



Powering the green aluminium transition

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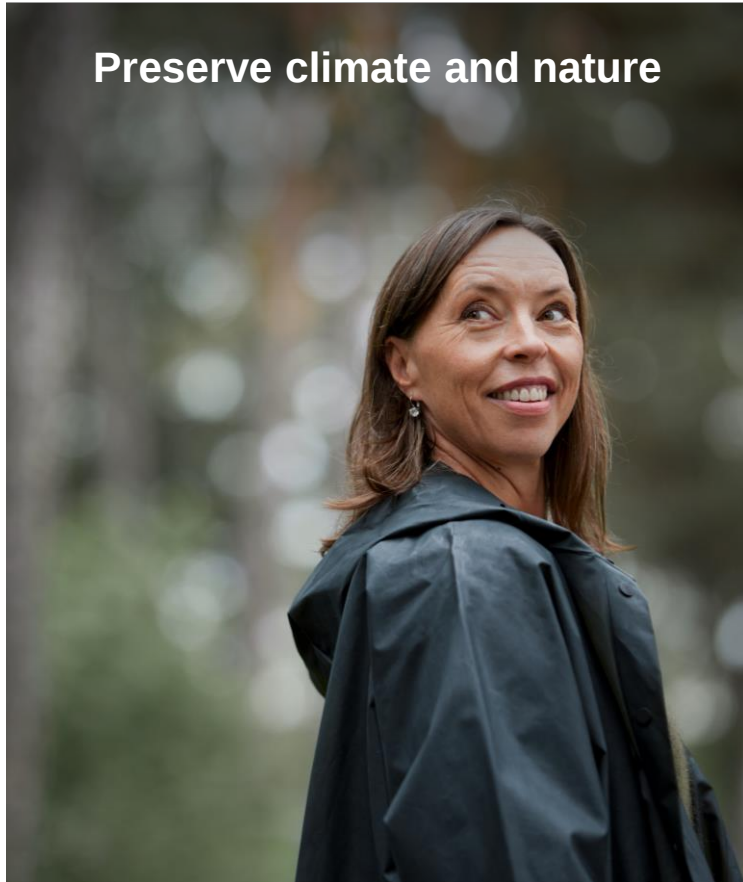
Pareto Securities' Power & Renewable Energy Conference, 18 January 2024



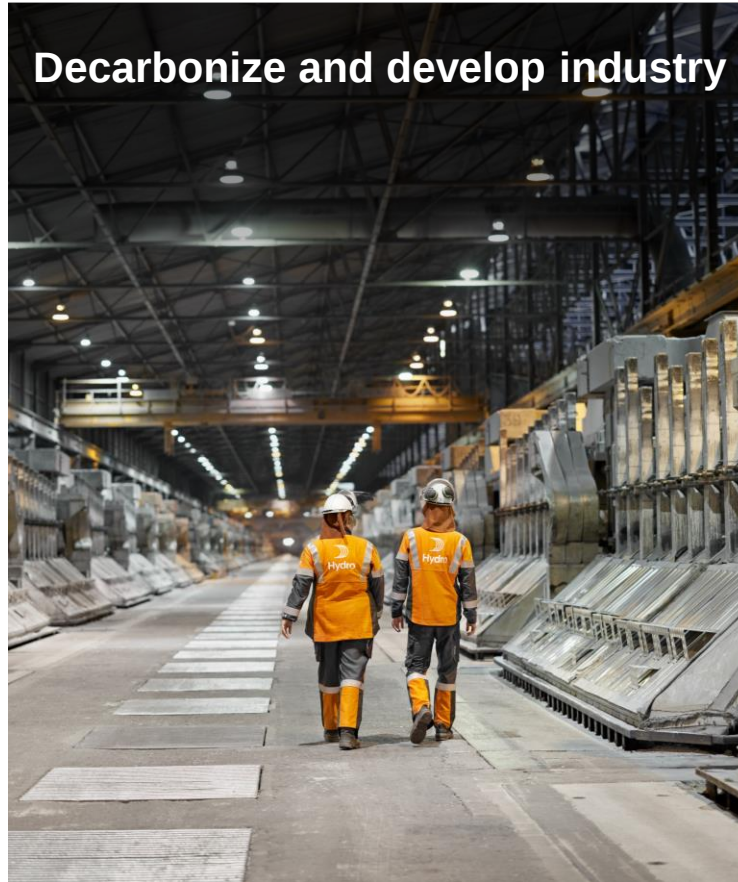
The world needs more renewable energy to succeed with the energy transition



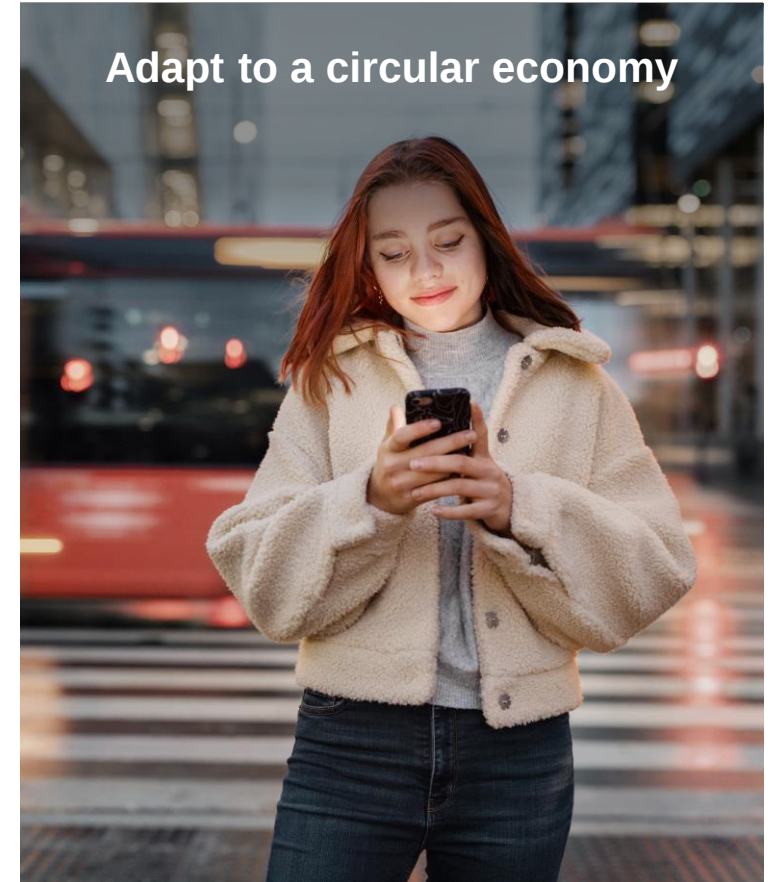
Preserve climate and nature



Decarbonize and develop industry



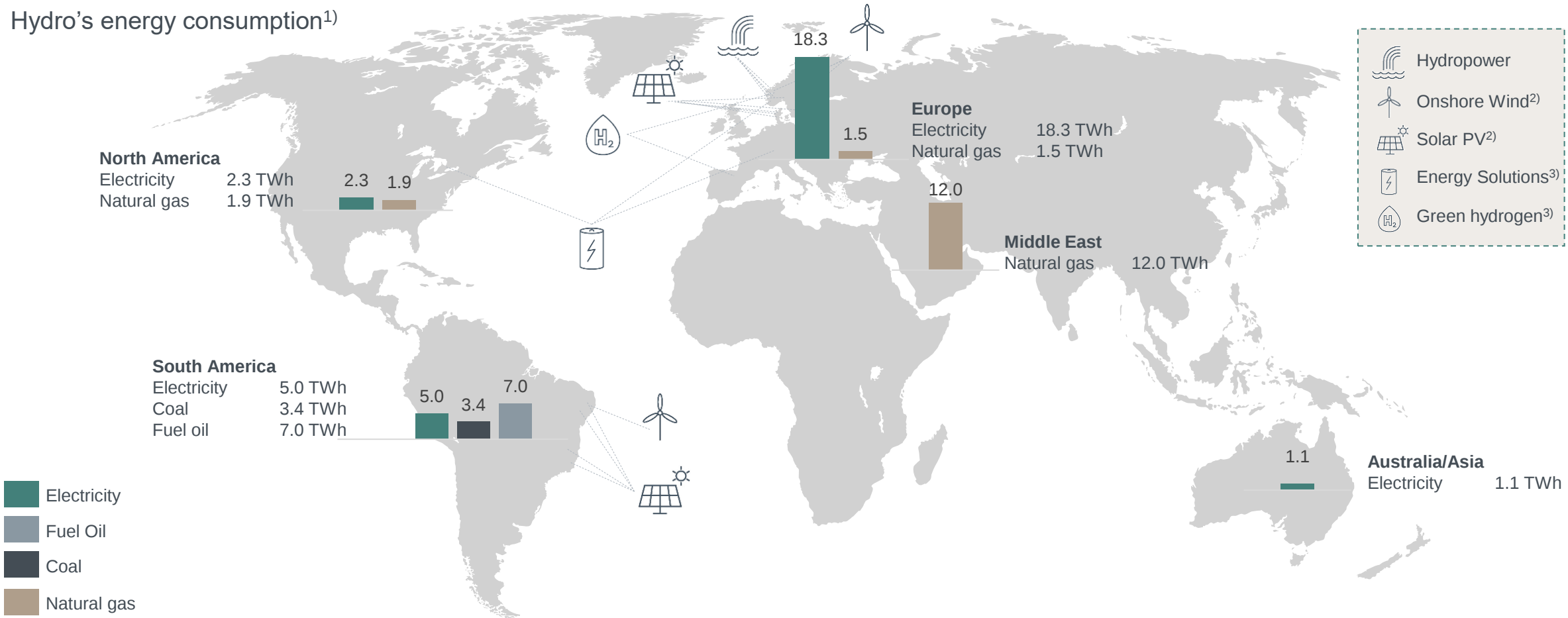
Adapt to a circular economy



Hydro is a large power producer, power consumer and market player



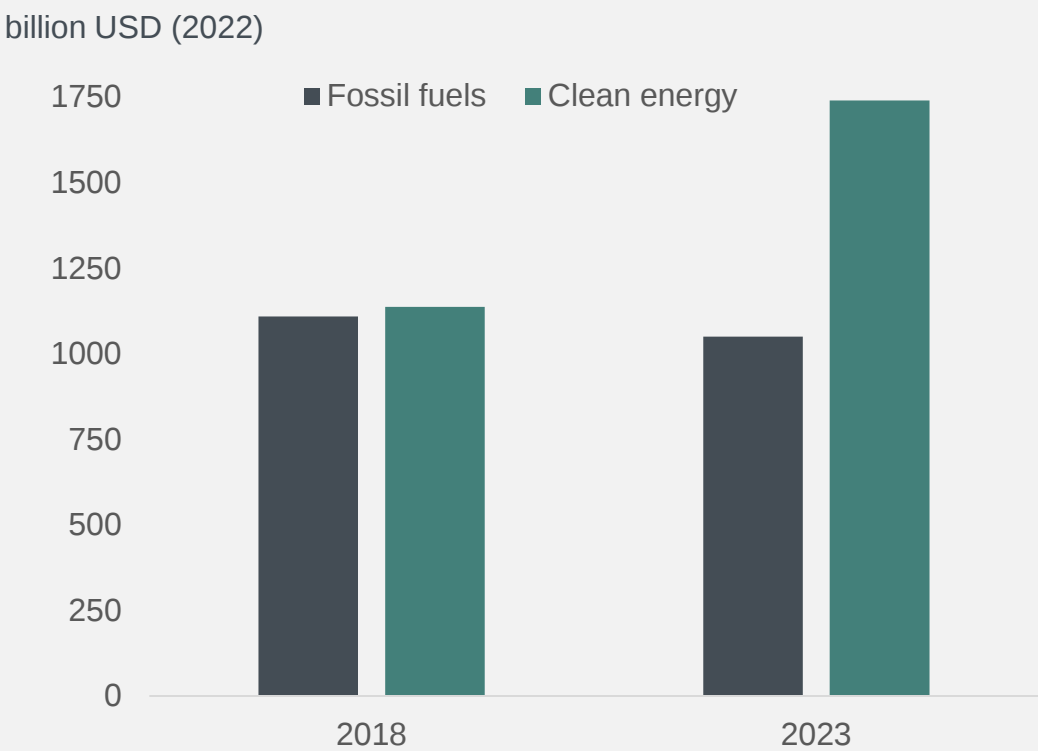
Hydro's energy consumption¹⁾



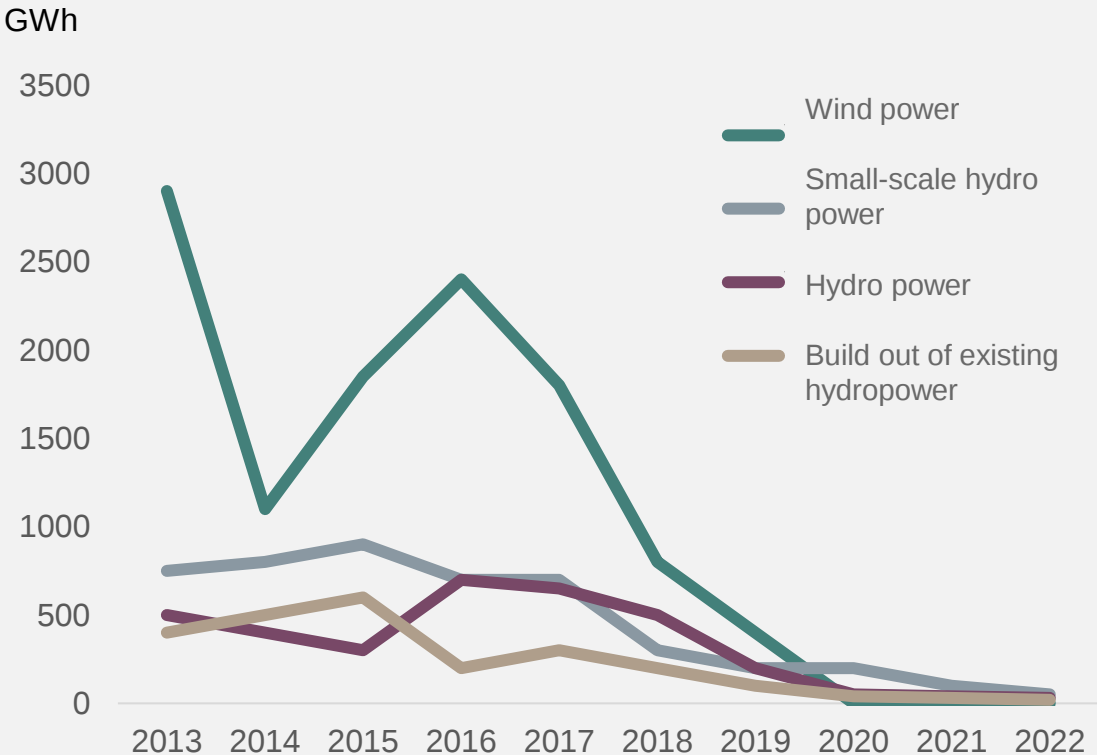
1) Based on equity-adjusted 2022 values for Norsk Hydro's bauxite mines, alumina refineries, smelters, remelters and extrusion plants.
2) Only projects in operation and under construction or announced. 3) Only pilot projects

Global renewable investments have increased significantly, but fallen in Norway

IEA: “This year, for every dollar invested in fossil fuels, USD 1.70 is going to clean energy”



NVE: Concessions new power (Norway)



Norwegian power market surplus in question



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

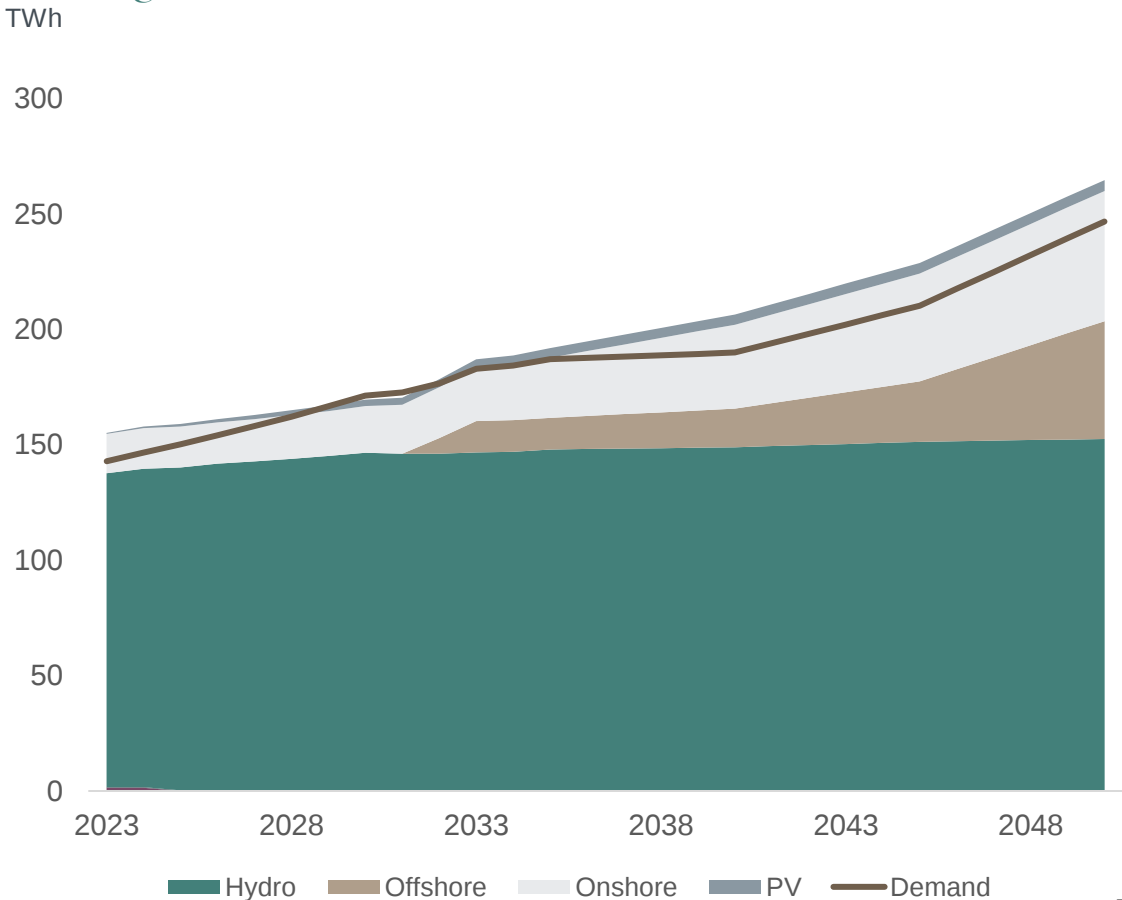
Market uncertainty prevails

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

Norwegian Power Balance

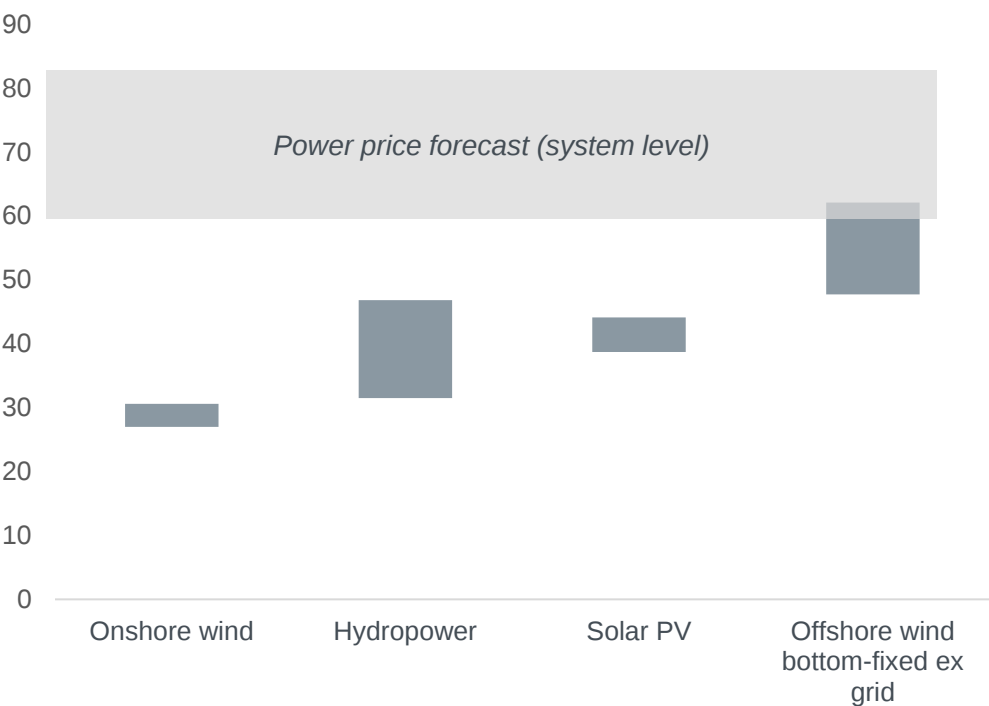


Norwegian power projects remain attractive

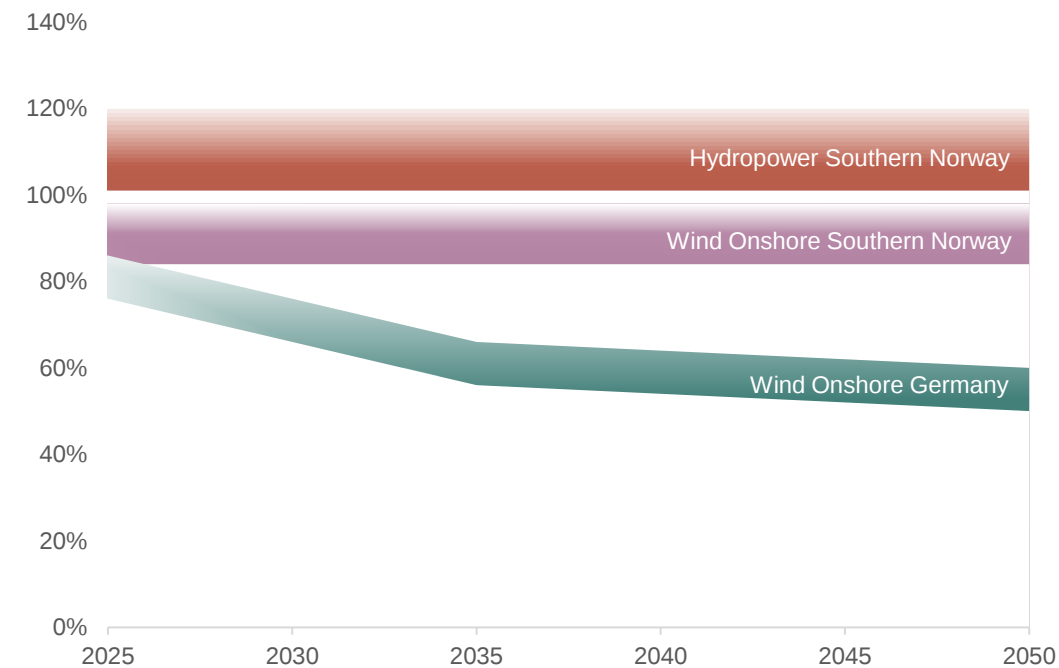


Attractive resource base and cost level, and onshore wind is enabler for renewables at low shaping cost

Range of LCOE and Nordic System price to 2030¹⁾
2023 EUR per MWh

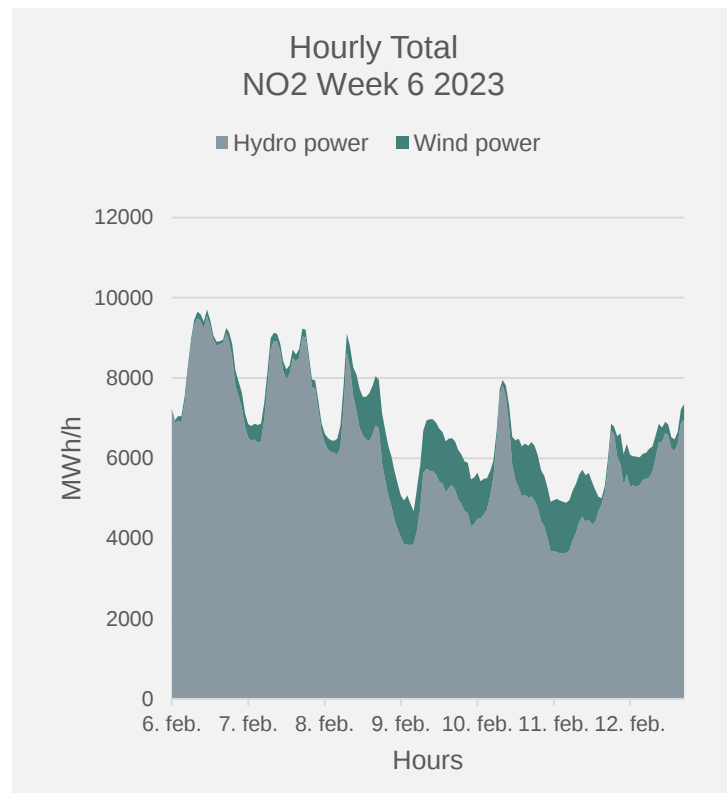


Illustrative Capture rates Southern Norway and Germany
Percentage

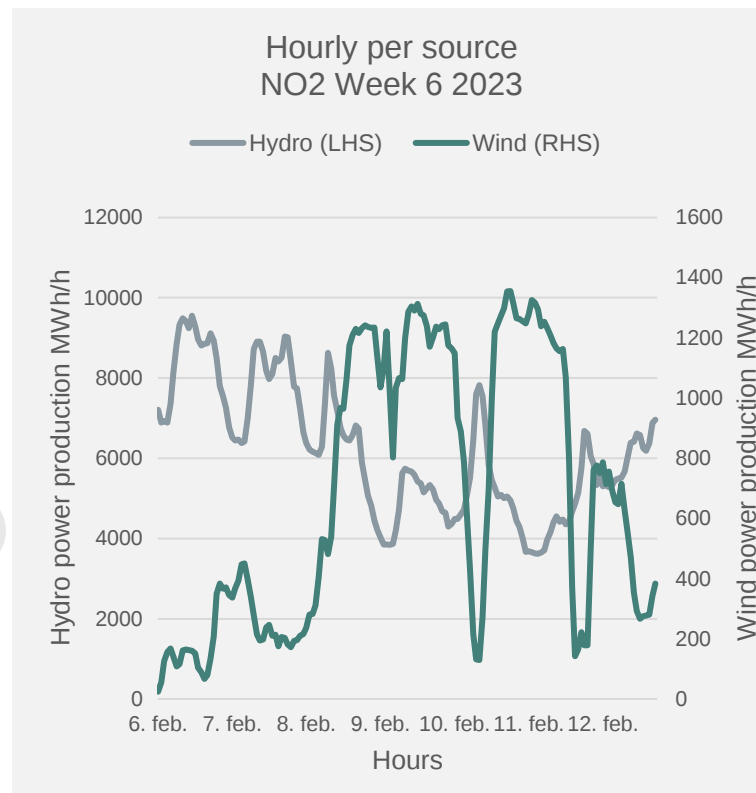


1) LCOE = Income necessary from power as produced to reach profitability for the technology. Estimates from four different consulting companies. Offshore wind not relevant in Norway until post 2030.

Wind and hydropower interplay is key for future system



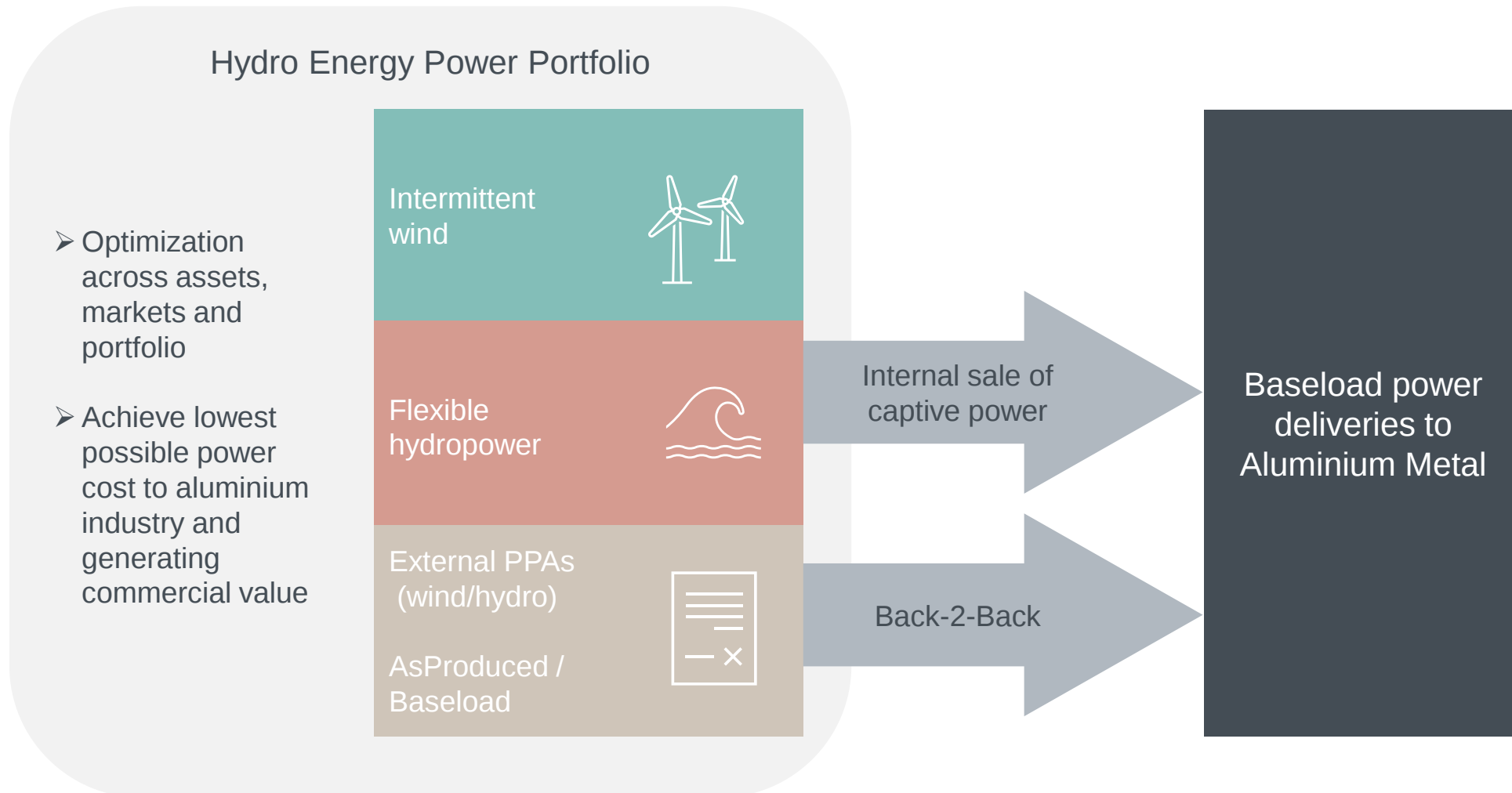
Share of wind production in NO2 is currently 10-12 %*



Flexible hydropower production adjusts according to intermittent wind production



Commercial portfolio handling combined with stable industrial demand



Status for Hydro's wind projects in Western Norway



Pursuing opportunities to develop and source power to industry

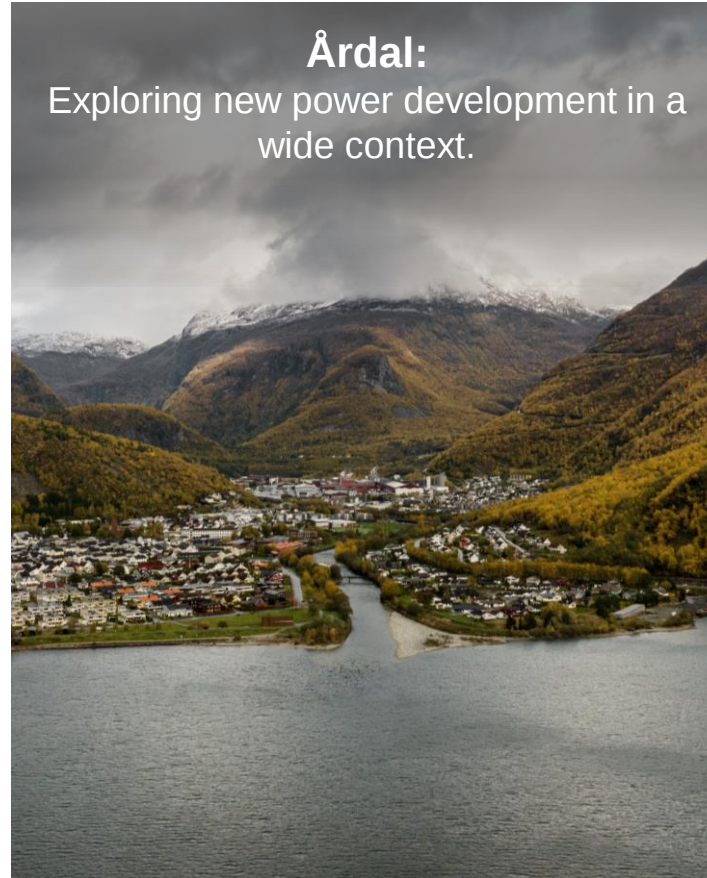
Snøheia:

Project development ongoing.
Proceeding when project is mature.



Årdal:

Exploring new power development in a
wide context.



Other locations:

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



Upgrading and expanding hydropower in Røldal-Suldal can resolve 10-15 per cent of future capacity

Good cooperation and local value creation important

Hydro and Lyse have applied for concession for five new hydropower stations in Røldal-Suldal

Biggest single hydropower project in 40 years

More than double increased capacity - 650 MW increase

800 GWh gross increased yearly power production



Hydro is pioneering the green aluminium transition powered by renewable energy

- 1** | Renewable power operations and energy management is at the core for Hydro's industrial activities across geographies
- 2** | Seizing attractive opportunities developing flexible hydropower in Norway as well as new onshore wind and solar projects in the Nordics and Brazil
- 3** | Capturing synergies between Hydro's Aluminium business, Hydro Energy and Hydro Rein





Hydro

Industries that matter