



# Hafslund

*For a world in balance, with renewables*

## Investor presentation

October 2023

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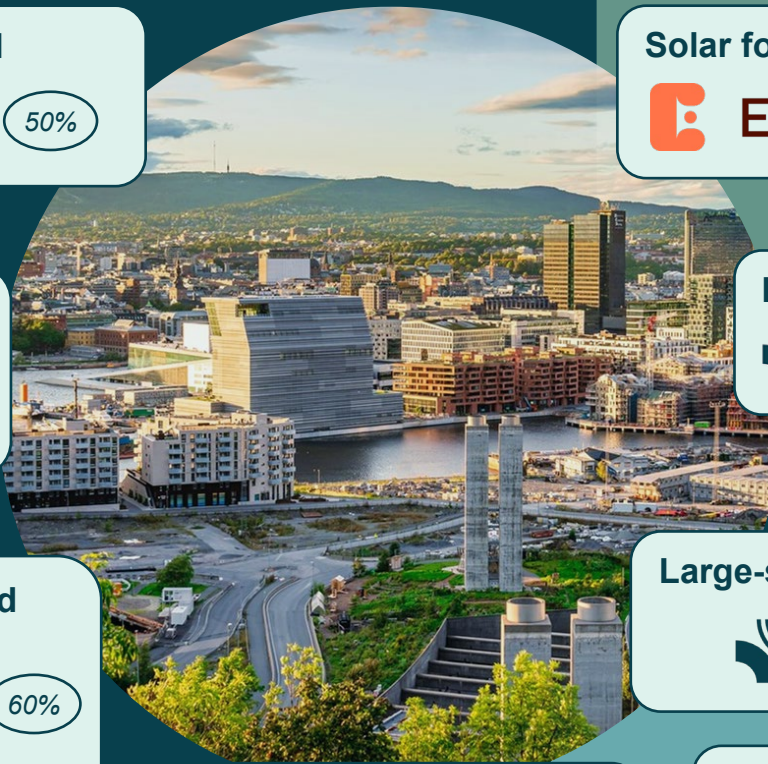
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- **Company overview**
- **Financials**
- **Summary**



# Hafslund – Oslo's energy and infrastructure group



Norway's largest grid operator (>900t customers)

Distribution grid  
**Elvia** 50%

Norway's second largest power producer (21 TWh)

Hydropower  
**Hafslund Eco** 77%

Norway's largest district heating producer (2 TWh)

District heating and cooling  
Hafslund Oslo  
**Celsio** 60%  
Eidsiva bioenergi

Offshore wind  
**Blåvinge** 33%

Solar for buildings  
**Eddy** 50%

Fiber  
**Hafslund Fiber** EIDSIVA bredbånd

Green data storage  
telenor Hafslund HITECVISION

**Elaway**  
EV Charging

Large-scale solar power  
**Hafslund Magnora Sol**

Onshore wind  
Eidsiva Hafslund Vind

Green, smart city

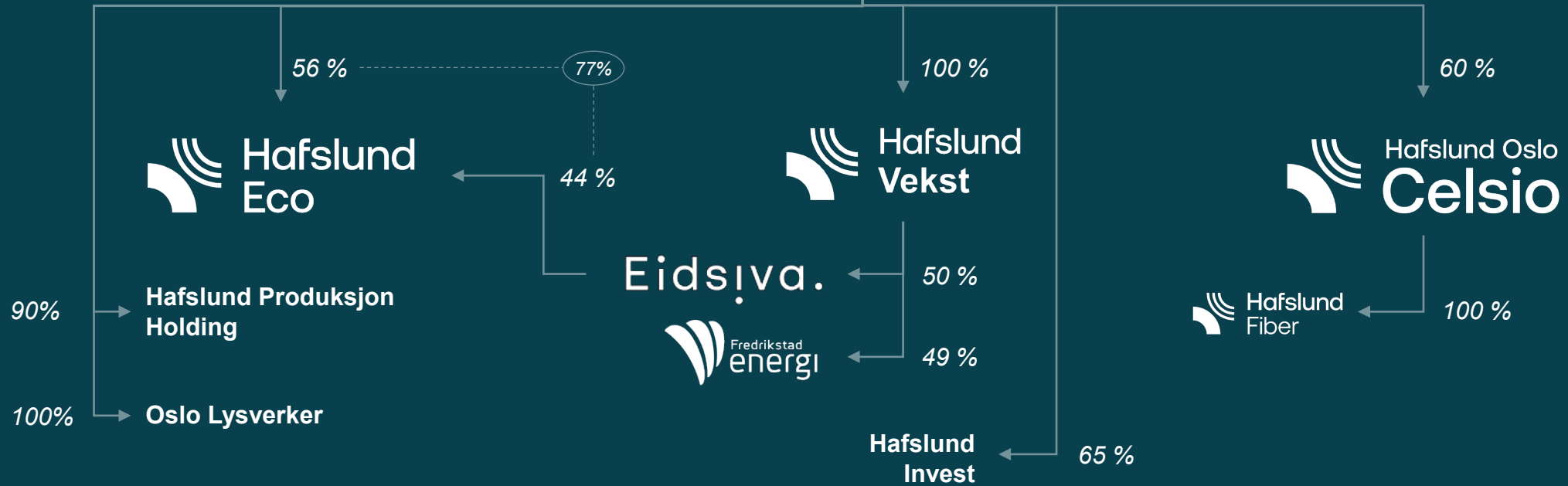
New renewable energy

Overall ownership structure  
in the Hafslund group



Oslo

100 %

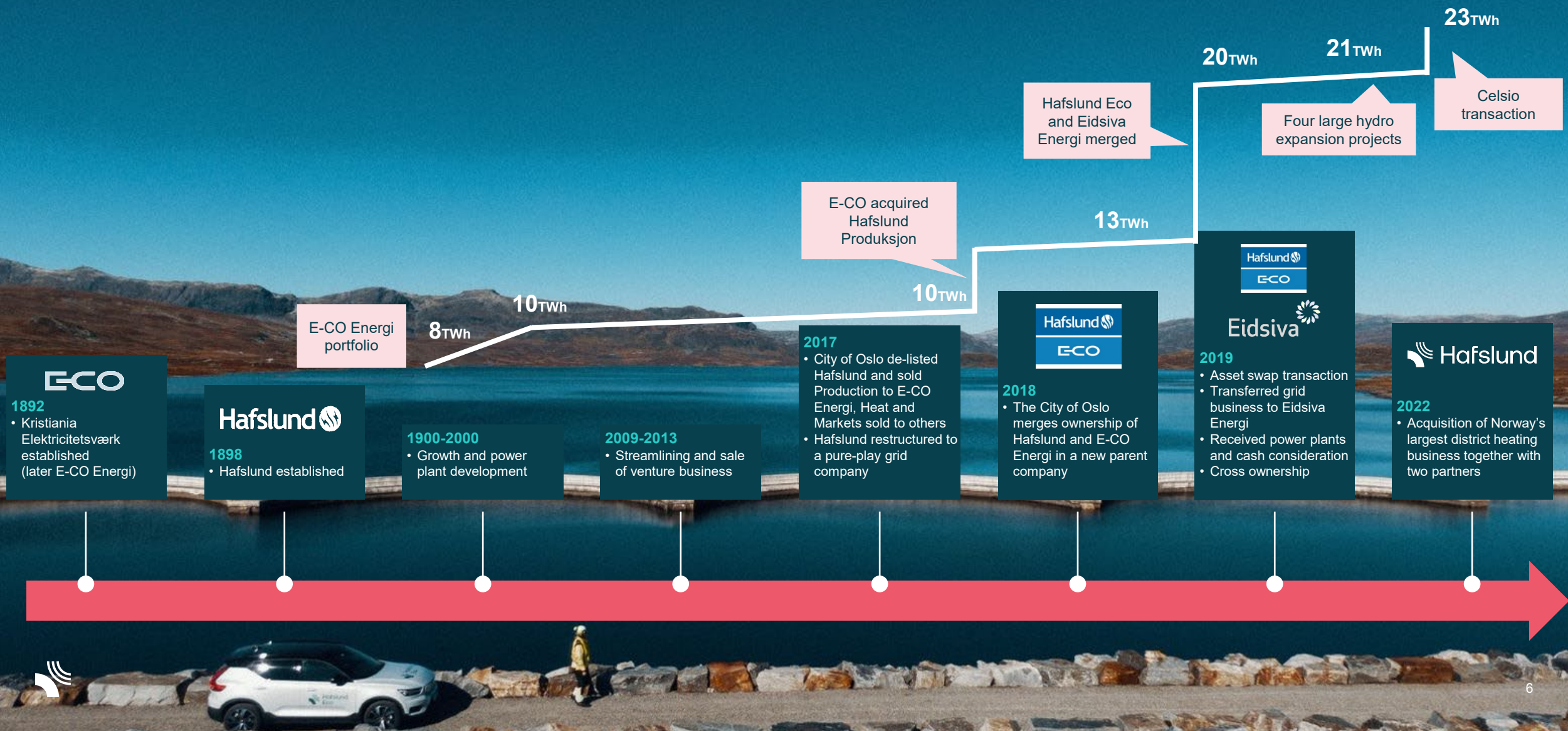


HYDROPOWER

GROWTH AND  
INVESTMENTS

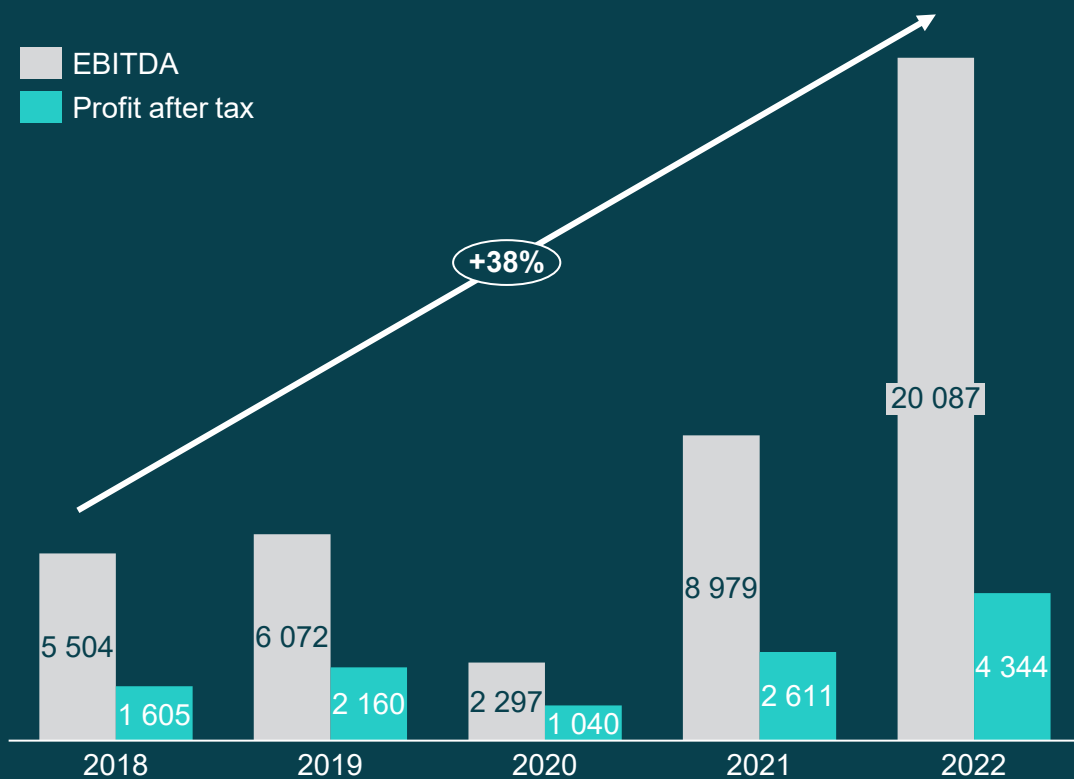
DISTRICT HEATING  
AND COOLING

# 130 years of history – from 8 to 23 TWh two last decades

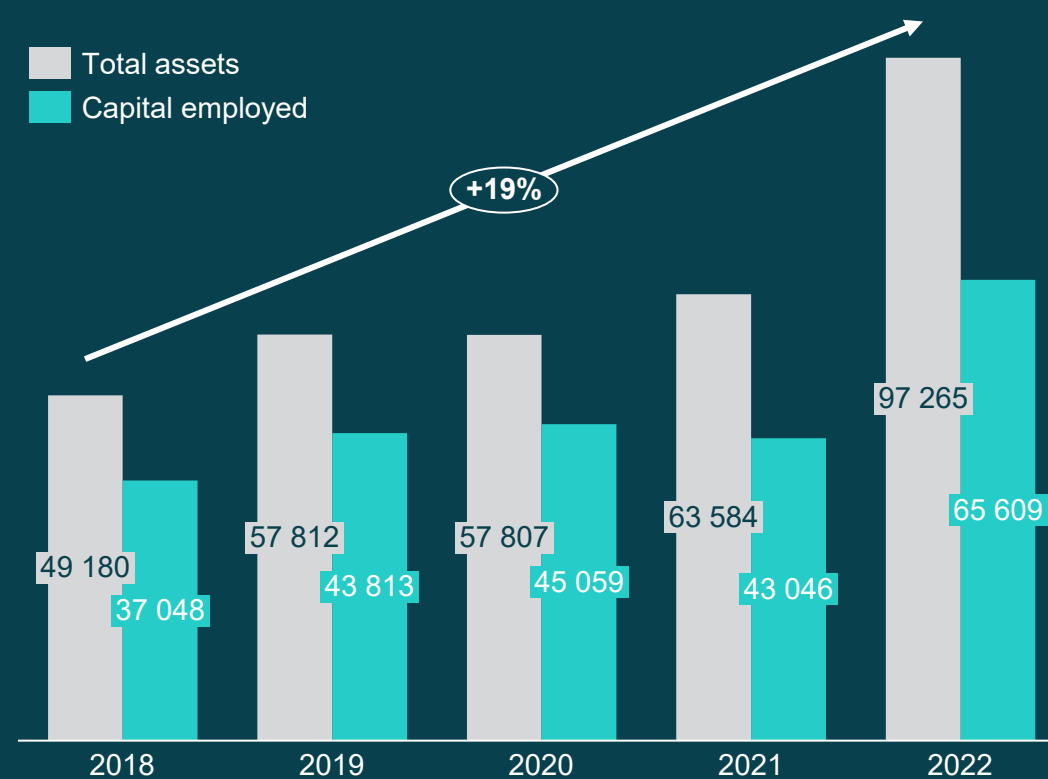


# Profit and capital significantly increased since 2018

## Profit development (NOK million)



## Capital development (NOK million)





# Hafslund's strategic initiatives towards 2035

**Climate and nature positive**



**Strong growth in renewable energy**

**Balance the energy system of the future**



**Smart, green urban development**

**People are key**



# Hafslund's sustainability strategy is integrated into the group's strategic focus areas towards 2035

## Climate and nature positive

- Roadmap to climate positivity
- Roadmap to nature positivity
- Efficient and circular use of materials and resource utilisation
- Adapting to climate change

## Strong growth in renewable energy

- Production of clean energy
- Investment in clean energy
- Driving force for renewable energy through good stakeholder dialogue

## Balance the energy system of the future

- Security of supply

## Smart and green urban development

- Electrification, energy efficiency and simple green solutions

## People are key

- Safety for our employees
- Attractive and developing workplace
- Equal opportunities for all

## UN's Sustainable Development Goals



## Challenge

Expecting min 15 TWh consumption growth in Norway until 2030

→ 10% growth next 6 years

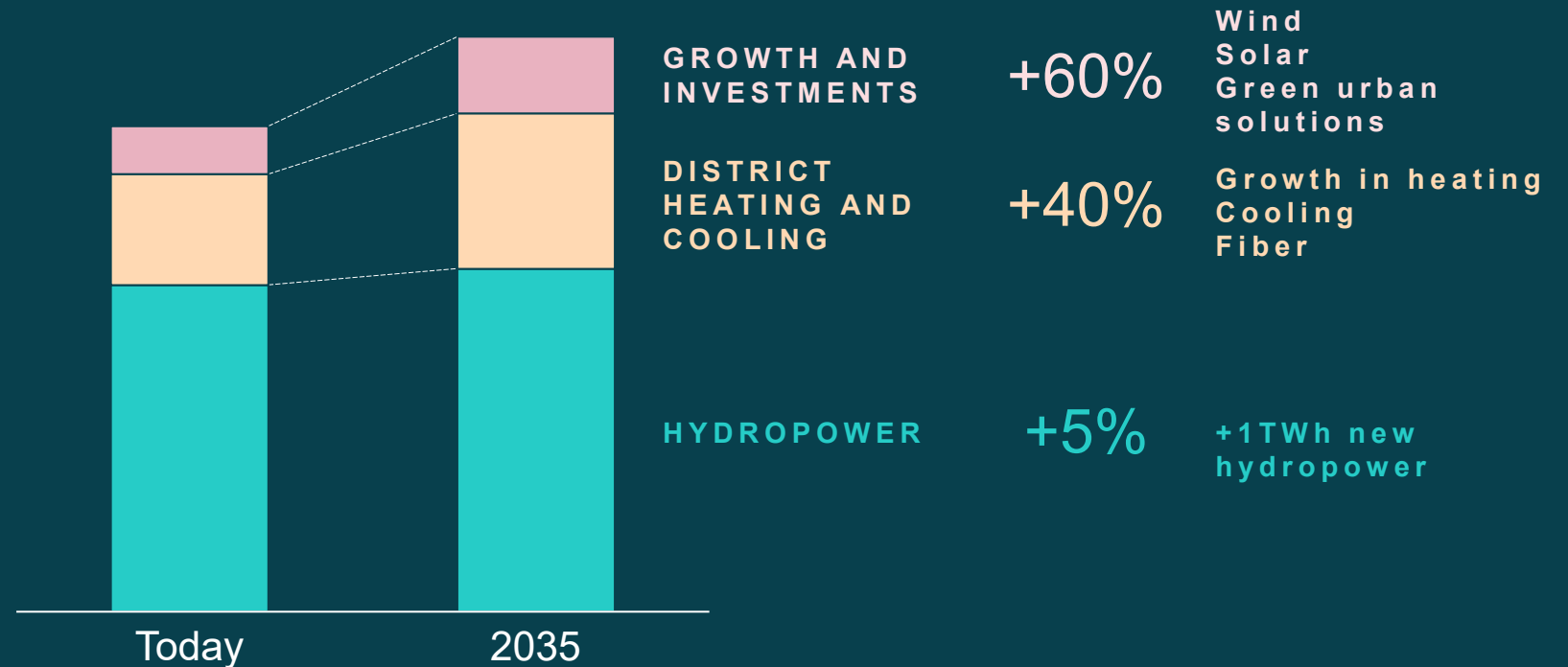
→ Annual growth rate of 1,6%

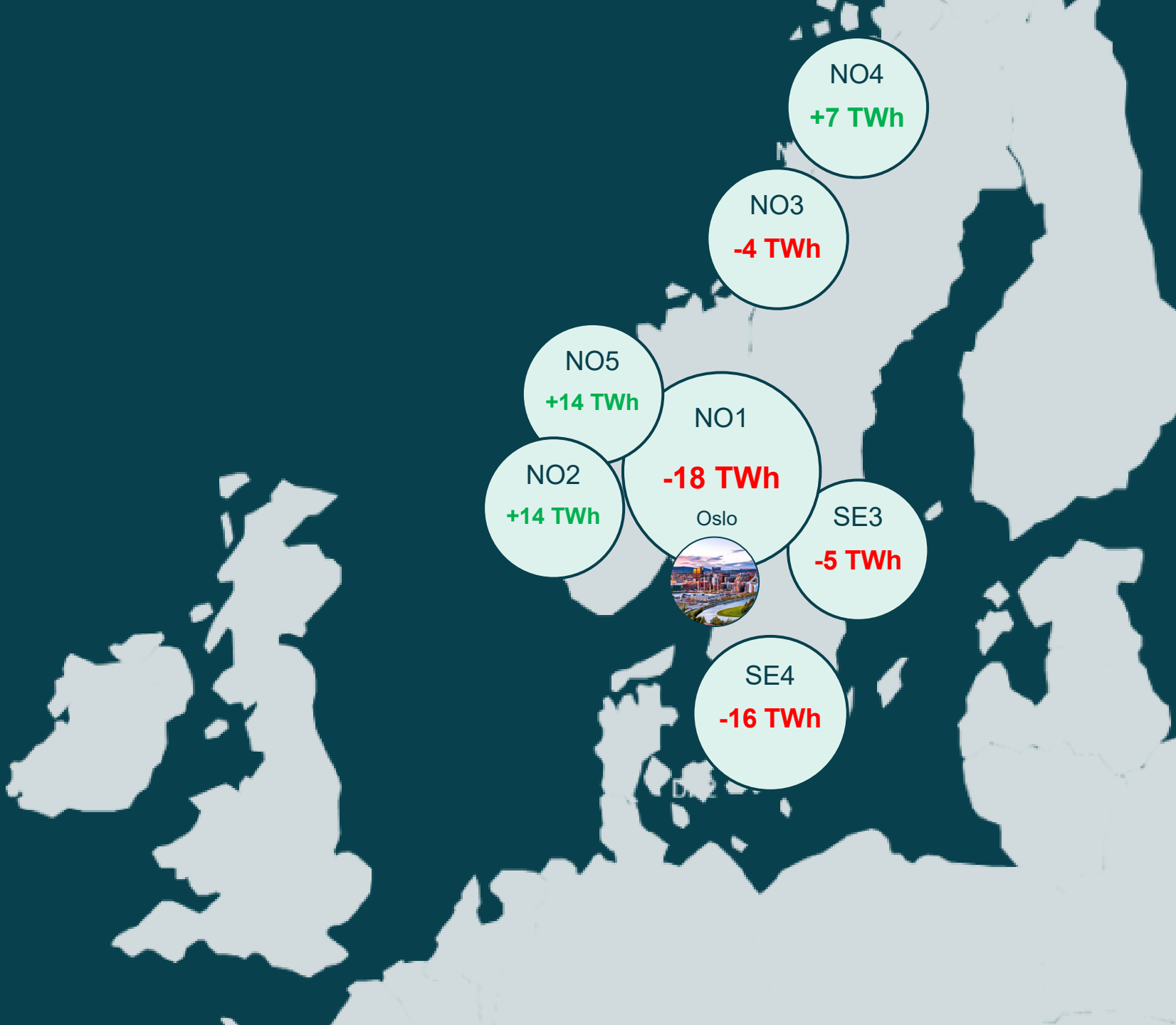
→ 20% growth within 2035



To grow in line with energy demand, Hafslund needs to grow by ~20% by 2035

Balance sheet development going forward (indicative)





Oslo is the largest deficit area in the Nordics both in terms of power and especially installed capacity

Power deficit in Eastern Norway expected to increase

# TWh = Energy balance (average 2016-2022)

# Many opportunities for more renewables



# We can cover most of the Oslo customer's energy and infrastructure needs



Solar on roof tops



Emission-free construction sites



District heating and cooling



Charging for electric cars



Grid



Fiber



Retail



Secure and energy-efficient data storage



Battery capacity and Hafslund Flex – Solutions that utilize flexibility



# Hafslund Eco Vannkraft

*Hydropower*



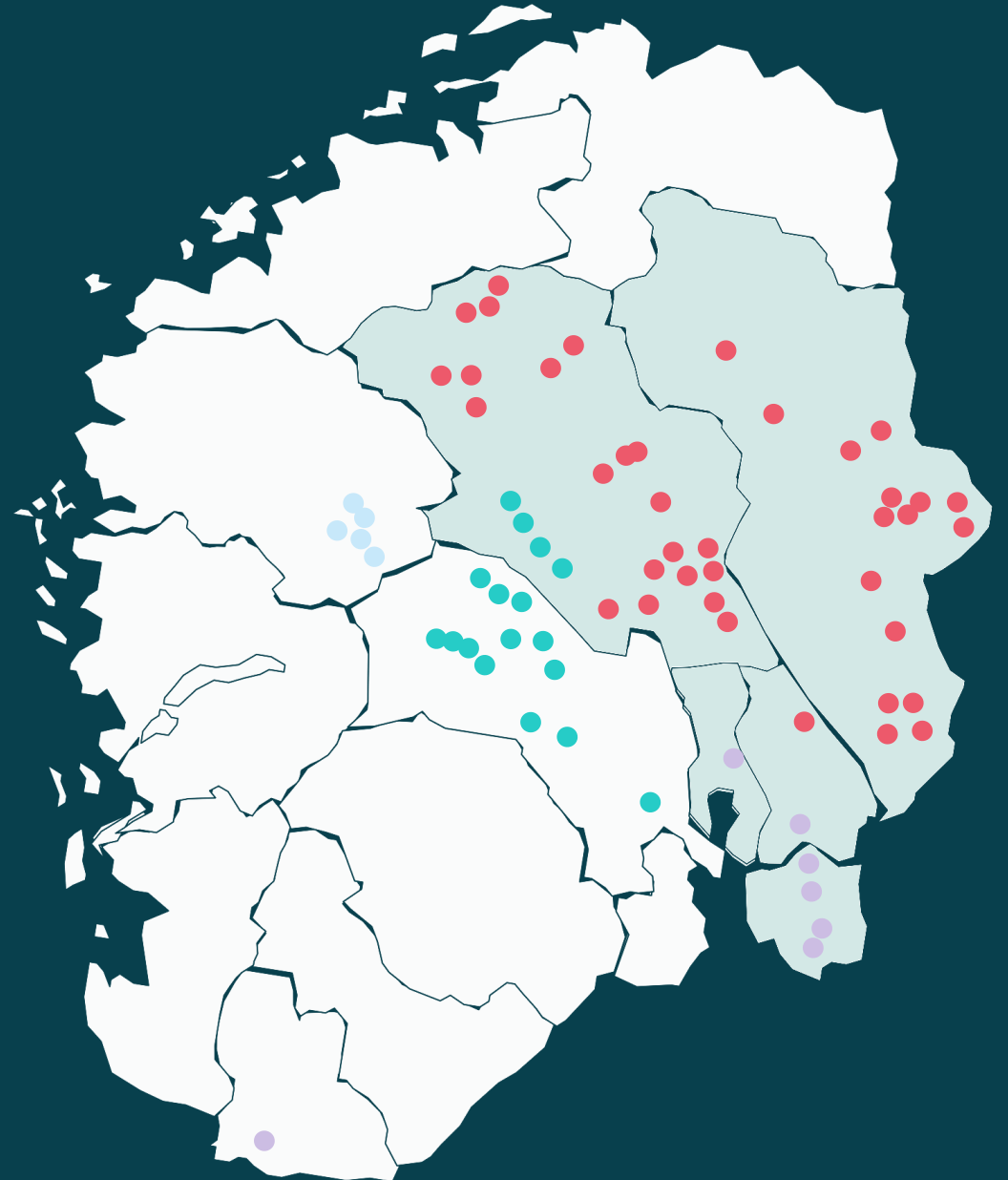


# Hafslund Eco

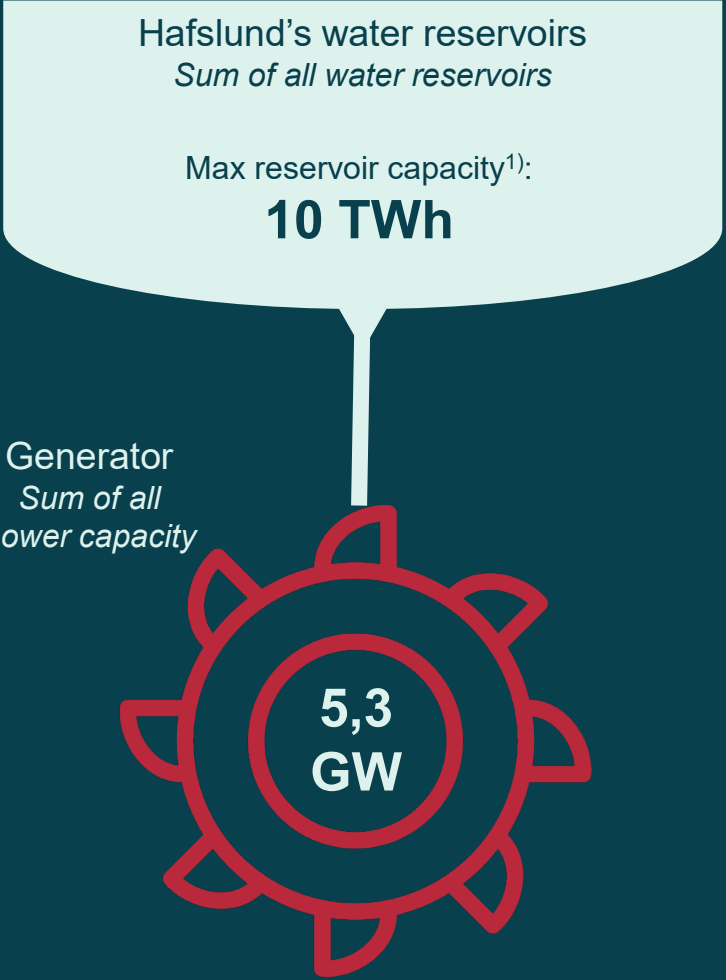
## Second largest power producer in Norway

- Powerplant area Aurland (3,3 TWh)
- Powerplant area Hallingdal and Valdres (5,3 TWh)
- Powerplant area Innlandet (8,0 TWh)
- Powerplant area Glomma (4,8 TWh)
- Elvia

21 TWh and 5,3 GW



# A medium- to well-regulated hydropower portfolio



**Normalized annual production volume**  
**21 TWh**

*In theory, Hafslund can:*

- *store ~50 % of the annual production in our reservoirs*
- *generate the full annual production volume during 50 % of the year*



1) Of 21 TW operated volume. 8 TWh of 18 TWh owned volume.

# New hydropower production recent years

**+1040 GWh** From new hydropower plants

**+400 GWh** From upgrades and rehabilitation of existing power plants

2018



Rosten

2019



Vamma

2020



Nedre Otta

2021



Tolga

2022



Mork

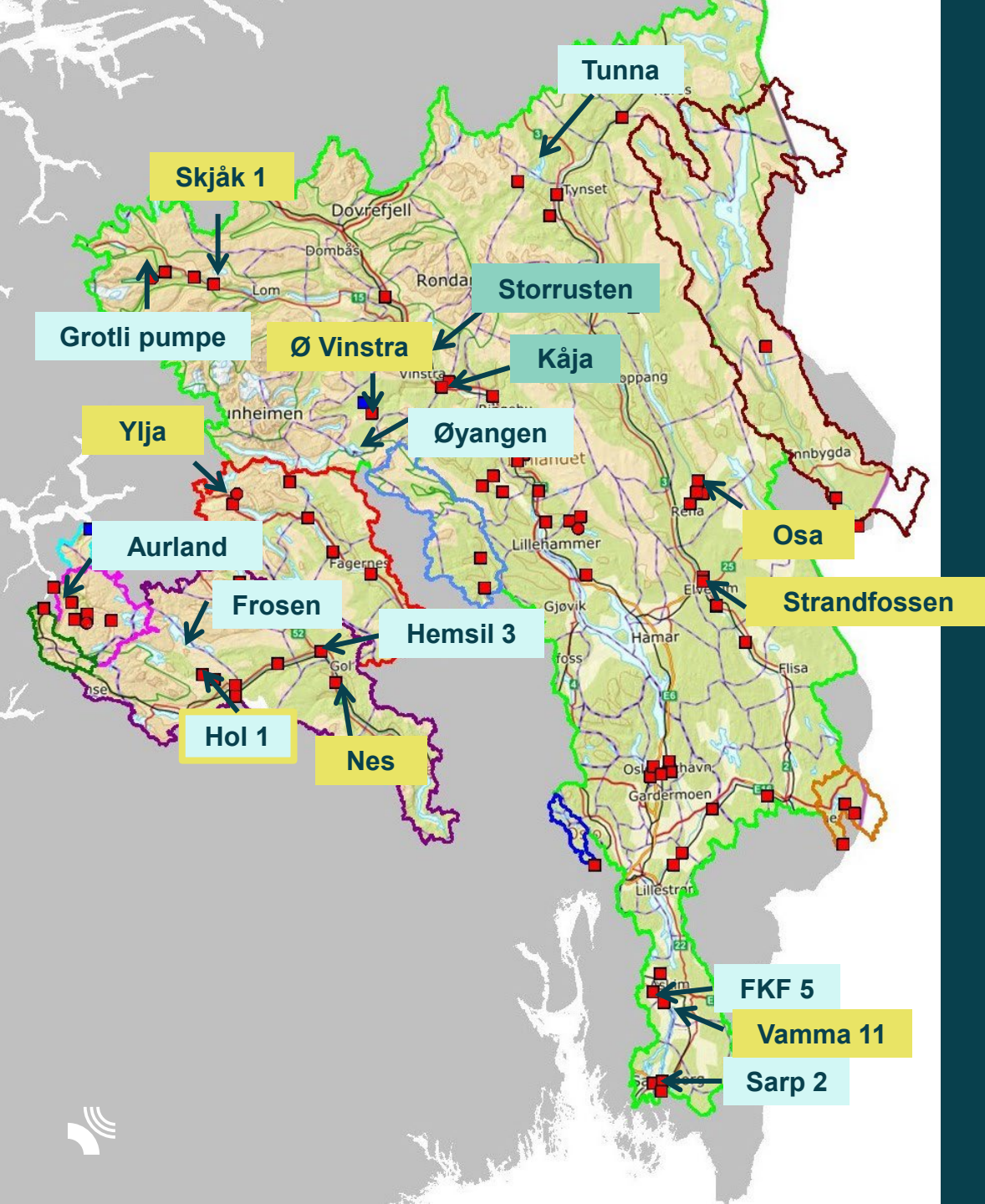
# Identified development projects

New power plants ~ 200 GWh and 60 MW

Expansion projects ~ 500 GWh and 1000 GW

Upgrade projects ~ 80 GWh and 70 MW

*In addition to the projects listed above, there is a potential for some smaller power plants under existing regulations. Several smaller upgrade projects in existing power plants are also being considered.*





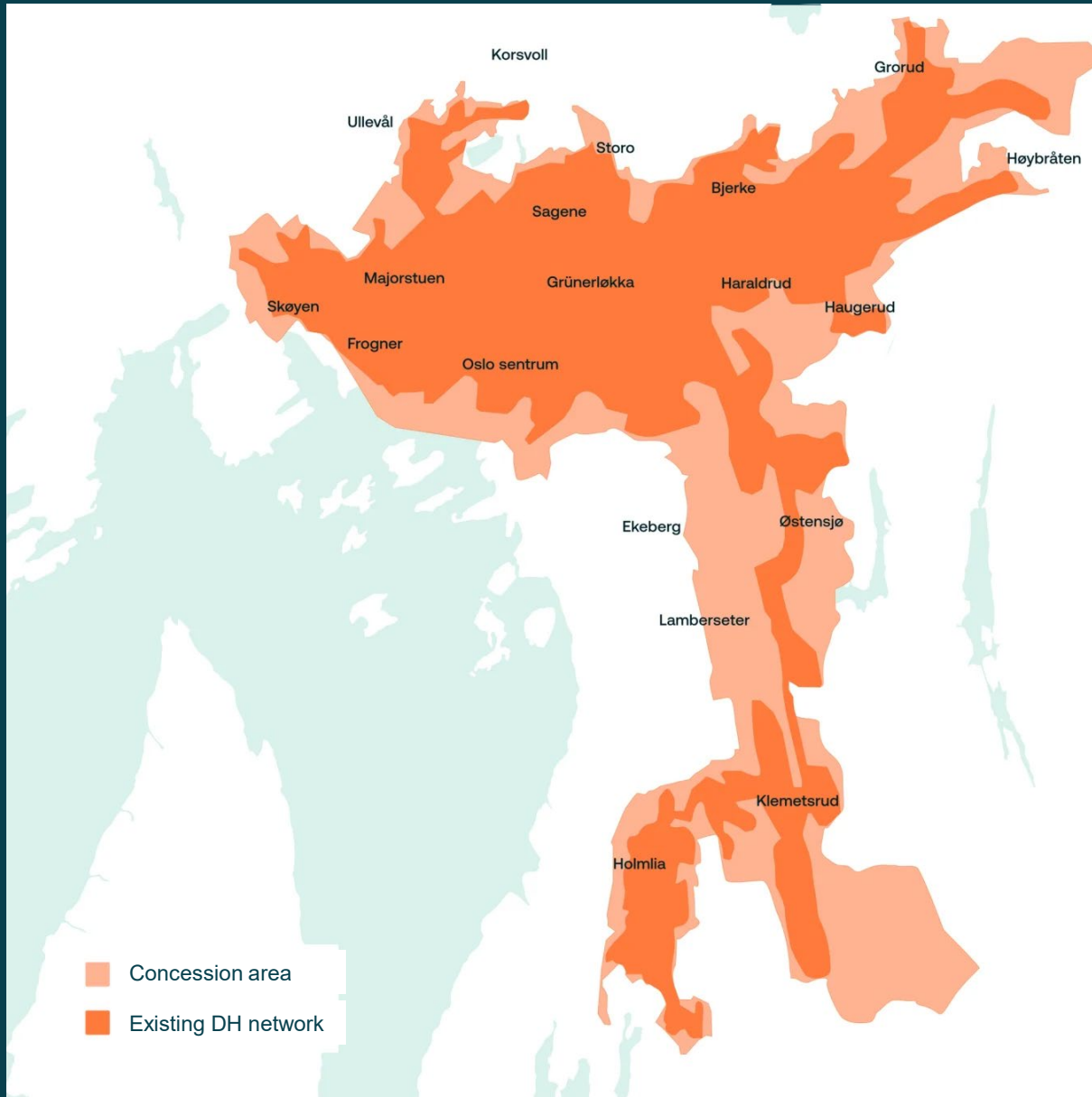
# Hafslund Oslo Celsio

*District heating and cooling*



Hafslund Oslo  
**Celsio**

Norway's leading district heating  
company



1,8 TWh  
Heat per year

160t

Households covered

1040 MW  
Installed capacity



15  
Plants



215  
Employees

# Norway's leading company in circular energy

## Waste incineration



*Norway's largest waste incinerator*

*(capacity 400 000 t/y)*

## Heating



*Norway's largest supplier of district heating*

*(1,8 TWh in 2022)*

## Cooling



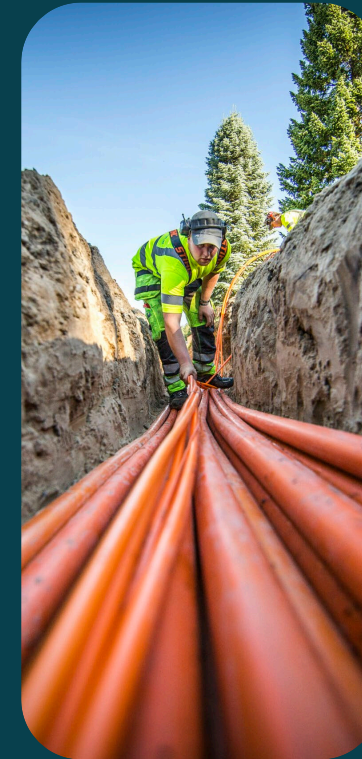
*Focus on area cooling*

## CCS



*Ambitions within CCS on waste management*

## Fiber



*A major player in dark fiber in Oslo*

## Electricity



*Largest producer of electricity in Oslo*

*(140 GWh in 2022)*



# Hafslund Vekst

*Growth and investments*



# Hafslund Vekst with two objectives



# Future growth along the renewable value chain

Degree of operational control

High

Low

Industrial investments with majority ownership



Hydropower



District heating and cooling

Industrial investments



Grid



Fiber



Wind



Solar power



Charging

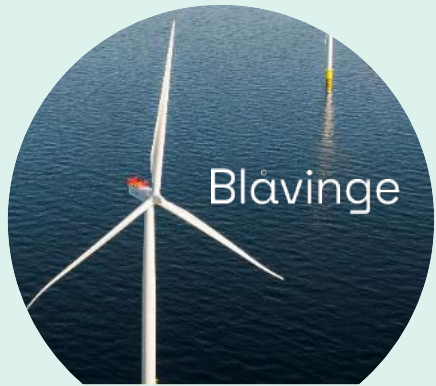
Venture investments



Technology



# Creating solutions and values in partnerships



Fred. Olsen Seawind  
**Ørsted** Hafslund



Helios  
MAGNORA ASA Hafslund



eviny **SUSI PARTNERS**  
Hafslund



**OBLIGO** Hafslund



**Innlandet Energi Holding AS** Hafslund



Cloudberry  
**Hafslund**



**Eidsiva.** Hafslund



**OBOS** Hafslund



eviny Hafslund



telenor analysis mason  
**HITECVISION** Hafslund



# A stabilizing contribution from 50 % stake in Eidsiva

## Regulated grid business

- > 80 % of EBIT from regulated grid business, Elvia
- Income framework model sets regulated income
- Largest regional grid in Norway

## Diversified operations

- Norway's third largest heating company
- Well positioned for significant growth within fiber

## Dividend policy

- Minimum MNOK 1000 from Eidsiva, increasing with CPI
- 60-90% of underlying profit from Hafslund Eco Vannkraft



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# Key figures

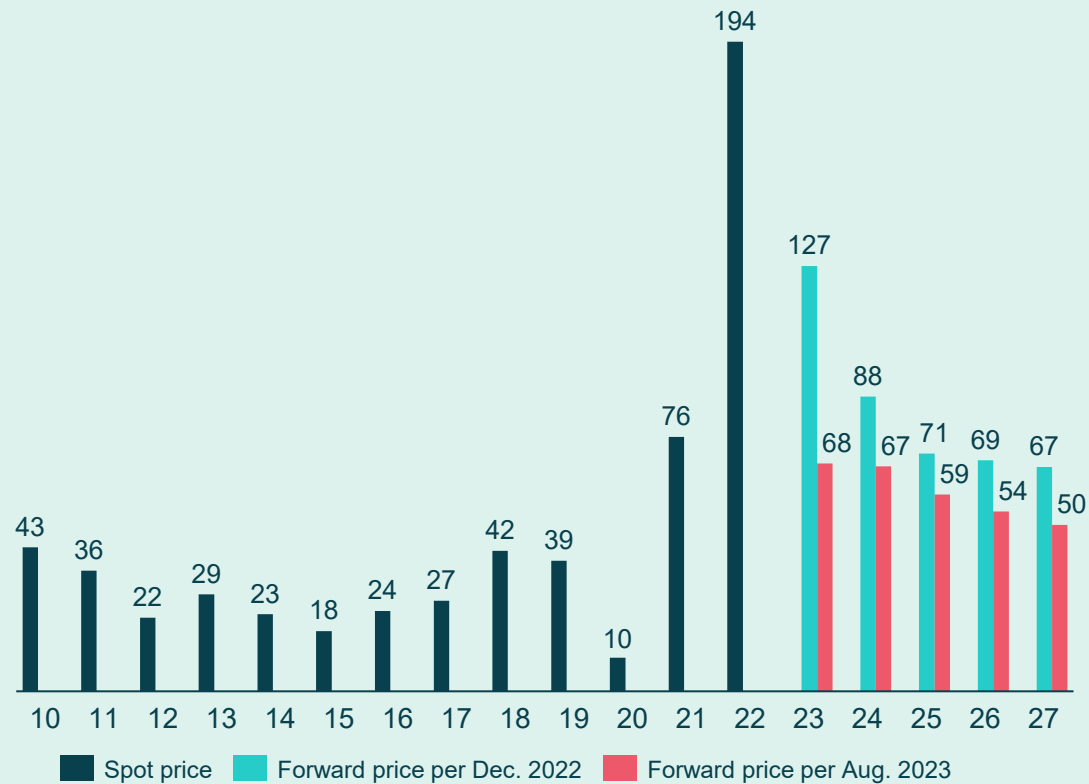
NOK million	1H23	1H22	2022
Revenues	11 604	6 695	22 028
EBITDA	9 975	5 592	20 087
Profit before tax	9 536	5 074	18 879
Profit after tax	3 626	1 154	4 344
Net interest-bearing debt	6 797	20 194	9 523
Capital employed	65 092	63 945	65 609
Net debt / EBITDA (x)	0,8	2,8	0,5
FFO / Net debt (%)	28 %	1 %	141 %
Equity ratio	48 %	48 %	44 %
Hydropower production (GWh)	8 631	6 753	13 787
District heating sales (GWh)	971	41	761
Nordic system price (øre/kWh)	79	115	137



# Partial hedging of power prices

## Power price development

Øre/kWh, Spot price: NO1, Forward price: System price



## Hedging activity in the Hafslund Group

Partial power hedging to stabilize income and cash flow over time

Hafslund seeks to diversify its hedging positions to minimize risk and uses a variety of hedge instruments:

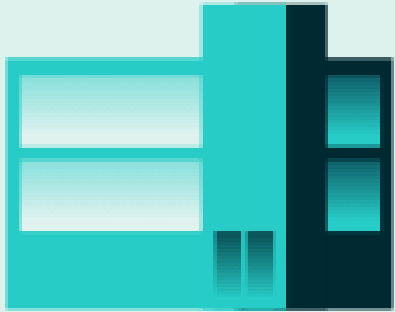
1. Long-term contracts for delivery of physical power (“industrikraftkontrakter”) and other long-term fixed price contracts
2. Bilateral financial contracts with solid counterparts
3. Exchange traded financial contracts

Counterparty and collateral risk is followed up on a continuing basis.



# Hafslund's financing model

Centralized external financing in parent company



Focus on sustainable and green financing



Solid liquidity reserves



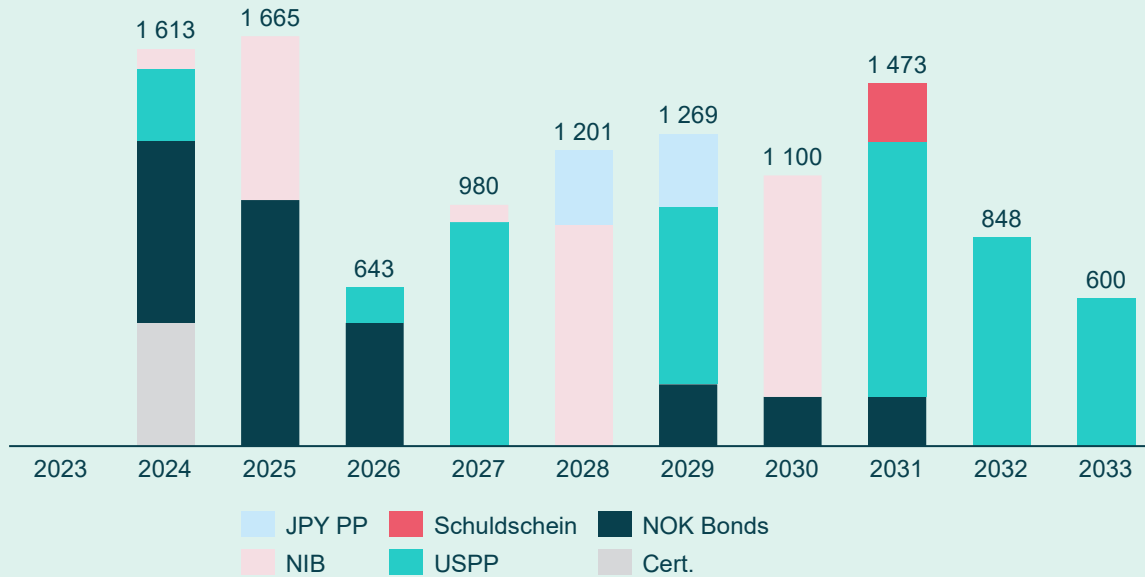
Multiple loan sources



# Balanced debt maturity profile and funding sources

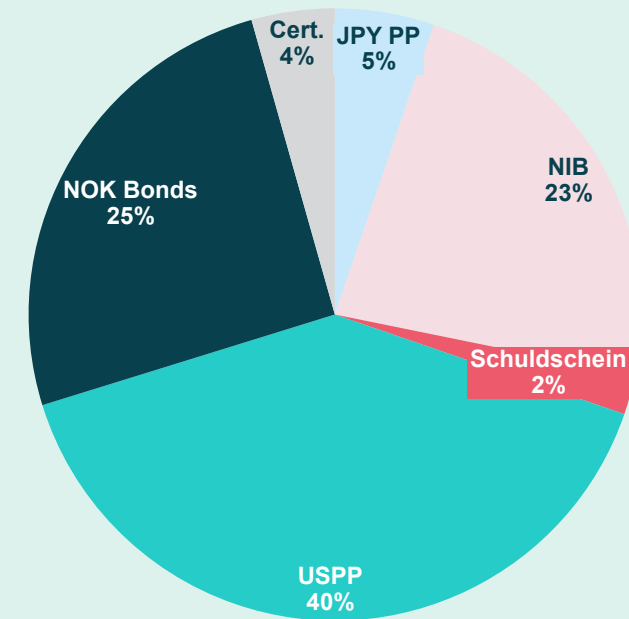
## Debt maturity profile Hafslund <sup>1)</sup>

NOK million



## Distributed funding sources

100 % = NOK 11,392 million



Unutilized credit facility of NOK 2,5 bn to support short term funding and reduce refinancing risk.  
Overdraft facilities of NOK 1000 million plus EUR 50 million for operational liquidity and Nasdaq cash requirements.



<sup>1)</sup> As of August 2023. Excluding subordinated shareholder loans from CCS Finansiering AS (wholly owned by the city of Oslo) of NOK 5.4 bn, and shareholder loans of NOK 1.6 bn from HitecVision and Infranode to Celsio

# Hafslund's Green Finance Framework

## Second Party Opinion – Dark Green Rating

- Aligned with ICMA Green Bond Principles and LMA/LSTA/APLMA Green Loan Principles
- Defines assets and projects that can be financed with Green Bonds and Green Loans
- Use of proceeds exclusively for low-carbon solutions and climate change adaptation.
- All projects take into account environmental concerns, social impacts, landowner and potential local resistance.
- Green Finance Committee includes member(s) with sustainability expertise.
- Green Finance Report will be published annually as long as there are Green Finance Instruments outstanding or until full allocation.



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# Summary:

## Solid foundation for further value creation

Stable, secure power supply

Portfolio of new renewable energy projects

Significant initiatives in green, smart city development

Record high profits

Solid investment grade rating



# Hafslund – key credit strengths

## Strong ownership

100% owned by the City of Oslo (capital of Norway, Aaa/AAA rated)

## Size and renewable production

Second largest hydropower producer in Norway and largest district heating producer

## High reservoir capacity

~50% of annual operated production

## Income stabilizer

50% ownership in Norway's largest power grid company, Elvia, through Eidsiva Energi

## Partial price hedging

Reduces earnings volatility from power prices over time

## Sustainability focused

Focus areas and goals fully integrated with the group strategy

## Solid investment grade rating

A- (positive outlook) from Scope Ratings



# Investor relations



- Additional information is available from Hafslund's website:  
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