

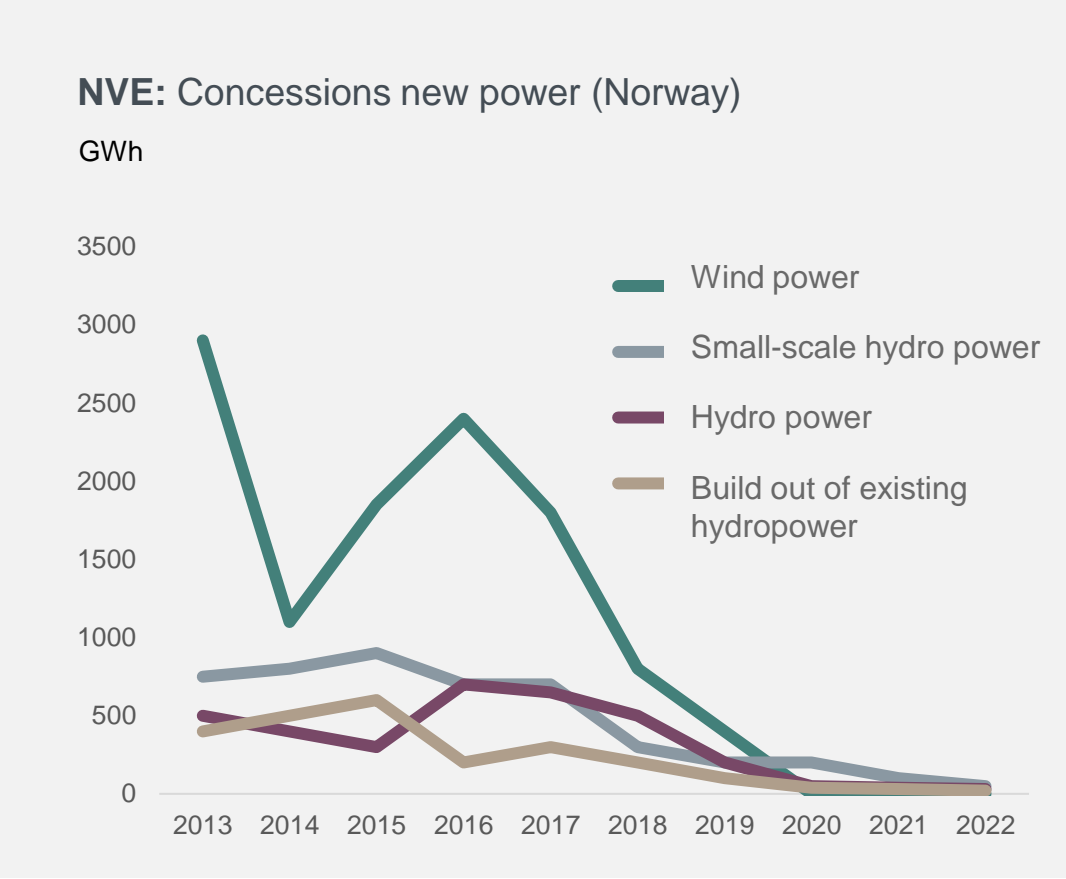


# Shifting gear in the energy transition

Arvid Moss, EVP Energy, Norsk Hydro

Sparebank 1 Markets Energy Conference, 27 February 2024

# We need to shift gear in Norway – from discussing targets to planning and execution



# Norwegian power market surplus in question



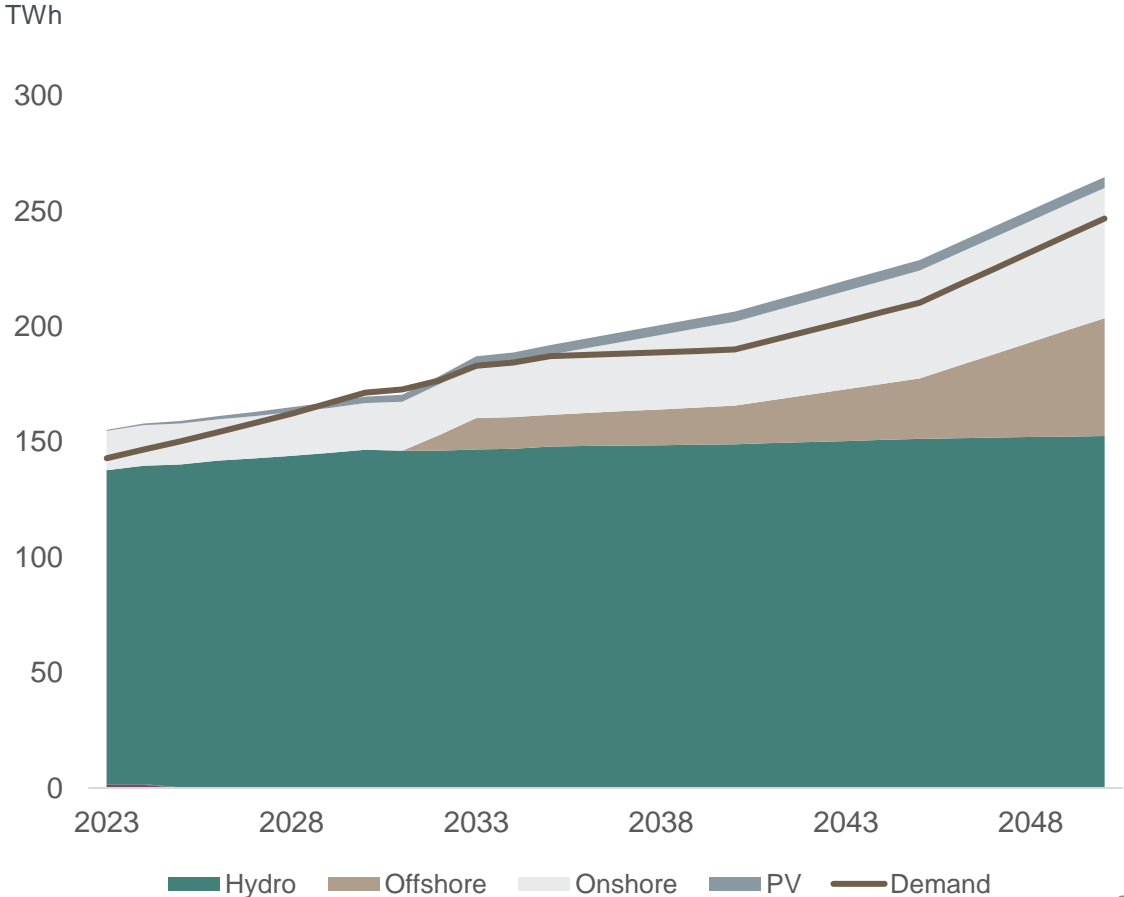
Public opposition to onshore wind parks limiting the effect of attractive renewable resources

## Market uncertainty prevails

**Short-medium term: Power market balance weakening**  
Demand from electrification and new industries outpaces supply in the short end

**Longer term: Lack of certainty regarding offshore wind (timing and volumes)**

### Norwegian Power Balance



Source: Hydro



# Key risks if we do not shift gear

1

Higher power prices, losing competitive edge, reduced investment appetite

2

Losing global leadership within existing green industries

3

Missing out on opportunities to develop new technologies, industries and jobs

4

Not reaching climate targets, risk of not maintaining employment rates and welfare over time

# Key challenges that need to be solved

Grid capacity | Permitting processes | Impact on biodiversity | Courage to execute

## Local public acceptance



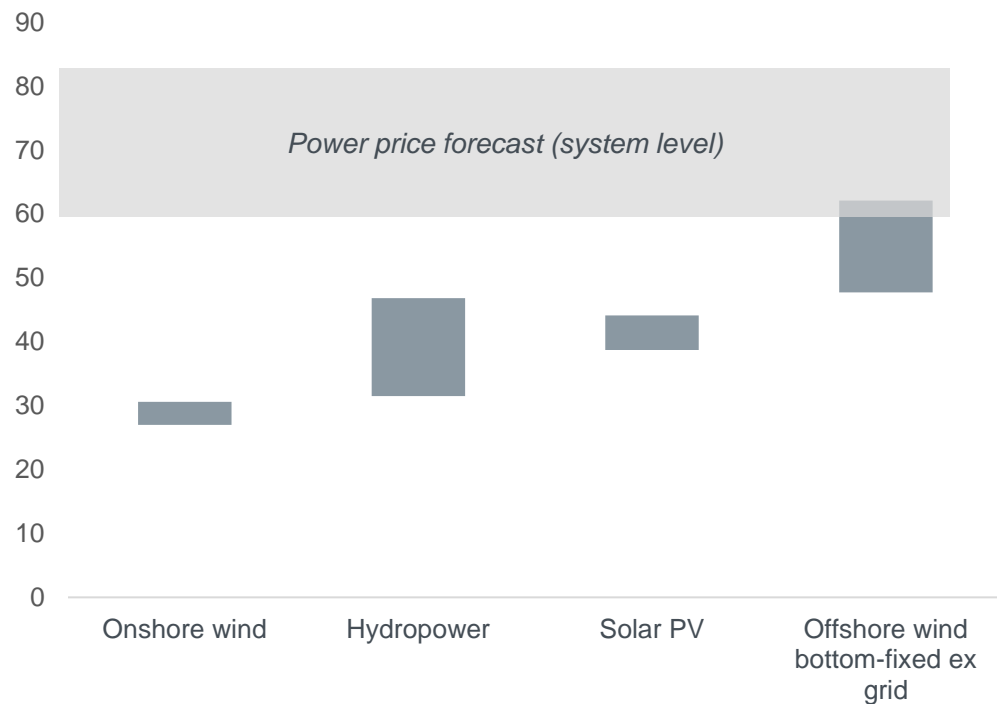
# Norwegian power projects remain attractive



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

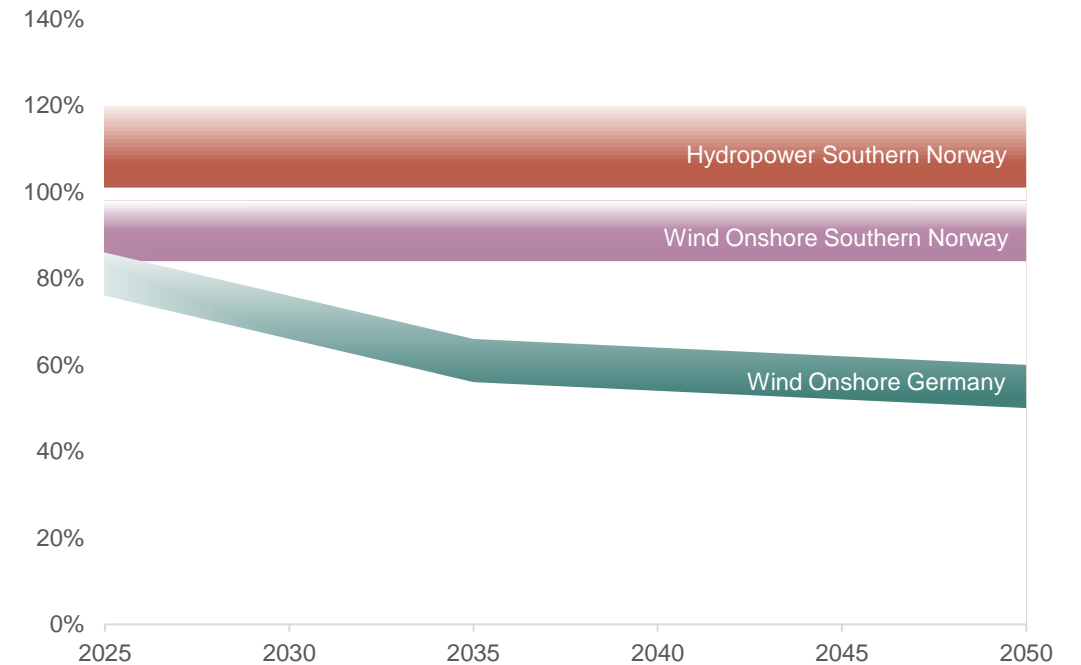
## Range of LCOE and Nordic System price to 2030<sup>1)</sup>

2023 EUR per MWh



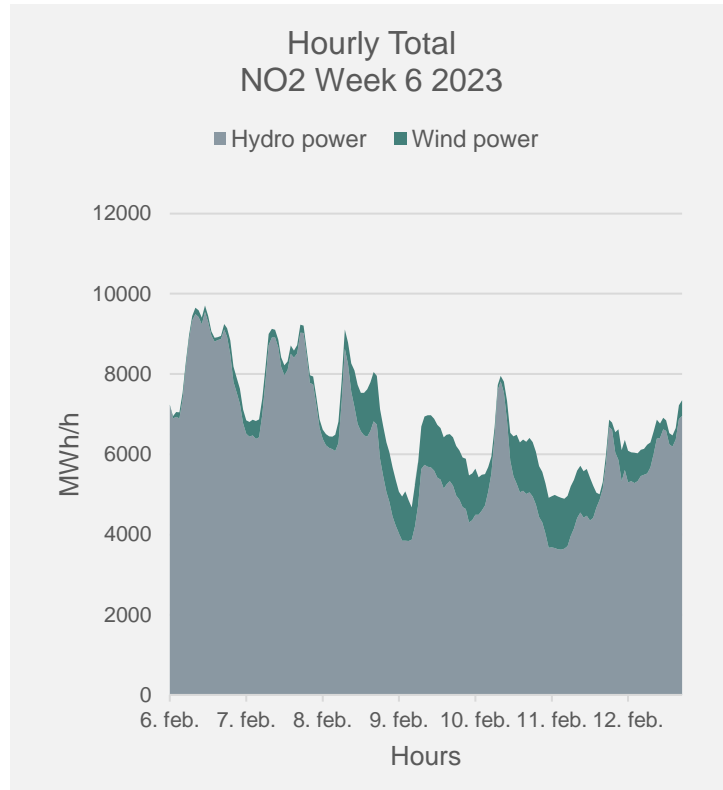
## Illustrative Capture rates Southern Norway and Germany

Percentage

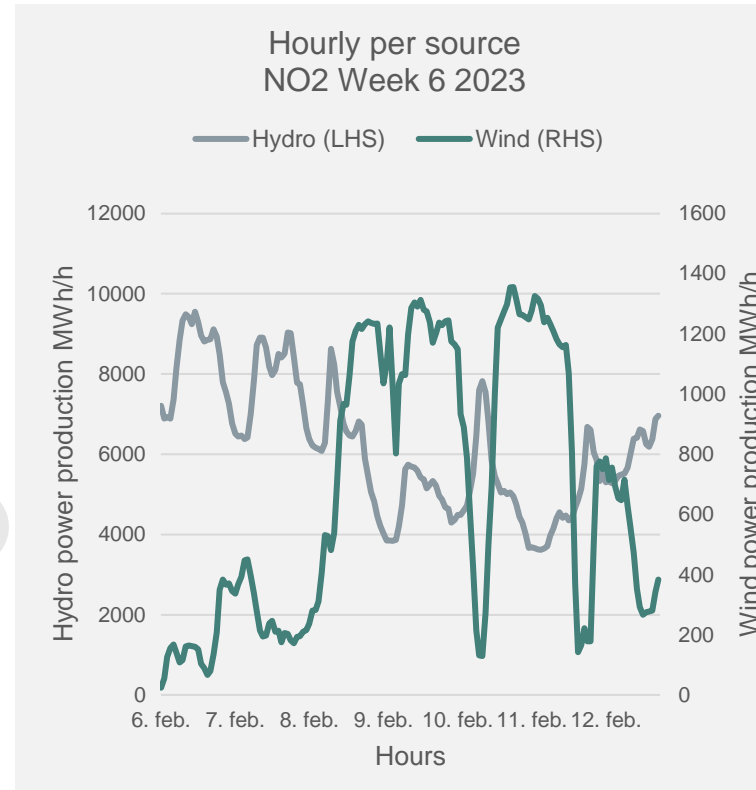


1) LCOE = Income necessary from power as produced to reach profitability for the technology. Estimates from four different consulting companies. Offshore wind not relevant in Norway until post 2030.

# 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



# 2024: Turning point? Business is ready to act

2030 is right around the corner, to succeed we need more faster

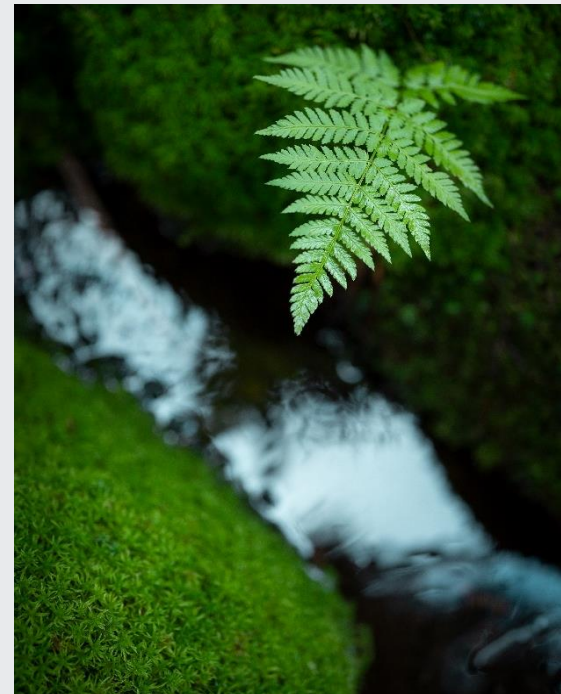
Key framework conditions for renewables agreed



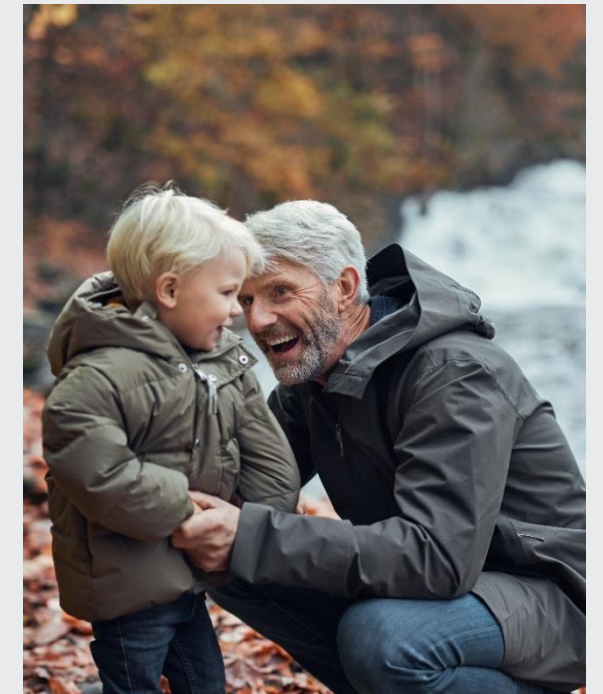
Signals wrt faster permitting, more grid capacity



Sense of urgency, reflecting European and Nordic neighbors



Doing things right together with our local communities





# Power development for industrial purposes create jobs and vibrant local communities



- 1 | Opportunity for industrial companies to continue investing in and develop world-leading greener industries
- 2 | Greener industries contribute with more jobs, export revenues, tax revenues and positive local ripple effects
- 3 | Power and low-carbon materials are crucial for decarbonizing society and mitigating climate change



**Hydro**

*Industries that matter*