



# Attractive RSK power solution secures value and predictability, supporting strategic direction

Investor Presentation

21 October 2020

# Agenda

Strategic rationale, transaction details and synergy potential



Energy in Hydro



Q&A



# Hydro and Lyse join forces and merge power assets



# Strategic rationale for RSK deal

Secure asset value, maintain strong captive position and strengthen potential to grow attractive green businesses in Hydro

- The transaction **removes uncertainty** by finding a favorable solution for RSK assets, which are subject to reversion in 2022
  - Hydro's ownership no longer subject to reversion after transaction
  - RSK represents 30% of current captive production
- **Secures long-term industrial ownership** of equity hydropower assets in Norway
  - Robust foundation for long-term operations in aluminium
- **Strengthens Hydro's energy leg** and potential to grow in attractive growth segments connected to renewables and energy storage



# An industry-shaping deal

## Introductory highlights

- Hydro and Lyse are merging parts of their respective hydropower production portfolios to create a strong hydropower player and to ensure long-term industrial access to renewable power
- RSK and Lyse's hydropower portfolio\* merged into Lyse Kraft DA, with annual production capacity of 9.5 TWh
- Hydro to become operator of both RSK and Lyse's fully owned power plants, increasing Hydro's operatorship in renewables from 11.2 TWh to 13.6 TWh\*\*
- Deal expected to close in Q4, pending approval from Norwegian competition authorities
- Significant synergy potential, both for Lyse Kraft DA and for Hydro

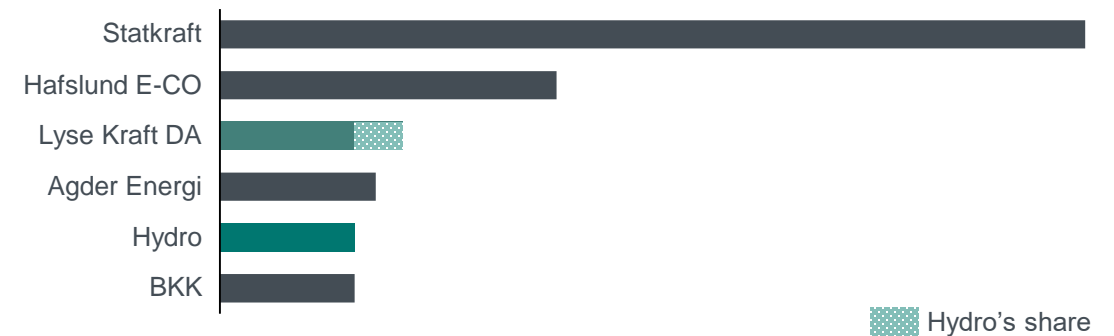
\* Except Jørpeland Kraft

\*\* including Tonstad windpower operator role

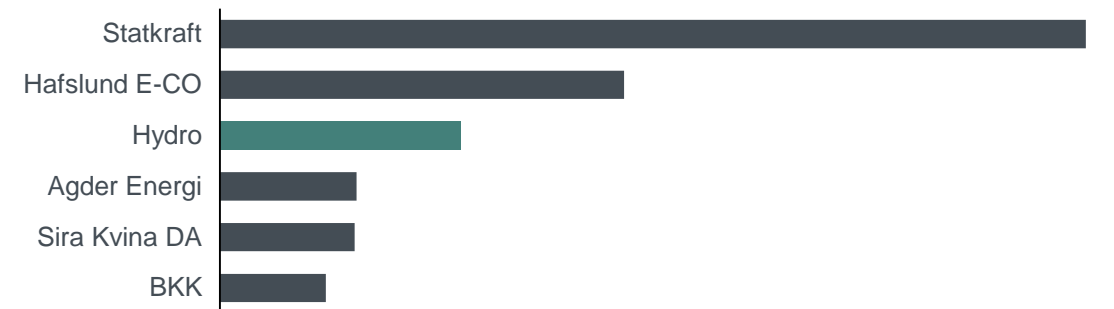
\*\*\* Lyse owns 74,4%, Hydro owns 25,6%

## Illustrative overview of Norwegian hydropower players after transaction

### Top 6 owners by size



### Top 6 operators by size



# Transaction supporting Hydro's strategic direction

## Our foundation



## Megatrends



## Strategic direction

### 1) Strengthen position in low-carbon aluminium



### 2) Diversify and grow in recycling and new energy



# Energy: Key for Hydro's greener platform

Energy plays a vital role in Hydro's value chain

- About 50% of operating costs are energy related
- Power cost is a major competitive element for smelters

The low-carbon footprint of Hydro's aluminium is a unique competitive advantage

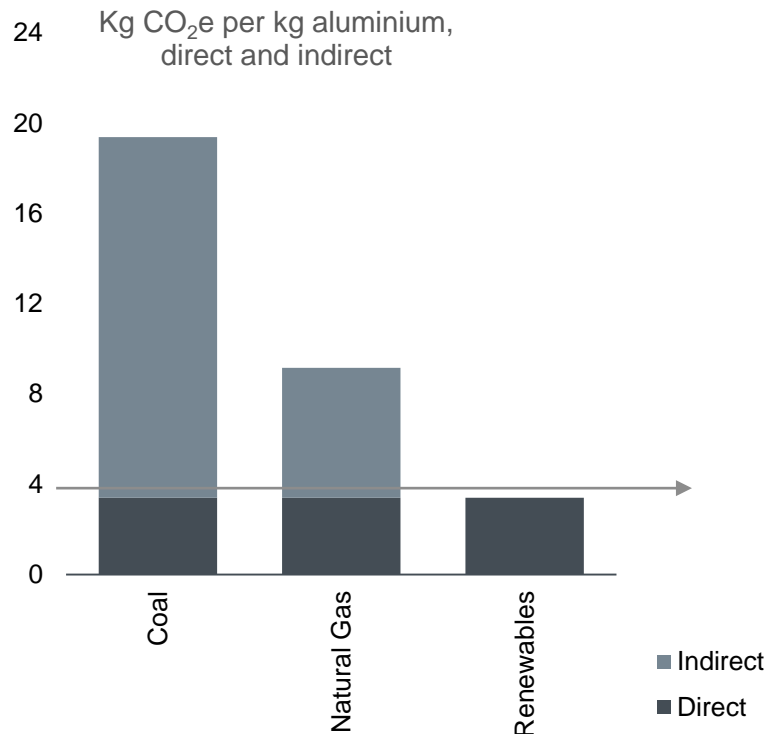
- 100% of Hydro's Norwegian smelters and more than 70% of global smelters are based on renewable power

Hydro already markets distinct brands based on low-carbon footprint: Hydro REDUXA and Hydro CIRCAL



# Energy: Key for Hydro's greener platform

## Hydro REDUXA enabled by emission-free power



Graph includes emissions from bauxite mining to casthouse products. Reduxa product brand guarantees all inclusive valuechain emissions below 4.0 CO<sub>2</sub>e per kg aluminium.



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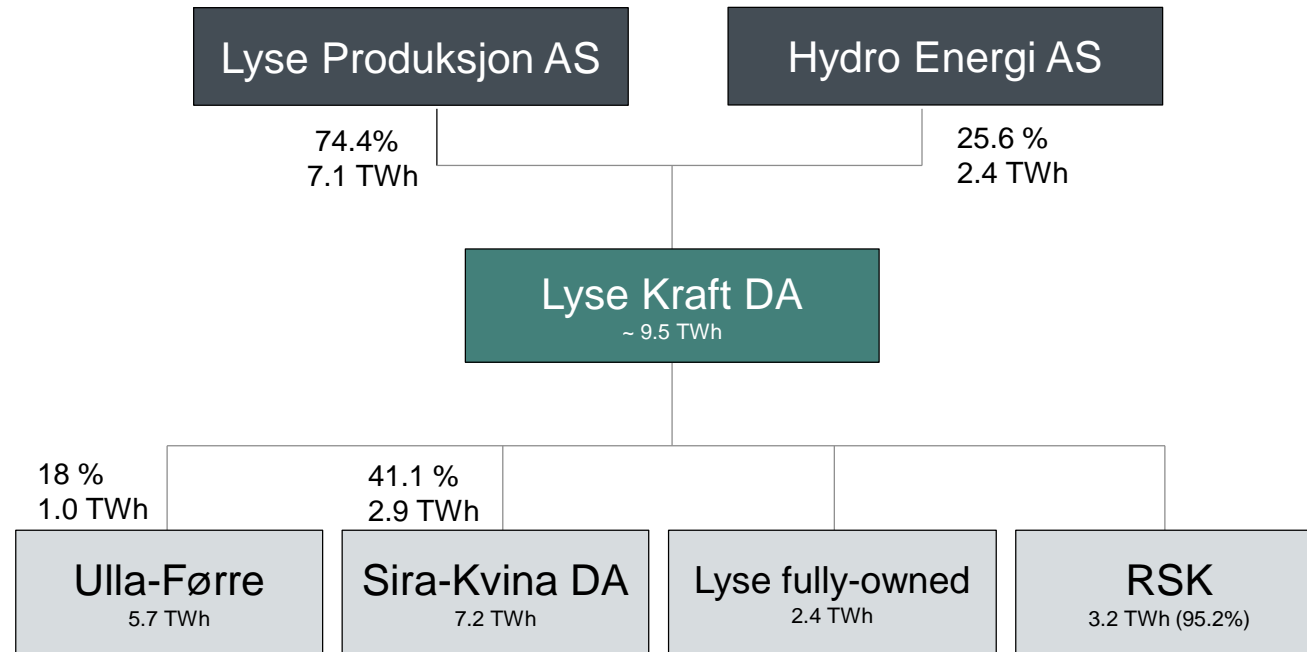
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# Hydro and Lyse join forces and merge power assets

Thorough process to mature optimal structure with good strategic fit



- Hydro and Lyse join forces and merge power assets into **Lyse Kraft DA**
- Hydro contributes with Røldal-Suldal (RSK) assets
- Lyse contributes with total power production portfolio\*
- Lyse and Lyse Kraft DA will be responsible for water management and market operations
- Hydro will be operator of the majority owned power plants in Lyse Kraft DA (5.7 TWh in total\*\*)
- 34 Lyse employees to be transferred to Hydro
- Lyse Kraft DA to hold direct ownership in power assets while physical power is transferred to owners at cost in line with ownership share (DA model)

Production figures based on historical average, not reported middle production figures  
\* Fully owned and part-owned hydropower plants, except shares in Jørpeland Kraft  
\*\* Including operatorship of 100% RSK (equal to 3.3. TWh)

# Overview of Hydro's hydropower portfolio

Lower captive volume and higher operator volume post transaction

## Before the transaction

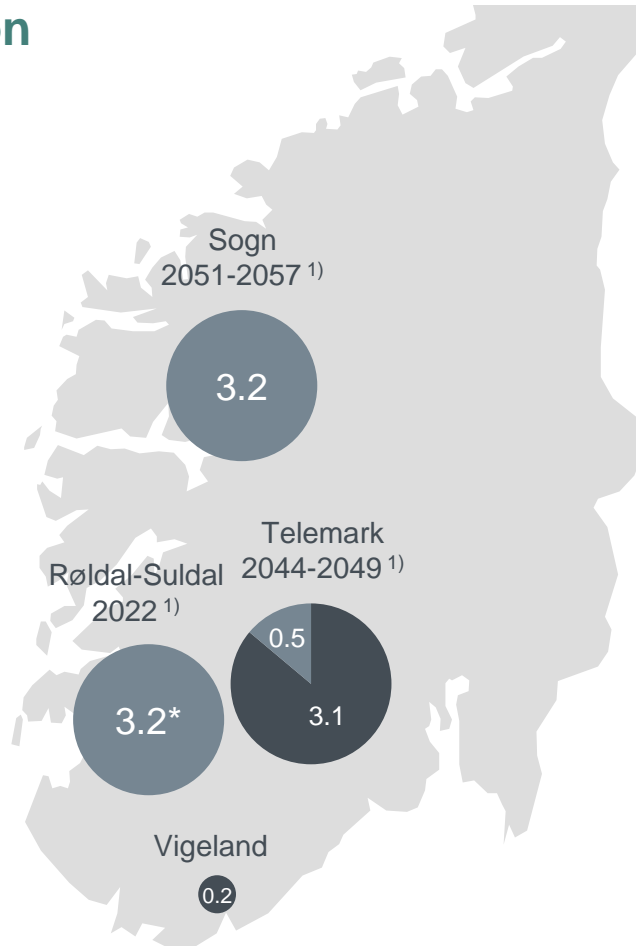
Normal annual production,  
Equity share

**10.2 TWh**

Operator hydropower

**10.5 TWh**

- No reversion
- Subject to reversion
- Bubble size = production in TWh



## After the transaction

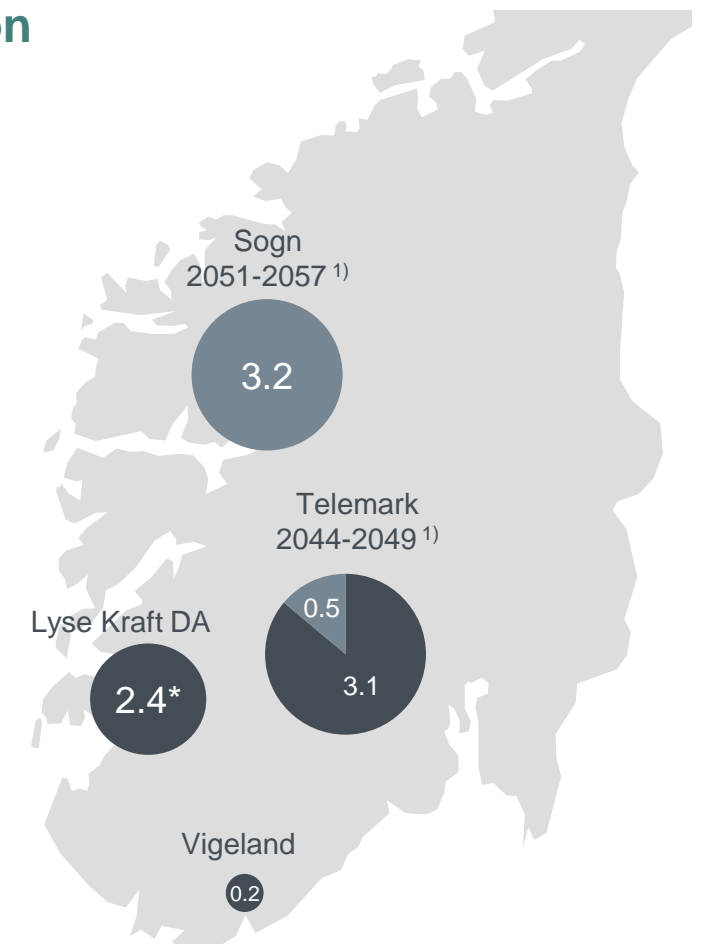
Normal annual production,  
Equity share

**9.4 TWh**

Operator hydropower

**12.9 TWh**

- No reversion
- Subject to reversion
- Bubble size = production in TWh



1) Reversion year

\* Production figures for RSK and Lyse Kraft DA are based on a historical average reference as assumed in the transaction. Figures for Sogn and Telemark reflect estimated middle production

# Values maintained through competitive process

Lower captive volume balanced by ownership in more valuable power portfolio and private shares not subject to reversion – value neutral effects

## Quality of assets

- Lyse’s portfolio is more valuable per GWh mainly due to **flexibility of assets** and **tax values**
  - Lyse has some of the most flexible power plants in Norway, achieving high price/margin and well positioned for the future power market
  - Low RSK tax values with limited remaining tax shield compared to Lyse

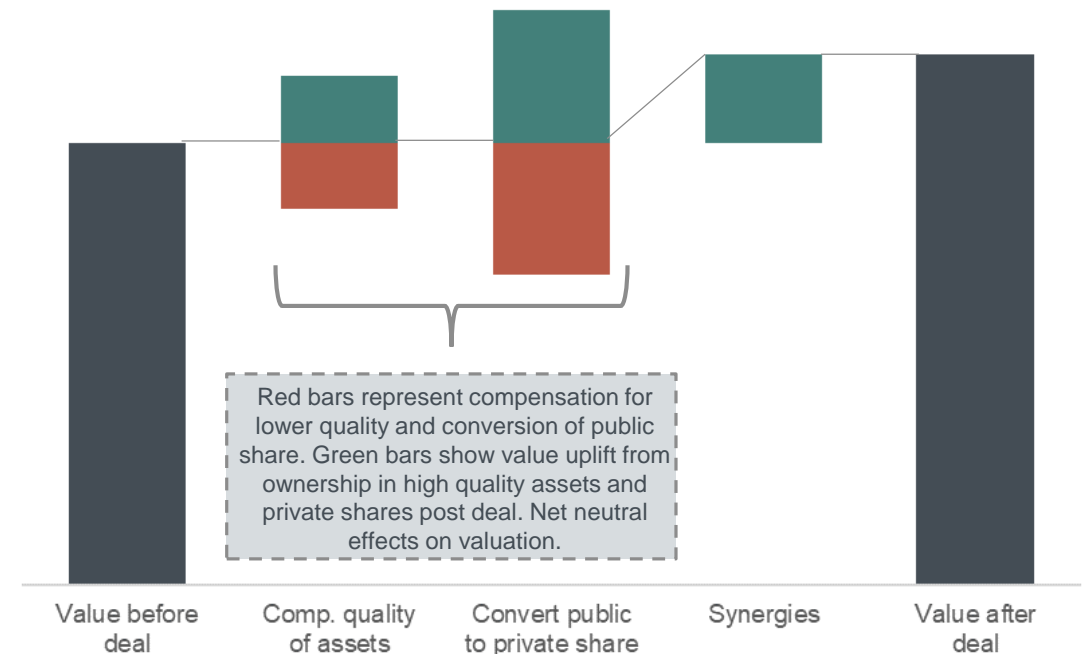
## Conversion from public to private evergreen shares

- Private shares are traded with a **liquidity premium** in the range of 0.5-1.5 NOK/kWh compared to public shares

## Synergies for Hydro

- Synergies and avoided dis-synergies in the range of **40-50 MNOK** annual EBITDA effect

Illustrative value overview pre/post deal

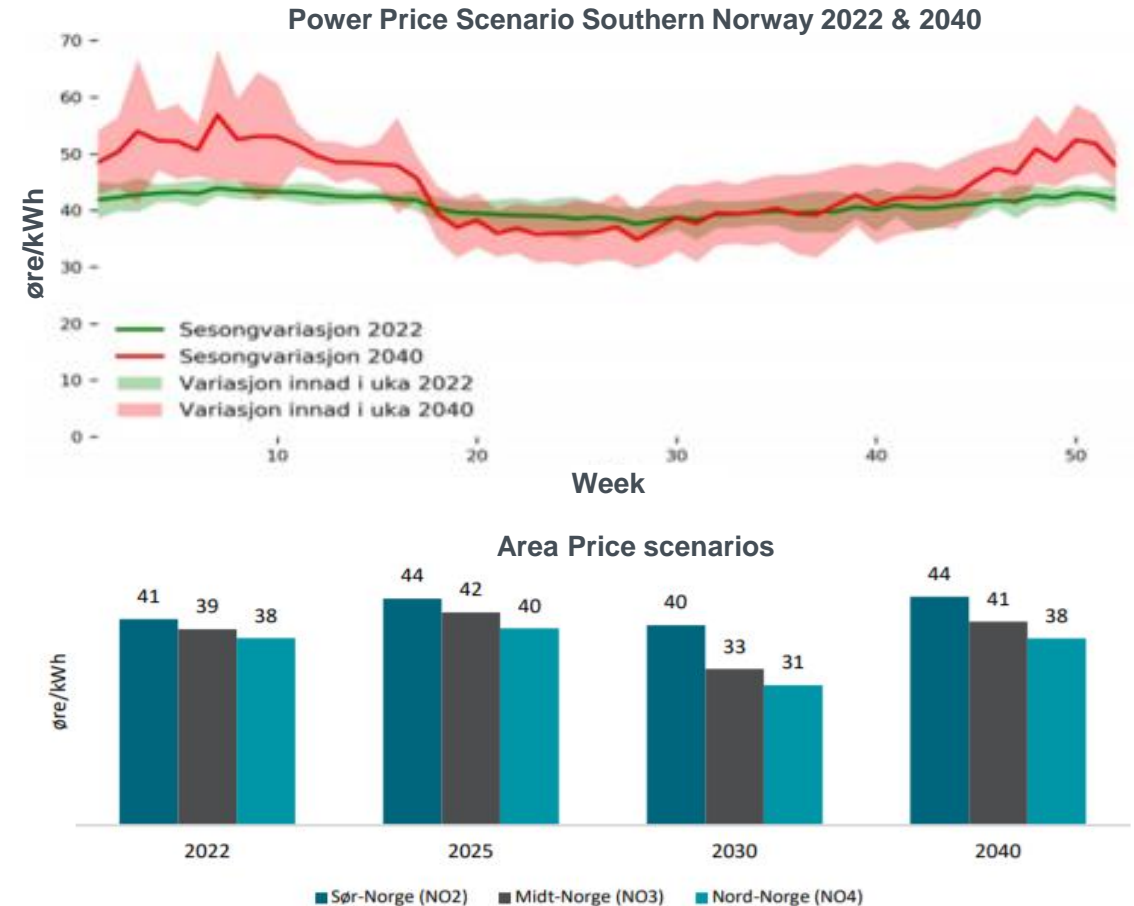


# Ownership in high-quality hydropower assets

Main quality differences between portfolios relate to current flexibility of assets, future value uplift of flexibility and tax values

- Compensation for **quality of assets** reduces Hydro's stake with approx. 300 GWh
- **Flexible assets** are characterized by large reservoir capacity relative to yearly inflow enabling power production at the best prices
- Flexibility can be illustrated by **fully load hours** p.a
  - Lyse portfolio on average approx. 3500 hours
  - RSK assets on average approx. 5500 hours
- In combination with high effect (MW) and high inflow area
- Large potential upside in a more volatile future energy market and with proximity to new interconnectors to Europe
- **Tax values** represent an important value differentiator through remaining tax shield\*
  - **RSK** tax assets written down towards reversion in 2022
  - **Lyse** tax assets impacted by large investments in recent years

\*tax shield through tax depreciation for both resource rent taxation and corporate income tax (total 59%)  
Source graphs: NVE report "Langsiktig Kraftmarkedsanalyse 2019"



Figur 18 – Kraftprisene i prisområdene har ulik utvikling. Prisforskjellene i Norge er antatt å øke mot 2030, før de reduseres mot 2040.

02

# Energy in Hydro

# Business area overview

115 years of Energy competence

## Our objectives

1. Deliver value from strong performance and new business models in the power industry
2. Be Hydro's energy competence center, providing competitive sourcing and optimal energy system solutions
3. Build complementary new business in renewable energy to create and capture new value

## Who we are and what we do

- ~200 employees (Norway, Germany, Brazil)
- **Power operations:** Owner and operator of large-scale hydropower production and operator of wind power
- **Market operations:** Significant market player in Nordics and Brazil, optimizing power portfolios in markets every day
  - Current total market portfolio of 18 TWh\* per year in Norway, including 15 long-term power contracts (hydropower and wind) on behalf of Primary Metal
  - Power sourcing to smelters in EU and Brazil
  - Sourcing operations and power services for Rolled Products, Extruded Solutions, Remeltes: Gas and power
- **Business development:** New energy opportunities for Hydro

\* 10 TWh captive + ~8 TWh external contracts from 2021-2030



# Solution with Lyse supports strategy to expand Energy business into new areas

## Key strategic drivers



1

Engaging in attractive growth markets

Good fit with current capabilities  
Attractively positioned for ESG-driven financial sector

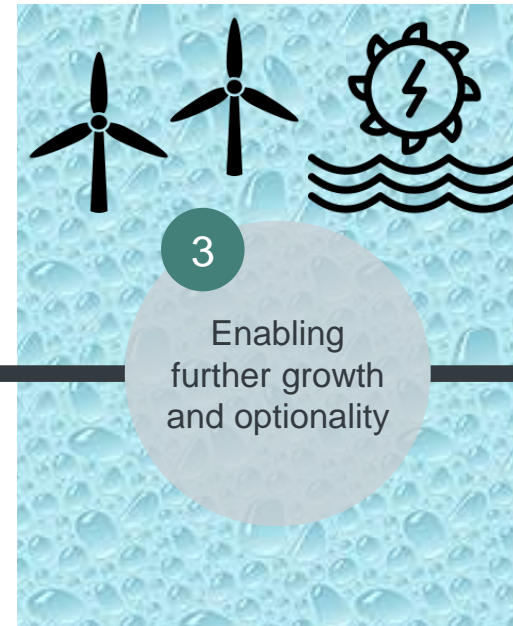


2

Capitalizing on current positions and expertise

Extensive experience in liberalized and connected power markets, deep operational and project competence

Trusted industrial partner

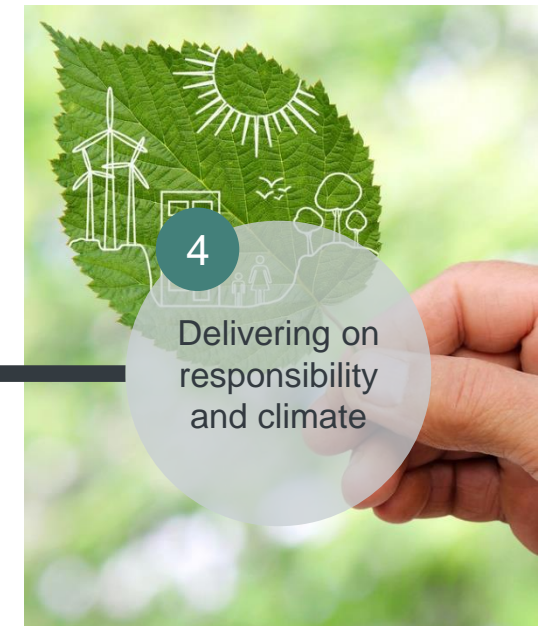


3

Enabling further growth and optionality

Scalable platforms for further development and growth of profitable business cases

Well-positioned to access third-party project finance resources



4

Delivering on responsibility and climate

Responsible operations and sustainable solutions for the low-carbon, circular economy

Sustainability across the value chain

# Commercial clout critical to succeed for new business

Lyse deal important to maintain scale and develop new business

- Handling Hydro's global exposure
- Optimizing hour by hour value of water reservoirs
  - Trading, hedging and optimization adding value
- Shaped the industrial PPA-markets in the Nordics
  - Hydro Europe's 2<sup>nd</sup> largest PPA-partner
- Established Hydro Energia organization in Brazil in 2015
- Competencies and platform have laid foundation for new businesses
- Lyse brings additional potential for business opportunities and cooperation, e.g in digital development



## Physical Market Optimization

10.2 TWh hydropower, 0.8 TWh wind power, and 8 TWh PPAs under commercial management



## Market Analysis

Nordic & European Power & Gas analysis



## Financial Trading & Hedging

Nordic & European power trading

## Commercial/long-term sourcing

Power Purchase Agreements for Primary Metal and Bauxite & Alumina

## Sourcing Operations

Sourcing of power and gas contracts to Extruded Solutions and Rolled Products

## Hydro Energia

Brazilian Market Power trading and wholesale customer services



# Energy's strategy towards 2025

**1** Deliver value from strong performance and new business models in the power industry



On the Nordic podium measured in terms of cost, safety and environmental factors

**2** Hydro's energy competence center, providing competitive sourcing and optimal energy system solutions



Best energy competence in any aluminium company  
Lower sourcing cost, lower risk, more renewables

**3** Build complementary new business in the renewable energy space to create and capture new value



Unique competence cluster. Asset light models.  
Attractive returns. Value + lowered risk for Hydro

# Energy Business Area in Hydro



## Energy

- Power operations: Hydropower and wind power
- Market operations
- Center of Excellence, support to other Business Areas

## Renewable Growth

- Grow from current pipeline, identify and develop new business cases in wind and solar in Nordics and Brazil

## Batteries

- Explore growth potentials in the battery value chain, based on current positions and new prospects

# 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.



A dark grey rectangular box containing two logos. On the left is the 'Hydro' logo, which consists of a stylized white wave icon above the word 'Hydro' in a white sans-serif font. On the right is the 'Lyse' logo, which consists of a stylized white wave icon above the word 'Lyse' in a white sans-serif font.



# Hydro

*We are aluminium*

