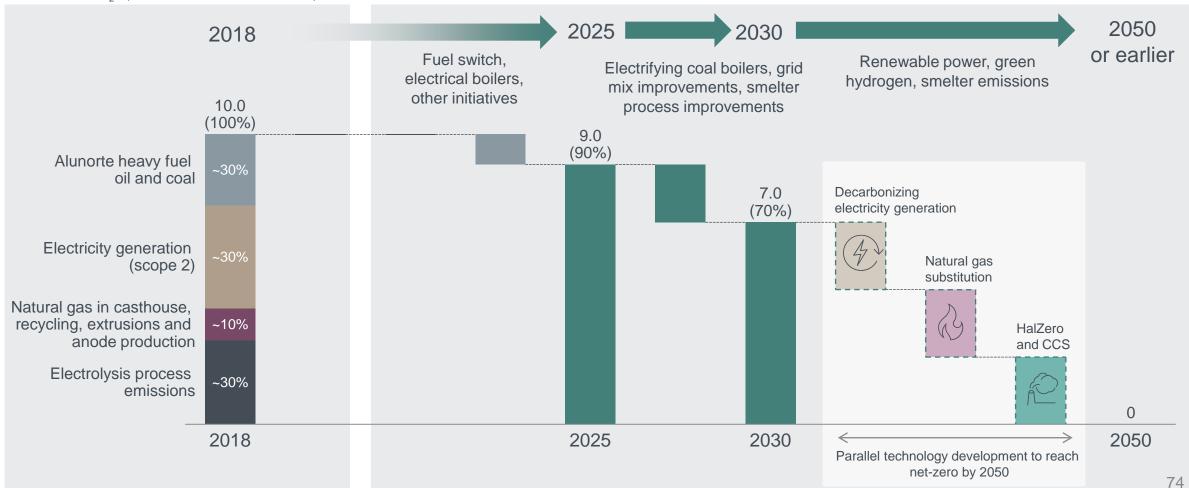


Improve lives and livelihoods wherever we operate by supporting a just transition

- On track to deliver on target of empowering 500,000 people with skills and education by 2030
- Significant social projects completed in Brazil
- Transparency and traceability of key product sustainability data by 2025 or earlier

## Net-zero Hydro: The roadmap

On track to achieve 30% carbon emissions reduction by 2030 and net-zero by 2050 or earlier



#### GHG emissions – ownership equity<sup>1)</sup> Million tonnes CO<sub>2</sub>e (% of 2018 baseline emissions<sup>2</sup>)

1) Scope 1 and scope 2. 2) 2018 rebased baseline post-Alunorte transaction as of December 1, 2023

Hydro

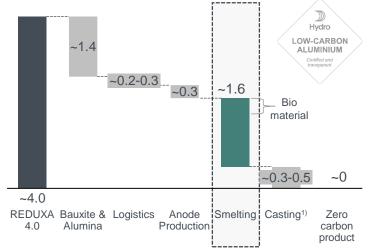
## Decarbonization ambition: Three paths to net-zero

Clear technology roadmap to deliver industrial volumes of zero-carbon aluminium by 2030

### HalZero process New process technology for decarbonizing new capacity

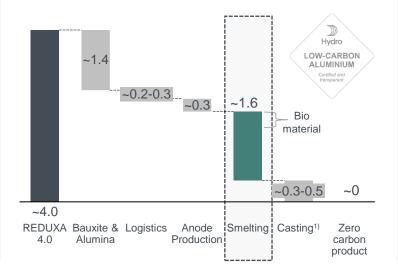


CO<sub>2</sub>e emissions per year



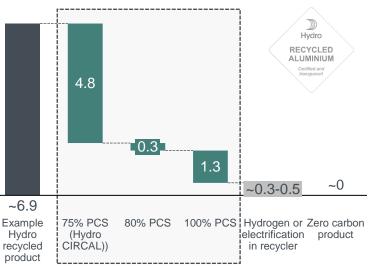
Carbon capture and storage Technologies for decarbonizing existing smelters





### Recycling Technologies for more PCS use



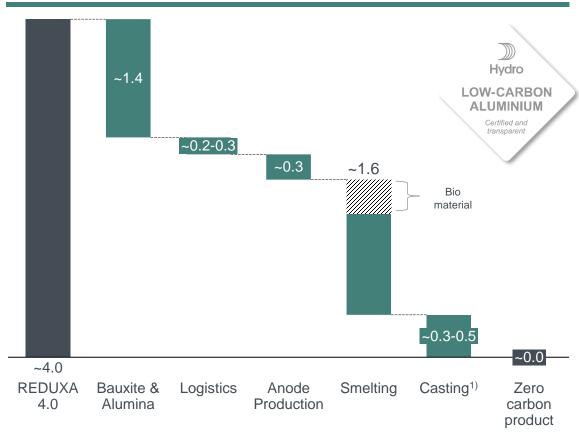




# Widening our scope to reach zero CO<sub>2</sub> emissions

Structured approach to reduce emissions throughout primary value chain

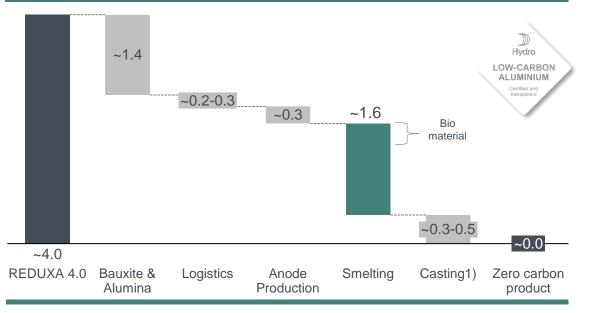
### CO<sub>2</sub>e emissions kgCO<sub>2</sub>/kgAl





# Electrolysis decarbonization on track - HalZero

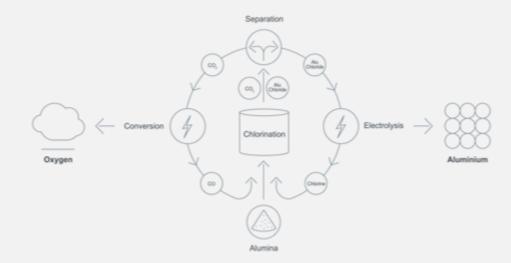
### CO<sub>2</sub>e emissions kgCO<sub>2</sub>/kgAl



### Timeline

	2022	2025	2030	2035
HalZero	Studies	Testing	Industrial scale pilot	Industrial capacity

### Ground-breaking technology to change the game



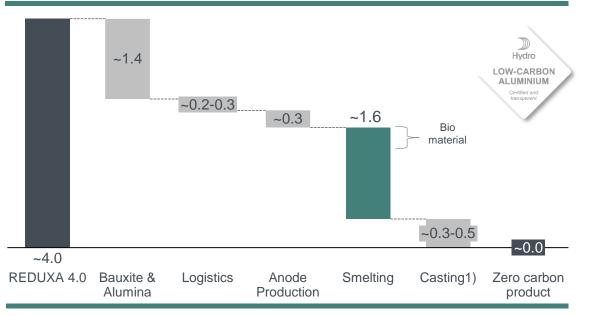
- Approval to start construction of new test facility in Porsgrunn - expected to be operational by 2025
- On track for first metal by end 2025 and industrial pilot volumes by 2030





# Electrolysis decarbonization on track – carbon capture

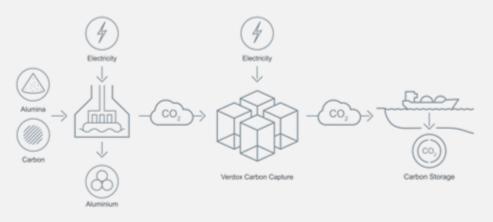
### CO<sub>2</sub>e emissions kgCO<sub>2</sub>/kgAl



### Timeline

	2022	2025	2030	2035
CCS – ready cells	Testing	Industrial Industria scale pilot capacity		
Carbon capture	Studies	Testing	Industrial scale pilot	Industrial capacity

### Technology shift for existing aluminium smelters



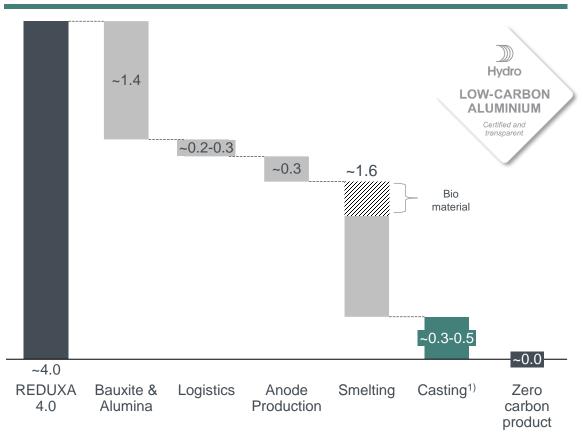
- Testing of Verdox technology ongoing at Sunndal
- Installing capture ready cells as part of ongoing relining process
- On track to deliver first CO<sub>2</sub> capture in 2024 and industrial scale pilot volumes by 2030



# Pursuing optionality to decarbonize casthouses

Important milestones for all initiatives: Bio-methane, hydrogen and direct electrification

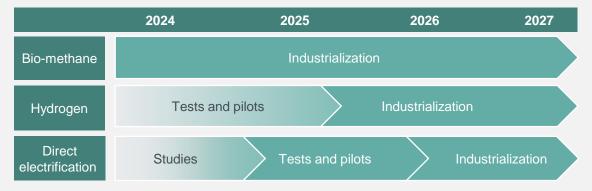
### CO<sub>2</sub>e emissions kgCO<sub>2</sub>/kgAl



## Starting industrialization of bio-methane from 2024, stepping up activities in electrification



### Timeline



)) Hydro

LOW-CARBON

ALUMINIUM

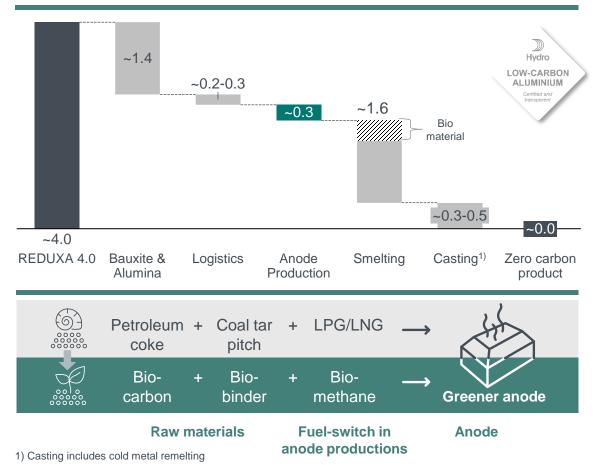
Hydro

ALUMINIUN

## Anode decarbonization

Utilizing bio-materials in anode production triggers potentials for below zero emissions

### CO<sub>2</sub>e emissions kgCO<sub>2</sub>/kgAl



## Bio-methane and bio-materials in the process

- Fuel switch to bio-methane in anode baking furnace Havila contract
- Substitution to bio-based packing materials

### Bio-materials in anodes

- · Substitute fossil materials to bio-carbon and bio-binder in anode
- Potential to reduce the CO<sub>2</sub>, PAH and S emissions
- Collaboration with external suppliers and research institutions
- Potential below zero CO<sub>2</sub> emissions from electrolysis off-gas capture

### Timeline



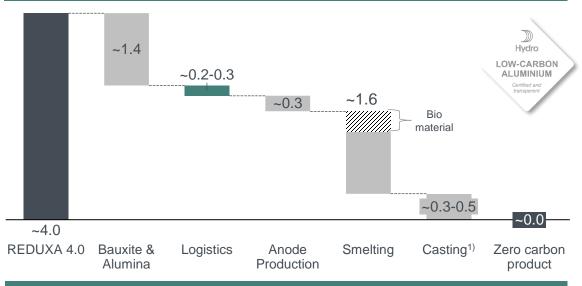
Hydro

ALUMINIUM

## Logistics decarbonization

Choosing the right solutions leads to reduced emissions. Ambition: 30% reduction by 2030

### CO<sub>2</sub>e emissions kgCO<sub>2</sub>/kgAl





### What we have done

- >95% of AM volumes now have the major transport leg by sea
- 85% emission reduction on container transport from China to Europe
- Moving volumes from truck to barge, rail and sea
- Introducing biofuel on selected trucking routes
- Supply chain improvements

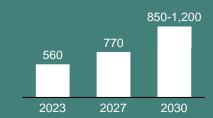


- Developing greener routes
- Exploring opportunities for "green shipping corridors"
- Digitalization and measurement to improve incentive structures and transparency

### Timeline



Hydro LOW-CARBON ALUMINIUM *Recycling 2030 ambitions:* 



## 850-1,200 kmt PCS capacity



### NOK **5-8** billion **EBITDA** potential



## **Recycling decarbonization**





#### Full value chain with multiple product outlets Large recycling asset base in Europe and North America

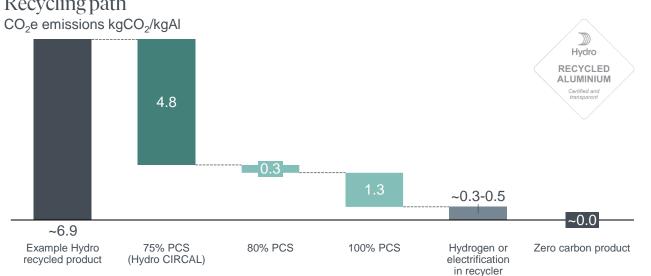
- · Broad range of products extrusion ingot, sheet ingot, foundry alloys, HyForge, Master alloys
- Ability to utilize and upcycle mixed scrap

### Sorting & production technology

- Technical and metallurgical competence
- · Production optimization know-how from scrap to product
- Patented HySort technology, in-house R&D

### **Close customer & supplier relations**

- Local presence and market insight in core locations
- · Established relationships with scrap suppliers
- Partnerships and close cooperation with customers
- Commercial intelligence and strong value chain positioning



### Recycling path

# Contribute to a nature positive future through initiatives on biodiversity, waste handling and land-use



### No Net-Loss Ambition for Paragominas

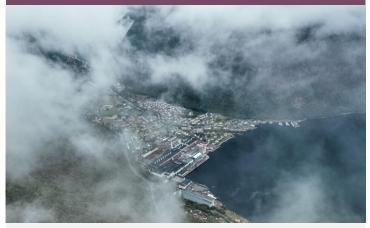


- No Net-Loss of biodiversity for our bauxite mine, from a 2020 baseline
- Strengthening onsite mitigation and rehabilitation
- Investing in conservation and restoration offsets

# Partnerships for Nature Positive Outcomes

- Develop opportunities for positive nature impacts beyond delivering NNL outcome for mine
- Partnership with Imazon and IPAM
- Creating value for nature and society where we operate

### Supply chain emissions



- Establish inventories and baselines for material pollutants linked to Hydro's supply chain by end of 2024
- World Economic Forum's Alliance for Clean Air

# Improving lives and livelihoods wherever we operate by supporting a just transition





Respect and promote human rights



Support positive local development

Invest in education

Responsible supply chain

**Hydro** 

## Investing in the community is our license to operate





### **Social Infrastructure**

- Construction of 9 Terpaz community centers (3 already built) targets security, income generation and access to basic services to 1,500 people per day
- Construction of a Technical School with the capacity to educate 1,200 students per year



### **Community Projects**

- Investment in community based projects benefitted 80 thousand people since 2018
- 60 thousand people with access to education
- 1,400 family farmers with access to technical support



### **Stakeholder Engagement**

- Transparency, dialogue and volunteer work are performed by a dedicated team
- 178 community leaders are involved in a dialogue forum called Sustainable Barcarena Initiative
- **500 volunteers** worked to benefit 14,000 people and 70 local organizations

# Sustainable financing initiatives increase access to capital and provide cost of capital advantage

### Green and Sustainability Linked Financing Framework

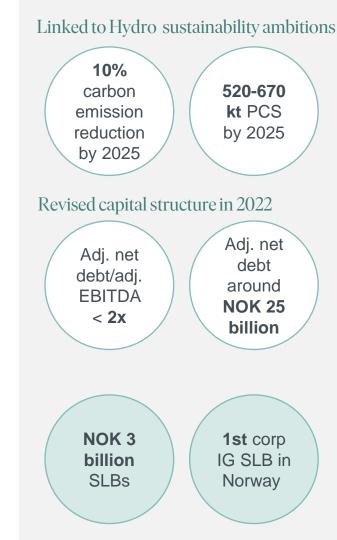
- Framework published to facilitate issuance of green and sustainability linked bonds
- Linked to Hydro's sustainability ambitions
- CICERO Shades of Green provided Second Party Opinion allocating medium green shading and governance assessment at excellent

### Updated capital structure policy and EMTN Program

- Revised capital structure targets over the cycle
- EMTN program established to streamline bond issuance in line with capital structure policy

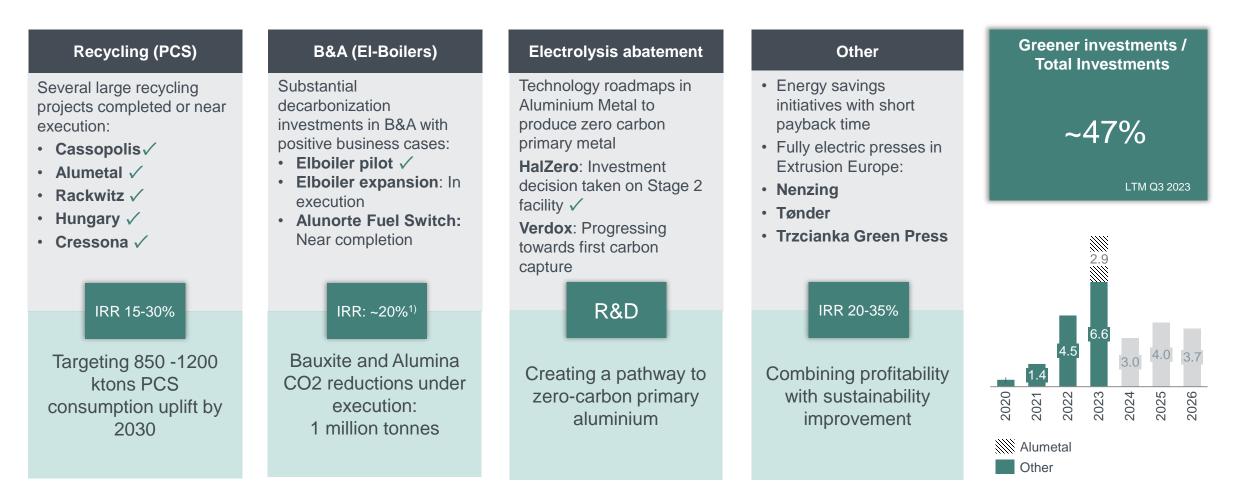
### Sustainability linked bonds (SLBs)

- NOK 3 billion SLBs (2022-2028) issued under framework and EMTN program
- First SLB issue in the Norwegian corporate investment grade market
- SLB feature increased access to capital in challenging market conditions



## Greener investments drive value creation

Hydro's largest prioritized investment areas combine sustainability and profitability



Hvdro



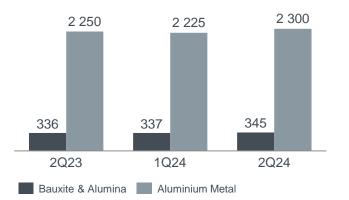
## Financial Framework

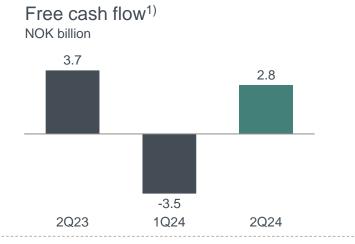
Key performance metrics | Q2 2024



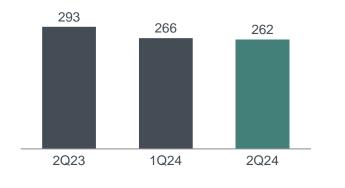
Adjusted EBITDA NOK million 7 098 5 411 5 839 2 223 1 224 2 223 1 224 Upstream costs<sup>3,4)</sup>

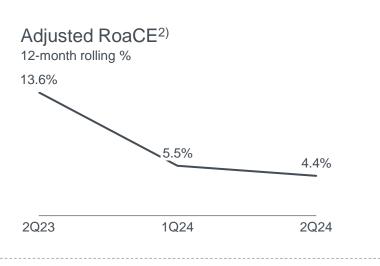




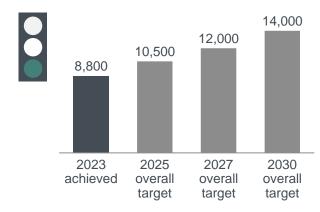


### Extrusion volumes





Improvement program status NOK millions

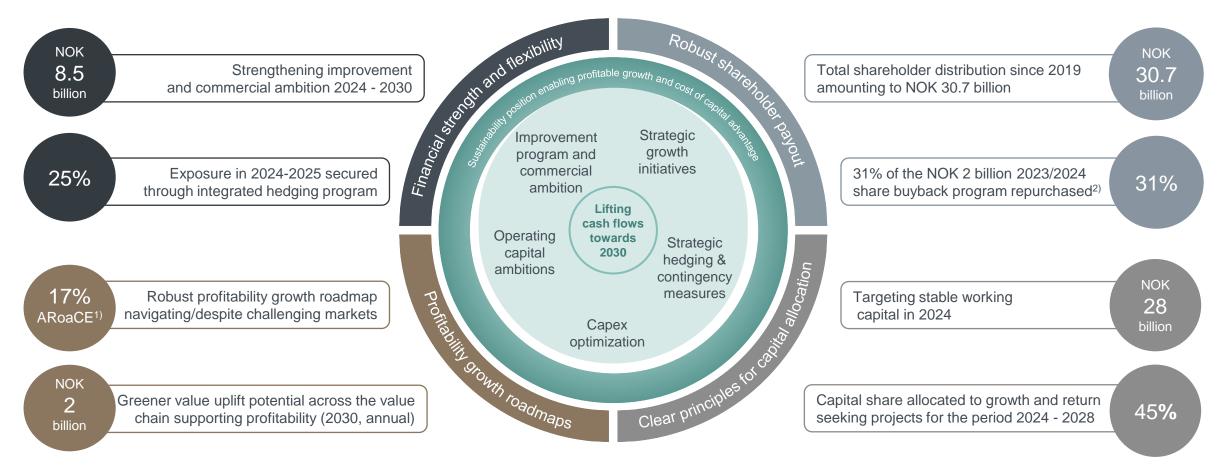


- 1. Free cash flow is defined as net cash provided by (used in) operating activities of continuing operations, adjusted for changes in collateral and net purchases of money market funds, plus net cash provided by (used in) investing activities of continuing operations, adjusted for purchases of / proceeds from sales of short-term investments
- 2. Adj. RoaCE calculated as adjusted EBIT last 4 quarters less underlying tax expense adjusted for 30% tax on financial items / average capital employed last 4 quarters
- 3. Realized alumina price minus adjusted EBITDA for B&A, excluding insurance proceeds relating to decommissioned crane (NOK ~500 million), per mt alumina sales
- Realized all-in aluminium price (incl. strategic hedge program) less adjusted EBITDA margin excluding indirect CO<sub>2</sub> compensation catch-up effect (NOK ~1.4 billion) and power sales Slovalco, Albras and Norwegian smelters, incl Qatalum, per mt aluminium sold. Implied primary cost and margin rounded to nearest USD 25

## Our financial framework guides the short and long-term



Solid framework for lifting returns and cash flow and managing uncertainty



 Hydro group external scenario 2030 ARoaCE based on CRU price and premium assumptions and S&P Global FX assumptions, with adjustments as specified in the footnotes
 31% repurchased as of 24<sup>th</sup> of November

## Capital allocated according to strategic modes

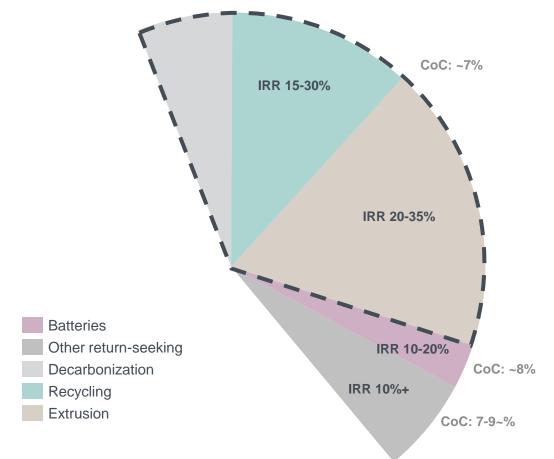
Strategic modes reflect global megatrends and high-return opportunities

Safe, compliant and efficient operations The Hydro Way					
Businesses	Bauxite & Alumina	Aluminium Metal	Recycling	Energy	Extrusions
Strategic mode	Sustain and improve	Sustain and improve	Growth	Selective growth	Growth
Towards 2030	Reduce risk, improve sustainability footprint, improve cost position	Robustness and greener, increase product flexibility, improve cost position	Substantial shift in conversion of post- consumer scrap	Growth in renewables and batteries	Growth with new capacity and capabilities

**Hydro** 

# Strong profitability in strategic growth areas

Indicative profitability in current return-seeking and growth portfolio



### Recycling

- Increase proportion of post consumer scrap (PCS), lowering metal cost
- Improved economies of scale in brownfield expansions
- Sorting technology and equipment standardization

### Extrusions

- New presses with improved capabilities and commercial value, capturing market share
- Press replacements with significant cost reductions and increased productivity
- Focus on high growth segments including automotive, systems business and commercial transportation

### Decarbonization

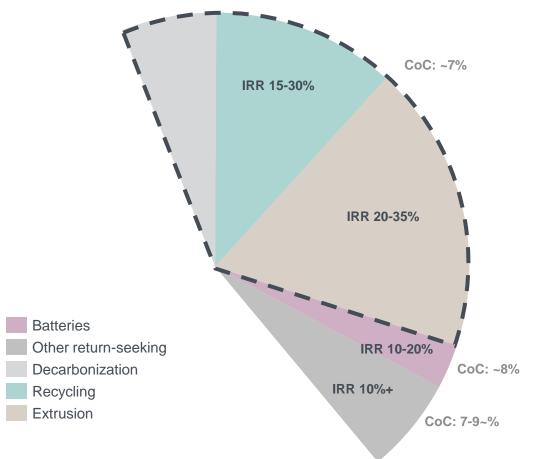
- Alunorte Fuel switch project (IRR 20+%) and electrical boilers
- Carbon capture technology pilots in mid-term, industrial scale pilot volumes by 2030
- HalZero as technology pilots in mid-term, industrial scale pilot volumes by 2030

### Batteries

- Focused strategy within sustainable battery materials, leveraging Hydro capabilities
- Establish positions in attractive growth segments in core markets
- Core investments: Hydrovolt (recycling) and Vianode (anode material)

# Press replacements giving new capabilities and cost savings

Indicative profitability in current return-seeking and growth portfolio



**Press consolidation** Two old presses One new press 4-5 FTEs per shift Manning 2 x 8 FTEs per shift EUR 350-450K Maintenance cost p.a. EUR 1,500K Downtime 15-20% 5-10% Scrap rate 33-35% 25-28% Annual production 2x9K tonnes 16K tonnes Based on cost savings alone IRR: 30%+ **Benefits** · Higher levels of automation and better ergonomics, state-of-the-art technology

- New and improved technical capabilities to serve new segments at higher prices
- High energy efficiency, lower cost per kilo & higher EBITDA per tonne

# Shareholder and financial policy

)))) Hydro

### Aiming for competitive shareholder returns and dividend yield compared to alternative investments in peers

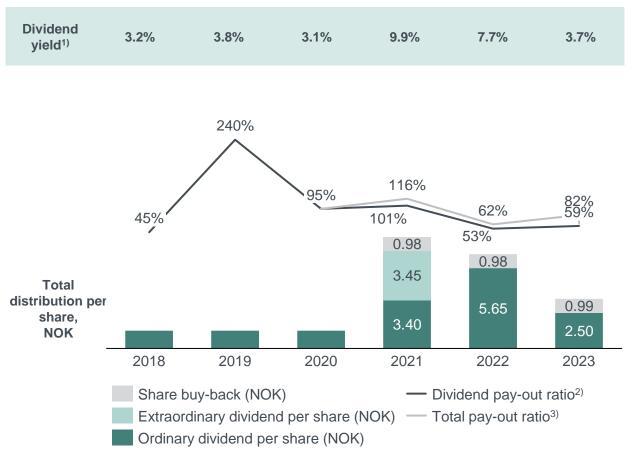
### • Dividend policy

- Average ordinary payout ratio: 50% of adjusted net income over the cycle
- 1.25 NOK/share to be considered as a floor
- Share buybacks and extraordinary dividends as supplement in periods with strong financials and outlook
- Five-year average ordinary pay-out ratio 2018-2022 of ~74%

### • Maintain investment-grade credit rating

- Currently: BBB stable (S&P) & Baa2 with stable outlook (Moody's)
- Competitive access to capital is important for Hydro's business model (counterparty risk and partnerships)
- Financial ratio target over the business cycle
  - Adjusted net debt to adjusted EBITDA < 2x

### Historical shareholder distribution



## Hedging policy

### Overall risk policy

- · Remain exposed to the inherent cash flow volatility related to Hydro's business
- Fluctuating with the market volatility mitigated by strong balance sheet

### Diversified business

- · Vertical integrated value chain reducing risk and volatility
- · Strengthening relative position to ensure competitiveness

### Upstream margin risk

- Currency exposure, mainly USD and BRL
- Exposed to LME and Platts alumina index prices
- Strategic and operational hedging with perspective of mitigating downside risk and securing margins (not opportunistic)
- Operational LME hedging one-month forward sale

### Downstream margin risk

- · Spread between customer prices and the underlying production cost
- As such exposed to commodity prices, exchange rates, other costs, market conditions and negotiating power
- Risk is managed through operational hedging programs



## 2024-2026 hedge positions increased during the quarter

### Aluminium hedges of 220-460 kt/yr 2024-2026 in place

- 2024: 220 kt remaining at a price of ~2400 USD/t
- 2025: 450 kt hedged at a price of ~2500 USD/t
- 2026: 200 kt hedged at a price of ~2650 USD/t
- Pricing mainly in NOK. Net USD exposure hedged via USD/NOK derivatives
- Corresponding raw material exposure partially secured using financial derivatives or physical contracts

### **B&A and AM BRL/USD Hedge**

- USD 860 million sold forward for 2024-2026
  - 2024: USD 167 million remaining at avg. rate 6.19
  - 2025: USD 350 million hedged at avg. rate 5.33
  - 2026: USD 175 million hedged at avg. rate 5.48
- Aim to reduce volatility and uncertainty in Alunorte and Albras cash flows, as well as support robust cost curve positions

### Strategic hedging status<sup>1)</sup> **NOK Billions**

Coal, fuel oil and other

Coal, fuel oil and other

Total settlement and MtM

Settlements

MtM

Aluminium Power

**USD/NOK** 

USD/BRL

Aluminium

USD/NOK

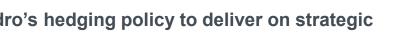
USD/BRL

Total settlement

### Utilizing Hydro's hedging policy to deliver on strategic ambitions

2.4

- Flexibility to hedge in certain cases
  - Support strong cost position
  - Strong margins in historical perspective, e.g., supporting ARoaCE target
  - Larger investments



-5.9

0.8

-0.9

1.3

-1.1

-2.2

MtM active hedges **BNOK -1.7** 

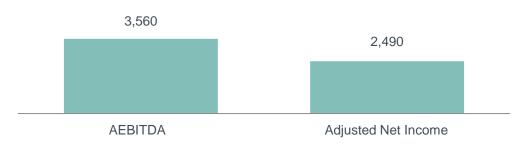
-4.0



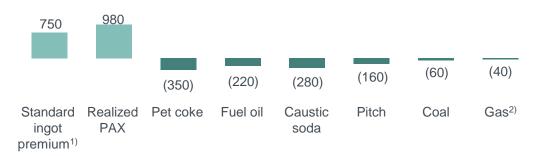
# Significant exposure to commodity and currency fluctuations



### Aluminium price sensitivity +10%



### Other commodity prices, sensitivity +10%



### Currency sensitivities +10%

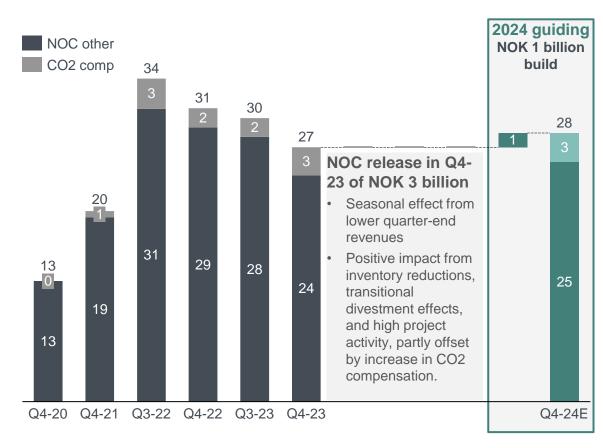
Sustainable effect:

NOK million	USD	BRL	EUR
AEBITDA	4,180	(960)	(100)
One-off reevaluation effect:			
Financial items	(1,320)	1,630	(3,770)

- Annual adjusted sensitivities based on normal annual business volumes. LME 2,380 USD/mt, standard ingot premium (Europe duty paid) 340 USD/mt, PAX 400 USD/mt, fuel oil 850 USD/mt, petroleum coke 385 USD/mt, pitch 865 EUR/mt, caustic soda 380 USD/mt, coal 90 USD/mt, gas (Henry Hub) 1.89 USD/MMBtu, USDNOK 10.74, BRLNOK 2.06, EURNOK 11.57
- 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
- 2024 Platts alumina index (PAX) exposure used
- Adjusted Net Income sensitivity calculated as AEBITDA sensitivity after 30% tax
- Sensitivities include strategic hedges for 2024 (remaining volumes for 2024, annualized)

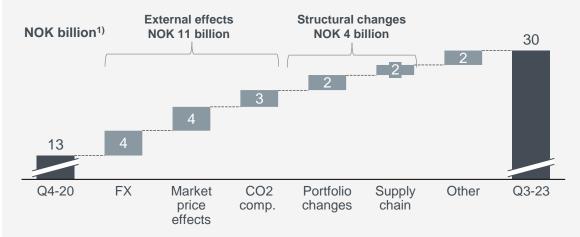
## Targeting stable Net Operating Capital in 2024

## $\frac{Net\ Operating\ Capital^{1)}}{_{NOK\ billion}}$

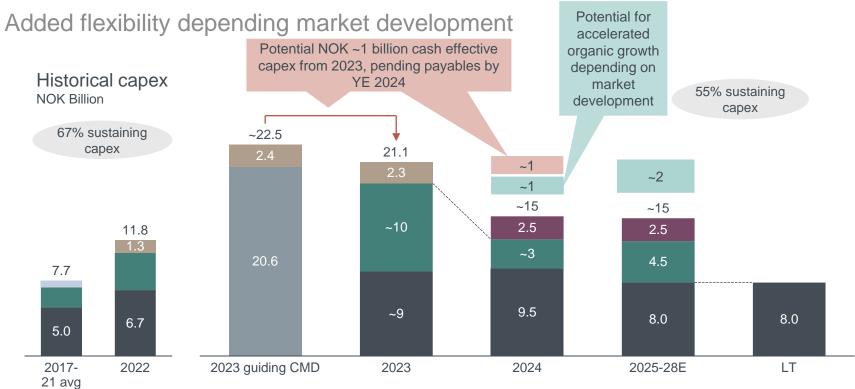


### Structural changes and market effects driving Net Operating Capital increase historically NOK 17 billion NOC increase since Q4-20 (until Q3-23)

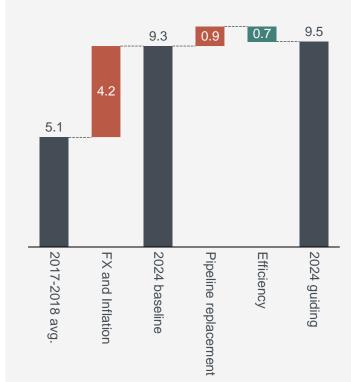
- Weakening reporting currency (NOK) (all BAs)
- Higher sales and raw material prices (all BAs)
- Introduction of CO2 compensation scheme (AM)
- Portfolio changes (AM, HE)
- Strategic supply chain changes (AM)
- M&A and growth
- Transitional inefficiencies due to restructuring and market volatility (AM, HE)



# Underlying 2024 capex in line with last year's guidance



Sustaining capex development NOK Billion



Rolling Growth and return-seeking capex

M&A Recycling

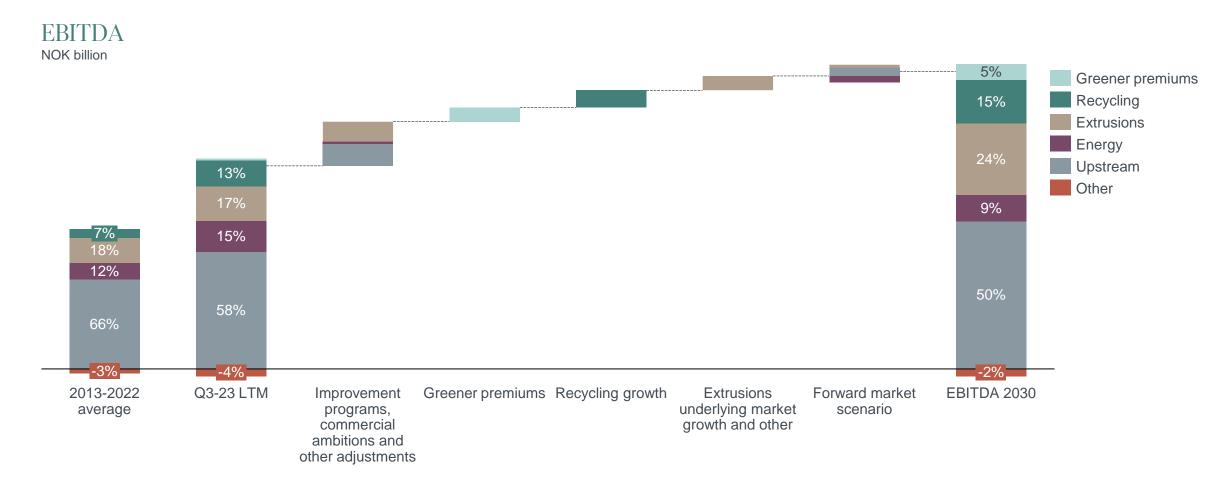
REIN (Macquarie share)

1) 24-26 average guiding

## Capital allocation increases earnings resilience



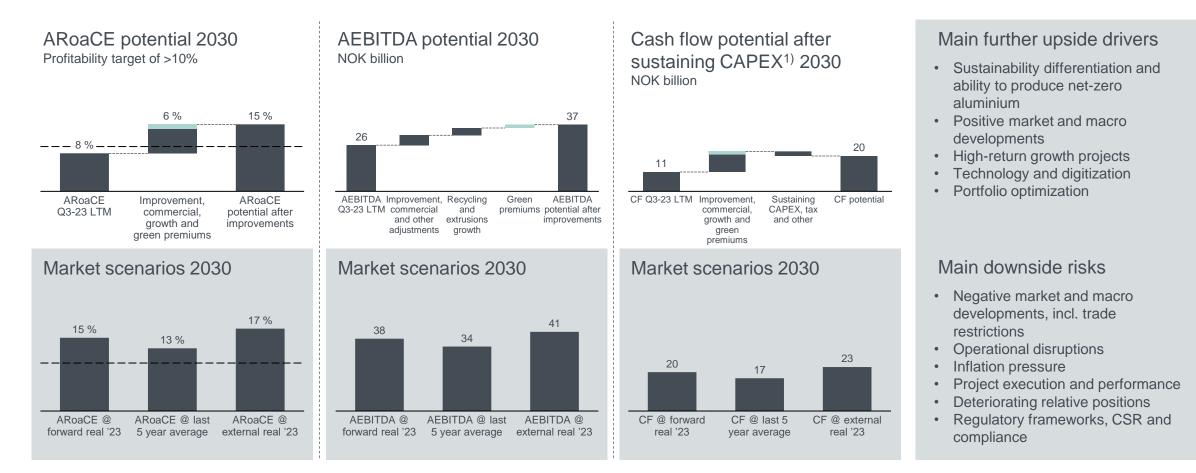
Extrusion and recycling margins, greener premiums growing as share of total earnings



## Hydro profitability growth roadmap

)))) Hydro

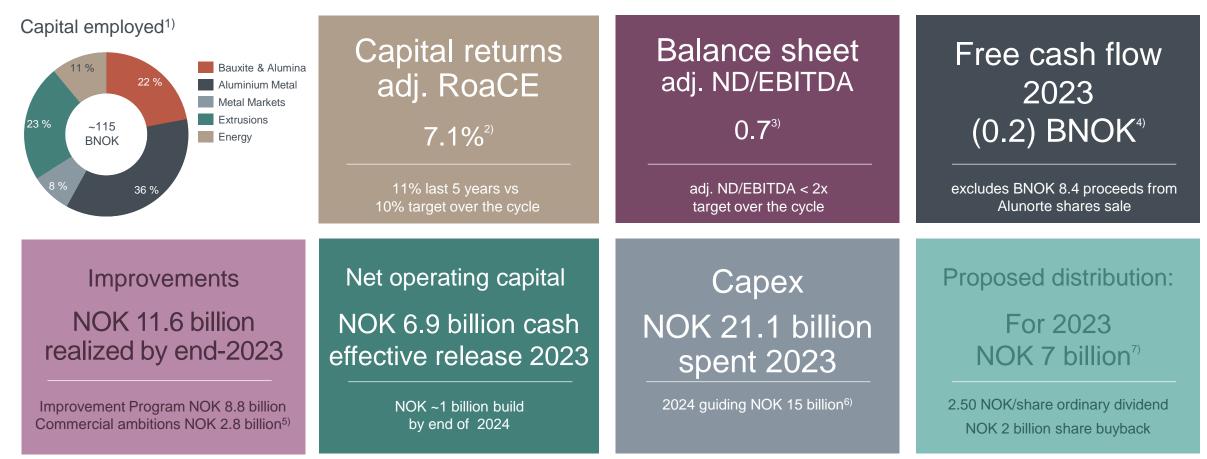
Main drivers - improvement efforts, growth and market development



Cash flow calculated as EBITDA + tax + long-term sustaining CAPEX + other (lease payments, interest expenses)
 Assumptions and sources behind the scenarios can be found in Additional information
 Sources: External scenario is based on CRU price and premium assumptions and S&P Global FX assumptions, with adjustments as specified in the footnotes

## Capital return dashboard 2023





- ) Graph excludes (2.7) BNOK in capital employed in Other & Eliminations
- 2) Adj. RoaCE calculated as adjusted EBIT last 4 quarters less underlying tax expense adjusted for 30% tax on financial items / average capital employed last 4 quarters
- 3) Average adjusted net debt last 4 quarters / total adjusted EBITDA last 4 quarters
- 4) Free cash flow operating cash flow excl. collateral and net purchases of money market funds, less investing cash flow excl. sales/purchases of short-term investments
- Including Energy commercial in scope, NOK 0.4 billion 2023

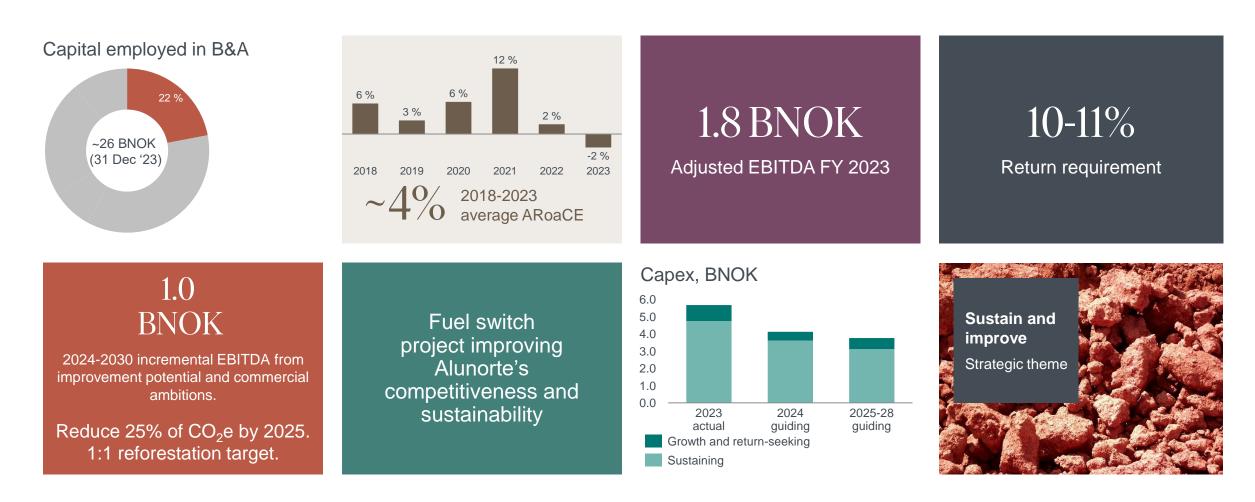
6) Excluding Hydro Rein. Potential for additional NOK ~1 billion accelerated organic growth depending on market development. Potential NOK ~1 billion cash effective capex payables from 2023 on top, pending payables by YE 2024

7) Pending approval from the AGM on May 7, 2024

5)

## Capital return dashboard for Bauxite & Alumina

Returns below the cost of capital reflecting challenging markets, embargo and operational issues during the early years

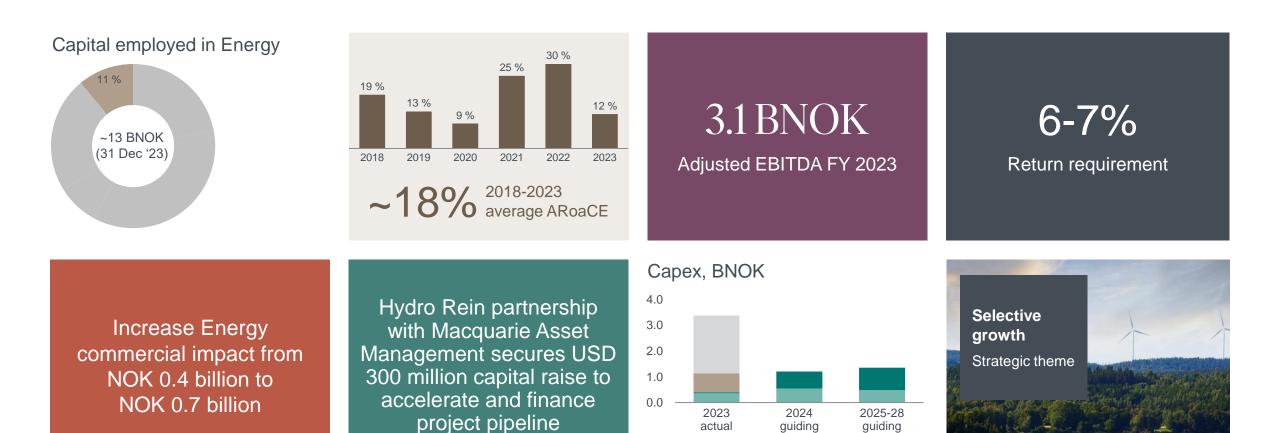




## Capital return dashboard for Energy

)))) Hydro

Returns above the cost of capital reflecting the depreciated asset base



REIN

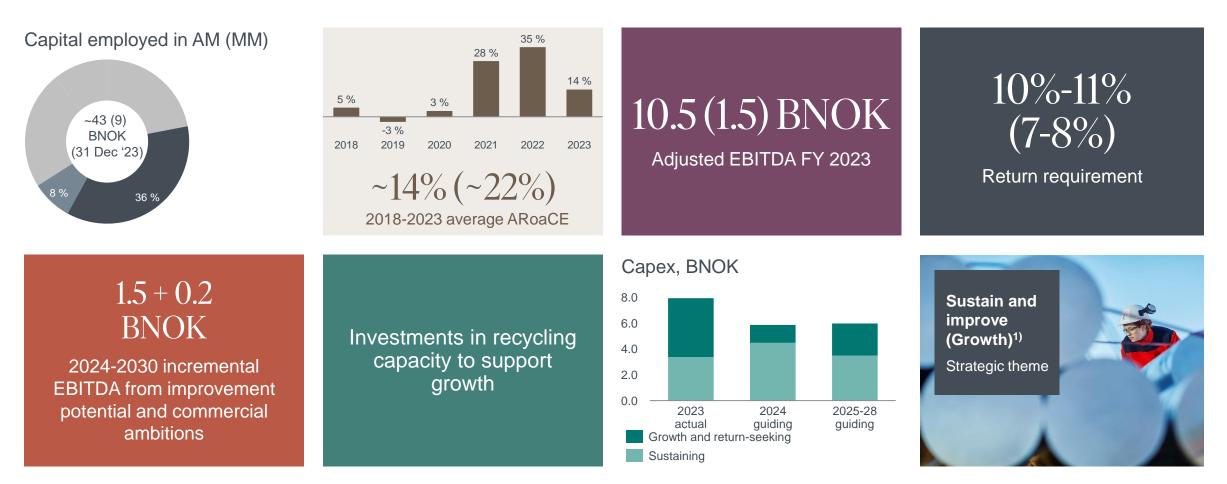
Batteries

Growth and return-seeking

Sustaining

# Capital return dashboard for Aluminium Metal & Metal Markets

Investments in recycling capacity to support growth

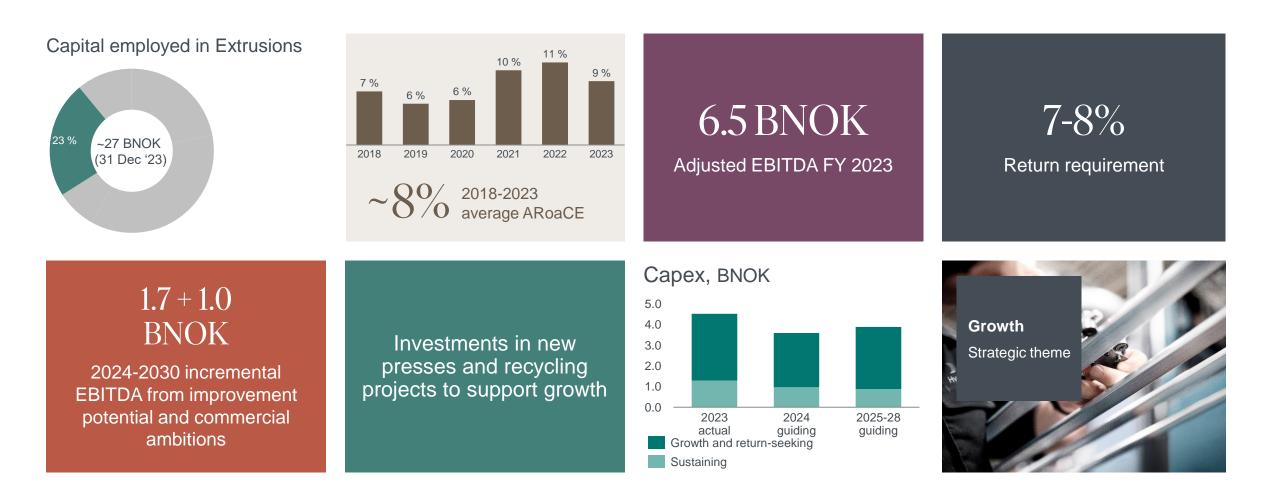


Hydro

## Capital return dashboard for Extrusions



Returns in line with the cost of capital reflecting leading market positions in high value segments and portfolio optimization

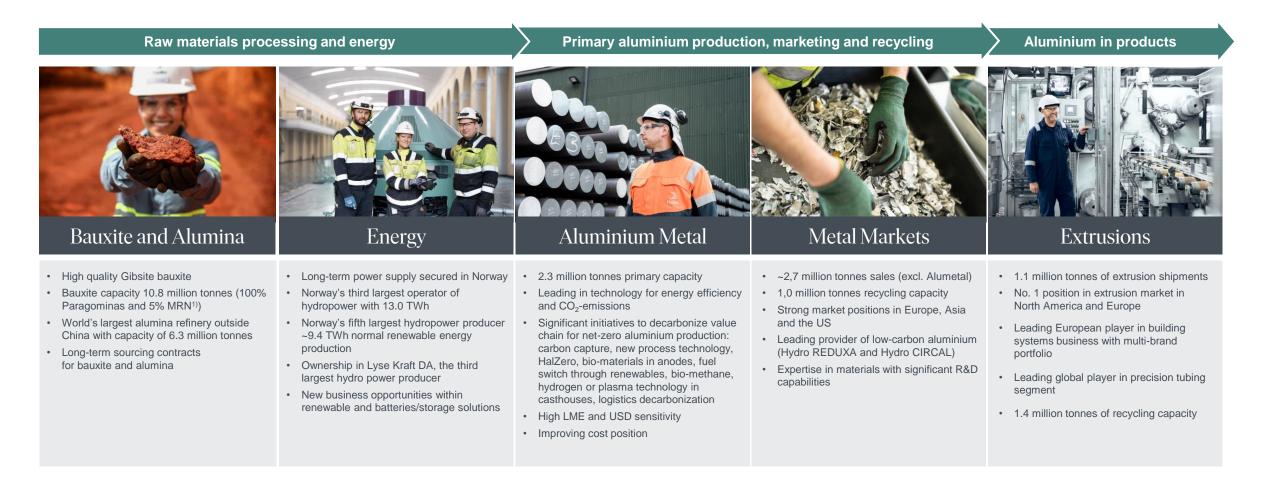




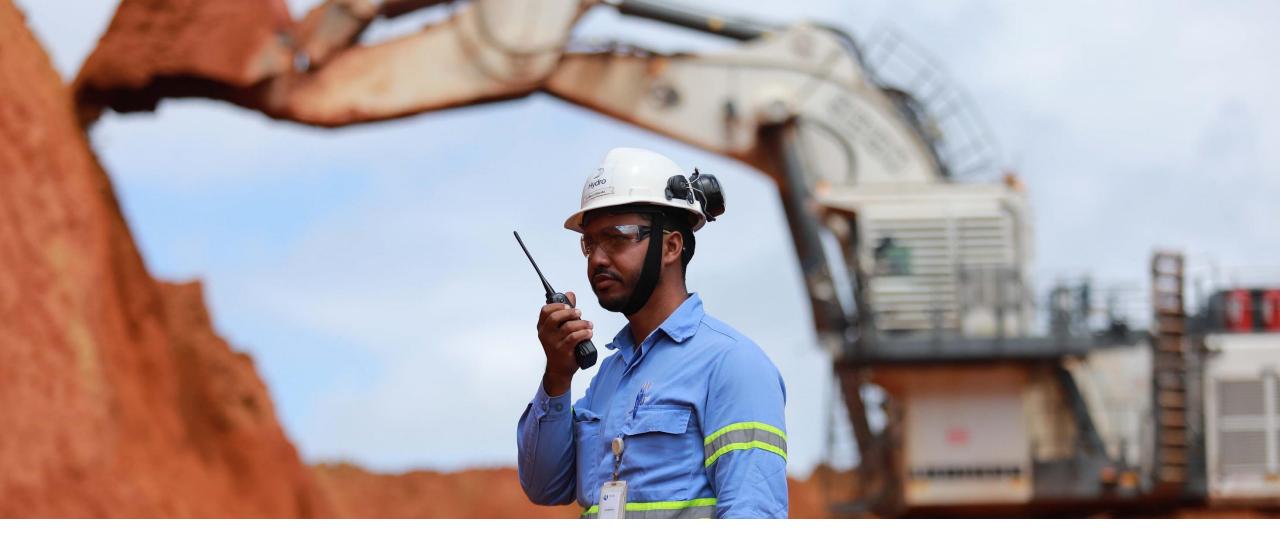
## <u>Appendix:</u> Business Areas

## The aluminium value chain

World class assets, high-end products and leading market positions



Hydro

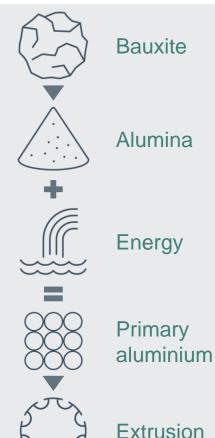


# Bauxite & Alumina

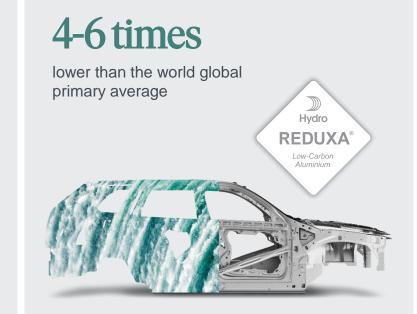
# B&A is an important enabler for low-carbon aluminium



Controlling the top of the value chain



the We can produce among the lowest carbon aluminium in the world



Guaranteeing an integrated supply chain that follows world class ESG practices Enabling greener premiums for our primary aluminium and extrusion products

# Hydro

WE ARE FOCUSED ON IET CARBON-NEUTRALITY BY 2039 throughout our entire value chain



Hydro has the highest quality, lowest carbon and most sustainable Alumina in the world allowing us to demand a greener premium from our top customers

#### By 2025 B&A will deliver:

- + 1<sup>st</sup> Decile Energy usage
- + 1<sup>st</sup> Decile Emissions
- + Best Practice Tailings Management
- + Best Practice Residue Management
- + Best Practice Reforestation
- + Best Practice Social Investment
- Best Practice Community Engagement
- = Global EPD + greener premium

# Industry frontrunner with robust operations



B&A have developed a more robust operation, but current market environment is challenging

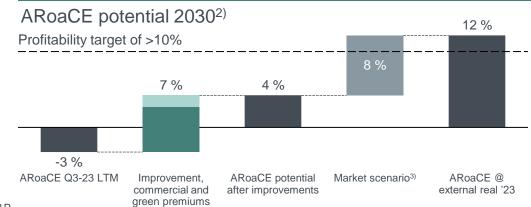
### Improved operations

- Nameplate production at Alunorte/ Paragominas for the last 3 years
- Greatly improved asset integrity leading to the first award of ISO55001 to a refinery and to a bauxite mine
- Complete rebuild of the water management systems to reflect the changing climate/rainfall levels
- Successful deployment of the press filters
- Development and deployment of tailings dry backfill
- Strengthened key relationships both in the government and local communities
- Rebalancing alumina portfolio (Glencore deal) to reflect internal Alumina needs, returning cash to Hydro
- All while delivering some of the highest quality alumina in the world

### Competitive cost position



### Roadmap to profitability in market scenario

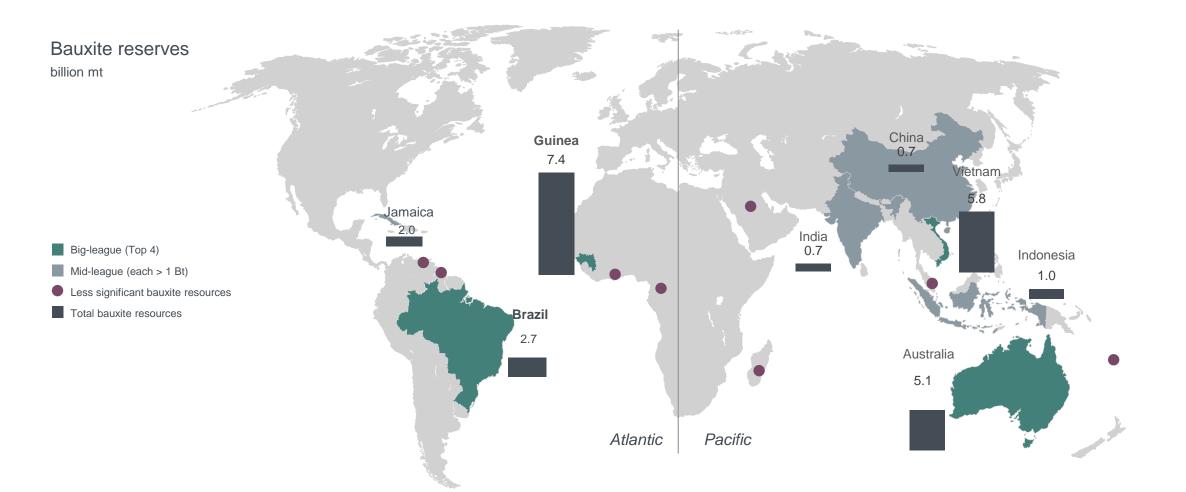


<sup>1)</sup> CRU 2023 cost curve. 2) Cash flow calculated as EBITDA + tax + long-term sustaining CAPEX. Assumptions and sources behind the scenarios can be found in Additional information. 3) Sources: External scenario is based on CRU price and premium assumptions and S&P Global FX assumptions, with adjustments as specified in the footnotes

## Large and concentrated bauxite reserves



Guinea stands out as a long-term source



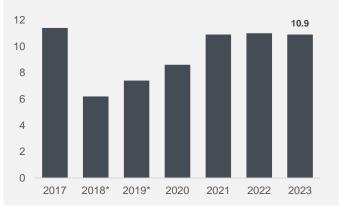
## Bauxite and alumina cluster in Para, Brazil



Paragominas bauxite mine



Bauxite production, mt (100% ownership, nameplate capacity 9.9mt)

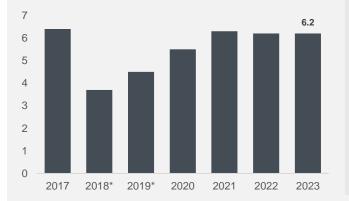


- Long-life resource
- Bauxite transported by pipeline
- Pioneering "tailing dry backfill" method for waste management

#### Alunorte alumina refinery



Alumina production, mt (62% ownership, nameplate capacity 6.3mt)



World's largest alumina refinery outside China

- Bauxite supplied from Paragominas and MRN
- World-class conversion cost position
- State-of-the-art press filter tech to process bauxite residue
- Enhancing plant robustness to prepare for extreme weather events

#### Bauxite licenses

#### Refining and mining competencies

External supply contracts

## Sales contract portfolio

# Hydro and Glencore partnering up to further develop Alunorte

The sale is

an important

step to

deliver on

Hydro's

2025

strategy

### Hydro balances its alumina portfolio after agreement with Glencore<sup>1)</sup>

- Hydro has sold 30% of Alunorte and 5% ownership in MRN to Glencore
- Glencore acquired an additional 40% of MRN, currently owned by Vale. This stake will be acquired by Hydro from Vale and immediately sold to Glencore on a back-to-back basis.
- The transaction has an *enterprise value of USD 1.15 billion* (including ARO).
- Net debt at Alunorte as of 31 March 2023 was USD 375 million

• Proceeds used for strategic growth investments in line with Hydro's 2025 strategy and shareholder distribution

- Alunorte is a core strategic asset, however <u>equity alumina production</u> <u>will be more balanced</u>
- Continue to reduce emissions from Alunorte through fuel switch project and electrification of coal boilers, <u>targeting first decile position on global</u> <u>carbon curve by 2025</u>
- <u>Strong commitment to continue</u> <u>development of social projects</u> to improve the lives and livelihoods in nearby communities



- Location: Barcarena, state of Pará, Brazil
- Annual capacity: 6.3 mt/year
- Employees: 7 900<sup>1)</sup>
- Pre transaction ownership: **92%**
- Post transaction ownership: 62%



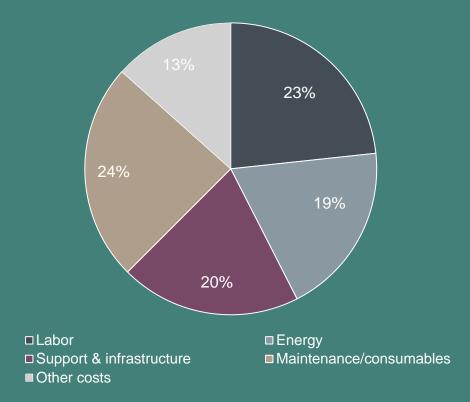
- Location: Oriximiná-PA, Brazil
- Annual capacity: **12.5mt /year**
- Employees: 5 200<sup>2)</sup>
- Pre transaction ownership: 5%
- Post transaction ownership: 0%

2) Includes contractors

# Bauxite operational mining costs in Paragominas

- Labor cost
  - Influenced by Brazilian wage level
- Energy cost
  - Refers to power and fuel cost
- Maintenance and consumables
  - Mainly influenced by Brazilian inflation
- Large fixed cost base (labor and maintenance) participation

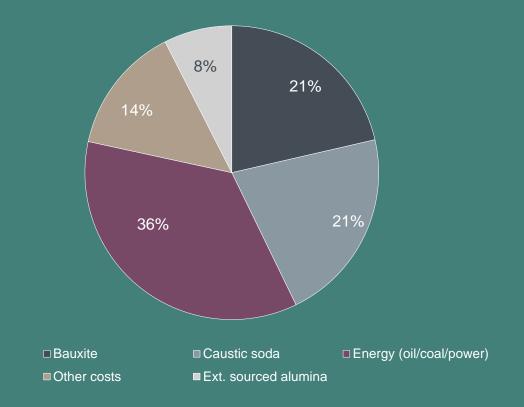
### Indicative Paragominas bauxite mining costs



# Favorable integrated alumina cost position

- Implied alumina cost 2023 USD 340 per mt<sup>1)</sup>
  - Alunorte, Paragominas and external alumina sourcing for resale
- Bauxite
  - Internal bauxite from Paragominas at cost, sourced bauxite from MRN
- Energy
  - · Energy mix of heavy fuel oil, coal and electric power
- Caustic soda
  - Competitive caustic soda consumption due to bauxite quality
  - Competitive caustic soda sourcing contracts
- Other costs
  - Maintenance, labor and services

### Indicative implied alumina cost composition



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

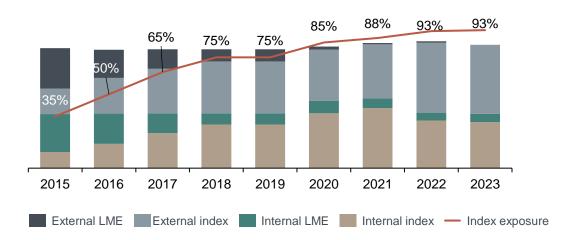
# Strong commercial organization maximizing the value of B&A assets



- 4.0-4.5<sup>2)</sup> million mt of external alumina sourced annually
- Long term off-take agreement with Rio Tinto
  - ~900 000 mt annually from Yarwun refinery
- Short and medium-term contracts
  - · To balance and optimize position geographically
  - Various pricing mechanisms
    - Older contracts linked to LME
    - New medium to long term contracts mostly index
    - Fixed USD per mt for spot contracts on index

#### Long positions in alumina

- Pricing should reflect alumina market fundamentals
- Selling 3-4 million mt per year of alumina externally
  - Index pricing<sup>1)</sup> (the new norm) and short to medium-term contracts
  - New contracts: 100% sold on index, except hydrate and short-term contracts, normal terms 1-3 years
  - Legacy LME-linked contracts: priced at ~14% of LME 3M



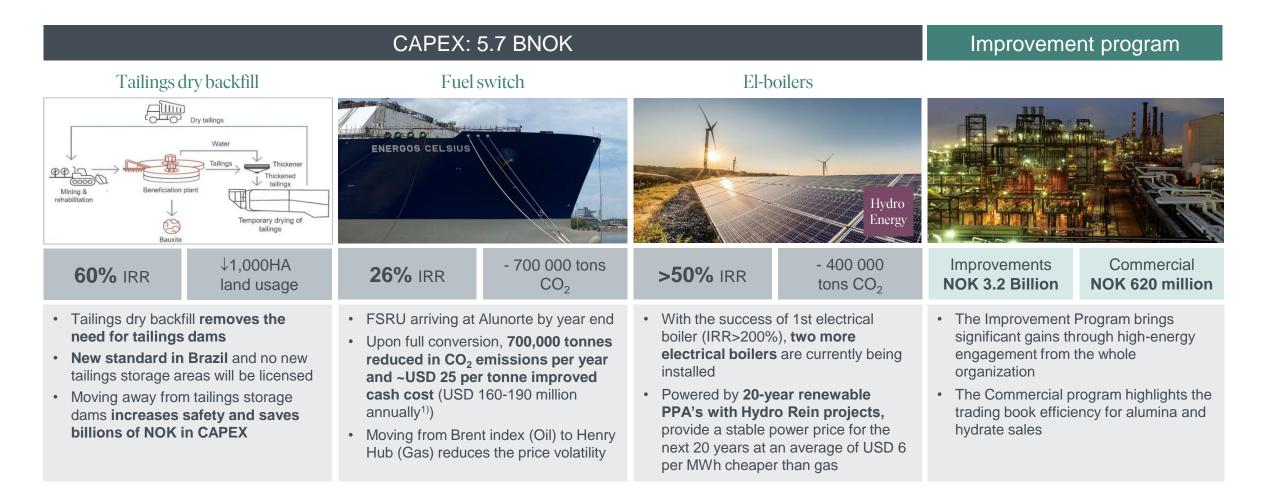
<sup>1)</sup> Rounded figures. Indicating volumes available for index pricing. Includes minority sales priced at % of LME with floor. Based on annual sourced volumes of around 2.5 mill t, assuming normal production at Alunorte.

Hvdro

<sup>2)</sup> Including volumes repurchased from Glencore under the term of the sale of 30% equity in Alunorte

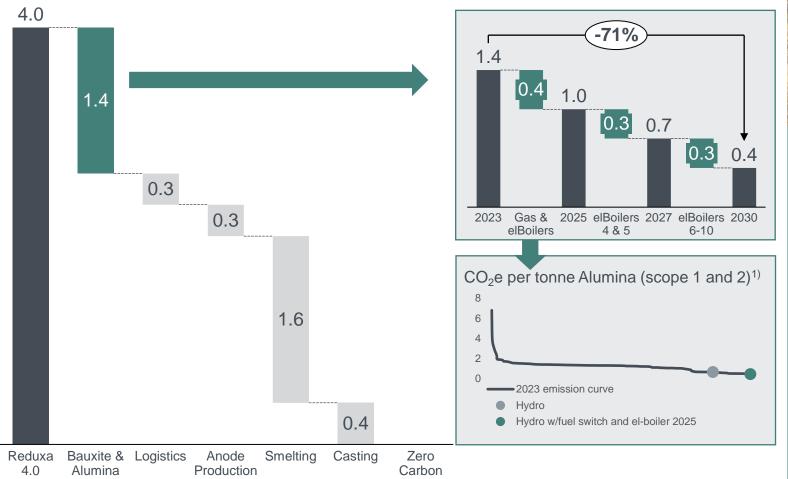
# Focus on driving profitability in a sustainable way





# Alunorte to reduce carbon 70% by 2030

## $CO_2 e$ emissions kg $CO_2$ /kgAl





- Already 1<sup>st</sup> Quartile emissions in 2023
- Fuel Switch and three el-boilers will move Alunorte to one of the lowest smelter grade Alumina available (project being executed)
- Further two el-boilers will remove the need to use coal by 2027
- An additional five el-boilers will give us the ability to produce steam without emissions





## Contributing to nature positive





### Reforestation

- **Best practice reforestation program** in Paragominas, exceeding 1-to-1 replanting on a strict a three-year cycle:
  - Year 1 = Deforestation
  - Year 2 = Mining
  - Year 3 = Reforestation
- Working together with multiple universities and researches
- Expanding the program and start rehabilitation outside of our mine, contributing towards Nature Positive



### Residue management

- Hydro is current best practice in Residue management averaging 0.7T of Residue per T of alumina
- Entered into an agreement with Wave Aluminium – creating the potential to extract up to 1 million tonnes of carbon free pig iron from residue each year
- The first phase of the treatment plant will go live in 2024 and will be capable of processing 50,000T of Residue

## Investing in the community is our license to operate





#### **Social Infrastructure**

- Construction of 9 Terpaz community centers (3 already built) targets security, income generation and access to basic services to 1,500 people per day
- Construction of a Technical School with the capacity to educate 1,200 students per year



#### **Community Projects**

- Investment in community-based projects benefitted 80 thousand people since 2018
- 60 thousand people with access to education
- 1,400 family farmers with access to technical support



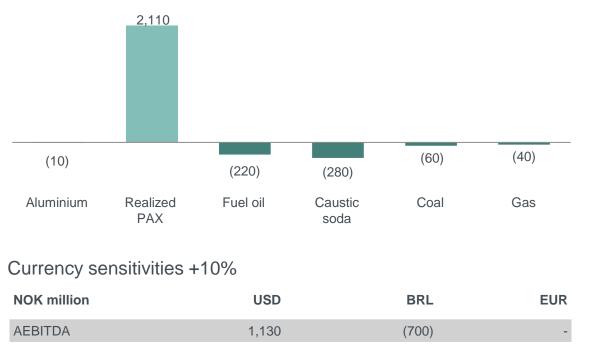
#### **Stakeholder Engagement**

- Transparency, dialogue and volunteer work are performed by a dedicated team
- 178 community leaders are involved in a dialogue forum called Sustainable Barcarena Initiative
- 500 volunteers worked to benefit 14 thousand people and 70 local organizations

## Bauxite & Alumina sensitivities



## Annual sensitivities on adjusted EBITDA if +10% in price NOK million



#### Revenue impact

• 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

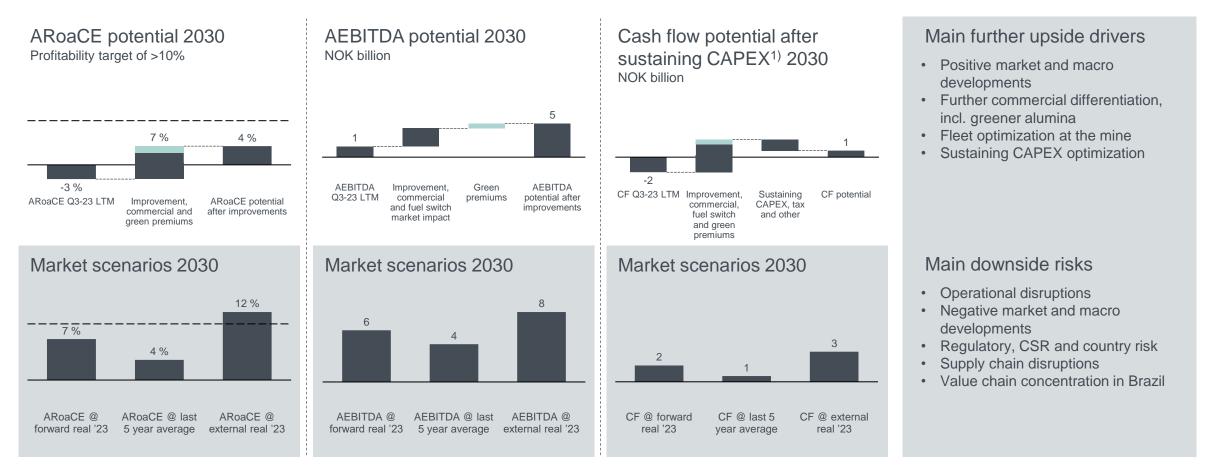
#### Energy

- ~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)

Annual adjusted sensitivities based on normal annual business volumes. LME 2,380 USD/mt, standard ingot premium (Europe duty paid) 340 USD/mt, PAX 400 USD/mt, fuel oil 850 USD/mt, petroleum coke 385 USD/mt, pitch 865 EUR/mt, caustic soda 380 USD/mt, coal 90 USD/mt, gas (Henry Hub) 1.89 USD/MMBtu, USDNOK 10.74, BRLNOK 2.06, EURNOK 11.57 BRL sensitivity calculated on a long-term basis with fuel oil assumed in USD. In the short-term, fuel oil is BRL denominated. 2024 Platts alumina index (PAX) exposure used

# Bauxite & Alumina profitability growth roadmap

Main drivers – fuel switch, commercial differentiation and market development



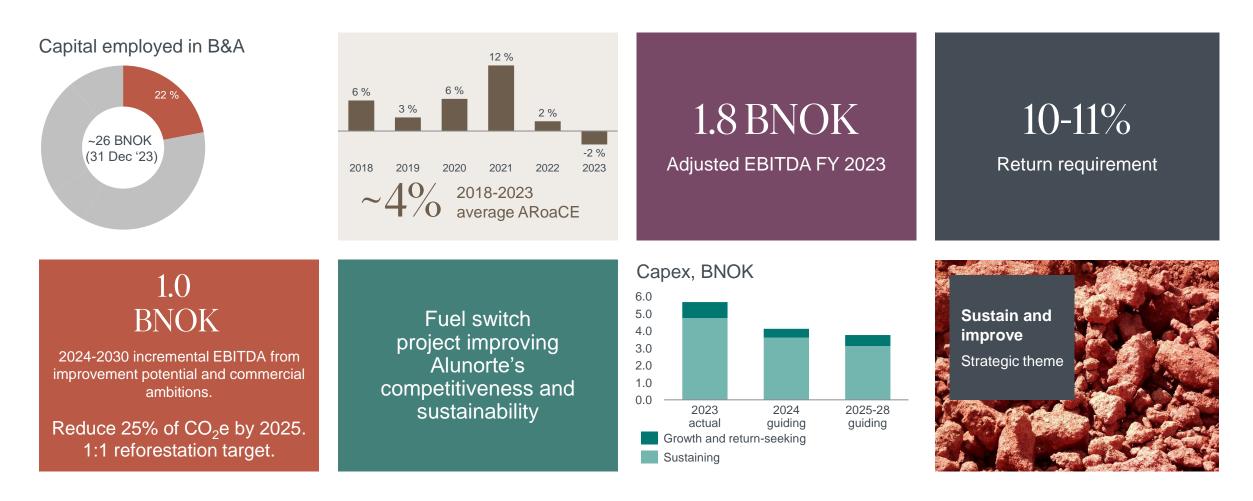
Assumptions and sources behind the scenarios can be found in Additional information

Sources: External scenario is based on CRU price and premium assumptions and S&P Global FX assumptions, with adjustments as specified in the footnotes

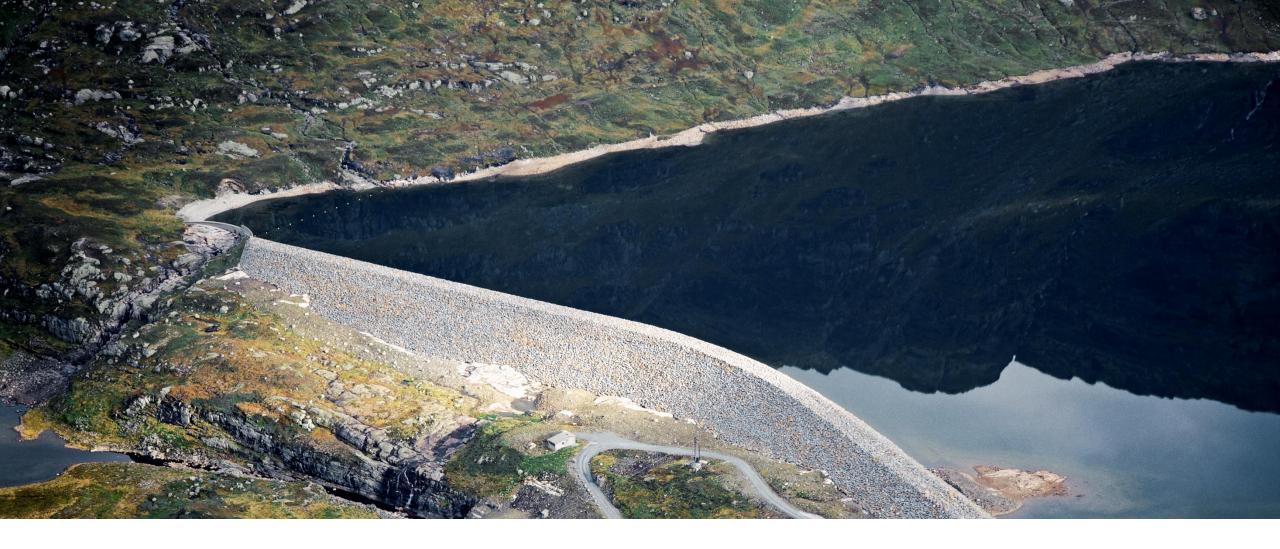
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# Capital return dashboard for Bauxite & Alumina

Returns below the cost of capital reflecting challenging markets, embargo and operational issues during the early years

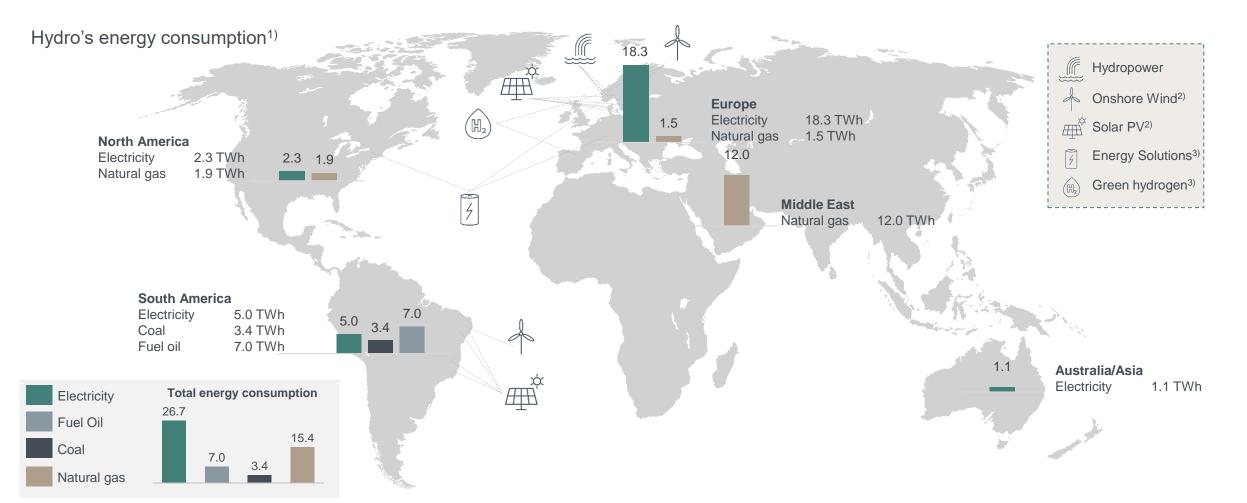


Hydro



# Energy

# Pioneering the green aluminium transition, powered by renewable energy



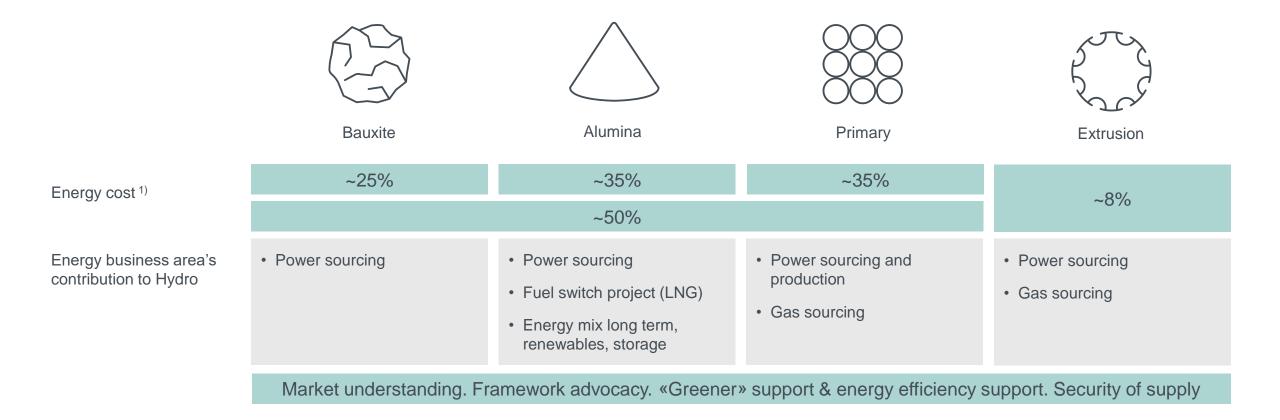
Based on equity-adjusted 2022 values for Norsk Hydro's bauxite mines, alumina refineries, smelters, remelters and extrusion plants.
 Only projects in operation and under construction or announced.
 Only projects

**Hydro** 

# Energy is a key differentiator in the aluminium industry



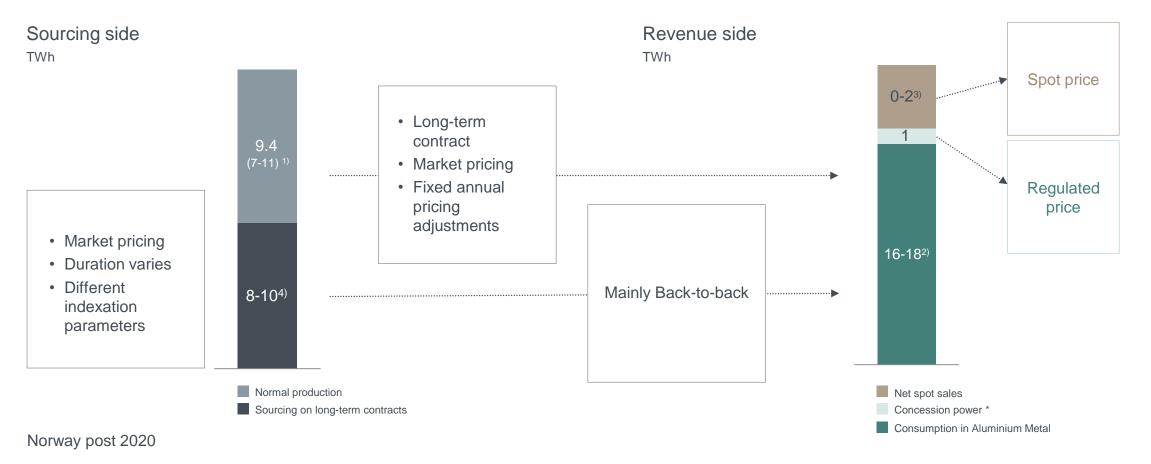
Center of energy excellence in Hydro



# Market pricing principle applied to internal contracts



Based on external price references



1) Depending on the precipitation level, hydropower production may vary from 7 TWh in a dry year to 11 TWh in a wet year

2) Consumption in AM at current production levels and at full installed capacity

3) Net spot sales vary depending on the power production level and internal consumption in AM

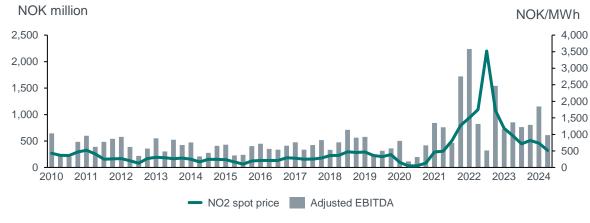
4) Depending on status of sourcing

# Energy EBITDA development





Adjusted EBITDA and NO2 spot price



- Production and market prices strongly linked to hydrological conditions
- Seasonal market variations in demand and supply. Gains or losses may occur from delink between area prices arising due to transmission capacity limitations in the Nordic area
- Power portfolio optimized versus market
- Lift in annual EBITDA contribution from 2021
  - Positive impact from expiry of legacy supply contract from 2021
  - 8 TWh internal contract for power sales to Aluminium Metal in Norway effective from 2021-30
- Stable and competitive production cost base:
  - · Mainly fixed costs
  - Volume-related transmission costs
- Maturing portfolio growth options; emphasis on flexible production & selected geographies

# Norwegian power market surplus in question

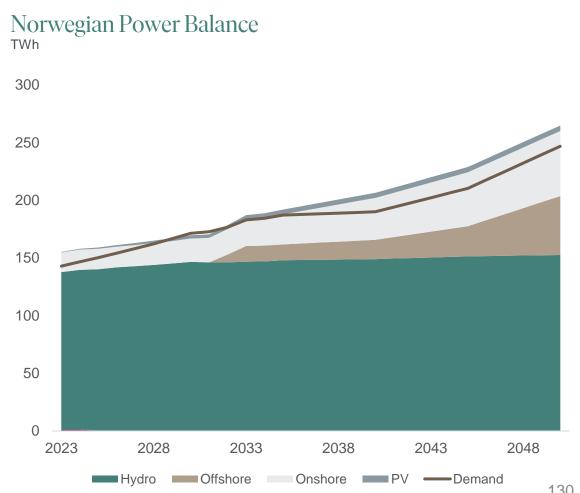
Public opposition to onshore wind parks limiting the effect of attractive renewable resources

Market uncertainty prevails

Power market balance weakening (short-medium term)

Demand from electrification and new industries outpaces supply in the short end

Lack of certainty regarding timing of new offshore wind areas



130

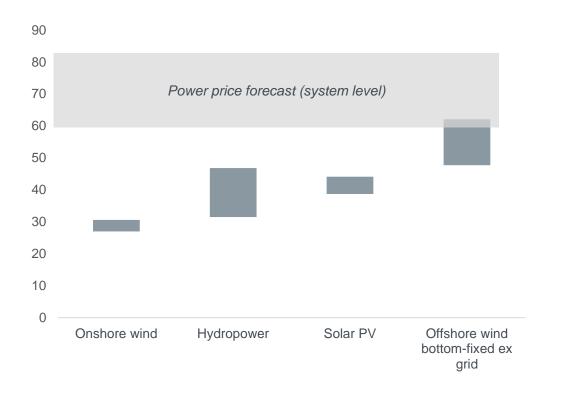
Hydro

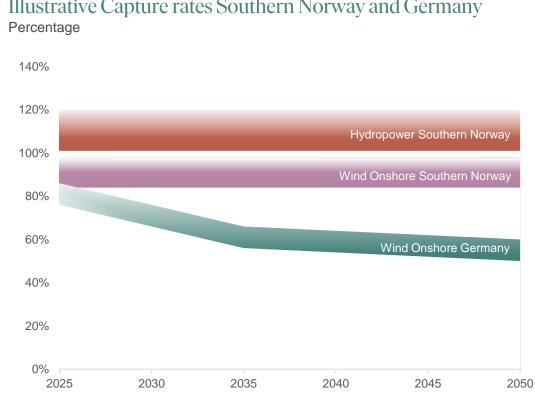
## Norwegian power projects remain attractive



Attractive resource base and cost level, and onshore wind is enabler for renewables at low shaping cost

#### Range of LCOE and Nordic System price to 2030<sup>1)</sup> 2023 EUR per MWh





## Illustrative Capture rates Southern Norway and Germany

#### \*For year 2022 and 2023

# Wind and hydropower interplay is key for future system

12000

NO2 Week 6 2023 ■ Hydro power ■ Wind power 12000 10000 8000 MWh/h 6000 4000 2000 0 6/ feb. 7/ feb. 8/ feb. 9/ feb. 10/ feb. 11/ feb. 12/ feb. Hours

Hourly Total

Share of wind production in NO2 is currently 10-12 %\*

Flexible hydropower production adjusts according to intermittent wind production

6/ feb. 7/ feb. 8/ feb. 9/ feb. 10/ feb. 11/ feb. 12/ feb.

Hours

Hourly per source

NO2 Week 6 2023

-Hydro (LHS) -Wind (RHS)

1600

1400

1000

800

600

400

200

0

MWI 1200



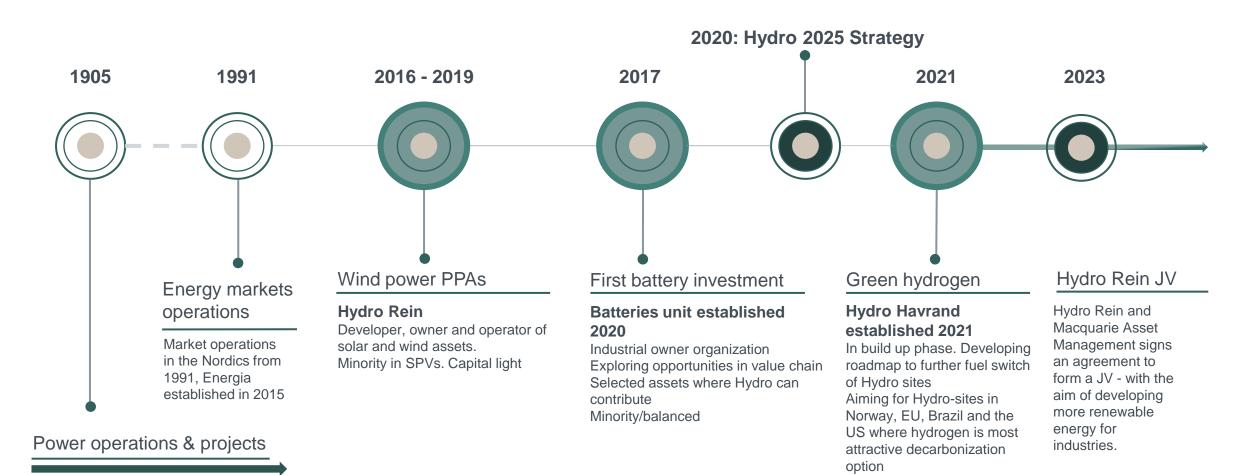
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# Pursuing growth opportunities at different stages

Realizing value potential



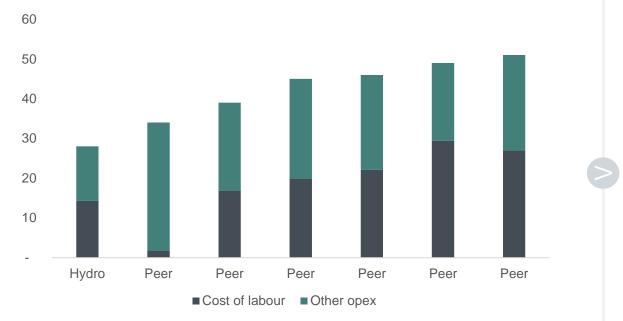
#### 133



# Energy: Strong production platform, market performance and growth opportunities



## Resource spend Norwegian hydropower players 2022 NOK per MWh



#### Industry leader on cost and operational performance

### Strong platform for value creation

- EBITDA "platform" from operations
  - 8 TWh on long term contracts (predictable prices)
     + 2 TWh (average) net long spot volume in merchant market
  - App. NOK 3.5 billion LTM adjusted with normal production and no area price gain<sup>1)</sup>
- Commercial contribution of app. NOK 400
   million (average last years) comes in addition
- Maturing portfolio growth options; emphasis on flexible production and selected geographies

# Energy assets and unique competence drive value creation across Hydro



Strong platform for production, sourcing and advisory

L

**Operations and projects:** HSE excellence, operating 40 power plants across Norway (hydropower and wind). Large scale project execution across new units and Hydro



**Commercialize positions:** PPA originator, from "as produced" to PPA profile, highly competitive sourcing and optimal energy solutions

<u>₹</u>

**Market, grid & regulatory insight:** Strong market presence and insight, monitoring regulatory initiatives across Norway, the EU and Brazil. Grid and infrastructure development

## Decarbonizing Hydro and external industries

Decarbonizing Hydro

- Power sourcing, managing and matching profiles and consumptions
- Hydro Rein offering renewable power and energy solutions
- Hydro Havrand replacing fossil fuels with green hydrogen
- Hydrovolt delivering post consumer aluminium scrap from used EV batteries

Decarbonizing industries

- Investing in renewables in the Nordics, Europe and Brazil and PPAs to external customers
- Battery materials investments focused on reduced CO<sub>2</sub>footprint from LCA<sup>1</sup> perspective
- Green hydrogen to fuel switch industries and transport

# Position and capabilities across entire value chain

Major renewable energy producer, market player and offtaker

#### **In Operation**

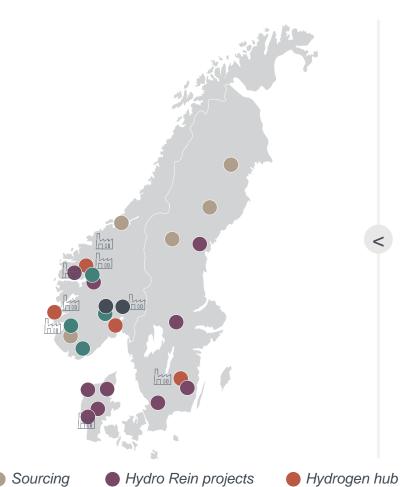
Hydropower in Norway (equity): 9.4 TWh Hydropower in Norway (operator): 13 TWh Wind power in Norway (operator): 0.7 TWh

#### Sourcing

Hydropower in the Nordics: 6 TWh Wind power in the Nordics: 4.2 TWh\*

#### Hydro Rein projects under development

Wind power in the Nordics: 4.4 TWh Solar power in the Nordics: 1.1 TWh



#### Offtake Aluminium Metal

Norwegian smelters: 17 TWh

#### **Offtake Extrusions**

Industrial offtake

Selected Extrusion plants: 0.1 TWh

#### **Potential offtake Batteries**

Potential sites portfolio companies: 1 TWh

#### Potential offtake green Hydrogen

Hydrogen hubs at selected strategic sites

\* Sourcing volumes in 2023/2024 affected by disrupted delivery of volume from a long-term power purchase agreement in the northern part of the Nord Pool area.

Equity power

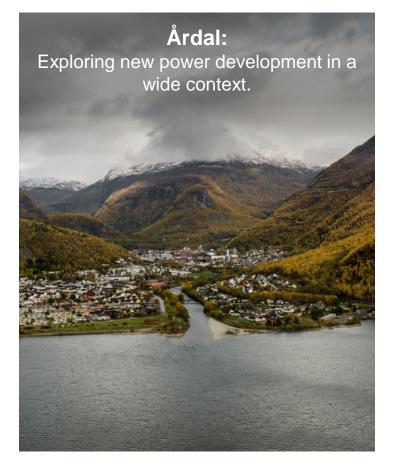
Market operations

# Status for Hydro's wind projects in Western Norway



Pursuing opportunities to develop and source power to industry





Other locations: Actively exploring opportunities for new power development close to Hydro's aluminium smelters.



# Value creation across the energy space going forward

High performance and profitability ambitions: Energy Classic ROACE > 15% Hydro Rein JV platform annual eIRR 10 – 20 % Batteries 3x invested capital, 20% TSR average annually

2

Grow value of our Norwegian portfolio through upgrading of existing hydropower plants. Increase commercial ambitions in market operations

3

Develop Hydro Rein to become the preferred supplier of renewable energy solutions to industrial customers in core markets - and a key enabler for decarbonization of Hydro



Support Hydro across business areas and geographies with fuel switch solutions including green hydrogen



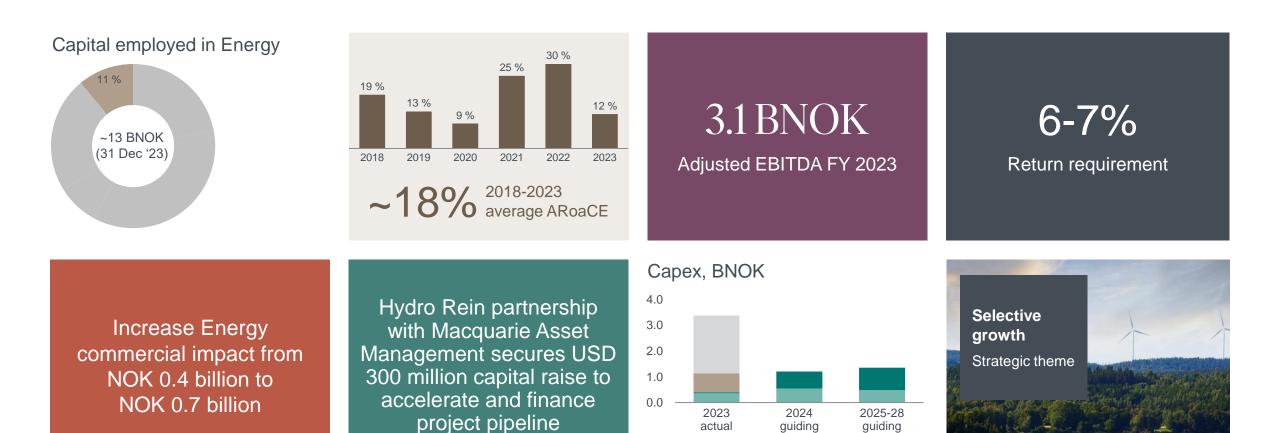
Develop our portfolio of assets delivering more sustainable battery materials, empowering the future of green mobility



# Capital return dashboard for Energy

)))) Hydro

Returns above the cost of capital reflecting the depreciated asset base



REIN

Batteries

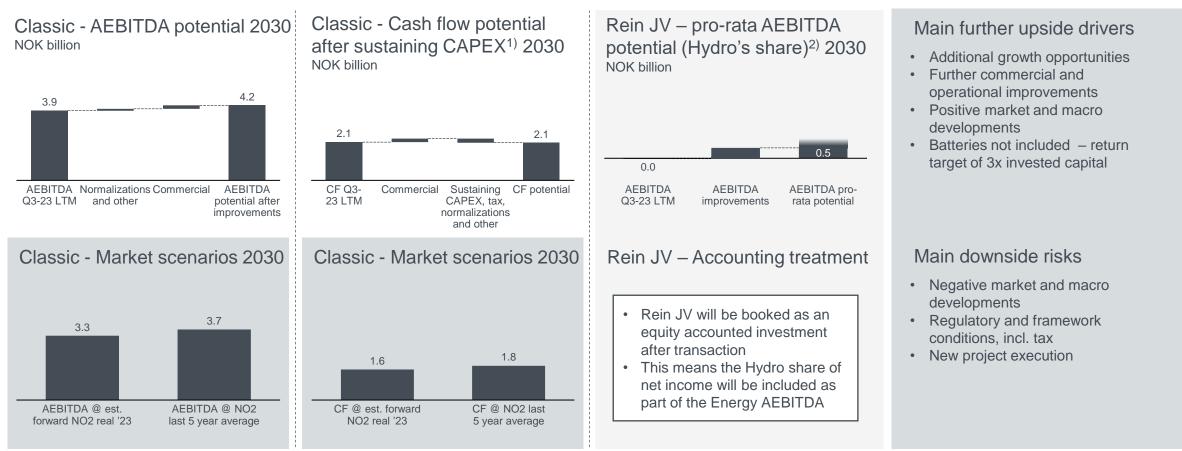
Growth and return-seeking

Sustaining

# Energy profitability growth roadmap



Main drivers – Net spot sales volume and market development



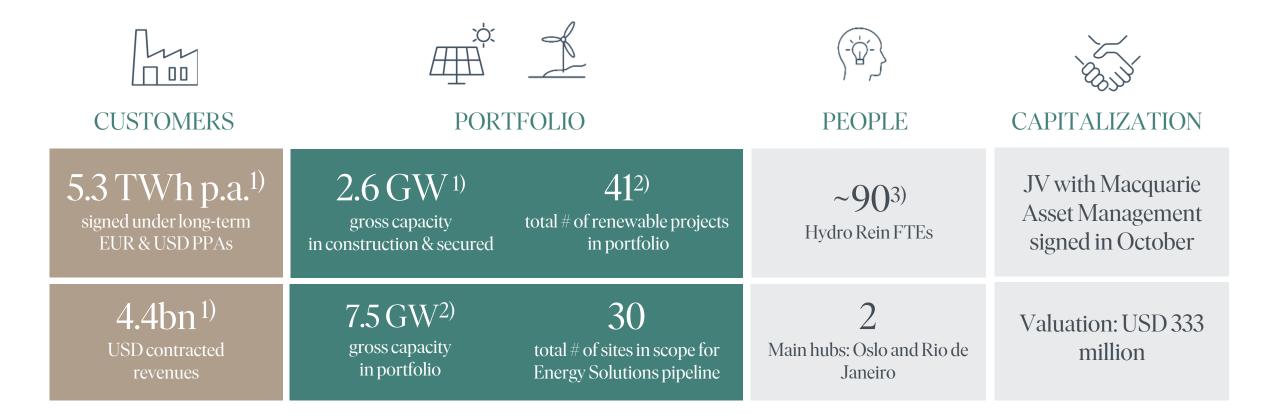
Note: Classic excluding growth from new energy areas

1) Cash flow calculated as EBITDA + tax + long-term sustaining CAPEX

2) EBITDA from assets. S&GA at JV-level not included

Assumptions and sources behind the scenarios can be found in Additional information

# Hydro Rein's journey: Fast-tracking portfolio development



Status as of January 2024

1) Including Vista Alegre.

2) Total portfolio incl. wind projects in Western Norway

3) Including new contracted employees not yet started

**Hydro** 

# Portfolio overview: Renewable energy projects in the Nordics and Brazil



	Project	Country	Price area	Technology	# Projects	Ownership (%)	) Partner(s)	Gross capacity (MW)	Production (GWh)	FID	COD
Under Construction	Stor-Skälsjön	-	SE2	Å	1	25%	MEAG	260	807	2021	2024
	Ventos de São Zacarias		Northeast	<u> </u>	1	49.9%	Green Investment Group	456	1,957	2022	2024
	Mendubim		Northeast		1	33.3%	Scatec equinor	531	1,227	2022	2024
	Boa Sorte		Southeast	ф.	1	30%		438	964	2022	2024
SECURED	Vista Alegre <sup>2</sup>		Southeast		1	30%		902	2,102	2024	2025
PIPELINE <sup>1</sup>	Geisli Energi		NO1/NO2	1	Up to 16	49.9%	Opplysningsvesenets fond	Up to 655	730	2027+	2028+
	Snøheia		NO3	×	1	35% <sup>3</sup>		300	1,000	TBD	TBD
	Årdal		NO5	TBD	1	TBD	Årdal Energi	TBD	TBD	TBD	TBD
	SE3/SE4 portfolio		SE3/SE4	<u> </u>	9	50%	Solus	672	2,000	2028-29	2030-31
	<b>S140</b> & <b>S148</b> (Kalmar & Skåne län)		SE4	<i>Æ</i> ∰ <sup>☆</sup>	2	100%	N/A	118	143	2027	2028
	<b>M36</b> & <b>M108</b> (Jylland)		DK1	ф.	2	50%	COMMERZ REAL 스	362	412	2025-27	2027-28
	M93A (Tønder)		DK1	Щ <sup>х</sup> ́	1	100%	N/A	114	145	2025	2027
	M98 (Randers)		DK1	Å.	1	100%	N/A	296	374	2026	2027
	Fótons de Santa Conceição		Northeast		1	49.9%	Green Investment Group	133	290	2024	2026

Notes: (1) Excludes Irupé project, an early stage floating solar PV project in Brazil with up to 2 GW potential (2) Rein has secured an option to enter the project (3) Owned 100% through Hydro Energi, development services by Hydro Rein

Conshore wind 142

∰ Solar PV

# Current portfolio adds 2.4 TWh to Rein's captive power<sup>1)</sup>



1.7 GW gross, approximately USD 1.8 billion gross

### Renewable energy

Gross GW



Projects under construction



Status as of January 2024

1) Projects in construction and secured.

2) Total portfolio within JV scope, including Irupé.

3) Hydro Rein's ownership before farmdown to offtakers

# Hydro Rein on track to becoming preferred supplier of renewable energy solutions to industrials



2026 Targets communicated at Hydro's Capital Markets Day 2022

**3 GW** Gross portfolio in operation and construction >500 MW added gross capacity to pipeline on average annually

e to e Estimated EBITDA contribution from projects in construction

### Key numbers<sup>1</sup>): portfolio under construction – as of Q3 2023

1.7 GW<br/>Gross portfolio in<br/>operation and<br/>construction~3 BNOK<br/>Estimated pro-rata<br/>Equity Capex (net of<br/>agreed farm-downs)~410 MNOK<br/>Estimated pro-rata<br/>EBITDA2) from projects<br/>in construction1.5 GW<br/>Gross capacity added to<br/>the pipeline in 2023YTDGross capacity added to<br/>the pipeline in 2023YTD

2030 vision of continued profitable growth

Sustainable & attractive risk-adjusted returns 10-20% platform eIRR

#### **Balanced portfolio**

Between geographies and technologies

#### Services and capabilities

Covering the full value chain, capturing developer margin

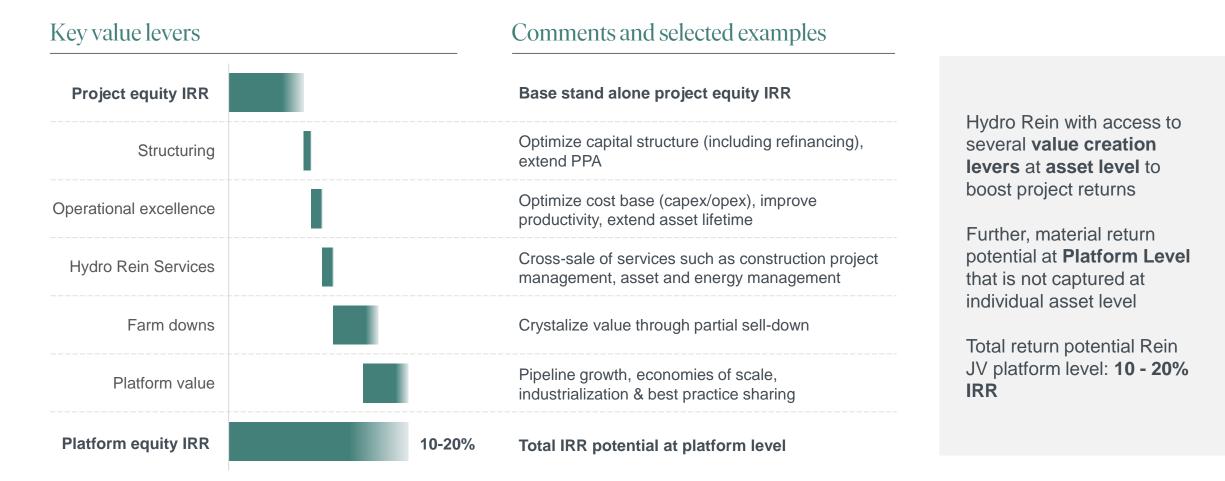
#### **Regional leadership**

REIN being one of the leading players in core geographies

### Multiple value levers to create attractive returns

)))) Hydro

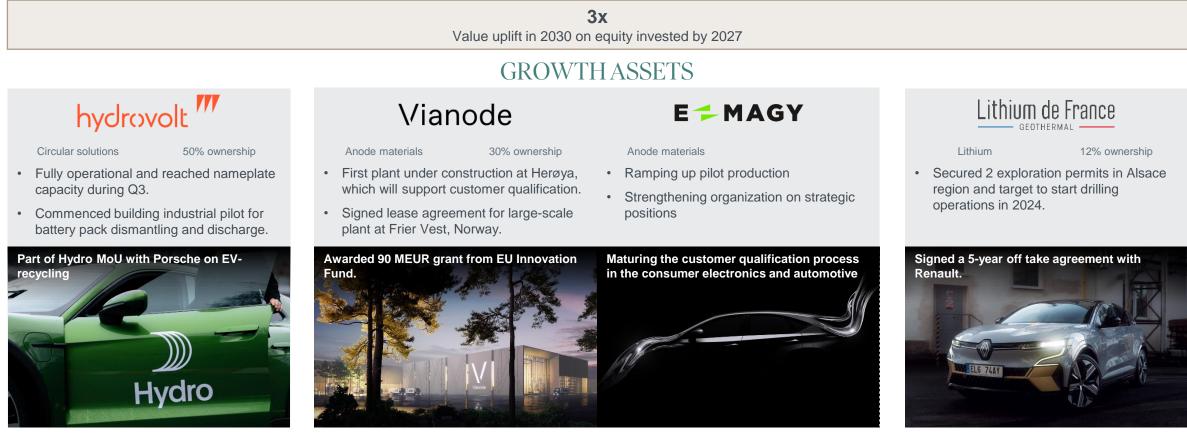
Value levers at project and platform level



## Empowering the future of green mobility

Progress in the sustainable battery materials portfolio throughout 2023

#### STRATEGIC TARGETS



PORTFOLIO HOLDINGS

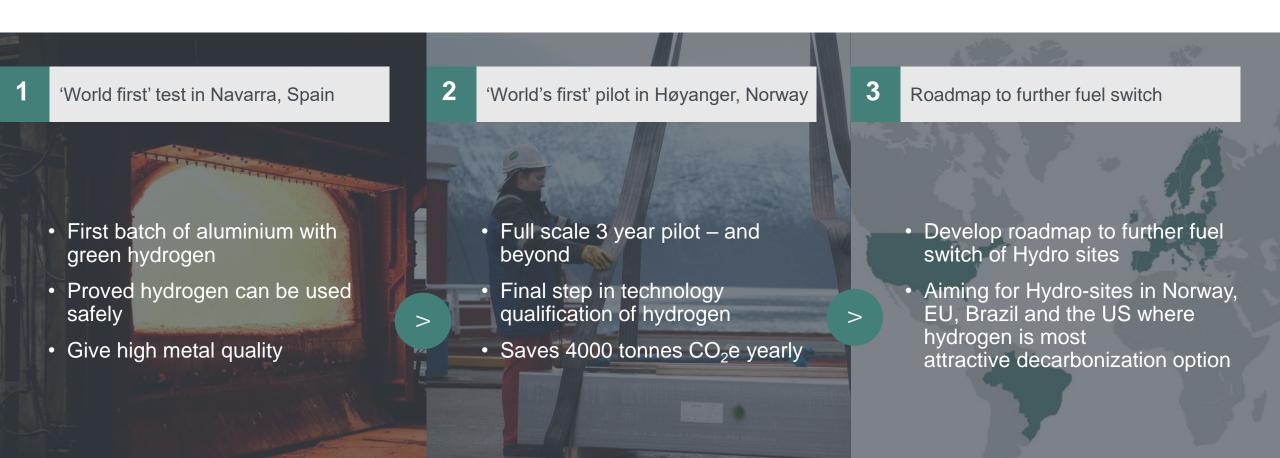


**northvolt** 0.6% owner share Hvdro

#### Hydrogen breakthrough

## Hydro Havrand: World's first aluminium made with green hydrogen





#### Planned 2024/2025

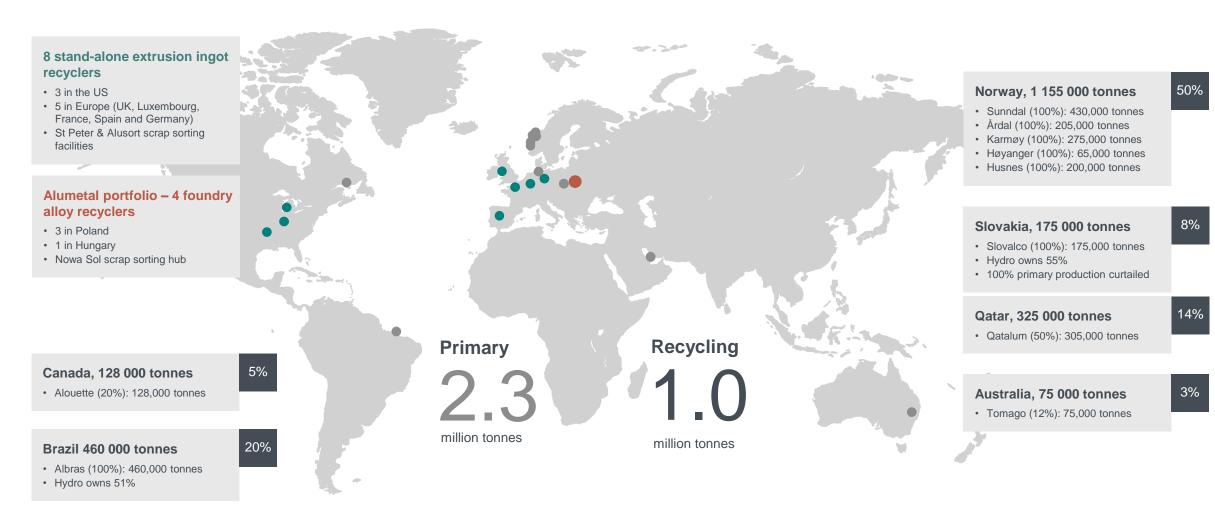
2023 →



## Aluminium Metal

## Global production network

#### Primary production and recycling



2.3 million mt is consolidated electrolysis capacity, Slovalco and Albras are fully consolidated, Tomago and Alouette are proportionally consolidated and Qatalum is equity accounted. Slovalco based on primary capacity, not production (currently 100% primary production curtailed and lower remelt). 1.0 million mt includes 0.7 mill mt in stand-alone extrusion ingot recyclers and 0.3 mill mt in Alumetal, excluding additional remelt capacity in Primary casthouses.

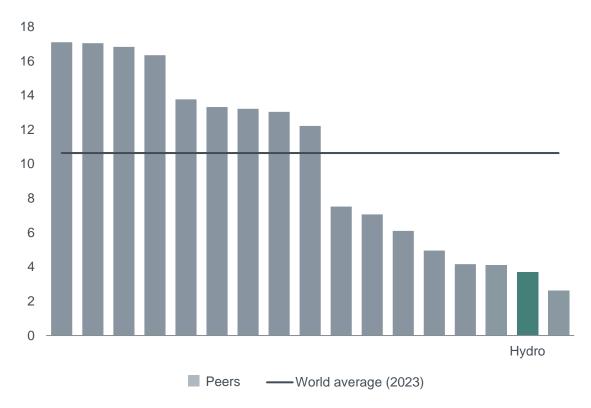
149

**Hydro** 

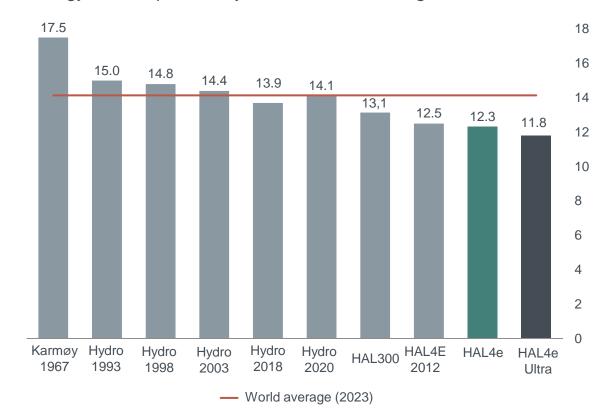
## Low-carbon footprint due to renewable energy base and industry lowest energy consumption



#### Total emissions, in tonne $CO_2/t$ al

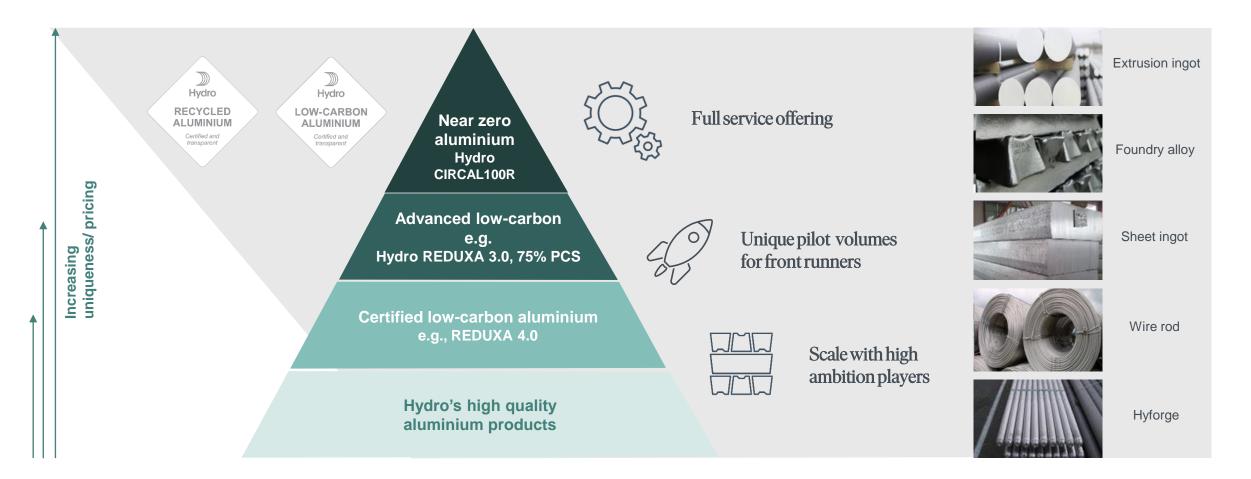


Energy consumption in Hydro smelters<sup>1)</sup>, kwh/kg al



## Hydro has a unique value proposition in aluminium

Going to market with a combined offering of primary and recycled aluminium with a full product spectrum and with tailor made alloys is unique to AM



Hydro

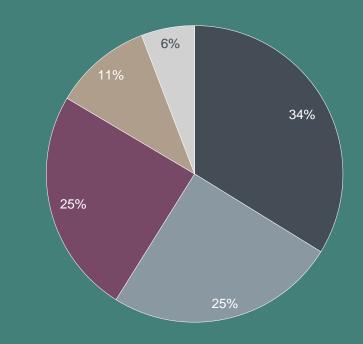
## Competitive primary aluminium cash cost

- Primary aluminium cash cost 2023
  - All-in implied primary aluminium cash cost<sup>1,2)</sup> USD 2 225 per mt
  - LME implied primary aluminium cash cost<sup>1,3)</sup> USD 1 750 per mt
- Alumina
  - Purchases based on alumina index ~93%
  - Purchased based on LME link ~7% (only for Qatalum)
- Power
  - Long-term contracts
  - 3/4 of power need from renewable power
  - · Contracts with a mix of indexations; inflation, LME, coal, fixed
- Carbon
  - Majority of contracts are based on 1-2 years, quarterly pricing
- Fixed costs
  - · Maintenance, labor, services and other
- Other
  - Other direct costs and relining

2) Realized LME aluminium price (incl.strategic hedges) plus premiums minus adjusted EBITDA margin, including Qatalum, per mt primary aluminium sold

4) Pie chart based on cost of producing liquid aluminium, not directly comparable to the LME or All-in implied primary aluminium cash cost

#### Liquid aluminium cash cost 2023<sup>3)</sup>



■ Alumina ■ Power ■ Carbon ■ Fixed cost ■ Other

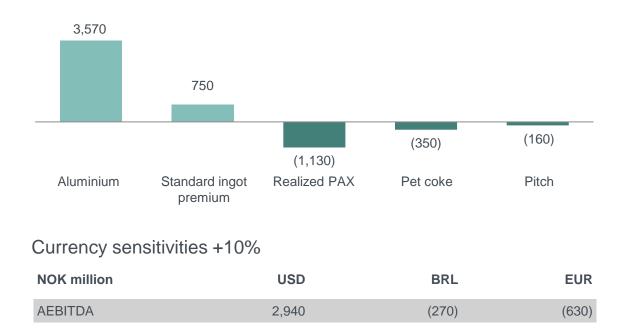
<sup>1)</sup> Adjusted EBITDA margin excluding power sales Slovalco, Albras and Norwegian smelter

<sup>3)</sup> Realized LME aluminium price (incl.strategic hedges) minus adjusted EBITDA margin, including Qatalum, per mt primary aluminium produced

### Aluminium Metal sensitivities



### Annual sensitivities on adjusted EBITDA 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
- ~ 2-3 months lag
- Mainly priced on Platts index

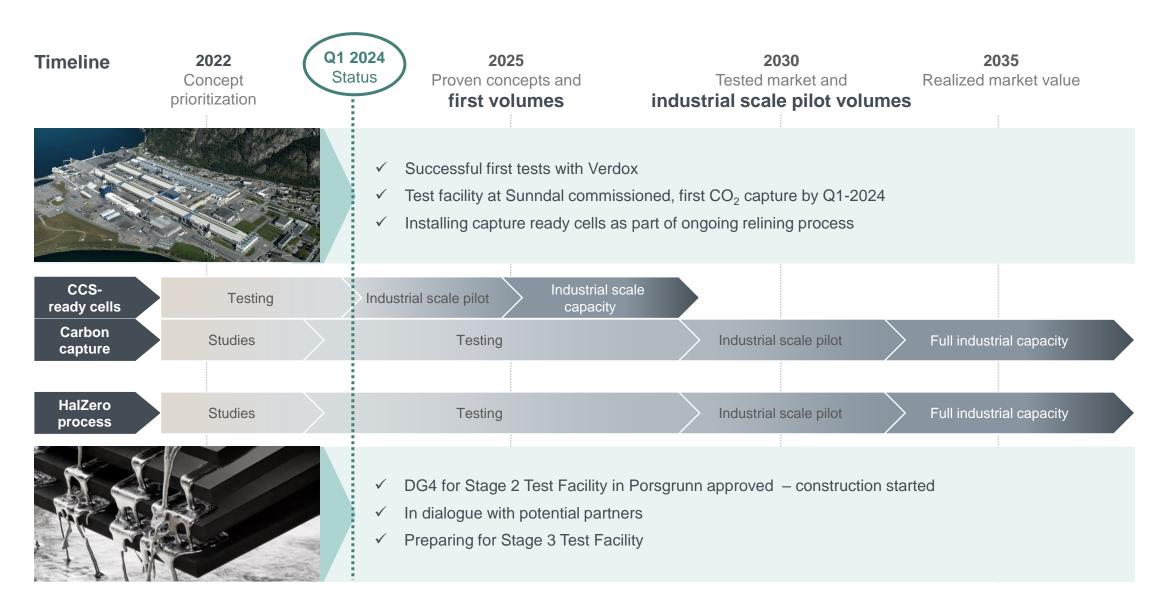
#### Carbon

- ~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

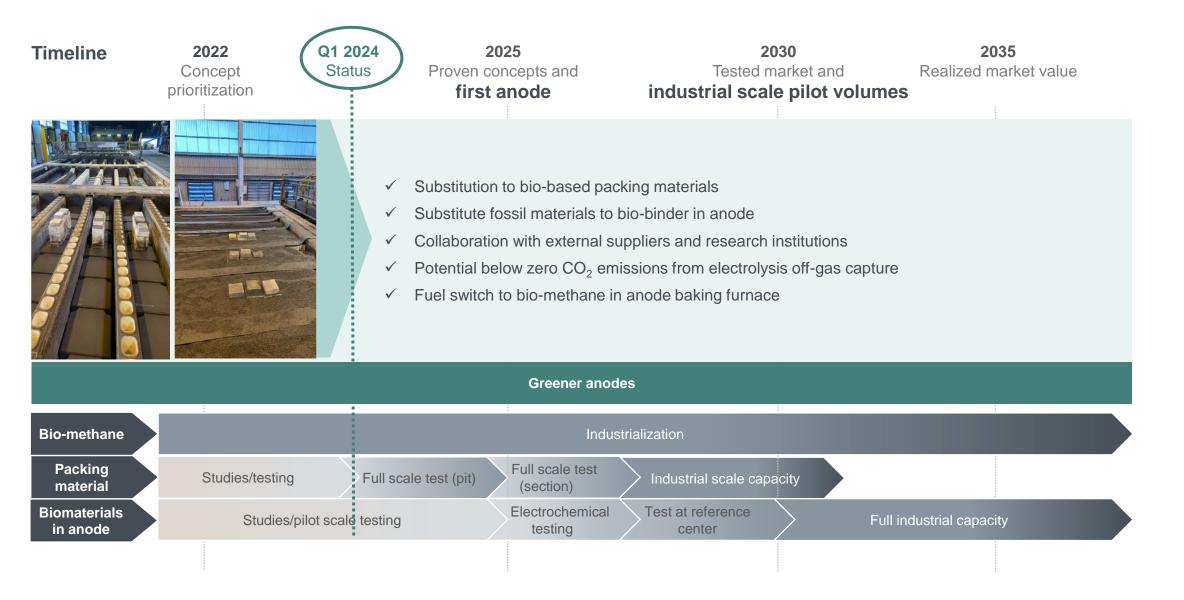
- 14.0 MWh per tonne aluminium
- Long-term power contracts with indexations

## Preparing for first CO<sub>2</sub> capture and HalZero testing at scale



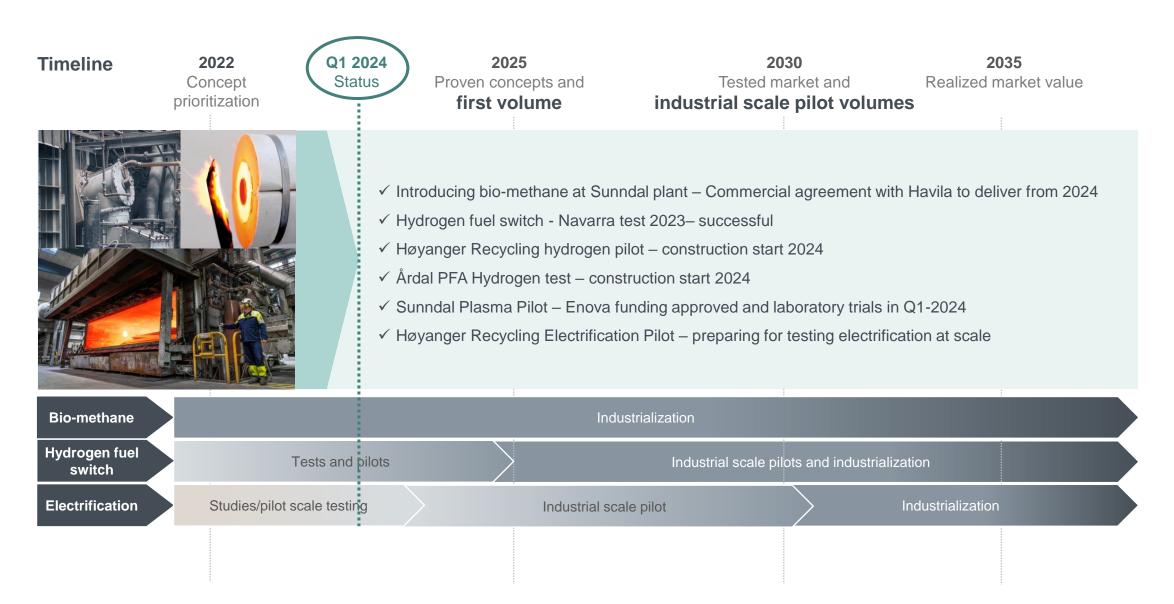
Hvdro

### Biomaterials to reach zero and below





### Bio-methane, hydrogen and direct electrification

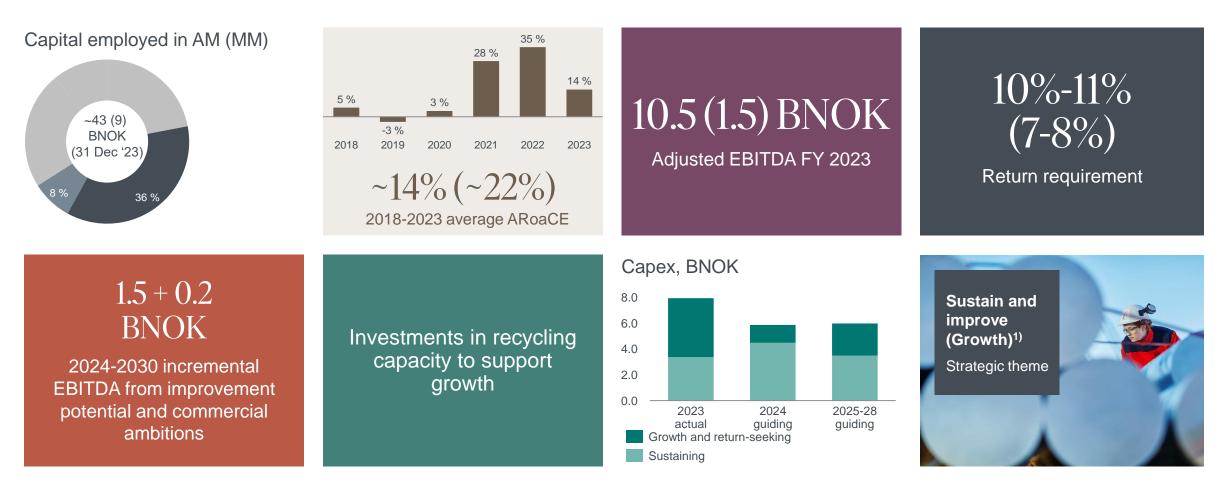


Hvdro

## Capital return dashboard for Aluminium Metal & Metal Markets



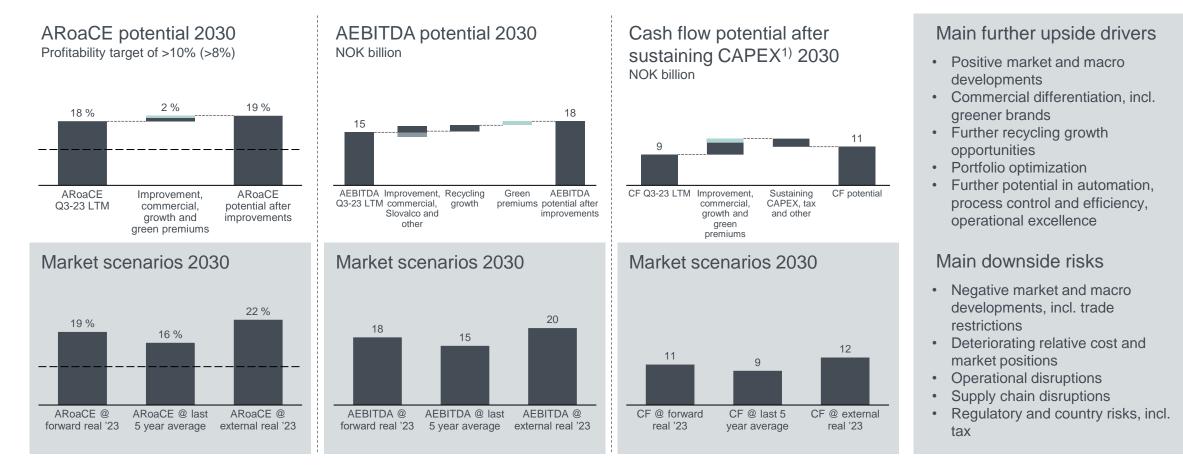
Investments in recycling capacity to support growth



### Aluminium Metal and Metal Markets profitability growth roadmap



Main drivers - improvement efforts, commercial differentiation and market development



1) Cash flow calculated as EBITDA + tax + long-term sustaining CAPEX

Assumptions and sources behind the scenarios can be found in Additional information

Sources: External scenario is based on CRU price and premium assumptions and S&P Global FX assumptions, with adjustments as specified in the footnotes



## Metal Markets

## Strong position in value-added casthouse products



- Capitalizing on value-added casthouse
   products portfolio
- Extensive multi-sourcing system including fully and part-owned primary casthouses and stand-alone remelters
- Flexible sourcing system enabling rapid and cost effective volume adjustments
- Value creation from margin management based on commercial expertise and risk management competence
- Strong market positions in Europe, the U.S. and Asia





### Pricing of value-added products



	Smelter	Intermediate product	Casthouse
	Aluminium	Standard ingot	Value added products
			Image: struston ingot       Image: struston ingot     Image: struston ingot     Image: struston ingot     Image: struston ingot     Image: struston ingot
SU	Traded on LME	• U.S. Midwest - 1020 (in cent per pound)	<ul> <li>Extrusion Ingot – Priced above standard ingot</li> <li>Foundry Alloy – Priced above standard ingot</li> <li>Sheet ingot – Priced above standard ingot</li> <li>Wire rod - Priced above standard ingot</li> </ul>
Europe	Traded on LME	<ul><li>Duty paid IW Rotterdam</li><li>Duty unpaid IW Rotterdam</li></ul>	<ul> <li>Extrusion ingot – Priced above LME</li> <li>Foundry Alloy – Priced partly above standard ingot and partly above LME</li> <li>Sheet ingot – Priced above standard ingot</li> <li>Wire rod - Priced partly above standard ingot and partly above LME</li> </ul>
Asia	Traded on LME & SHFE	<ul> <li>CIF Japan Premium (MJP)</li> <li>Singapore In Warehouse</li> <li>CIF South Korea</li> </ul>	<ul> <li>Extrusion ingot – Priced partly above standard ingot and partly above LME</li> <li>Foundry Alloy – Priced partly above standard ingot and partly above LME</li> <li>Sheet ingot – Priced partly above standard ingot and partly above LME</li> </ul>

### Metal Markets earnings drivers



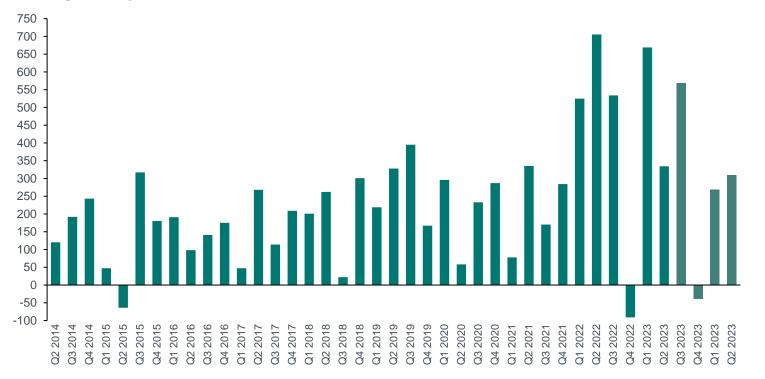
#### Recyclers

- Revenue impact volume, LME and product premiums
- Cost impact
  - Scrap and standard ingot premiums above LME
  - Raw material mix
  - Freight cost proximity to market
  - Energy consumption and prices

#### • Other main businesses

- Physical ingot and LME trading
- Third-party casthouse products
- Results influenced by currency fluctuations and inventory valuation effects
- Adjusted EBITDA for Commercial excl. currency and inventory valuation effects for 2024 expected in the range of 600MNOK to 800MNOK

Adjusted EBITDA excluding currency effects and inventory valuation effect, NOK million<sup>1)</sup>



1) Amounts are as disclosed for the individual years reflecting the accounting policies applied for those years and Hydro's definition of APMs applied for the relevant years.

### 2025 recycling targets achieved with 2023 year-end installed capacity

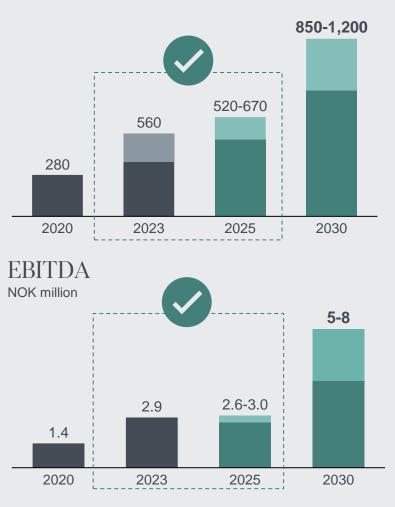
Recent recycling projects with production and post-consumer scrap capacity Tonnes ('000)



#### Recycling targets 2030<sup>1)</sup>

#### Post Consumer Scrap

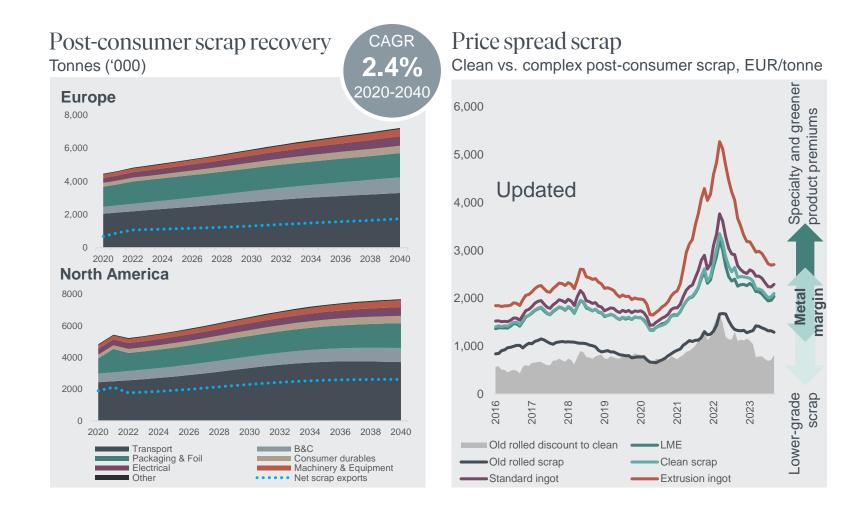
Consumption and targeted capacity usage, tonnes ('000)



### Post-consumer scrap generation is increasing

)))) Hydro

But multiple hurdles exist for its utilization



#### Key trends in aluminium recycling

- Growth in recycling and billet capacity pressuring margins on "clean" scrap feedstock
- Large export volumes from Europe and North America to Asia
- Regulatory changes and protectionism
   measures affecting future scrap market
- Increasing generation and more interest in lower-grade scrap, but multiple challenges:
  - Supply chain complexity
  - Contamination
  - $\circ$  Collection
  - Sorting limitations
  - o Logistics

## Mixed scrap types require sorting capabilities and ability to convert to various products



Securing access to the right scrap – key success factor



## Megatrends support recycling agenda

Increasing focus on circular economy from both consumers and regulators



- Process design closed loops
- Product design lower material use
- Reuse and refurbish (second life)

# Waste to value

- Reduce waste generation
- Reuse and upcycle waste streams to products



- Capture and recycle products at end-of-life
- Improve scrap sorting
- Increase recycling efficiency
- Technology advancement



- End-of-life Directive
- EU waste shipment regulation
- Critical raw materials act
- CO<sub>2</sub>-regulations

**Hydro** 

## Diversifying and high-grading recycling product portfolio across markets and geographies



Successfully completed organic and inorganic projects in 2023 include:



#### Introducing Hydro CIRCAL, increasing El market share in the U.S.

- 40kt of PCS per year enabling delivery of similar volumes of Hydro CIRCAL<sup>®</sup> to the North American market
- Lowest carbon extrusion ingot offering in North America



State-of-the art HyForge line in Rackwitz, Germany

#### Diversifying portfolio and growing high-margin HyForge capacity

- Ramping-up the HyForge line in Rackwitz Germany
- Forging stock geared towards the automotive industry



### Entering the recycled FA market with Alumetal acquisition

- Advanced sorting capabilities and capacity
- Opportunity to utilize more scrap grades Identified synergies of **10-15 MEUR by 2027**



#### Securing access to scrap, industrializing HySort technology in the U.S.

- Invested 4MUSD in a 50:50 JV with scrap-yard operator Padnos in MI, U.S.
- Installing HySort equipment; total capacity ~36 kt p.a.
- Supplying Cassopolis with suitable fractions; marketing the rest externally

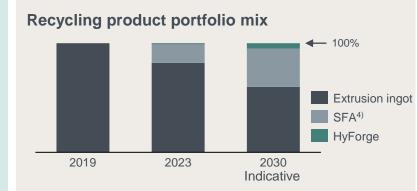
## Hydro has a proven track record developing recycling capabilities



Increasing use of PCS and sorting capacity<sup>1)</sup>

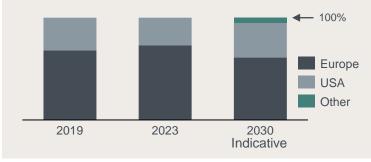
+40% PCS use 2019 to 2023





#### Recycling production by region

+100 kt Sorting capacity 2019 to 2023

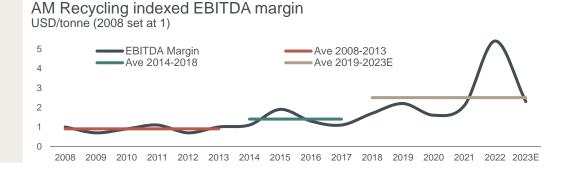


#### Expanding specialty and greener product offerings<sup>3)</sup>





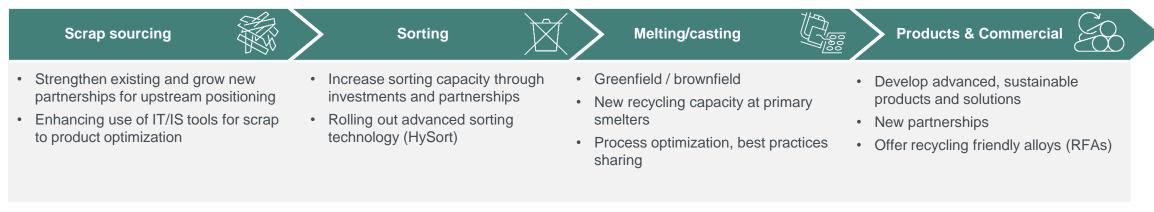
Lifting profitability through the cycle



## Stepping up activities across the recycling value chain



Continuing to transform scrap into sustainable solutions for our customers



#### Selected projects in the pipeline adressing key market trends



SFA products for **automotive** e.g. gigacastings, electrical engine housing



**Specialty casthouse** equiped to produce advanced products also for automotive; large CIRCAL capacity



Introducing HyForge for **automotive applications** in the US

*Recycling 2030 ambitions:* 



**850-1,200** kmt PCS capacity



NOK **5-8** billion EBITDA potential



## Hydro with competitive advantages in recycling



#### Full value chain with multiple product outlets

- Large recycling asset base in Europe and North America
- Broad range of products extrusion ingot, sheet ingot, foundry alloys, HyForge, Master alloys
- Ability to utilize and upcycle mixed scrap



#### Sorting & production technology

- Technical and metallurgical competence
- Production optimization know-how from scrap to product
- Patented HySort technology, in-house R&D

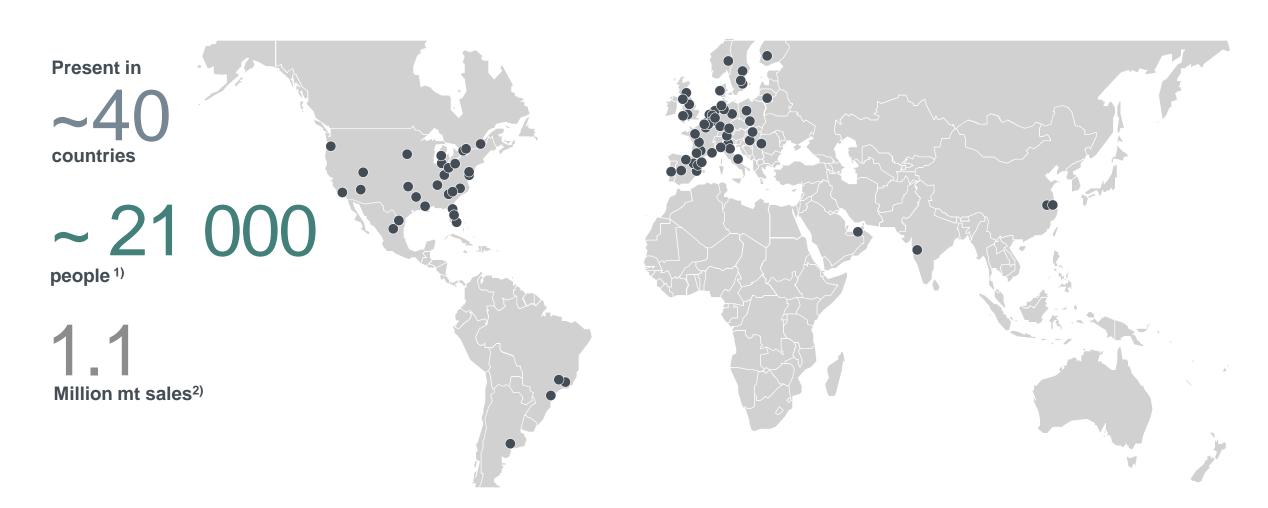
#### **Close customer & supplier relations**

- · Local presence and market insight in core locations
- · Established relationships with scrap suppliers
- · Partnerships and close cooperation with customers
- Commercial intelligence and strong value chain positioning

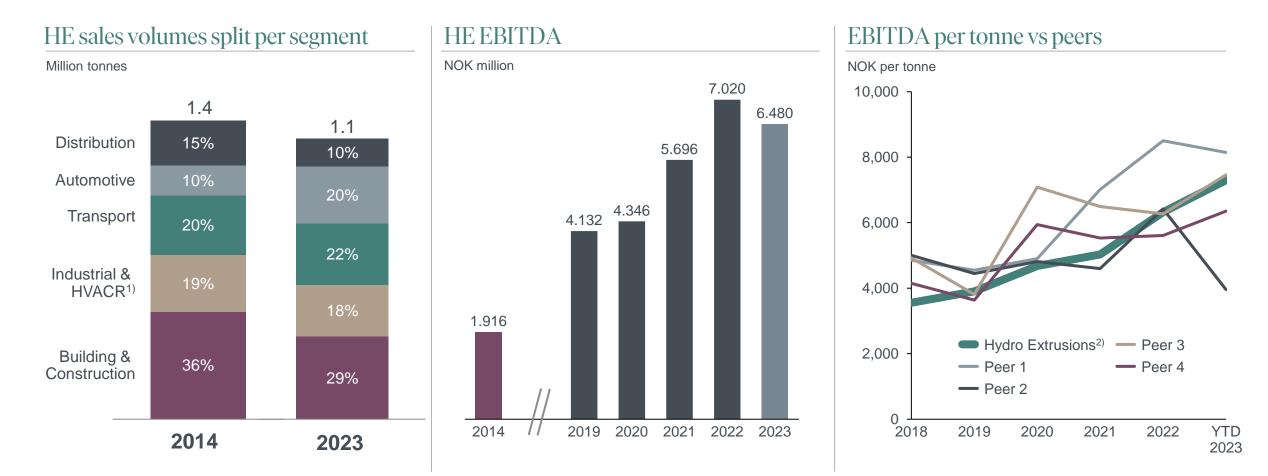


## Extrusions

## Extrusions – #1 in the global aluminium extrusion industry $\mathcal{J}_{Hydro}$



## Hydro Extrusions delivering strong EBITDA uplift through $\lim_{Hydro}$ targeting high-growth, advanced segments

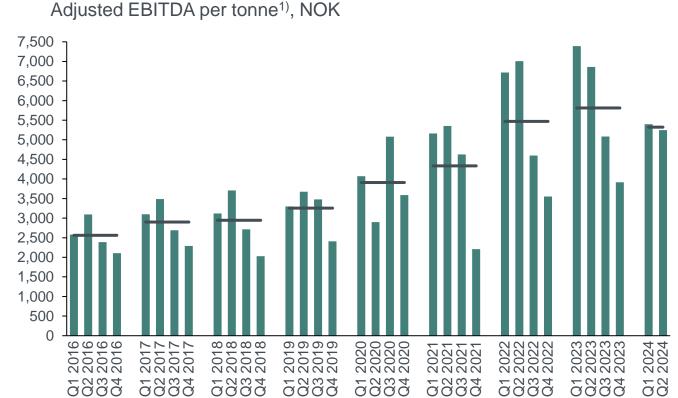


1) Heat, ventilation, air conditioners & refrigerators

2) HE EBITDA adjusted for capitalization of dies to make comparable to peers

### Extrusions earnings drivers





- Contract structure •
  - · Margin business based on conversion price
    - · LME element passed on to customers
  - Mostly short-term contract, typically ranging from spot to 12 months, few longer term contracts with floating price or hedging in place
- High share of variable costs high level of flexibility •
- Annual seasonality driven by maintenance and customer activity
  - Stronger Q1 and Q2, weaker Q3 and Q4
- Strong focus on increasing value add to customers
- Preferred supplier market position in • high-end products

## Industry trends towards 2030 are favorable for Hydro Extrusions, driven by customer needs and segment growth



Opportunity to leverage Hydro Extrusions' strengths increases as target segments develop

#### Customer needs



- As industries and applications mature, customers demand more developed solutions
- Value added offerings
- New, R&D driven solutions
- Customers will partner with suppliers providing new and advanced solutions, e.g., low-carbon, high R/C content, sustainably produced solutions

#### Segment growth



- More growth expected in value added product and solutions area rather than "commodities"
- Attractive segments with 5-10% annual growth
- Key growth segments include Automotive / Emobility and solar / Renewables / Big & Wide Rail

#### HE capabilities

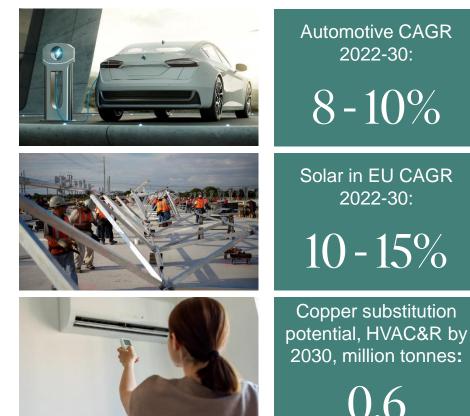


- Strong innovative capacity to provide highquality advanced solutions
- Developed R&D position that can be further enhanced
- · Head start vs competition in sustainability area
- Size, geographical coverage and advanced capabilities to be relevant in differentiated segments

## Hydro Extrusions will leverage opportunities from greener transition to strengthen market positions



#### Secular growth drivers in key segments



#### HE positioning and growth ambitions

- Strong global positions, long term relationships with major automotive OEMs
- · Proven capabilities, innovation and sustainability as key competitive levers
- Increase share of direct OEM supply and long-term contracts
- Investment projects under execution globally
- HE with strong value offering, including surface treatment and low-carbon aluminium solutions
- Solar mounting systems fit well on existing 7-9 inch presses
- Projects in pipeline to increase capacity
- HVAC&R customers with production in North America and China
- Customer projects with proven solutions for replacing copper with aluminium
- · Grow capacity and increase customer solutions

## Critical growth projects under execution, maturing projects to enable profitable growth



Project capacity growth since 2021

Further strengthening flagship plants in the portfolio, leveraging key trends

#### Key trends

- Sustainable products with low-carbon footprint
- Recyclability and keeping materials "in the loop"
  - Greener energy sourcing

E-mobility

vehicles

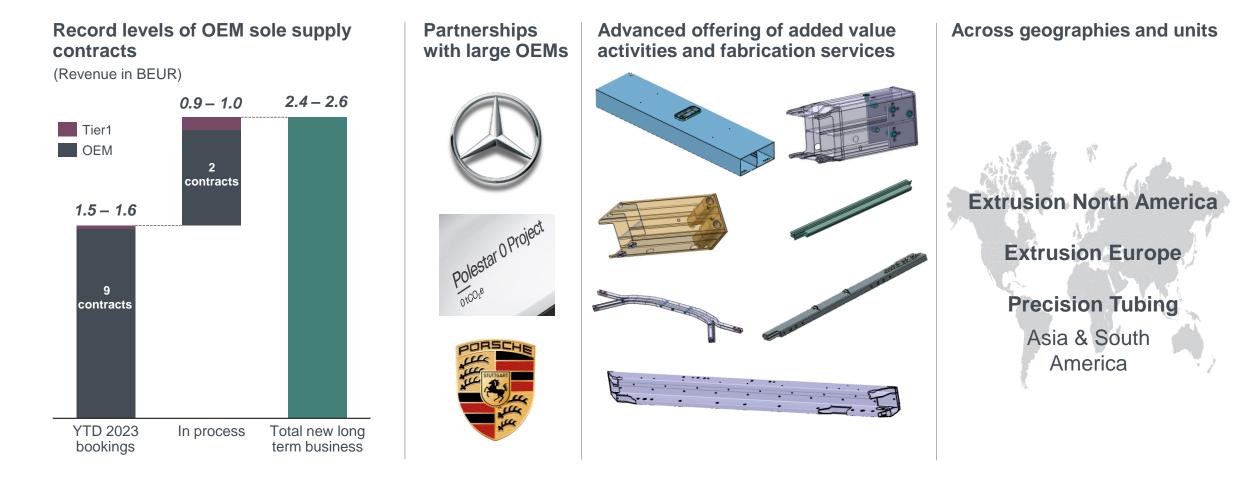
advantage

#### **Project under execution**



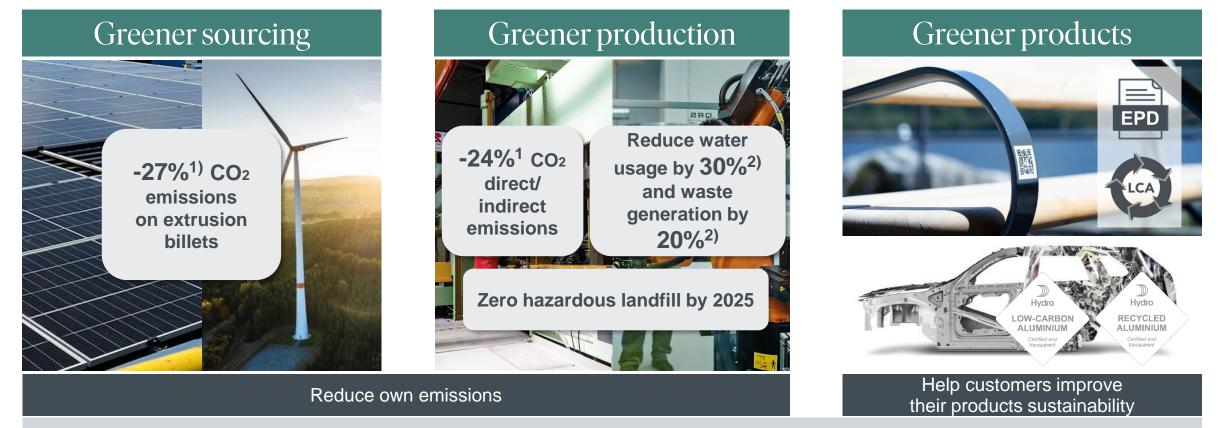
## Significant automotive growth business last quarters





## Reducing own emissions and helping customers improve their products' sustainability towards 2030





Confirm and improve with labels and certifications

## Reducing own emissions and helping customers improve their products' sustainability towards 2030



#### Greener sourcing

**Greener Sweden** Pilot project towards net-zero



**Renewables in the U.S.** Spanish Fork plant fully solar powered



#### Greener production

**PV-powered press** Solar powered press in Poland



Hydrogen-fueled recycling World's first batch produced in Spain



#### Greener products

Shaping the market First project with Hydro CIRCAL 100R



**Greener partnerships** Partnering with customers and others



### Customers from all industries partnering with Hydro Extrusions to make greener products





### **VELUX**®

Partnering to cut carbon emissions from its value chain in half by 2030

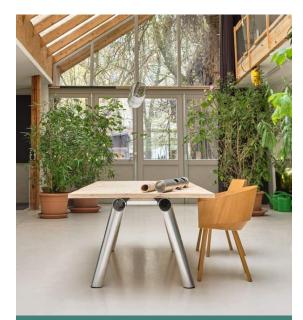


Cleanest Dirt Bike Ever project to remove emissions from production by 2025



### Schweizer

Solar panel systems made from low-carbon aluminium extrusions



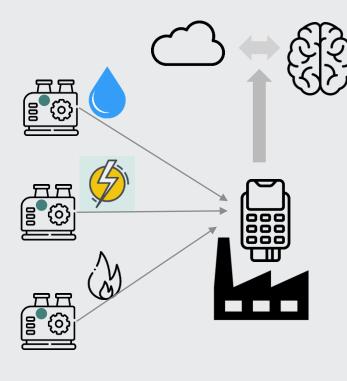
### HAY

Light and flat-packed BOA conference tables made with Hydro CIRCAL

### Digitalization, AI and automation

Key levers to improve performance and profitability

### AMR = Automatic Meter Reading



Sensors

AMR = Sensors with real-time tracking of energy, water, gas consumption and vibration at machines in plants

#### Value contribution

- Using AI / machine learning / dash-boards to identify "irregularities"
  - Benchmark between machines and products to drive improvements & reduce waste / consumption
- Peak-shaving / improved production planning
- Preventive maintenance through vibration / consumption patterns
- Traceability through connected systems

#### Automation

- PT Taicang Fabrication reducing 95 FTEs through Automation & EBS<sup>1</sup> (>20% of work-force)
  - Ergonometric, quality, safety and finance
- Automatic quality controls enable delivering millions of parts without quality issues

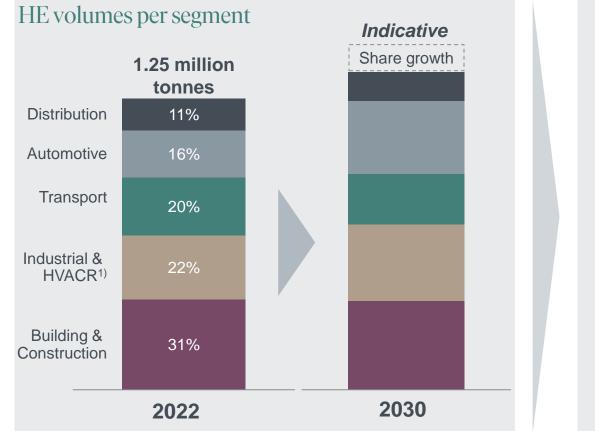




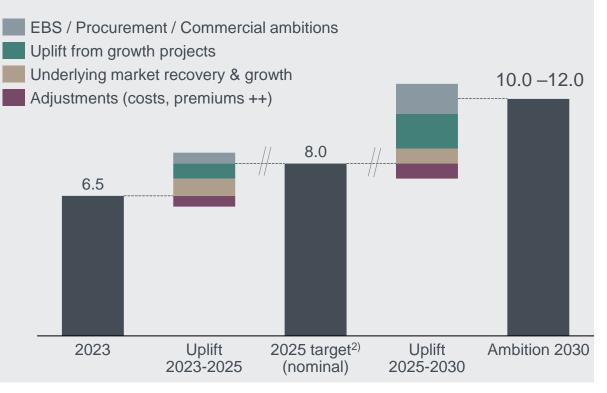
# HE increasing profitability towards 2030 through uplift from growth projects and underlying improvements



Growing market share in dedicated segments, further operational and commercial improvements



#### HE EBITDA ambitions NOK billion (real 2023)



1) Heat, ventilation, air conditioners & refrigerators

2) Target of 8 BNOK in 2025 in nominal terms as communicated in 2021. Range target 2030 in real terms



### Hydro Extrusions 2030 strategic direction

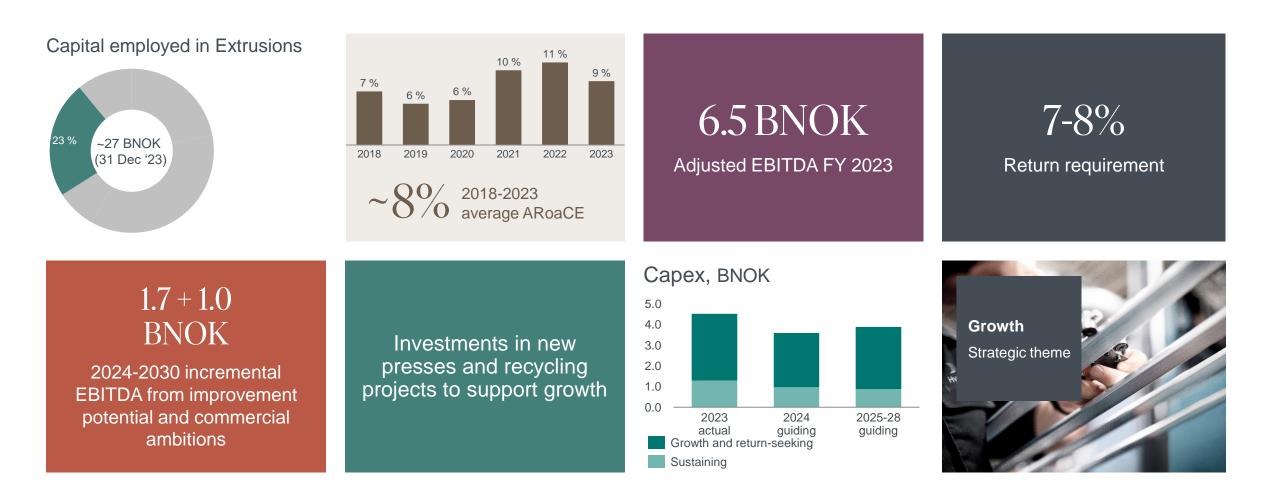


- Growing with the underlying markets
   Growing in non-commoditized segments fitting with HE's capabilities
   Continue to compete based on capabilities and service
   Market share growth ambition in high-growth, profitable segments
   Investments to support capabilities and ability to compete through high service levels
   Press and fabrication capacity, value added services and recycling
- С, Г
- Sustainability giving commercial opportunities
- Segmentation and improved greener offerings as key levers
- Increased digitalization throughout value-chain
- Standardization will generate value through the value-chain from understanding profit to driving procurement and reducing energy consumption

### Capital return dashboard for Extrusions



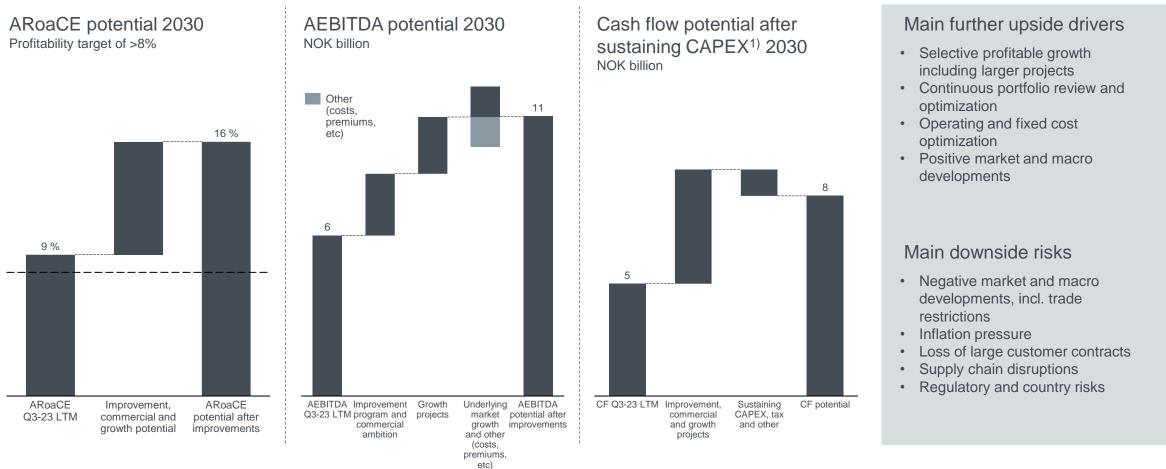
Returns in line with the cost of capital reflecting leading market positions in high value segments and portfolio optimization



### Extrusions profitability growth roadmap

)))) Hydro

Main drivers – improvement program and commercial ambition



1) Cash flow calculated as EBITDA + tax + long-term sustaining CAPEX Assumptions and sources behind the scenarios can be found in Additional information



## Additional information

### Key figures – Outlook Q3 2024



Note that the information on this page is based on *forward looking information* from current point in time and changes might occur during the coming quarter

#### Bauxite & Alumina

- Stable production volume
- Higher alumina price
- Lower raw material costs expected between NOK 350-450m
- Fixed and other costs are expected to increase NOK 100-150 million

#### Extrusions

- Continued strong margins
- Lower sales volumes
- Higher variable costs
- Continued soft extrusions markets

#### **Aluminium Metal**

- ~63% of primary production for Q3 2024 priced at USD 2 432 per mt. 8)
- ~42% of premiums affecting Q3 2024 booked at USD ~ 494 per mt.
- Q3 realized premium expected in the range of USD 380 and 430 per mt.
- Higher raw material cost expected, driven by alumina, and partly offset by carbon, of between NOK 400 and 500 million
- Lower sales volumes

#### Metal Markets

- Continued margin pressure in the recyclers
- Lower results from sourcing and trading activities
- Continued volatile trading and currency effects
- Guidance for YE Commercial Adjusted EBITDA excl. currency and inventory of 600 - 800 MNOK.

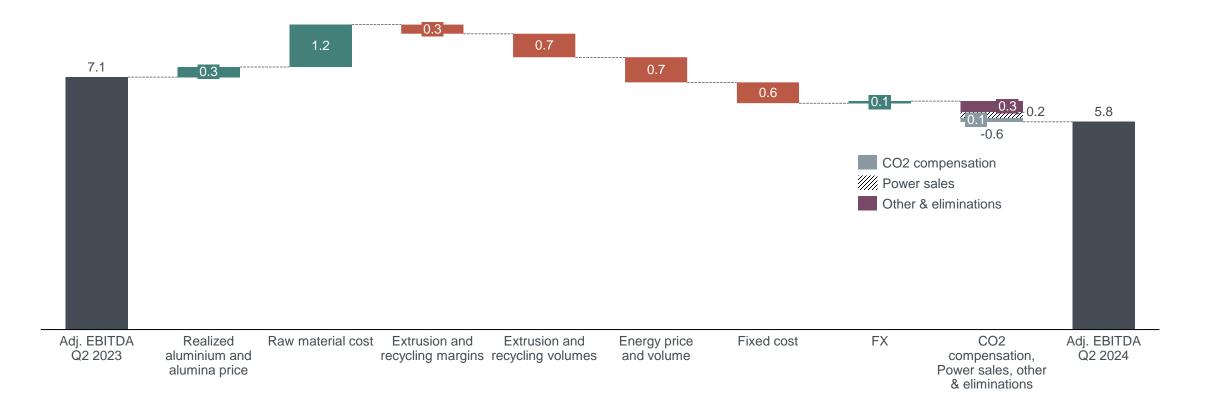
#### Energy

- Stable production
- Somewhat lower Nordic power prices
- Price and volume uncertainty

## Adj. EBITDA down on lower energy spot sales and extrusion volumes, partly offset by lower raw material cost



Q2 2024 vs Q2 2023



### Income statements

NOK million				Seco	nd quarter 2024	First quarter 2024		d quarter 2023	First half 2024	Fir	st half 2023	Year 2023
Revenue Share of the profit (loss) in equity account Other income, net	ed investments				50 944 113 1 392	47 545 46 1 000		53 630 181 1 175	98 490 158 2 392	1	02 164 276 2 531	193 619 492 4 152
Total revenue and income					52 449	48 591		54 985	101 040	1	04 971	198 263
Raw material and energy expense Employee benefit expense Depreciation and amortization expense Impairment of non-current assets Other expenses					33 410 6 819 2 498 17 6 148	30 025 6 748 2 472 - 6 280		32 109 6 604 2 340 - 5 992	63 435 13 567 4 970 17 12 427		63 404 13 021 4 529 (3) 11 848	123 538 25 931 9 394 4 421 25 387
Earnings before financial items and tax	(EBIT)				3 557	3 066		7 939	6 623		12 172	9 592
Interest and other finance income Foreign currency exchange gain (loss) Interest and other finance expense					316 (779) (935)	463 (1 633) (748)		324 (789) (488)	778 (2 412) (1 683)		668 (2 774) (1 059)	1 302 (2 084) (2 264)
Income (loss) before tax Income taxes					2 160 (739)	1 148 (720)		6 986 (1 930)	3 307 (1 458)		9 007 (2 806)	6 546 (3 742)
Net income (loss)					1 421	428		5 056	1 849		6 201	2 804
Net income (loss) attributable to non-contr Net income (loss) attributable to Hydro sha	•				(723) 2 144	(513) 941		(156) 5 212	(1 236) 3 085		(277) 6 477	(778) 3 583
Earnings per share attributable to Hydr	o shareholders				1.07	0.47		2.56	1.54		3.18	1.77
NOK million	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Year 2022	Year 2023
Net income (loss)	6 411	11 136	6 676	194	1 144	5 056	(625)	(2 771)	428	1 421	24 417	2 804
Adjusted net income (loss)	6 785	7 731	6 258	2 371	3 326	3 410	345	754	1 498	1 677	23 145	7 835
Earnings per share	2.80	5.49	3.34	0.12	0.62	2.56	(0.18)	(1.26)	0.47	1.07	11.76	1.77
Adjusted earnings per share	3.17	3.63	2.91	0.99	1.70	1.77	0.27	0.50	0.93	0.97	10.70	4.26

### Balance sheet



NOK million	June 30 2024	March 31 2024	December 31 2023	September 30 2023	June 30 2023	March 31 2023	December 31 2022	September 30 2022
Cash and cash equivalents	18 886	19 622	24 618	19 105	22 453	30 873	29 805	25 852
Short-term investments	3 760	4 968	2 641	2 101	1 158	2 696	4 173	2 511
Trade and other receivables	28 689	28 969	25 404	26 387	27 561	28 350	23 988	28 442
Inventories	25 208	25 291	25 449	27 648	28 808	30 216	30 035	31 394
Other current financial assets	952	1 350	1 900	1 726	2 722	1 302	1 127	4 887
Assets held for sale	-	4 131	3 685	-	-	-	-	-
Property, plant and equipment	74 448	77 334	74 981	74 367	72 985	67 827	62 656	62 369
Intangible assets	8 365	8 741	8 447	10 823	10 215	9 839	9 280	9 810
Investments accounted for using the equity method	24 871	22 512	21 228	24 633	24 277	22 566	21 222	22 613
Prepaid pension	9 518	9 670	8 664	9 335	9 981	9 040	8 573	9 352
Other non-current assets	10 516	10 545	9 444	9 135	8 346	8 684	7 759	9 598
Total assets	205 213	213 133	206 462	205 260	208 506	211 395	198 618	206 829
Bank loans and other interest-bearing short-term debt	16 249	8 169	7 111	5 764	5 271	5 899	6 746	11 085
Trade and other payables	26 336	28 541	26 232	24 860	25 529	25 702	24 374	26 703
Other current liabilities	8 561	8 058	10 549	11 093	9 593	10 741	11 688	11 653
Liabilities in disposal group	-	129	141	-	-	-	-	-
Long-term debt	22 867	30 996	28 978	29 944	29 756	29 615	26 029	20 790
Provisions	6 164	5 987	5 867	5 897	6 243	5 692	5 289	5 779
Pension liabilities	9 027	9 071	9 222	8 475	8 388	8 669	8 252	8 064
Deferred tax liabilities	5 272	5 079	4 717	6 153	6 197	5 289	4 796	5 178
Other non-current liabilities	6 894	7 353	6 462	5 325	5 687	5 429	3 648	4 481
Equity attributable to Hydro shareholders	98 448	105 502	100 579	103 062	106 873	108 582	102 455	107 129
Non-controlling interests	5 394	6 247	6 604	4 686	4 968	5 777	5 343	5 967
Total liabilities and equity	205 213	213 133	206 462	205 260	208 506	211 395	196 618	206 829

### Adjusting items to EBITDA, EBIT and net income

NOK million (+=loss/()=gain)		Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Year 2023
Unrealized derivative effects on LME related contracts	Hydro Bauxite & Alumina	-	-	-	-	3	8	-
Unrealized derivative effects on raw material contracts	Hydro Bauxite & Alumina	177	94	(41)	182	(41)	(10)	412
Community contributions Brazil	Hydro Bauxite & Alumina	-	25	-	-	-	-	25
Total impact	Hydro Bauxite & Alumina	177	118	(41)	182	(38)	(2)	437
Unrealized derivative effects on power contracts	Hydro Energy	214	184	41	(37)	61	(147)	401
(Gains)/losses on divestments	Hydro Energy	-	-	-	-	-	(321)	-
Net foreign exchange (gain)/loss	Hydro Energy	(3)	(7)	(5)	(6)	(5)	(4)	(20)
Other effects	Hydro Energy	-	-	-	164	-	(164)	164
Total impact	Hydro Energy	211	177	36	120	56	(635)	544
Unrealized derivative effects on LME related contracts	Hydro Aluminium Metal	709	(2 836)	1 414	(954)	39	862	(1 667)
Unrealized derivative effects on power contracts	Hydro Aluminium Metal	62	(106)	113	33	(31)	94	103
Net foreign exchange (gain)/loss	Hydro Aluminium Metal	(37)	(114)	(79)	(89)	(78)	(81)	(320)
Total impact	Hydro Aluminium Metal	733	(3 055)	1 448	(1 010)	(69)	874	(1 884)
Unrealized derivative effects on LME related contracts	Hydro Metal Markets	34	(146)	448	(121)	2	(124)	215
Transaction related effects	Hydro Metal Markets	50	4	35	31	-	-	120
Other effects	Hydro Metal Markets	-	-	-	-	-	(137)	-
Total impact	Hydro Metal Markets	84	(142)	483	(90)	2	(261)	335
Unrealized derivative effects on LME related contracts	Hydro Extrusions	(19)	6	113	(134)	(9)	(159)	(34)
Unrealized derivative effects on power contracts	Hydro Extrusions	5	(24)	(2)	(6)	(13)	3	(28)
Significant rationalization charges and closure costs	Hydro Extrusions	51	27	17	171	32	56	265
(Gains)/losses on divestments and other transaction related effects	Hydro Extrusions	20	-	1	4	(9)	-	25
Other effects	Hydro Extrusions	-	(107)	-	-	-	-	(107)
Total impact	Hydro Extrusions	57	(98)	128	35	1	(100)	121
Unrealized derivative effects on LME related contracts	Other and eliminations	(15)	(35)	25	(18)	15	(15)	(43)
(Gains)/losses on divestments	Other and eliminations	-	-	(25)	-	(14)	-	(25)
Net foreign exchange (gain)/loss	Other and eliminations	(115)	(143)	(130)	(155)	(52)	(65)	(543)
Other effects	Other and eliminations	-	26	-	-	-	-	26
Total impact	Other and eliminations	(131)	(151)	(130)	(174)	(52)	(80)	(585)
Adjusting items to EBITDA	Hydro	1 132	(3 152)	1 923	(936)	(100)	(205)	(1 033)
Impairment charges	Hydro Bauxite & Alumina	-	-	-	3 773	-	-	3 773
Impairment charges	Hydro Aluminium Metal	-	-	-	628	-	-	628
Impairment charges	Hydro Extrusions	-	-	-	23	-	-	23
Adjusting items to EBIT	Hydro	1 132	(3 152)	1 923	3 487	(100)	(205)	3 391
Net foreign exchange (gain)/loss	Hydro	1 985	789	(538)	(152)	1 633	779	2 084
Adjusting items to income (loss) before tax	Hydro	3 117	(2 362)	1 385	3 336	1 533	574	5 475
Calculated income tax effect	Hydro	(935)	716	(416)	190	(463)	(317)	(445)
Adjusting items to net income (loss)	Hydro	2 182	(1 646)	970	3 525	1 070	257	5 031

Hydro

))))



#### Adjusted EBIT

NOK million	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Year 2022	Year 2023
Hydro Bauxite & Alumina	718	484	10	(586)	(221)	88	(610)	(269)	43	841	626	(1 013)
Hydro Energy	2 192	777	275	1 493	677	805	712	755	1 103	545	4 737	2 950
Hydro Aluminium Metal	4 183	6 349	5 837	4 097	3 328	2 550	727	1 264	1 306	1 834	20 467	7 869
Hydro Metal Markets	487	666	494	(134)	628	290	482	(229)	68	146	1 514	1 170
Hydro Extrusions	1 587	1 600	640	168	1 485	1 228	548	90	690	609	3 995	3 351
Other and Eliminations	3	(425)	356	(93)	(532)	(173)	(259)	(380)	(244)	(623)	(159)	(1 343)
Total	9 170	9 452	7 611	4 946	5 364	4 788	1 600	1 231	2 966	3 353	31 179	12 983

#### Adjusted EBITDA

NOK million	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Year 2022	Year 2023
Hydro Bauxite & Alumina	1 270	1 117	633	101	437	817	93	481	804	1 616	3 122	1 828
Hydro Energy	2 239	824	321	1 542	726	854	762	805	1 152	611	4 926	3 146
Hydro Aluminium Metal	4 765	6 977	6 463	4 756	3 972	3 215	1 379	1 937	1 965	2 520	22 963	10 502
Hydro Metal Markets	525	705	534	(91)	669	334	568	(38)	269	309	1 673	1 533
Hydro Extrusions	2 331	2 365	1 385	939	2 223	2 013	1 322	923	1 437	1 377	7 020	6 480
Other and Eliminations	35	(395)	384	(63)	(501)	(134)	(225)	(370)	(216)	(594)	(39)	(1 231)
Total	11 165	11 594	9 721	7 184	7 525	7 098	3 899	3 737	5 411	5 839	39 664	22 258

2 858

8 217

71

1 824

(354)

17 561



EBIT

Hydro Extrusions

Total

Other and Eliminations

NOK million	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Year 2022	Year 2023
Hydro Bauxite & Alumina	1 094	657	(147)	(1 133)	(399)	(30)	(570)	(4 223)	81	844	471	(5 222)
Hydro Energy	2 424	793	526	878	466	628	677	634	1 047	1 180	4 621	2 406
Hydro Aluminium Metal	254	11 777	6 061	2 200	2 595	5 605	(721)	1 646	1 376	960	20 292	9 125
Hydro Metal Markets	297	1 516	300	(492)	544	432	(1)	(139)	65	407	1 621	835
Hydro Extrusions	2 114	1 059	510	16	1 427	1 326	420	33	689	709	3 699	3 206
Other and Eliminations	39	(385)	420	(63)	(402)	(21)	(128)	(206)	(192)	(542)	11	(758)
Total	6 222	15 418	7 670	1 405	4 233	7 939	(323)	(2 256)	3 066	3 557	30 715	9 592
EBITDA												
NOK million	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Year 2022	Year 2023
Hydro Bauxite & Alumina	1 647	1 290	477	(446)	260	698	134	300	842	1 618	2 967	1 392
Hydro Energy	2 471	840	572	926	515	677	726	684	1 096	1 246	4 810	2 602
Hydro Aluminium Metal	836	12 405	6 736	2 888	3 239	6 270	(69)	2 946	2 035	1 646	22 866	12 386
Hydro Metal Markets												

1 045

(34)

3 930

2 165

(371)

6 393

2 111

10 249

17

1 194

(95)

1 975

1 255

449

9 828

6 982

132

39 536

1 477

(513)

6 044

1 436

(164)

5 511

888

(197)

4 673

6 359

(645)

23 291

46 616

64 793

52 445



#### Total revenue

Total

NOK million	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Year 2022	Year 2023
Hydro Bauxite & Alumina	7 901	9 413	8 652	7 986	8 320	8 830	8 423	9 948	10 200	11 905	33 951	35 521
Hydro Energy	4 268	2 456	2 854	3 037	3 452	2 162	3 299	2 644	2 882	2 561	12 614	11 557
Hydro Aluminium Metal	11 094	24 583	16 678	13 129	15 236	18 211	11 366	13 562	13 170	13 867	65 483	58 375
Hydro Metal Markets	22 674	27 698	22 374	18 222	20 873	22 483	19 329	18 629	18 677	21 472	90 968	81 314
Hydro Extrusions	23 468	25 269	22 620	19 819	22 717	22 608	19 142	18 178	19 306	19 707	91 176	82 645
Other and Eliminations	(22 788)	(24 626)	(20 733)	(18 118)	(22 065)	(20 664)	(16 856)	(16 208)	(16 690)	(18 568)	(86 264)	(75 794)
	46 616	64 793	52 445	44 075	48 534	53 630	44 702	46 754	47 545	50 944	207 929	193 619
Total	40 010											
Total External revenue NOK million	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Year 2022	Year 2023
External revenue			<b>Q3 2022</b> 5 641	<b>Q4 2022</b> 5 091	<b>Q1 2023</b> 5 289	<b>Q2 2023</b> 5 570	<b>Q3 2023</b> 5 404	<b>Q4 2023</b> 6 807	<b>Q1 2024</b> 6 963	<b>Q2 2024</b> 8 307	<b>Year 2022</b> 21 649	<b>Year 2023</b> 23 069
External revenue NOK million	Q1 2022	Q2 2022										
External revenue NOK million Hydro Bauxite & Alumina	<b>Q1 2022</b> 5 052	<b>Q2 2022</b> 5 864	5 641	5 091	5 289	5 570	5 404	6 807	6 963	8 307	21 649	23 069
External revenue NOK million Hydro Bauxite & Alumina Hydro Energy	<b>Q1 2022</b> 5 052 2 415	<b>Q2 2022</b> 5 864 646	5 641 1 082	5 091 1 324	5 289 1 634	5 570 257	5 404 1 616	6 807 1 058	6 963 1 217	8 307 857	21 649 5 467	23 069 4 564
External revenue NOK million Hydro Bauxite & Alumina Hydro Energy Hydro Aluminium Metal	<b>Q1 2022</b> 5 052 2 415 (2 518)	<b>Q2 2022</b> 5 864 646 8 640	5 641 1 082 4 327	5 091 1 324 2 638	5 289 1 634 1 528	5 570 257 5 444	5 404 1 616 1 741	6 807 1 058 3 936	6 963 1 217 3 600	8 307 857 3 456	21 649 5 467 13 087	23 069 4 564 12 649

44 075

53 630

48 534

44 702

46 754

47 545

207 929

50 944

193 619



#### Internal revenue

NOK million	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Year 2022	Year 2023
Hydro Bauxite & Alumina	2 848	3 549	3 011	2 895	3 031	3 260	3 019	3 141	3 238	3 597	12 303	12 542
Hydro Energy	1 853	1 810	1 772	1 713	1 818	1 905	1 683	1 586	1 665	1 704	7 148	6 993
Hydro Aluminium Metal	13 611	15 943	12 352	10 491	13 709	12 767	9 624	9 626	9 570	10 411	52 396	45 726
Hydro Metal Markets	4 201	3 277	3 578	3 091	3 565	2 647	2 612	1 801	2 177	2 880	14 147	10 625
Hydro Extrusions	269	41	36	(62)	(48)	81	(80)	56	44	(22)	284	10
Other and Eliminations	(22 783)	(24 620)	(20 748)	(18 126)	(22 075)	(20 660)	(16 860)	(16 211)	(16 694)	(18 571)	(86 278)	(75 806)
Total	-	-	-	-	-	-	-	-	-	-	-	-

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

NOK million	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Year 2022	Year 2023
Hydro Bauxite & Alumina	-	-	-	-	-	-	-	-	-	-	-	-
Hydro Energy	(28)	(39)	(32)	(81)	(67)	(59)	(57)	(110)	(106)	(128)	(180)	(293)
Hydro Aluminium Metal	383	626	340	200	154	264	179	135	126	275	1 549	733
Hydro Metal Markets	-	-	-	-	-	-	-	-	-	-	-	-
Hydro Extrusions	-	-	-	-	-	1	1	3	-	-	-	5
Other and Eliminations	22	(184)	118	12	8	(25)	47	17	25	(35)	(32)	47
Total	377	403	426	131	95	181	171	46	46	113	1 337	492

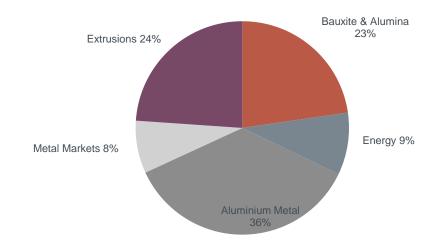


Return on average capital employed <sup>1)</sup> (RoaCE)

			Rep	orted RoaCE				Adjusted RoaCE						
	2023	2022	2021	2020	2019	2018	2017	2023	2022	2021	2020	2019	2018	2017
Hydro Bauxite & Alumina	(12.7%)	1.3%	11.9%	5.4%	1.9%	4.6%	8.5%	(2.5%)	1.8%	12.0%	5.9%	2.5%	6.0%	8.5%
Hydro Energy 2)	10.4%	28.8%	26.5%	249.5%	13.4%	18.8%	17.5%	13.0%	29.5%	25.4%	8.7%	12.9%	18.8%	17.5%
Hydro Aluminium Metal	16.0%	35.1%	21.6%	1.9%	(3.9%)	5.6%	11.8%	13.8%	35.4%	28.3%	2.9%	(2.6%)	4.7%	12.6%
Hydro Metal Markets	7.6%	33.2%	24.0%	22.8%	20.7%	25.1%	18.6%	10.7%	31.0%	23.9%	21.6%	27.3%	19.4%	20.9%
Hydro Extrusions 3)	8.4%	10.5%	9.4%	1.3%	3.8%	5.3%	13.4%	8.8%	11.4%	10.3%	6.2%	5.7%	7.2%	6.6%
Hydro Group	4.1%	21.9%	16.3%	5.4%	(0.9%)	6.0%	11.2%	7.1%	22.2%	18.6%	3.7%	1.3%	6.6%	9.6%

#### Capital employed – upstream focus

NOK million	June 30 2024
Hydro Bauxite & Alumina	27 056
Hydro Energy	11 927
Hydro Aluminium Metal	41 522
Hydro Metal Markets	10 168
Hydro Extrusions	30 190
Other and Eliminations	(779)
Total	120 085



Graph excludes BNOK (0.8) in capital employed in Other and Eliminations

1) RoaCE at business area level is calculated using 25% tax rate. For Hydro Energy, 50% tax rate is used for 2023, 40% for 2022 and 2021, 80% for 2020 and 2019, 70% for 2018, and 65% for 2017

Hydro Energy reported RoaCE for 2020 higher than previous years due to the Lyse transaction
 Hydro Extrusions reflected as 50% equity accounted investment Q1-Q3 2017 and fully consolidated from Q4 2017



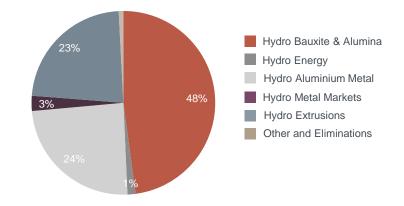
#### Depreciation, amortization and impairment

NOK million	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Year 2022	Year 2023
Hydro Bauxite & Alumina	553	633	624	687	659	729	703	4 523	761	775	2 496	6 614
Hydro Energy	47	47	47	48	48	49	49	50	49	66	190	196
Hydro Aluminium Metal	605	651	698	711	666	687	674	1 326	682	708	2 664	3 353
Hydro Metal Markets	38	39	39	44	42	45	87	194	202	165	161	368
Hydro Extrusions	746	767	748	1 036	741	792	779	859	750	772	3 297	3 171
Other and Eliminations	32	31	28	30	31	38	34	10	28	29	121	113
Total	2 020	2 168	2 185	2 556	2 186	2 340	2 327	6 962	2 472	2 515	8 929	13 815

#### Indicative depreciation currency exposure by business area

Percent	USD	EUR	BRL	NOK & Other
Hydro Bauxite & Alumina			100%	
Hydro Energy				100%
Hydro Aluminium Metal	30%		20%	50%
Hydro Metal Markets	20%	30%		50%
Hydro Extrusions	40%	35%		25%
Other and Eliminations		15%	10%	75%

#### Depreciation by business area 2023, 13.8 BNOK



### Operational data



Hydro Bauxite & Alumina	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Year 2022	Year 2023
Alumina production (kmt)	1 519	1 536	1 579	1 559	1 550	1 542	1 522	1 571	1 503	1 492	6 193	6 185
Sourced alumina (kmt)	741	758	764	593	686	553	692	909	1 080	1 231	2 856	2 840
Total alumina sales (kmt)	2 251	2 305	2 344	2 220	2 171	2 153	2 229	2 487	2 574	2 722	9 121	9 040
Realized alumina price (USD) <sup>1)</sup>	391	430	364	342	367	373	349	349	366	400	382	359
Implied alumina cost (USD) 2)	327	378	337	337	347	336	345	331	337	346	345	340
Bauxite production (kmt) 3)	2 638	2 736	2 814	2 824	2 648	2 630	2 848	2 771	2 600	2 730	11 012	10 897
Sourced bauxite (kmt) 4)	856	1 674	1 220	1 861	1 078	1 100	1 204	2 001	1 200	1 134	5 611	5 383
Adjusted EBITDA margin 5)	16.1%	11.9%	7.3%	1.3%	5.3%	9.2%	1.1%	4.8%	7.9%	13.6%	9.2%	5.1%
Hydro Energy	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Year 2022	Year 2023
Power production, GWh	2 730	1 602	1 330	2 002	2 610	2 431	2 216	2 440	2 843	1 929	7 664	9 697
Net spot sales, GWh	986	(433)	(703)	511	817	333	24	101	844	(146)	361	1 275
Nordic spot electricity price, NOK/MWh	1 090	1 211	1 757	1 414	934	647	949	515	667	408	1 370	642
Southern Norway spot electricity price (NO2), NOK/MWh	1 504	1 752	3 519	1 719	1 182	958	664	818	736	519	2 128	904
Adjusted EBITDA margin 5)	52.5%	33.6%	11.2%	50.8%	21.0%	39.5%	23.1%	30.4%	40.0%	23.8%	39.0%	27.2%

1) 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

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) Adjusted EBITDA divided by total revenues

### Operational data

Hydro

Hydro Aluminium Metal <sup>1)</sup>	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Year 2022	Year 2023
Realized aluminium price LME, USD/mt	2 662	3 031	2 497	2 246	2 291	2 273	2 146	2 129	2 248	2 377	2 599	2 218
Realized aluminium price LME, NOK/mt <sup>3)</sup>	23 542	28 461	24 706	22 813	23 566	24 417	22 456	23 143	23 609	25 526	24 739	22 995
Realized premium above LME, USD/mt <sup>2)</sup>	786	870	801	577	503	456	432	348	358	365	756	435
Realized premium above LME, NOK/mt <sup>2)3)</sup>	6 954	8 167	7 920	5 857	5 169	4 894	4 521	3 778	3 758	3 919	7 197	4 511
Realized NOK/USD exchange rate 3)	8.84	9.39	9.89	10.16	10.29	10.74	10.47	10.87	10.50	10.74	9.52	10.37
Implied primary cost (USD) <sup>4)</sup>	1 550	1 500	1 550	1 650	1 700	1 725	1 750	1 775	1 825	1 825	1 550	1 750
Implied all-in primary cost (USD) 5)	2 450	2 500	2 350	2 250	2 275	2 250	2 200	2 125	2 225	2 250	2 375	2 225
Hydro Aluminium Metal production, kmt	540	532	543	522	499	506	512	514	505	507	2 137	2 031
Casthouse production, kmt	555	542	547	522	513	519	523	512	519	519	2 166	2 067
Total sales, kmt <sup>6)</sup>	600	581	533	542	559	577	539	541	540	584	2 256	2 217
Adjusted EBITDA margin <sup>8)</sup>	43.0%	28.4%	38.8%	36.2%	26.1%	17.7%	12.1%	14.3%	14.9%	18.2%	35.1%	18.0%
Hydro Metal Markets	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Year 2022	Year 2023
Hydro Metal Markets Remelt production (1 000 mt)	<b>Q1 2022</b> 151	<b>Q2 2022</b> 158	<b>Q3 2022</b> 124	<b>Q4 2022</b> 115	<b>Q1 2023</b> 132	<b>Q2 2023</b> 146	<b>Q3 2023</b> 176	<b>Q4 2023</b> 166	<b>Q1 2024</b> 179	<b>Q2 2024</b> 202	<b>Year 2022</b> 548	<b>Year 2023</b> 620
•												
Remelt production (1 000 mt)	151	158	124	115	132	146	176	166	179	202	548	620
Remelt production (1 000 mt) Third-party sales (1 000 mt)	151 72	158 74	124 76	115 81	132 78	146 81	176 92	166 81	179 75	202 87	548 304	620 331
Remelt production (1 000 mt) Third-party sales (1 000 mt) Hydro Metal Markets sales excl. ingot trading (1 000 mt) <sup>7)</sup>	151 72 731	158 74 710	124 76 635	115 81 614	132 78 674	146 81 691	176 92 652	166 81 645	179 75 622	202 87 682	548 304 2 691	620 331 2 662
Remelt production (1 000 mt) Third-party sales (1 000 mt) Hydro Metal Markets sales excl. ingot trading (1 000 mt) <sup>7)</sup> Hereof external sales excl. ingot trading (1 000 mt)	151 72 731 610	158 74 710 607	124 76 635 536	115 81 614 530	132 78 674 566	146 81 691 590	176 92 652 567	166 81 645 567	179 75 622 540	202 87 682 589	548 304 2 691 2 284	620 331 2 662 2 290
Remelt production (1 000 mt) Third-party sales (1 000 mt) Hydro Metal Markets sales excl. ingot trading (1 000 mt) <sup>7)</sup> Hereof external sales excl. ingot trading (1 000 mt) External revenue (NOK million)	151 72 731 610 18 472	158 74 710 607 24 420	124 76 635 536 18 796	115 81 614 530 15 132	132 78 674 566 17 308	146 81 691 590 19 837	176 92 652 567 16 716	166 81 645 567 16 829	179 75 622 540 16 500	202 87 682 589 18 591	548 304 2 691 2 284 76 821	620 331 2 662 2 290 70 690
Remelt production (1 000 mt) Third-party sales (1 000 mt) Hydro Metal Markets sales excl. ingot trading (1 000 mt) <sup>7)</sup> Hereof external sales excl. ingot trading (1 000 mt) External revenue (NOK million) Hydro Extrusions	151 72 731 610 18 472 <b>Q1 2022</b>	158 74 710 607 24 420 <b>Q2 2022</b>	124 76 635 536 18 796 <b>Q3 2022</b>	115 81 614 530 15 132 <b>Q4 2022</b>	132 78 674 566 17 308 Q1 2023	146 81 691 590 19 837 <b>Q2 2023</b>	176 92 652 567 16 716 <b>Q3 2023</b>	166 81 645 567 16 829 Q4 2023	179 75 622 540 16 500 <b>Q1 2024</b>	202 87 682 589 18 591 <b>Q2 2024</b>	548 304 2 691 2 284 76 821 Year 2022	620 331 2 662 2 290 70 690 Year 2023
Remelt production (1 000 mt)         Third-party sales (1 000 mt)         Hydro Metal Markets sales excl. ingot trading (1 000 mt) <sup>7)</sup> Hereof external sales excl. ingot trading (1 000 mt)         External revenue (NOK million)         Hydro Extrusions         Hydro Extrusions external shipments (1 000 mt)	151 72 731 610 18 472 <b>Q1 2022</b> 347	158 74 710 607 24 420 <b>Q2 2022</b> 338	124 76 635 536 18 796 <b>Q3 2022</b> 301	115 81 614 530 15 132 <b>Q4 2022</b> 265	132 78 674 566 17 308 <b>Q1 2023</b> 301	146 81 691 590 19 837 <b>Q2 2023</b> 293	176 92 652 567 16 716 <b>Q3 2023</b> 260	166 81 645 567 16 829 Q4 2023 236	179 75 622 540 16 500 <b>Q1 2024</b> 266	202 87 682 589 18 591 <b>Q2 2024</b> 262	548 304 2 691 2 284 76 821 <b>Year 2022</b> 1 251	620 331 2 662 2 290 70 690 <b>Year 2023</b> 1 090

 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

Average realized premium above LME for casthouse sales from Hydro Aluminium Metal

a) Including strategic hedges /hedge accounting applied

4) Realized LME price minus Adjusted EBITDA margin (incl. Qatalum) per mt primary aluminium produced. Includes net earnings from primary casthouses

5) Realized all-in price minus Adjusted EBITDA margin (incl. Qatalum) per mt primary aluminium sold. Includes net earnings from primary casthouses

6) Total sales replaces previous casthouse sales due to change of definition

7) Includes external and internal sales from primary casthouse operations, remelters and third-party Metal sources

8) Adjusted EBITDA divided by total revenues

### Hydro Extrusions, information by business area



Volume (kmt)       31       28       30       28       30       28       117       31       32       31       29       124       31       31       Volume (kmt)       151       144       119       106       520       124       121       99       92       436         Operating revenues (NOKm)       2091       2038       2129       2020       2279       2249       2249       2249       2249       236       Operating revenues (NOKm)       953       10147       8696       7787       36162       9035       8664       6626       31450       3145       314       31       31       727       193       232       Adjusted EBITDA (NOKm)       103       1025       669       480       3209       867       819       320       314       31       31       727       193       232       Adjusted EBITDA (NOKm)       1035       1025       669       480       3209       867       319       320       315       314       315       2316         Adjusted EBIT (NOKm)       819       035       041       37       346       96       315       Adjusted EBIT (NOKm)       785       767       415       216       628       666	108         105           7 281         7 286           469         352           205         80
Adjusted EBITDA (NOKm)       184       95       135       50       464       152       185       259       131       727       193       232       Adjusted EBITDA (NOKm)       1 035       1 025       669       480       3 209       867       819       327       305       2 318	469 352
Adjusted EBIT (NOKm) 82 (3) 35 (51) 63 61 87 161 37 346 96 135 Adjusted EBIT (NOKm) 782 767 415 231 2 196 623 564 79 26 1 291	205 80
Q1 Q2 Q3 Q4 Year Building Systems 2022 2022 2022 2022 2022 2022 2022 20	Q1 Q2 2024 2024
Volume (kmt)         24         24         19         18         85         19         19         17         19         75         19         20         Volume (kmt)         142         141         134         112         529         126         121         113         95         455	108 106
Operating revenues (NOKm)       2 854       3 168       2 657       2 617       11 296       3 056       3 208       2 736       2 938       11 939       2 938       2 997       Operating revenues (NOKm)       9 096       10 263       9 412       7 750       36 522       8 684       8 304       7 535       6 622       31 146	7 088 7 370
Adjusted EBITDA (NOKm)       264       287       152       171       873       261       240       170       256       927       270       293       Adjusted EBITDA (NOKm)       895       1 042       476       330       2 743       965       813       592       317       2 686	582 571
Adjusted EBIT (NOKm) 156 179 43 57 435 149 116 49 126 440 148 168 Adjusted EBIT (NOKm) 618 743 196 25 1 582 677 508 288 11 1 484	324 305
Other and eliminations       Q1       Q2       Q3       Q4       Year       Q1       Q2       Q3       Q4       Year       Q1       Q2         Adjusted EBITDA (NOKm)       (47)       (83)       (47)       (91)       (268)       (22)       (44)       (26)       (86)       (178)       (77)       (72)	
Adjusted EBIT (NOKm) (50) (86) (50) (94) (281) (25) (48) (29) (109) (211) (83) (78)	

### Assumptions behind scenarios in profitability roadmaps



202

Scenarios are not forecasts, but illustrative earnings, cash flow and return potential based on sensitivities

- Starting point AEBITDA Q3-23 LTM
- Cash flow calculated as AEBITDA less EBIT tax and long-term sustaining capex, less lease payments and interest expenses for the Hydro Group
  - Tax rates: 25% for business areas, 40% for Energy, 28% (LTM) for Hydro Group
- ARoaCE calculated as AEBIT after tax divided by average capital employed
  - Average capital employed assumed to increase with growth capex and return-seeking capex above LT sustaining CAPEX 2024-2026
- The actual earnings, cash flows and returns will be affected by other factors not included in the scenarios, including, but not limited to:
  - Production volumes, raw material prices, downstream margin developments, premiums, inflation, currency, depreciation, taxes, investments, interest expense, competitors' cost positions, and others
- External scenario is based on CRU price and premium assumptions and S&P Global FX assumptions, with adjustments as specified in the footnotes

#### Price and FX assumptions

Assumptions used in		2024		2030	
scenarios	Q3 2023 LTM	forward real	Forward real 2023	Last 5 year average	CRU / S&P Globa real 2023
LME, USD/mt	2,240	2,240 (deflated by 2.5%)	2,300 (deflated by 2.5%)	2,180	2,560 (deflated by 2.5%)
Realized premium, USD/mt	490	380 <sup>1)</sup>	380 <sup>1)</sup>	430	570 <sup>4)</sup> (deflated by 2.5%)
PAX, USD/mt	350	320 (deflated by 2.5%)	340 <sup>2)</sup> (deflated by 2.5%)	330	380 (deflated by 2.5%)
Caustic soda, USD/mt	650	320 <sup>1)</sup>	320 <sup>1)</sup>	430	410 (deflated by 2.5%)
Coal, USD/mt	150	110 (deflated by 2.5%)	100 <sup>3)</sup> (deflated by 2.5%)	130	100 <sup>7)</sup> (deflated by 2.5%)
Pitch, EUR/mt	1,260	970 <sup>1)</sup>	970 <sup>1)</sup>	840	920 <sup>5)</sup> (deflated by 2.5%)
Pet coke, USD/mt	610	470 <sup>1)</sup>	470 <sup>1)</sup>	450	500 <sup>5)</sup> (deflated by 2.5%)
NO2, NOK/MWh Nordic system, NOK/MWh	1,150 850	770 <sup>6)</sup> 480 (deflated by 2.5%)	650 <sup>6)</sup> 400 (deflated by 2.5%)	840 620	650 <sup>7)</sup> 400 <sup>7)</sup> (deflated by 2.5%)
USDNOK	10.41	10.68	10.38	9.28	8.15 <sup>8)</sup>
EURNOK	11.11	11.77	12.25	10.35	9.58 <sup>8)</sup>
BRLNOK	2.06	2.19	2.15	1.93	1.47 <sup>8)</sup>

### Next event Third quarter results October 24, 2024

For more information see www.hydro.com/ir

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Industries that matter