
Perspektiver på norsk energisektor Presentasjon for Å Energi AS

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01

Pareto Securites

The leading advisor within renewables

Pareto has long experience within the renewable energy space

Page 1 of 3































WIND POWER			HYDRO POWER			SOLAR POWER		
 Private Placement of shares NOK 1.2bn Sole Financial Advisor	 Joint establishment of Nordic Renewables company with HitecVision N/A Sole financial advisor to TrønderEnergi	 Private Placement of shares x5 NOK 800 / NOK 500m / NOK 200m / NOK 1,075 / NOK 600 Joint Bookrunner	 Sale of 12 small-scale hydropower plants to Småkraft AS Undisclosed Sole Financial Advisor	 Merger of Hafslund E-Co and Eidsiva Energi NOK 90b Financial Advisor to Hafslund E-Co	 Sale of Fortum's 10% stake in Hafslund Produksjon Holding to Svartisen Holding EUR 160m Financial Advisor	 Private Placement of Shares and collaboration with Hafslund NOK 200m Sole Global Coordinator and Sole Bookrunner	 Private Placement of shares and Listing on Euronext Growth NOK 4,565m Joint Global Coordinator and Joint Bookrunner	 Private Placement of Shares NOK 1,000m Joint Bookrunner
 Private Placement of shares NOK 1.018m Joint Managers and Joint Bookrunners	 Private Placement of shares and Listing on Euronext Growth NOK 4,565m Join Global Coordinator and Joint Bookrunner	 Merger with Aker Horizons NOK ~2,043m Sole Financial Advisor	 Acquisition of 33.2% of the shares in Kvaenangen Kraftverk AS NOK 332m Sole Financial Advisor	 Sale of BKK's 35.1% stake to Norfund NOK 1.3bn (100% EV) Financial Advisor	 Acquisition of Hafslund ASA and subsequent sale of assets by City of Oslo NOK 47.8bn Sole Financial Advisor	 Undisclosed (closing expected Q1 '23) Senior Secured (Green) Bond EUR 150m Sole manager	 Private Placement of shares NOK 600m Joint Bookrunner	 Investment by Macquarie Asset Management 50% of outstanding shares Financial Advisor
 Private placement of convertible loan SEK ~82.5m Sole global coordinator and bookrunner	 Rights issue SEK 120m Joint Global Coordinator Joint Bookrunner	 Sale of shares in Odal Vindkraftverk to Cloudberry US PP Sole Financial Advisor to KLP and Akershus Energi Sole Manager	 Sale of shares in Haugaland Kraft AS Sole Financial Advisor	 Acquisition of Nordic Power from Nordkraft Undisclosed Financial Advisor for SL Capital Partners	 Acquisition of Småkraft, Norsk Grønnkraft and shares in Tinfos Financial Advisor for Aquila	 Senior Secured Project Bond Issue AUD 90m Sole Arranger	 Sale of a 7% stake in REC by Hafslund NOK 238 Sole Bookrunner	 5 year senior secured bond EUR 80m Joint Lead Manager



In-depth know-how and experience within solar power, hydro power and wind power...

Pareto has long experience within the renewable energy space

Page 2 of 3

POWER SALES / GRID			BATTERIES, HYDROGEN & EV CHARGING			WTE & RECYCLING		
								
 Private Placement of shares NOK 12.5m Sole Financial Advisor	 Private Placement of shares SEK 1,450m Sole Lead Manager	 Private Placement of shares NOK 155m Sole Lead Manager	 2x Equity raises in Wattif EV AS NOK 40m + EUR 50m Sole Advisor	 Private Investment in Public Equity ("PIPE") USD 600m Capital Markets Advisor and Placement Agent	 IPO on Euronext Growth NOK 3,450m Joint Bookrunner	 Equity private placement EUR 31m Sole Advisor	 Sale of shares in Fortum Oslo Varme to Hafslund Eco EV: NOK 20bn Strategic and financial advisor to the City of Oslo	 Sale of shares in Kviteseid Energi Varme to Patrizia Infrastructure Sole financial advisor to Kviteseid Energi
 Acquisition of Innlandskraft NOK 1.4bn Sole Advisor	 Equity PP NOK 1bn Joint Bookrunner	 Sale of TrønderEnergi's power retail division to Fjordkraft Undisclosed Financial Advisor	 IPO on Merkur Market NOK 520m Sole Bookrunner	 Merger with Aker Horizons NOK ~3,776m Sole Financial Advisor	 Convertible loan EUR 30m Joint Global Coordinator and Bookrunner	 IPO on Euronext Growth NOK 476m Sole Global Coordinator and Bookrunner	 IPO on Euronext Growth NOK 575m Joint Bookrunner	 Private Placement of shares NOK 777m Oct 2020 NOK 400m Jan 2022 Joint Bookrunner
 Fortum acquires 100% of Hafslund Markets NOK 4.5bn Financial Advisor to Oslo municipality	 Merger between EB Energimontasje and Nettpartner Financial Advisor	 Financial Advisory	 IPO on Nasdaq First North, Private placement of shares and right issues SEK 278m + SEK 271m + SEK 300m Sole bookrunner Joint Bookrunner	 Private Placement of shares SEK 60m Sole Bookrunner	 Block Sales of Shares SEK 465m Co-Lead Manager	 Private Placement of shares NOK 368m Joint Bookrunner	 Private Placement of shares and IPO on Euronext Growth NOK 287m Sole Global Coordinator and Bookrunner	 Loan facility issue for financing of the Carbon Capture and Storage facility at Klemetsrud NOK 2.3bn Sole Financial Advisor



...As well as power sales, grid, batteries, EV charging, hydrogen and WtE / recycling...

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Page 3 of 3

DIGITAL INFRASTRUCTURE



Share issue and sale of shares

Financial Advisor to Lefdal Mine Datacenter



3 year senior secured bond + tap issue

NOK 835m

Sole Manager



Sale of company to Lyse Energi AS

Undisclosed

Sole Financial Advisor



ETIX EVERYWHERE
Borealis

Sale of Etix Everywhere Borealis

n/a

Sole Financial Advisor



Capital raising

NOK 1.5bn

Joint Financial Advisor



Sale of Ice Group Scandinavia Holdings AS to Lyse AS

NOK ~5.56bn

Joint Financial Advisor to Ice Group ASA



Sale of company to Kysttele Holding

Undisclosed

Financial Advisor

TRANSPORT / OTHER INFRASTRUCTURE



Sale of Pioneer Public Property to Whitehelm Capital

NOK 2,725m

Financial Advisor



Refinance post acquisition

NOK 1,800m senior secured bond

Sole Arranger



Acquisition of DESS Aquaculture Shipping

EUR 230m

Sole Financial Advisor



Acquisition of 3.7% in Nyhamna from Exxon

Undisclosed

Financial Advisor



Advisor to Antin IP in the acquisition of a majority stake in Sølvtans

Undisclosed

Financial Advisor



Sale of Boreal

n.a.

Sole Financial Advisor



Nordic Infrastructure Bond Issue

NOK 6,500m

Sole Financial Advisor and Bookrunner



Financial advisory

Undisclosed

Sole Financial Advisor



Advisor to the owners in the sale of Napier to CapMan Infrastructure

Undisclosed

Financial Advisor



...Expert on infrastructure through numerous transactions with a broad range of assets



02

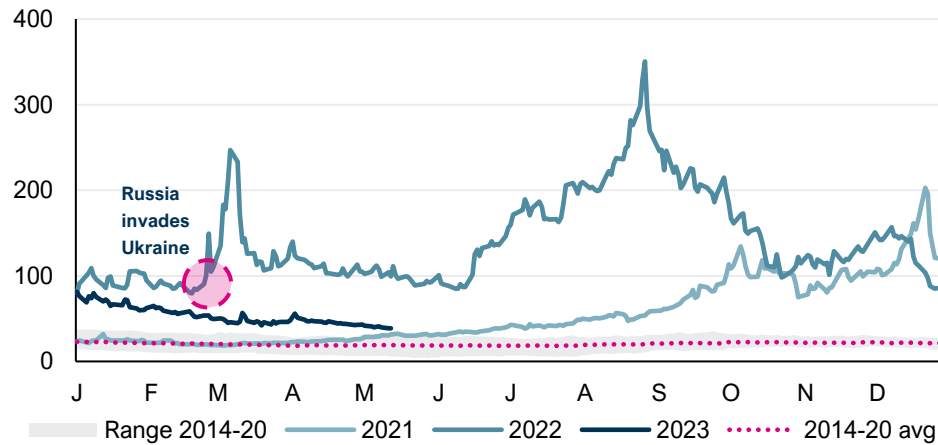
Power market

Key headlines

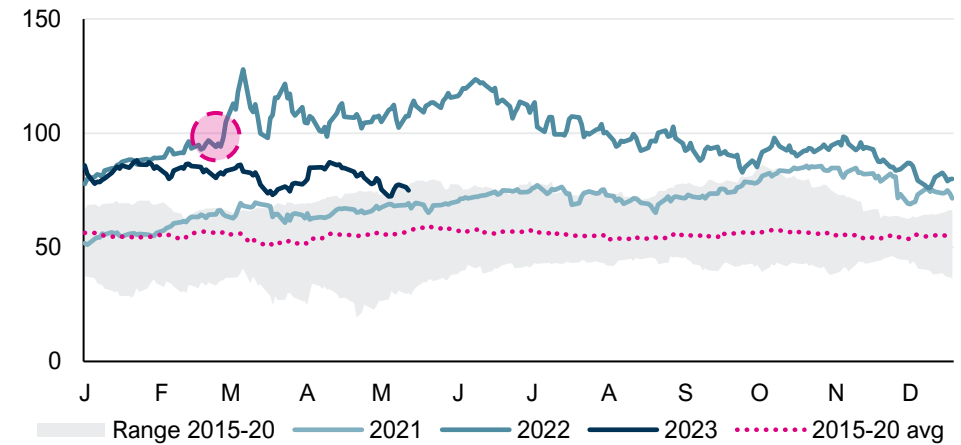
European fundamentals: Oil, Gas, Coal and CO₂ prices

Carbon price remains high, while other commodities are trending towards normalization

Dutch TTF gas 1 month forward, 2014 to date | EUR/MWh



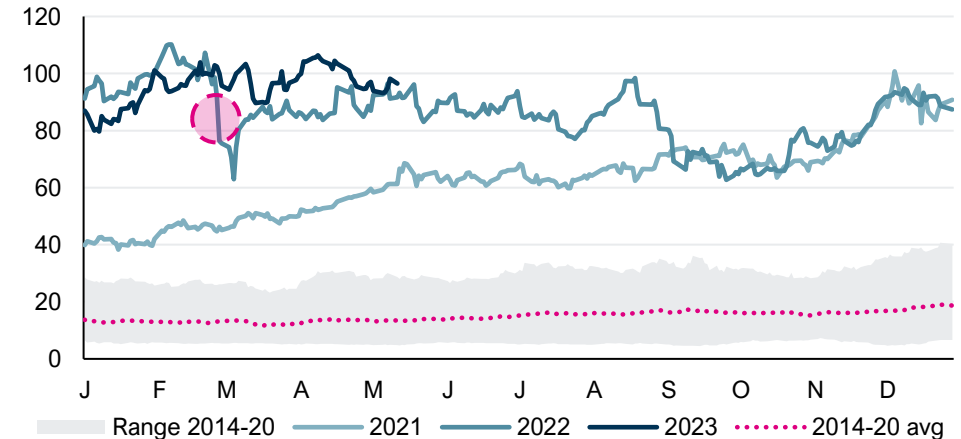
Brent oil prices 1 month forward, 2015 to date | USD/bbl



Coal prices (Rotterdam), 2014 to date | USD/ton

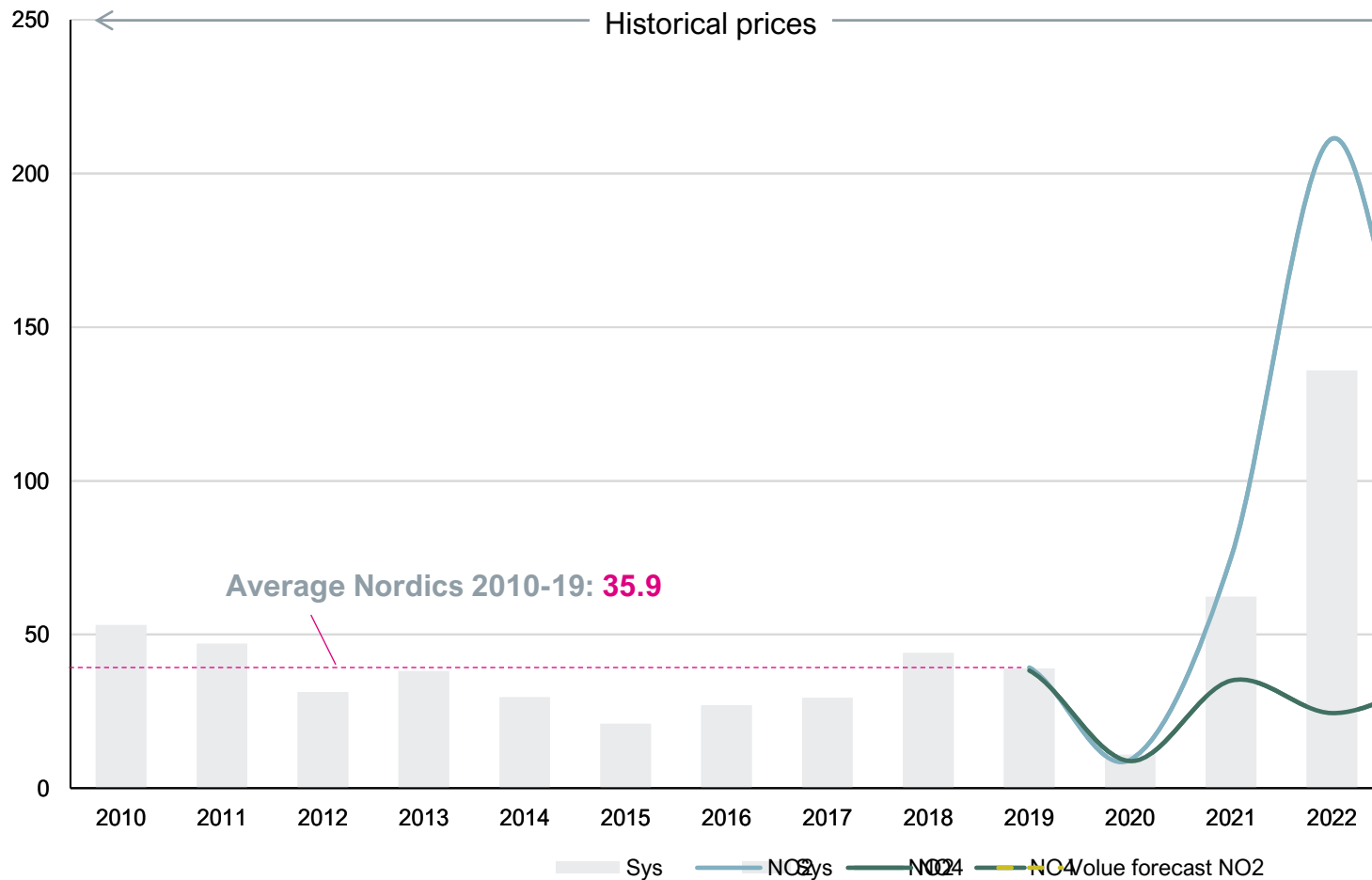


CO₂ prices, 2014 to date | EUR/ton



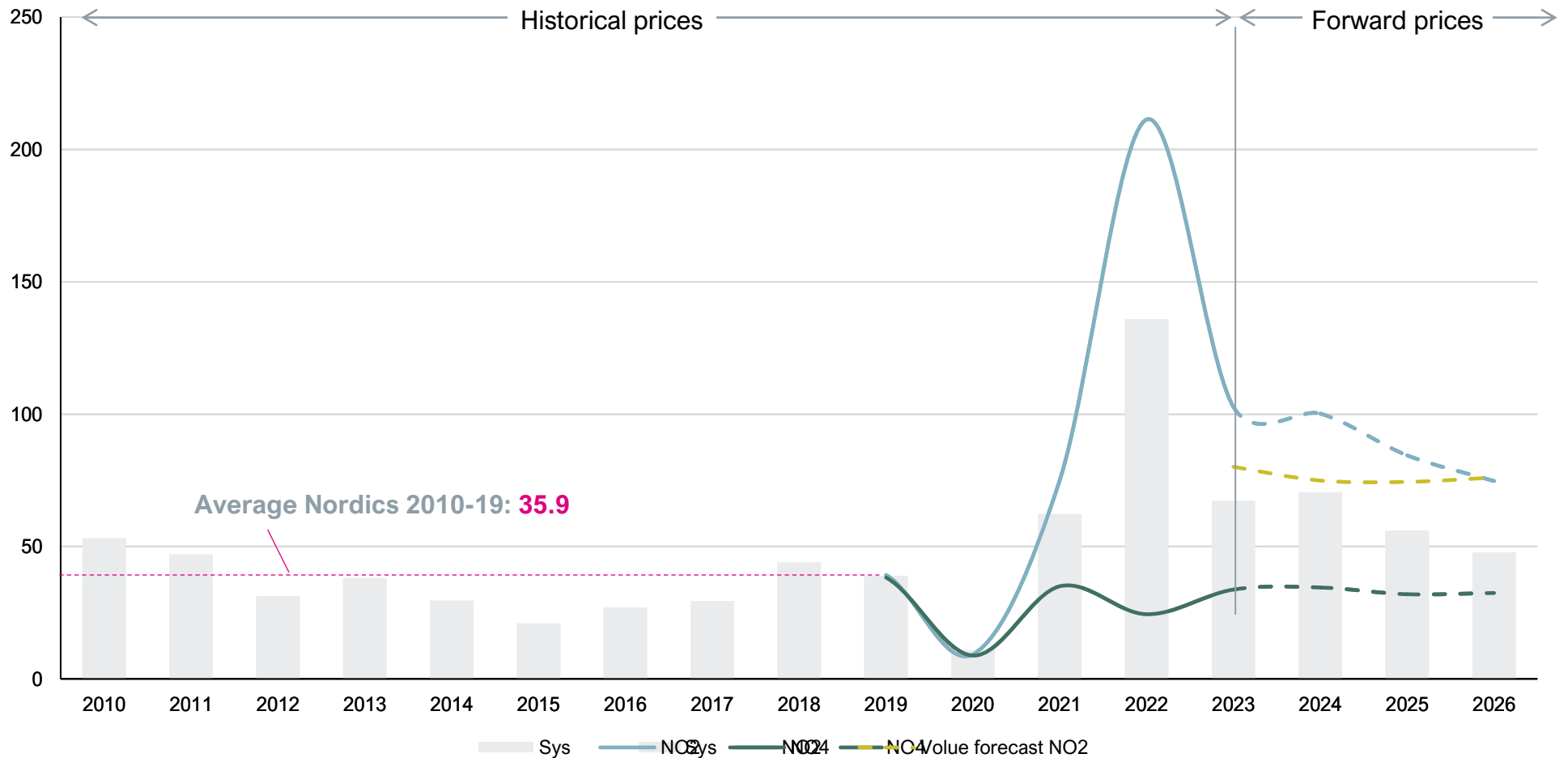
Still high forward prices

Historical and forward electricity prices | EUR/MWh



Still high forward prices

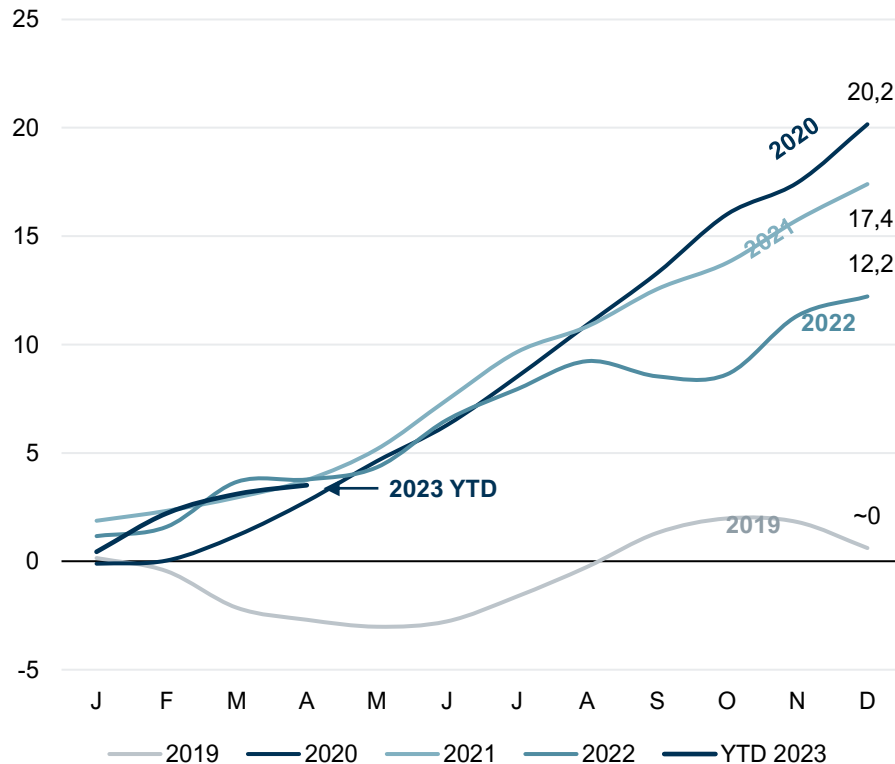
Historical and forward electricity prices | EUR/MWh



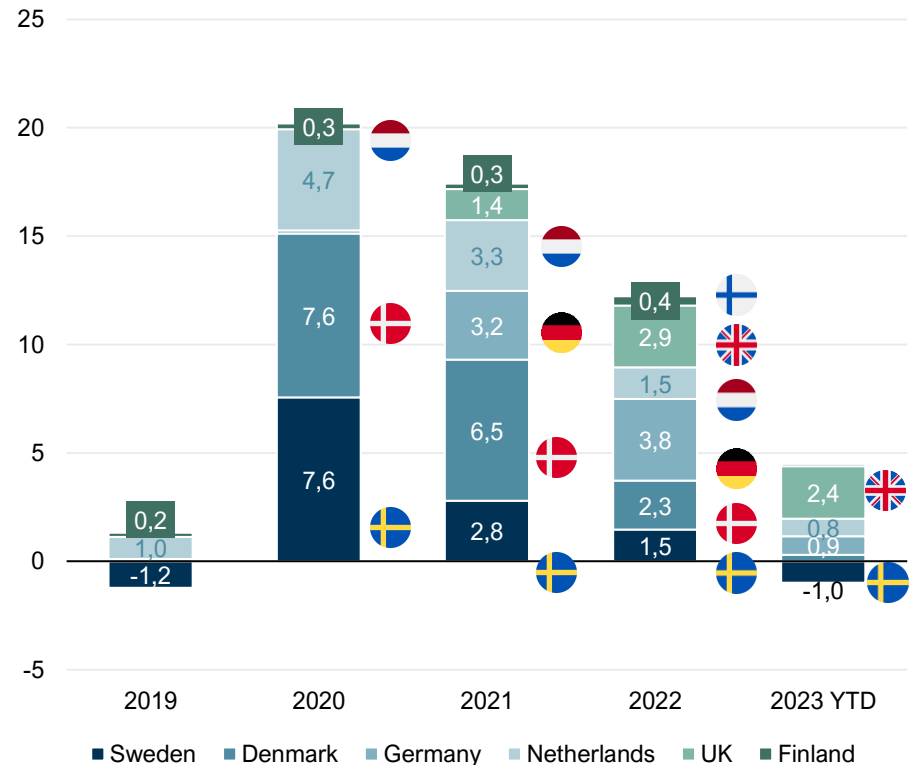
Norway's net export lower in '22, compared to '20 and '21

(And in 2019, Norway's net exports were ~ 0 TWh, with periods of net import)

Accumulated net exports 2019 – YTD 2023 | TWh



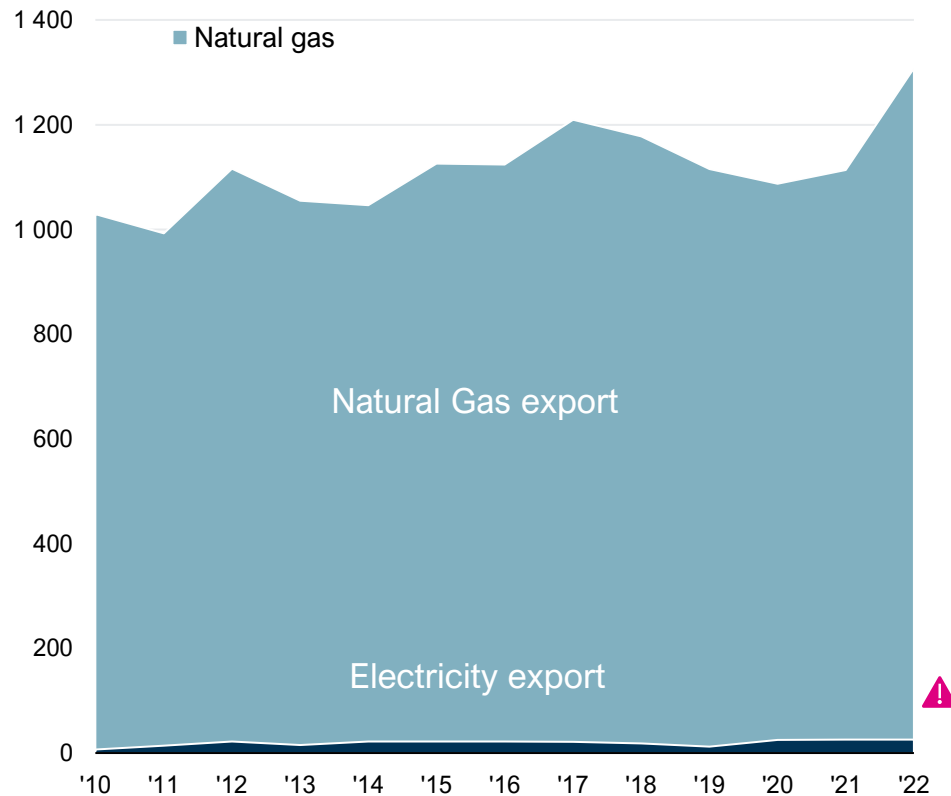
Net importers of Norwegian power | TWh



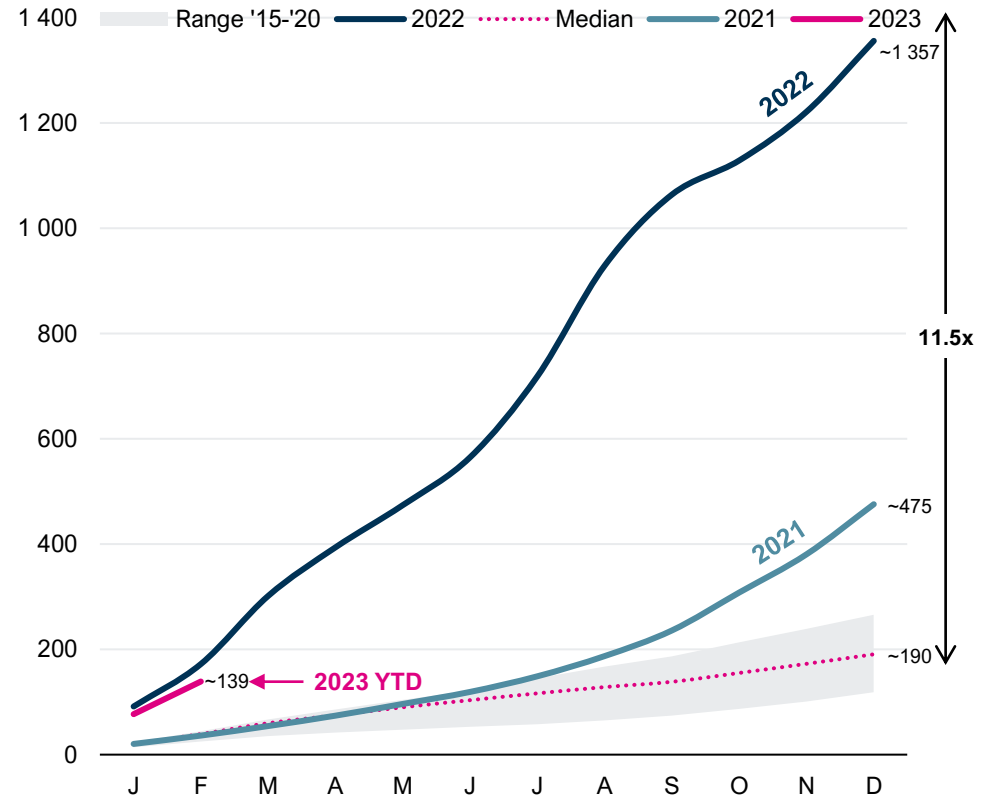
Norway exports more than 1 100 TWh of natural gas per year

Compared ~20 TWh in electricity exports the highest the last four years...

Norwegian natural gas and electricity exports | TWh



Export value of natural gas | NOKbn cumulative





03

Listed renewable companies in Norway

Key headlines

We have 54 green companies listed on Euronext in Norway

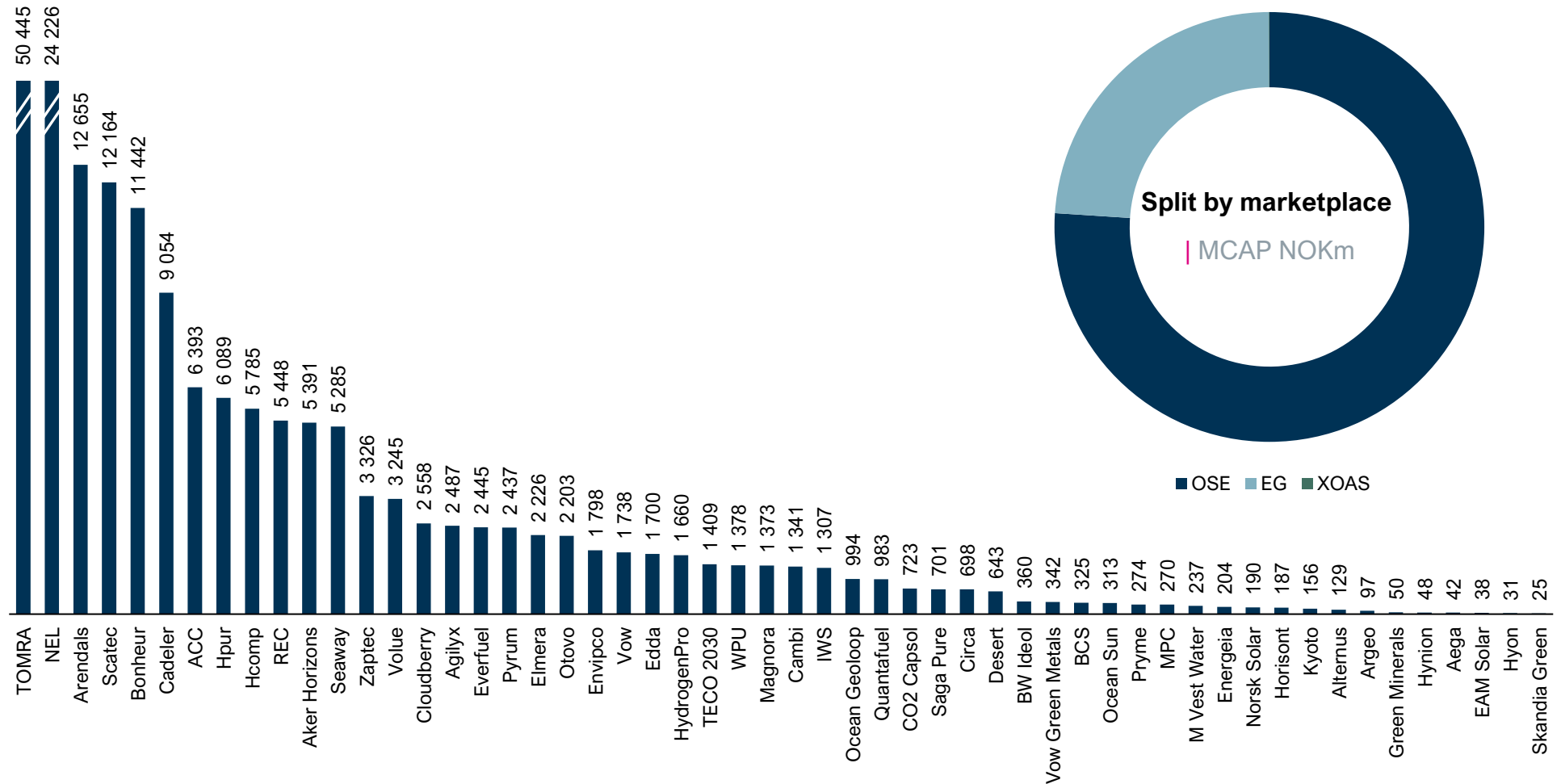
31 companies listed on Euronext Growth, 21 on Oslo Børs and 2 on Euronext Expand



Market cap for green companies NOK ~197bn

41 of the 54 companies were listed in 2020, 2021 or 2022

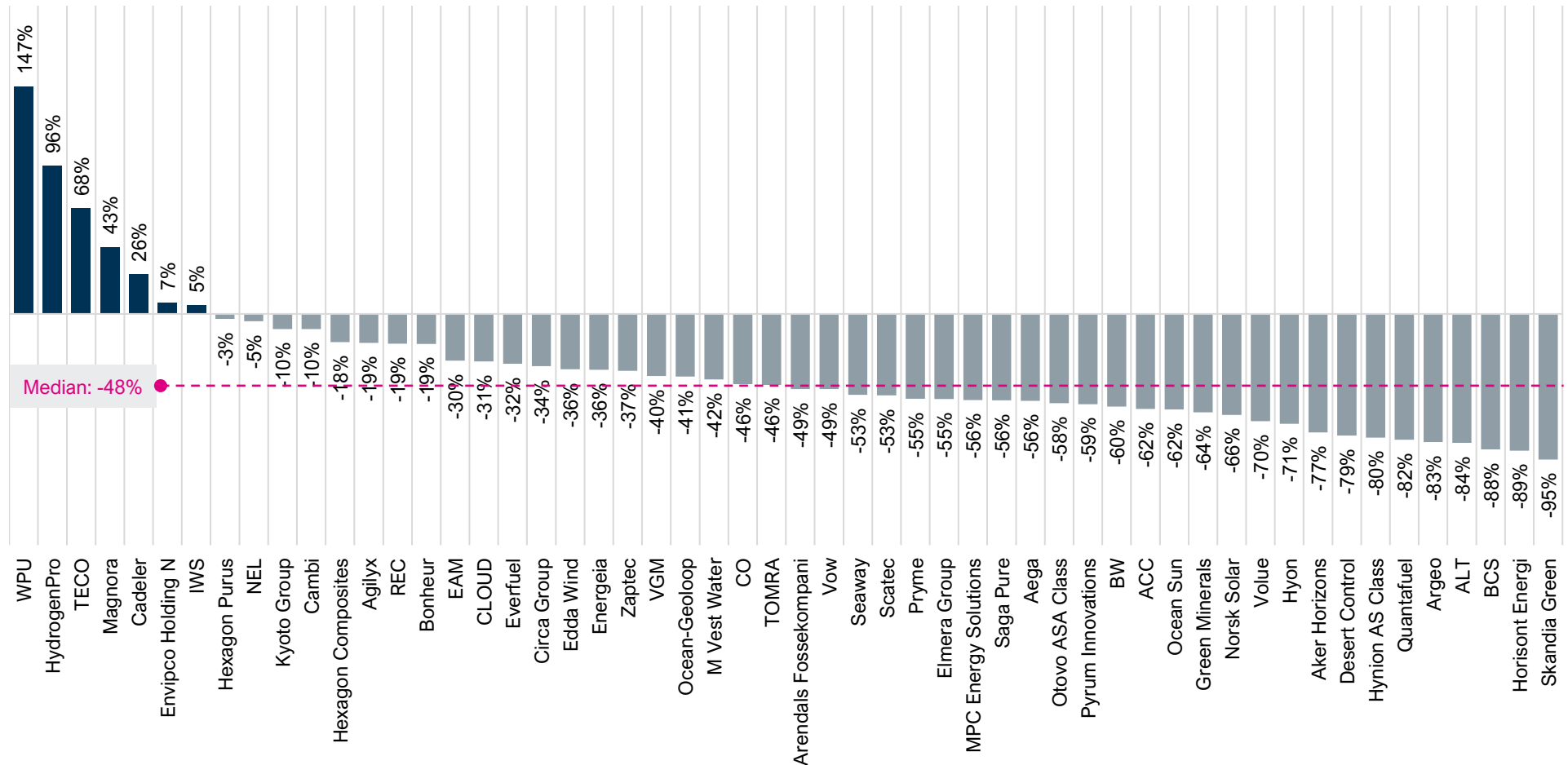
Public green companies sorted by size | MCAP NOKm



Median share price return of -48% since beginning of 2022

Only 7 out of 54 companies with positive return

Share price return since beginning of 2022 | all 54 green companies, %

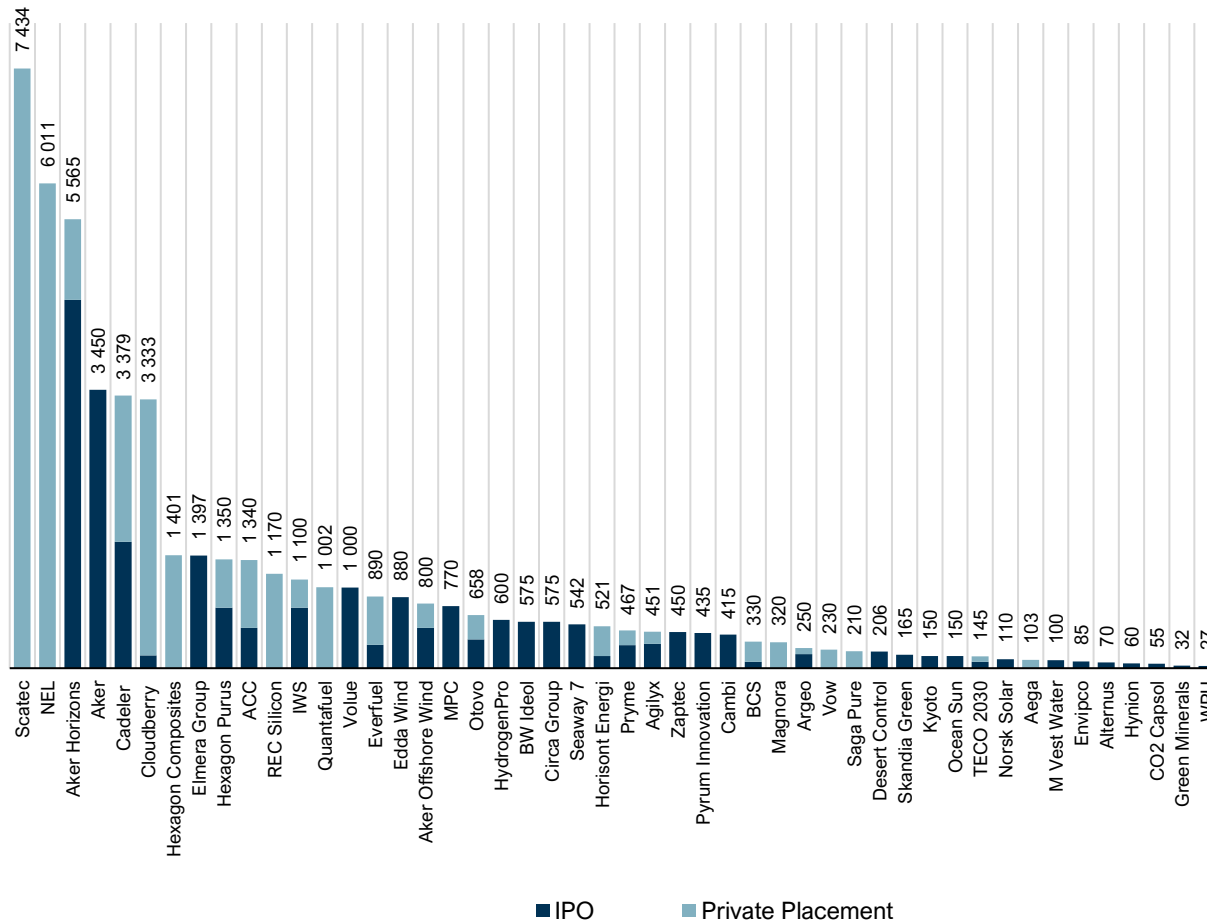


Source: FactSet as of 12.05.2023 | Note: Ocean-Geoloop from listing date 08.03.2022, Waste Plastic Upcycling from listing date 22.04.2022 and Energeia from listing date 13.12.2022

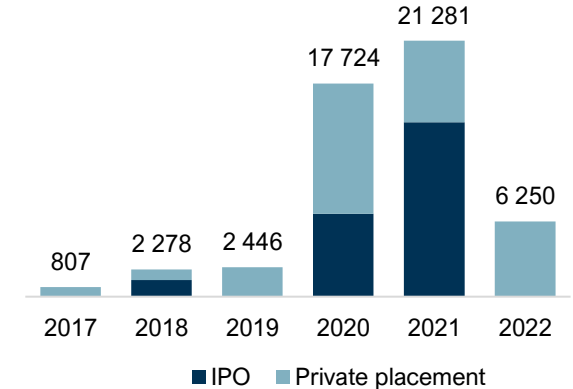
About NOK 51bn raised in “green” equity since 2017

~77% of the capital was raised in either 2020 or 2021

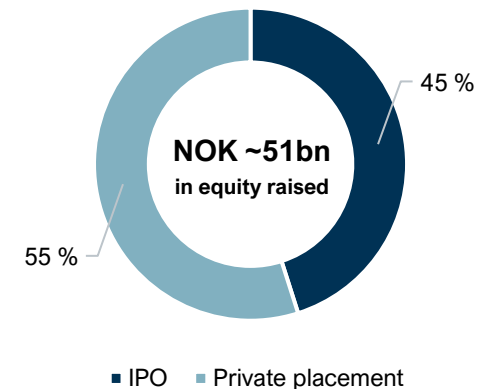
Equity raised through IPOs and Private Placements from 2017 to 2022 | Nom. NOKm



Equity raised by year | NOKm



Equity raised by issue type '17-'22 | NOKm



Source: NewsWeb as of 06.01.2023

Notes 1): 2022 as of 05.05.2022; Includes only broad market IPO and PP transactions; GNP Energy, Vow Green Metals, Tomra, Arendals Fossekompagni and Bonheur are excluded as they have not raised any equity capital since 2017



04

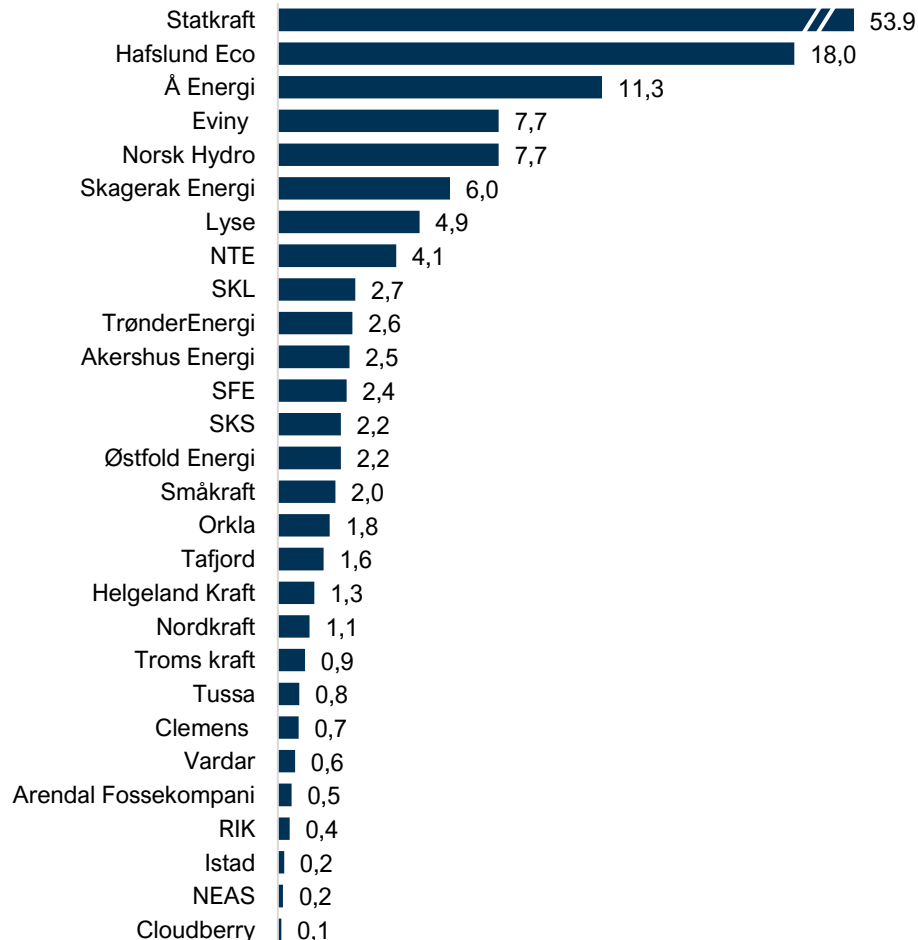
Market players - trends

Key headlines

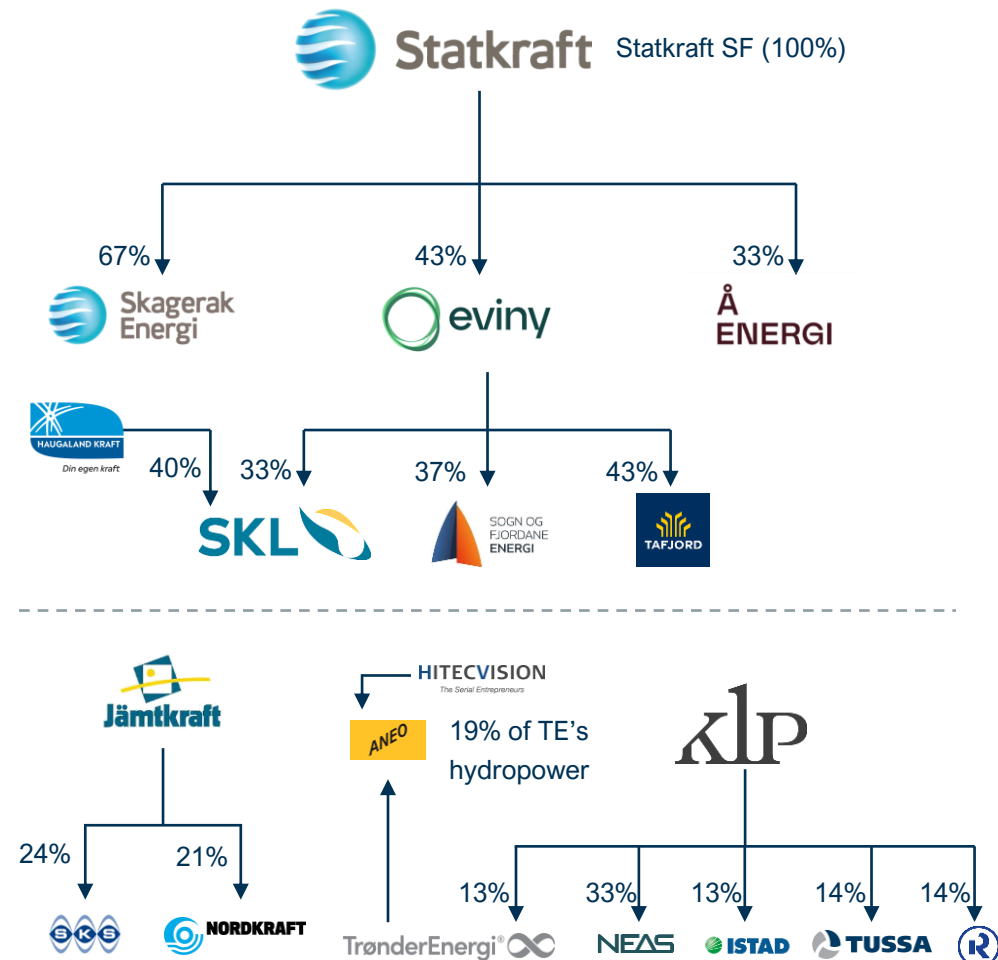
Producers and ownership structures in Norwegian hydropower

With a few exceptions (Orkla, Norsk Hydro and some small scale hydropower), Norwegian large scale hydropower is mainly owned by local municipalities and the Norwegian state

Production (TWh)*



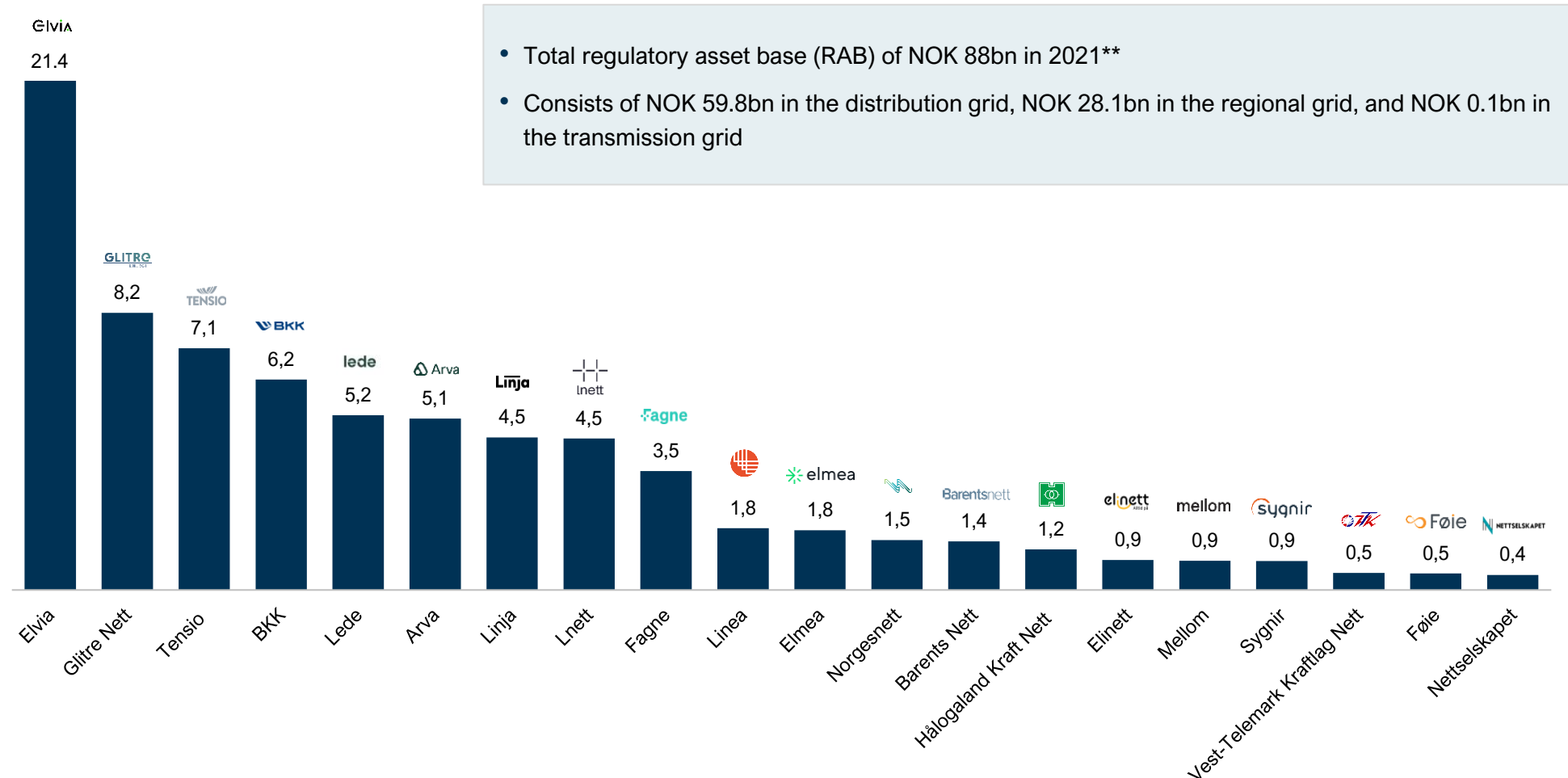
A selection of industrial ownership structures



Note(*): Own production in Norway, but reporting may differ for different companies with regards to production on 100% ownership basis vs own production leading to misrepresented numbers. Updated 24.03.2023

The 20 largest grid companies constitute ~88% of total RAB in Norway with NOK ~77bn excluding Statnett

Regulatory asset base (RAB) for the 20 largest players* as of year-end 2021 (NOKbn)



Source: NVE | Note(*): Tensio subsidiaries are consolidated; Note(**): Hafslund Eco Vannkraft, Hydro Aluminium, Aktieselskabet Saudefaldene, Statkraft Energi, Kvænanen Kraftverk, Sør-Norge Aluminium, Hydro Energi, Gassco, Tinfos, MIP Industrinett, and Herøya Nett are excluded throughout the report. Note: accounts for consolidations on slide #9

Hva satser Eidsiva Energi på



Eidsiva er plassert i sentrum av energiomstillingen

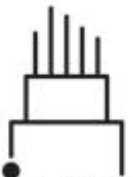
Kjernevirksomhet



Elvia – en nøkkel til elektrifisering



Fjernvarme – avlastar strømmettet



Bredbånd – Konnektivitet vil bli viktigere enn noensinne

Nye initiativ



Battery as a service



Solkraft



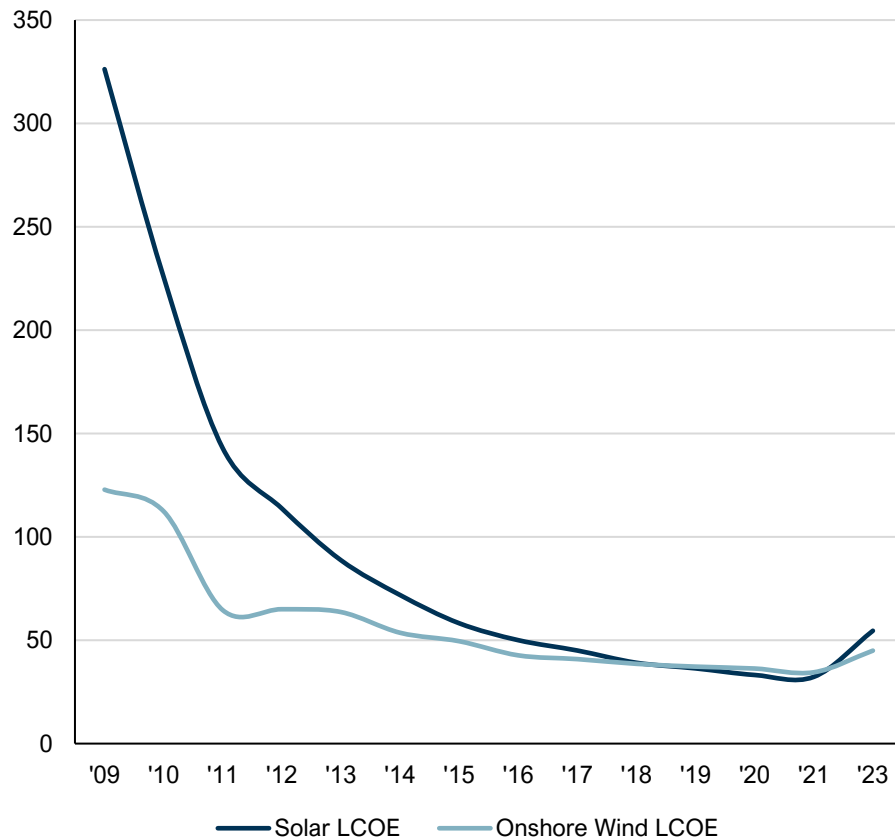
Vindkraft på land

Eidsiva

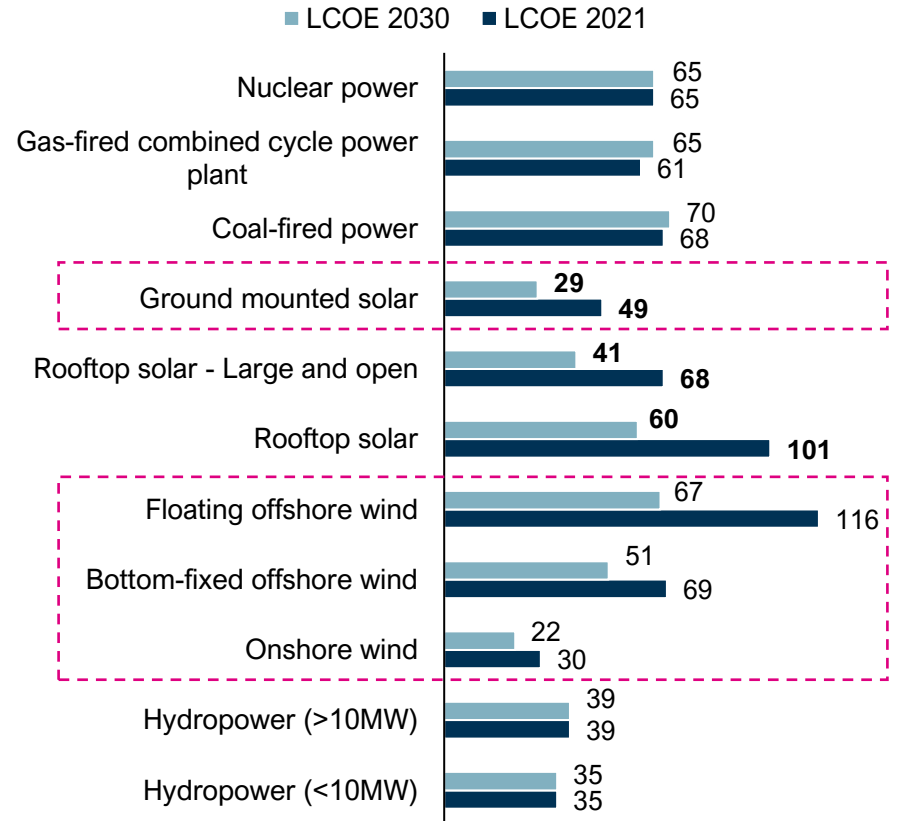
5/11/2023

Diminishing LCOE has enhanced activity in Norwegian solar

Unsubsidized Solar PV and Onshore wind LCOE¹ | EUR/MWh



LCOE across technologies | EUR/MWh

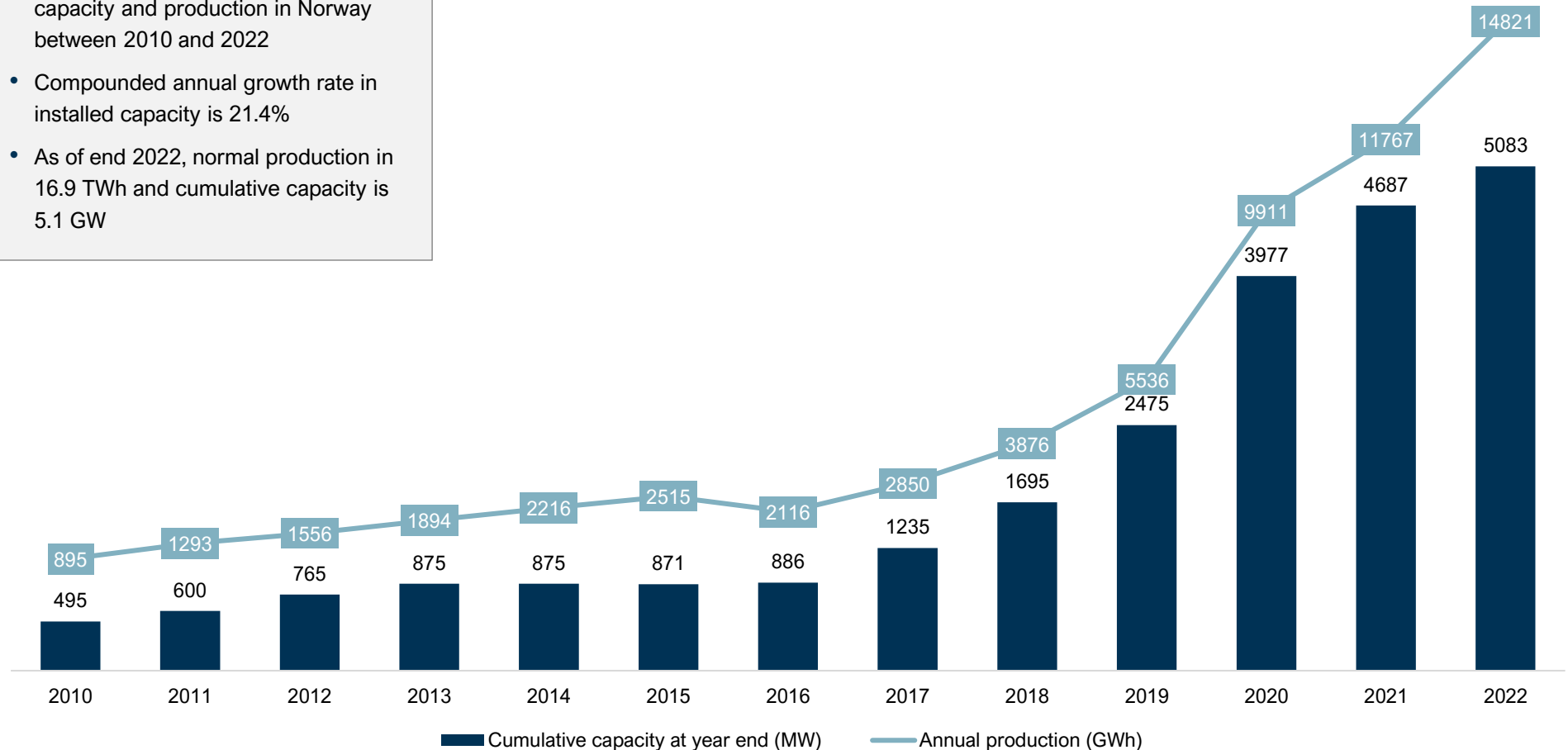


Onshore wind power installed capacity in Norway is 5.1 GW

14.8 TWh of wind power production in 2022

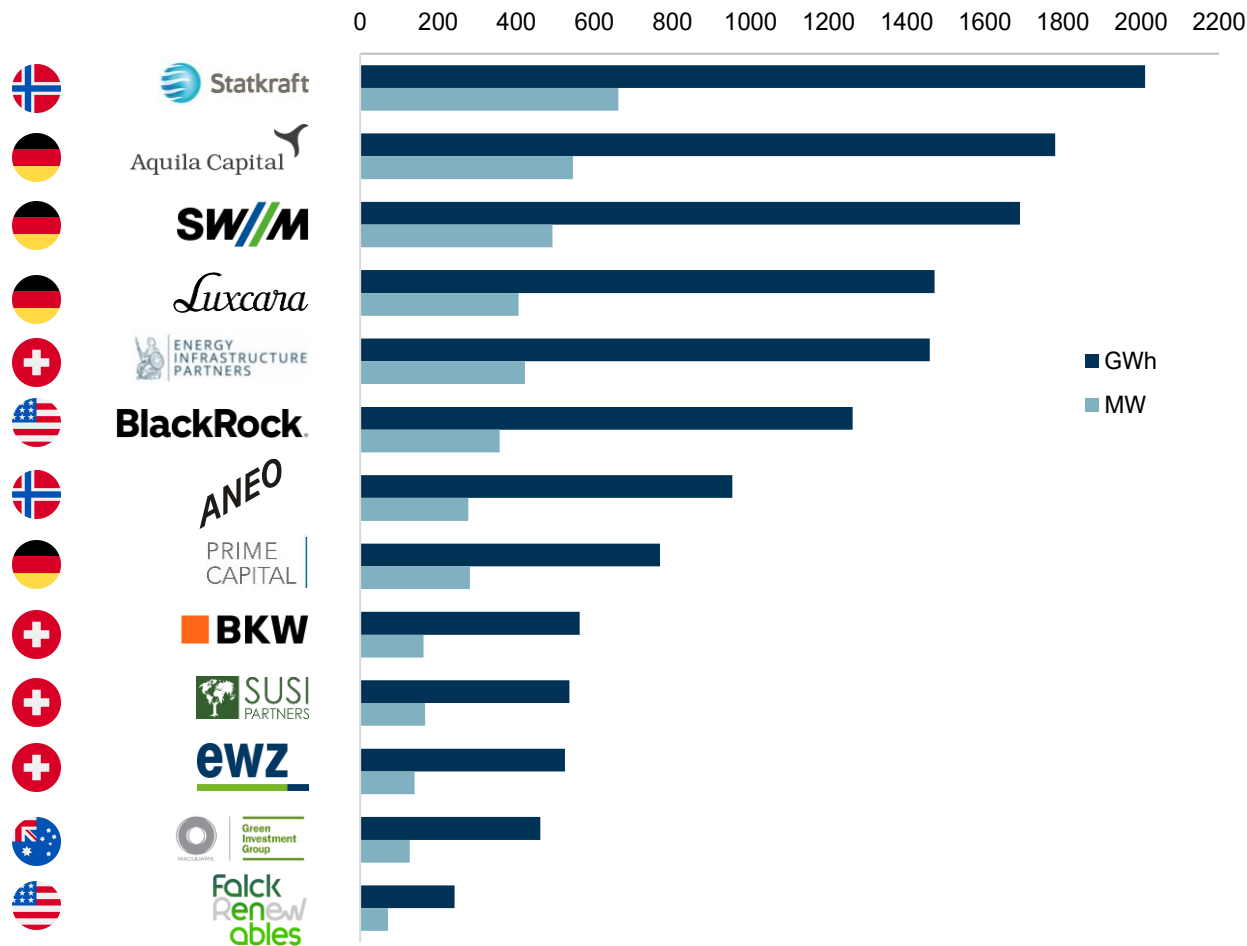
Installed capacity (MW) and annual production (GWh)

- The figure illustrates wind power capacity and production in Norway between 2010 and 2022
- Compounded annual growth rate in installed capacity is 21.4%
- As of end 2022, normal production in 16.9 TWh and cumulative capacity is 5.1 GW

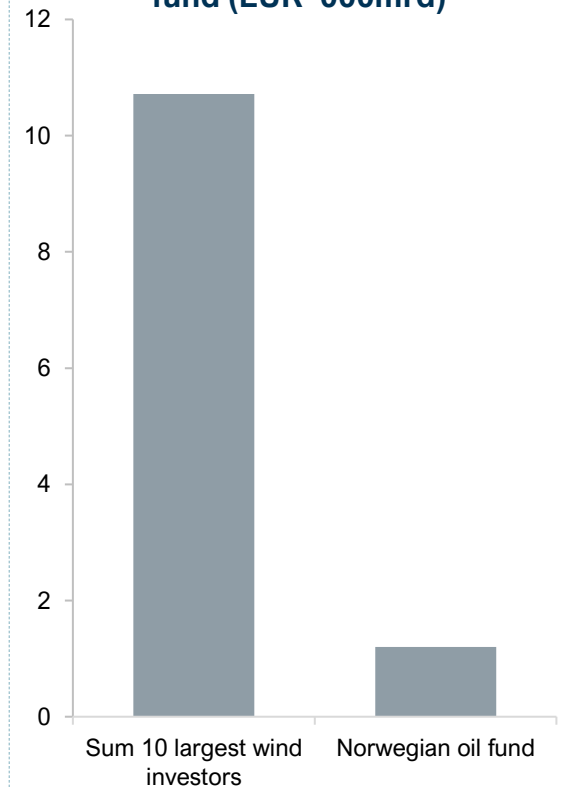


International pension funds own ~72 % of all wind power in Norway

Overview of the largest investors in wind power in Norway, based on normal production for the respective ownership share (GWh & MW)

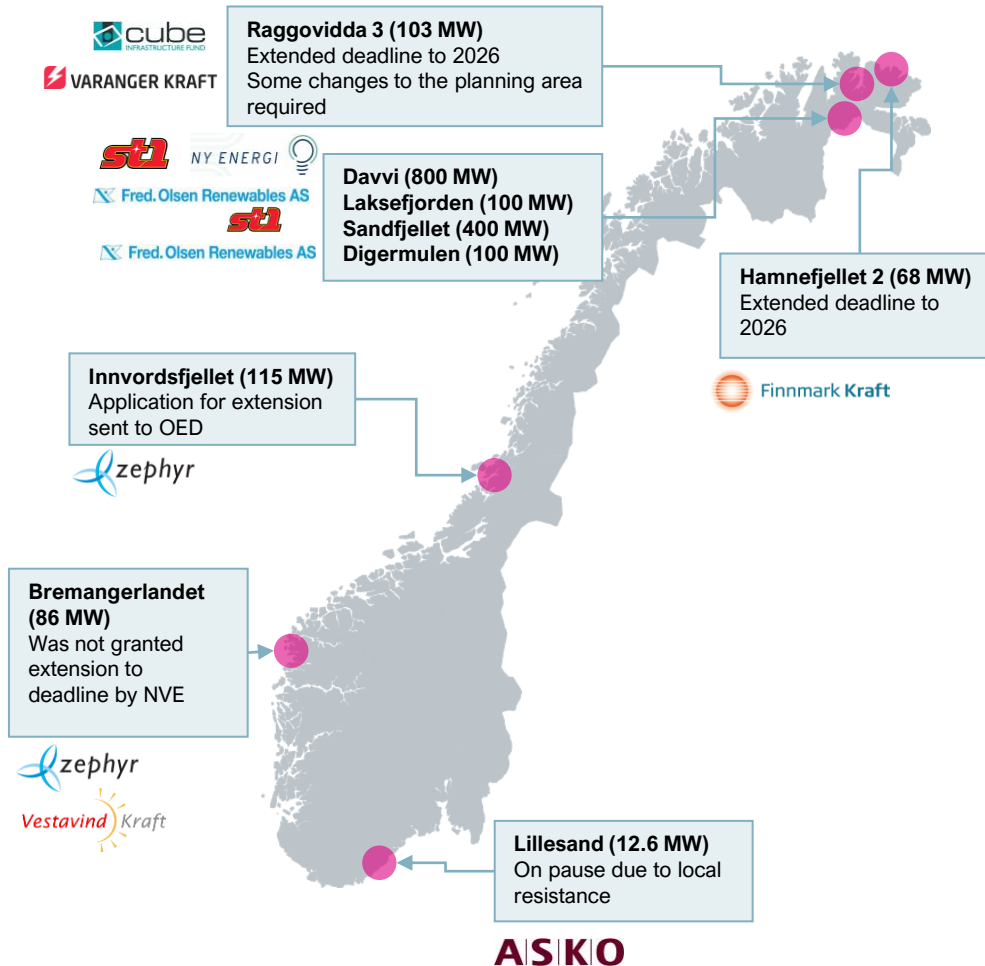


Assets under management for the 10 largest foreign wind investors vs the Norwegian sovereign wealth fund (EUR '000mrd)



No new wind power under construction and few concession applications in process

Wind power projects in Norway



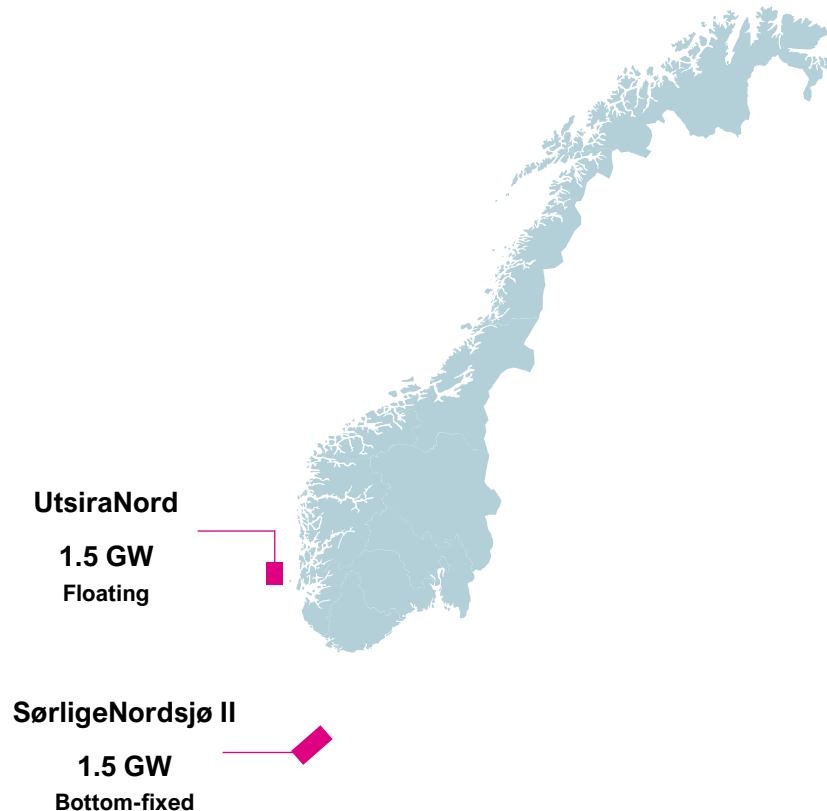
Davvi wind power project
















































Davvi is an 800 MW projects in Lebesby, Finnmark
Prime wind resources with 9.3 m/s combined with remote location and blockfield landscape

Sørlige Nordsjø II and Utsira Nord will be Norway's venture into offshore wind

Proposed areas for offshore wind in Norway



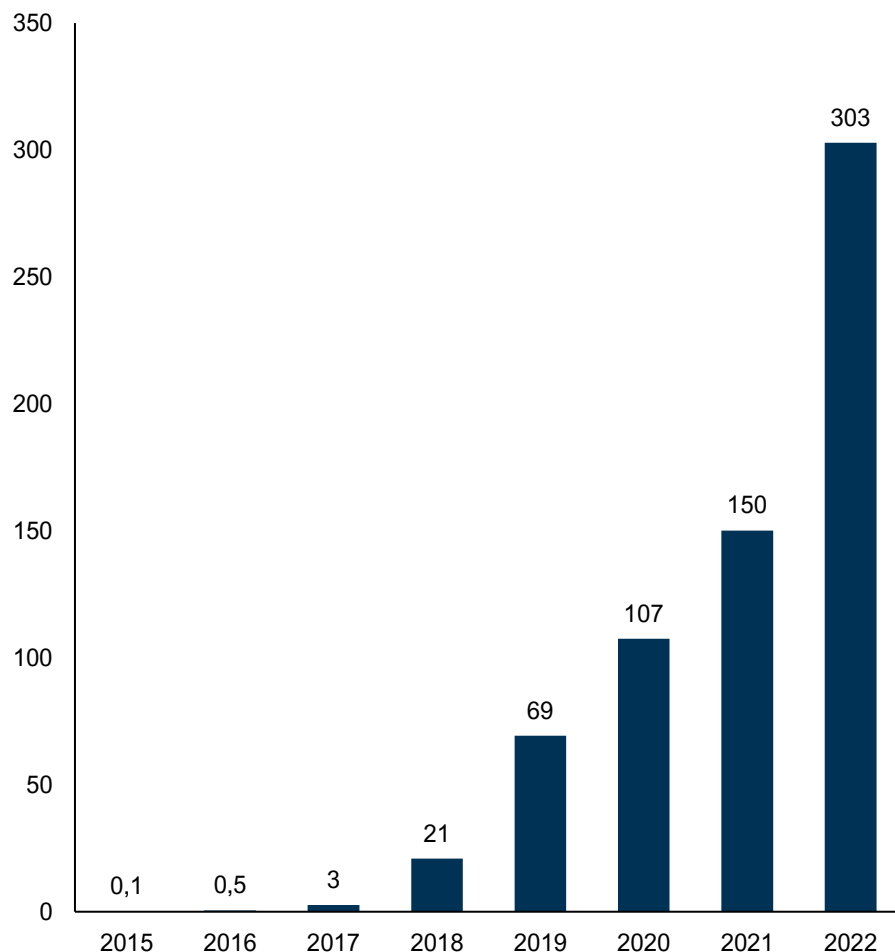
Overview of consortiums that have flagged their interest

Sørlige Nordsjø II							
  		  		  		  	
Utsira Nord							
  		   		   		    	
Both							
  		 		  			
  		  		  			

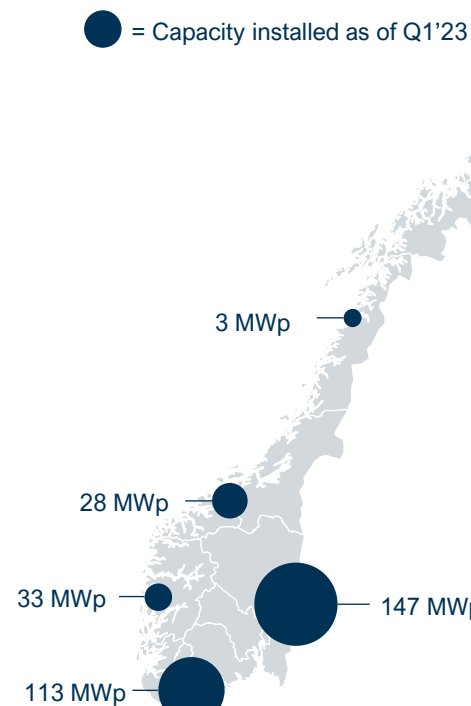
Solar market to reach 500 MW in 2023?

As much as ~550MW in concession process at NVE – much more to come

Accumulated installed solar effect in Norway | MW



Solar Power installed to date and concession submissions to NVE

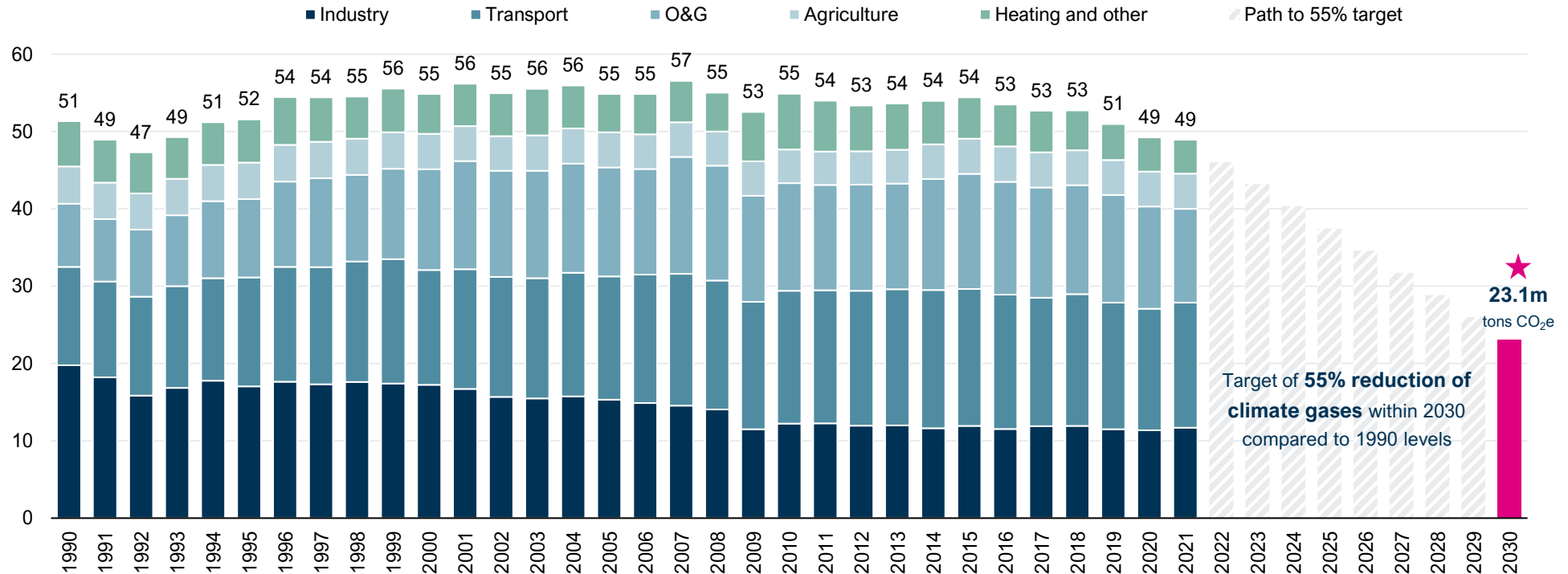


Project	MWp	Owner ¹
Øystadmarka	200	Energeia SOLAR POWER
Seval Skog	100	Energeia SOLAR POWER
Sem	60	Fred. Olsen
Simonstad	50	Fred. Olsen
Løvbergsmoen	40	nØK
Mæhlum	40	Energeia SOLAR POWER
Sto. Nøkleberg	33.5	Energeia SOLAR POWER
Barkåker	16.5	SOLGRID
Ørje	16.5	SOLGRID
Birkeland	11	Birkeland
Bronkemoen	10	nØK
Furuseth	7	SOLGRID
Kile	7	Gudbrandsdal Energi HOLDING
Engene	6.1	GREENSTAT
Måna	5	nØK
Buer	1.1	Buer Solkr.
Frøya (pilot)	1	equinor
Total	550	17 projects

Norway has a target of 55% cut in CO₂ within 2030

Compared to the 1990 level of ~51 million tons CO₂ equivalents – this creates massive opportunities for renewable & cleantech

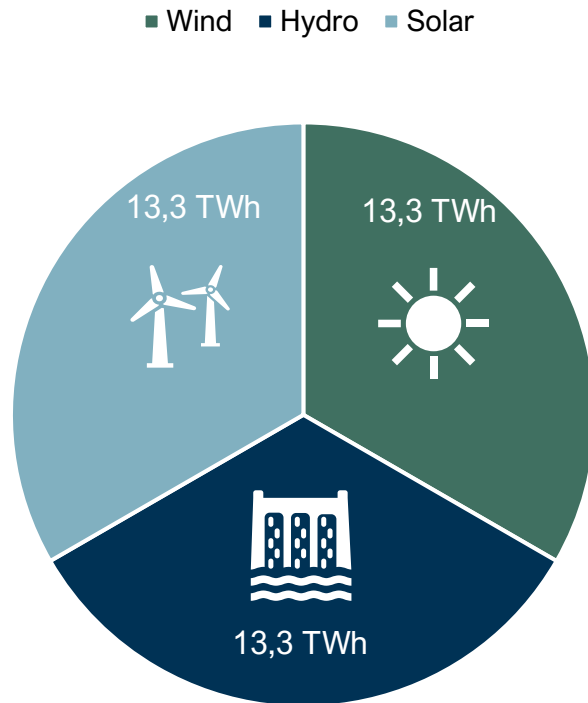
Climate gas emissions in Norway by source | Million tons CO₂ equivalents



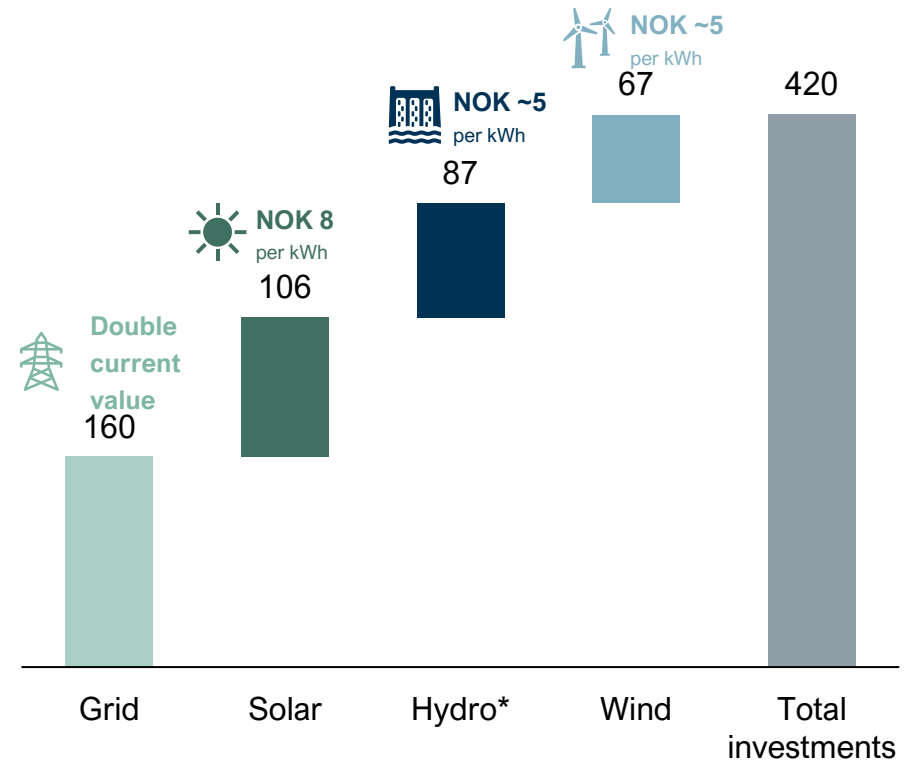
NOK +400bn required investments in Norwegian grid and renewables

To reach the energy commission's target of 40 TWh in additional production within 2030

Production growth to reach in our estimates | TWh



Est. investments to reach 40 TWh new power in Norway | NOKbn



Note(*): Including NOK 20b in effect investments (pump storage)

How to reach 40 TWh of new renewable power within 2030



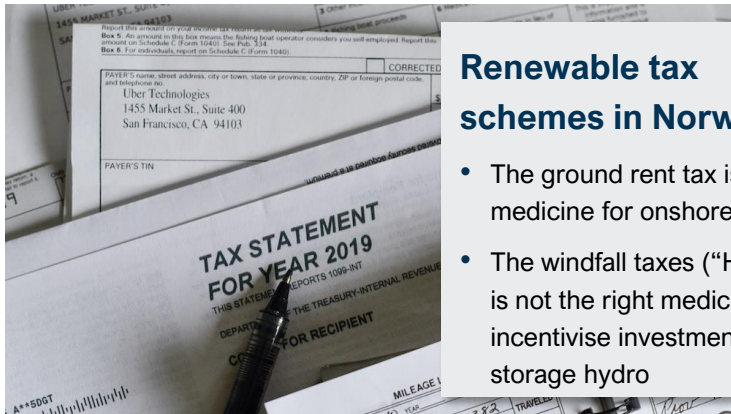
NVE and Ministry of Petroleum and Energy

- More resources is needed to shorten the permitting process
- Earlier involvement by the Ministry to speed up the process?



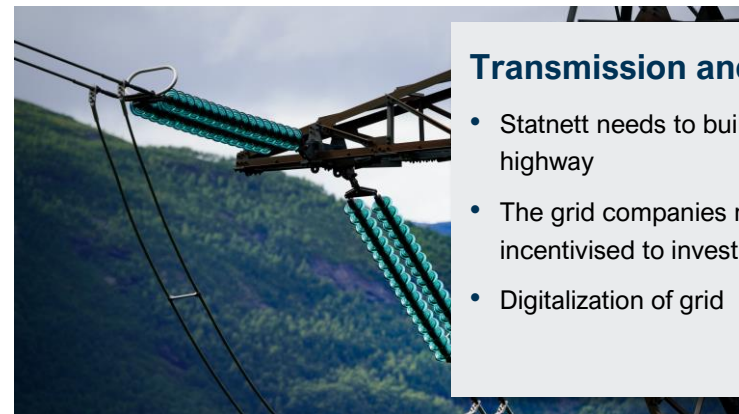
Municipalities' right to veto

- Do we have the right mechanisms in place to incentivise development of onshore wind?
- Municipalities need to plan for critical infrastructure needed



Renewable tax schemes in Norway

- The ground rent tax is not the right medicine for onshore wind
- The windfall taxes ("Høypris bidrag") is not the right medicine to incentivise investment into pump storage hydro



Transmission and grid

- Statnett needs to build the grid highway
- The grid companies must be incentivised to invest in grid
- Digitalization of grid

Important information



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