

Vattenfall FY and Q4 Results 2021

3 February 2022



VATTENFALL

Vattenfall FY Results 2021

In brief

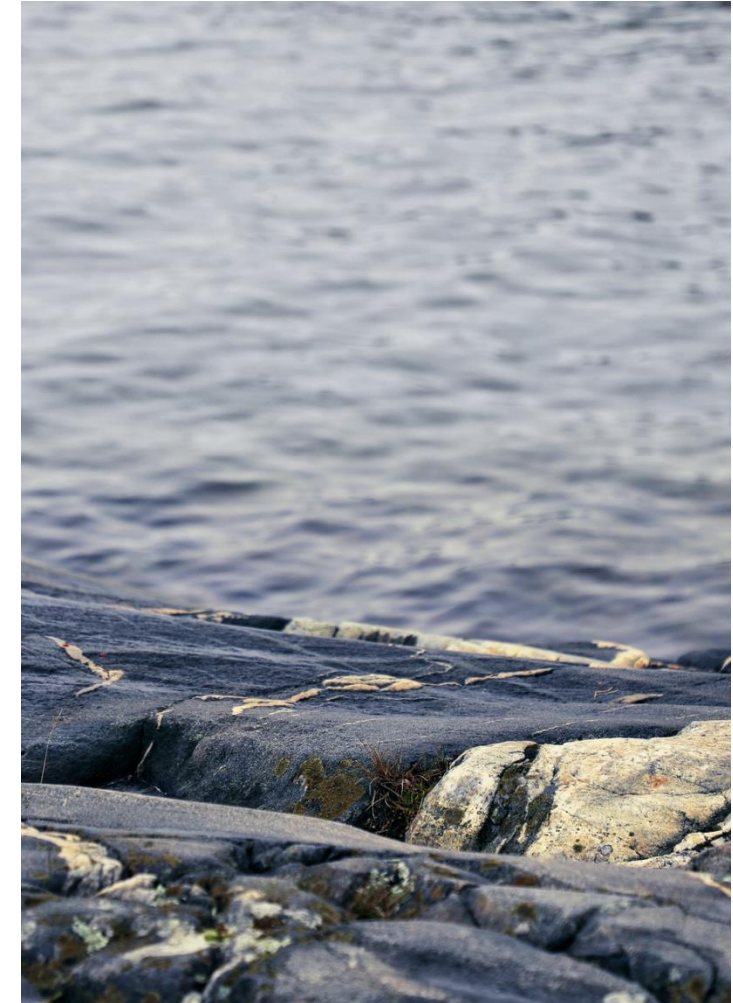
- Higher electricity prices but Vattenfall's achieved prices in the Nordics at same level as in 2020
- Contract signed on the sale of 49.5% of the Hollandse Kust Zuid offshore wind farm to BASF
- Agreement with the German state on compensation for shutdown of nuclear power
- Inauguration of Scandinavia's largest wind farm, Kriegers Flak in Denmark and final investment decision for the wind farms Vesterhav Syd and Nord

- Underlying EBIT increased by SEK 5.4 bn to SEK 31.2 bn:
 - Higher electricity production from nuclear and hydro power, including strong contribution from pumped hydro in Germany
 - Higher realised earnings contribution from the trading operations
 - New wind power capacity in operation

- Profit for the period increased by SEK 40.3 bn to SEK 48.0 bn. Impact from compensation for early shutdown of nuclear power in Germany, changes in market value for energy derivatives and inventories and capital gain from sale of Stromnetz Berlin
- The Board of Directors proposes a dividend of SEK 23.4 bn

Post Q4

- Decision by the Swedish government to permit final repository for spent nuclear fuel and construction of encapsulation plant



Vattenfall FY Results 2021

Overview

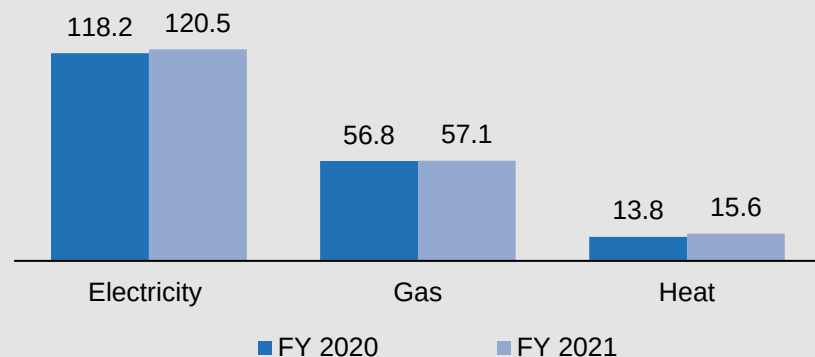
Result development

SEK BN	FY 2021	FY 2020	Δ
Net Sales	180.1	158.8	13%
EBITDA	75.8	46.5	63%
Underlying operating profit (EBIT)	31.2	25.8	21%
EBIT	60.3	15.3	295%
Profit for the period	48.0	7.7	522%

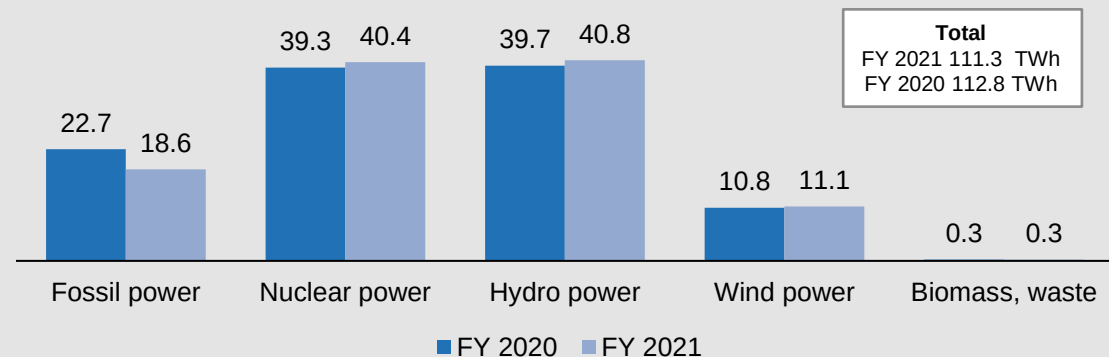
Financial targets

	FY 2021	FY 2020
Return on capital employed (≥8%)	22.2%	5.8%
FFO/adjusted net debt (22-27%)	171.2%	28.8%

Customer sales (TWh)



Electricity production (TWh)



Strategic targets 2025

Strategic focus area	Strategic targets to 2025	Actual 2021	Actual 2020	Progress	Comments
Driving decarbonisation with our customers & partners	Net Promoter Score ¹ (Absolute): +18	+10	+7 ²		Higher NPS mainly owing to the Customers & Solutions operating segment as a result of strong performance in Germany and the Netherlands
Securing a fossil-free energy supply	CO ₂ Emissions Intensity ³ : ≤86 gCO₂e/kWh	79	97		Improvement due to lower fossil-based generation, including closure of Moorburg coal-fired power plant at the end of 2020
Empowering our people	Lost Time Injury Frequency (LTIF): ≤1.0	1.7	1.8		Ongoing initiatives to improve safety, including common H&S strategy and framework for follow-up throughout the organisation
	Employee Engagement Index: ≥75%	75	74 ⁴		Improved result puts Vattenfall among the highest ranked organisations well above industry average
Delivering high-performing operations	FFO/Adjusted Net Debt: 22-27%	171.2%	28.8%		Significant increase mainly due to decrease in adjusted net debt largely driven by a positive net change in margin calls for commodity hedging activities
	ROCE: ≥8%	22.2%	5.8%		Outcome well above target, impacted by compensation for closure of nuclear power in Germany, unrealised changes in market value of energy derivatives and inventories as well as capital gain from sale of Stromnetz Berlin

¹ NPS absolute target is calculated with a weighting of 80% from Customers & Solutions and 20% from Heat resembling size of customer basis

² No outcome for business unit Heat Berlin in 2020, similar level as in 2019 assumed

³ Targeting 86 gCO₂/kWh by 2025 puts us on a “1.5°C” trajectory by 2030 according to Science Based Target levels

⁴ The value has been adjusted compared with previously published information due to change in methodology

Customers & Solutions

Increasing customer base and continued expansion in e-vehicle charging solutions

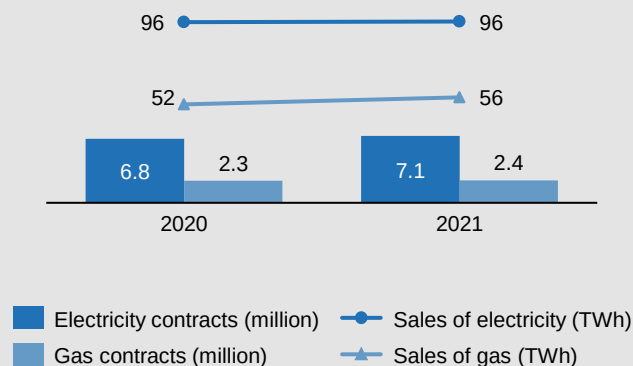
Highlights

SEK million	FY 2021	FY 2020
Net Sales	106,560	86,298
Underlying operating profit	2,349	2,146

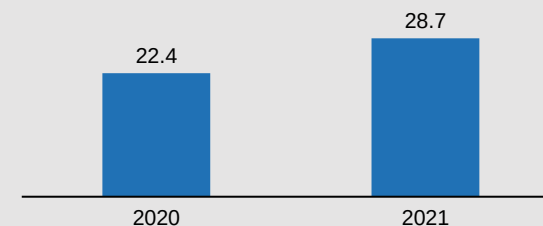
- Net sales increased by 23%. The underlying operating profit increased by 10% mainly due to an increased customer base and lower average temperatures in the Netherlands and Germany
- The customer base increased by 3.7% to 10.5 million contracts compared to year-end 2020
- Introduction of a new heat pump system in the Netherlands that enables easy replacement of gas-fired heating boilers
- Continued expansion of EV charging network with installation of 8,000 charging points in the Netherlands until 2024 and new partnership in Germany with Das Futterhaus
- Launch of a new app in Germany where users can calculate their CO₂ footprint

Key data

Retail sales development



Charging points for electric vehicles (thousand)



Power Generation

Higher electricity prices and increased generation volumes

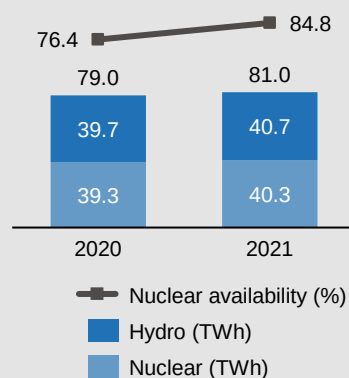
Highlights

SEK million	FY 2021	FY 2020
Net Sales	126,318	90,133
Underlying operating profit	19,334	14,670

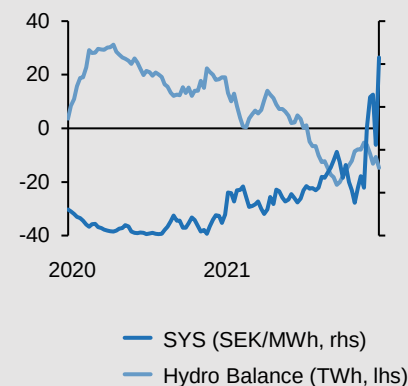
- Net sales increased by 40%. Underlying operating profit increased by 33% mainly due to increased nuclear and hydro power generation as well as higher realised trading result. Unchanged level for the achieved price in the Nordic region, partly affected by large price differences between electricity areas in Sweden
- The average hedging price was EUR 5/MWh lower and was mitigated by the spot price, which was EUR 40/MWh higher following the recent sharp rise in electricity prices
- Generation record at Forsmark nuclear power plant
- Green light from the Swedish government to expand the final repository for short-lived radioactive waste and permit final repository for spent nuclear fuel
- New partnership with Cargill and Windpark Hanze lowering CO₂ emissions in the Netherlands

Key data

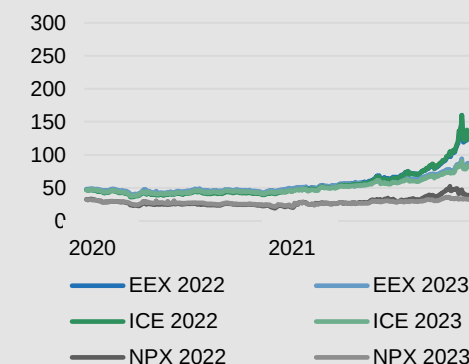
Production and availability



Nordic hydro balance and system price



Electricity futures prices (EUR/MWh)



Wind

Earnings lifted by higher electricity prices and new capacity

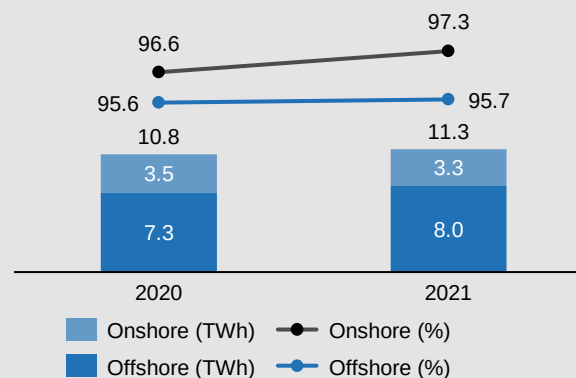
Highlights

SEK million	FY 2021	FY 2020
Net Sales	20,872	13,565
Underlying operating profit	7,866	3,970

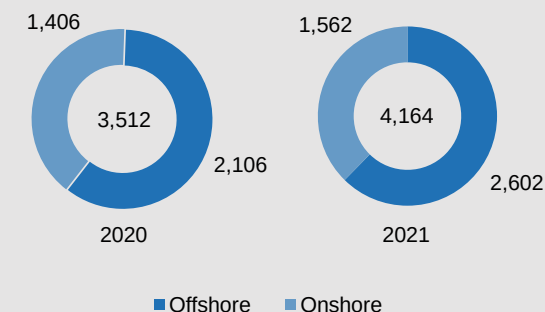
- Net sales increased by 54% compared to 2020. Underlying operating profit increased by 98% due to higher electricity prices and new capacity¹, partly offset by lower wind speeds and lower availability due to maintenance work
- Electricity generation increased by 5% as a result of new capacity
- Final investment decision for Vesterhav Syd and Nord offshore wind farms in Denmark with a capacity of 344 MW, corresponding to the annual electricity consumption of 350,000 Danish households
- Planning consent granted for the offshore wind farm Norfolk Boreas in the UK with total capacity of 1.8 GW, corresponding to the annual electricity consumption of 2 million British households

Key data

Production and availability



Total installed wind capacity (MW)



¹ Added capacity during the last 12 months includes Kriegers Flak (605 MW), Blakliden Fäbodberget (139 MW of 353 MW), Haringvliet (18 MW of 22 MW), Jaap Rodenburg 38 MW, Moerdijk 27 MW and other onshore 10 MW. Divestments includes NoordzeeWind 108 MW and other onshore 77 MW

Heat

Earnings negatively impacted by lower clean spark spreads

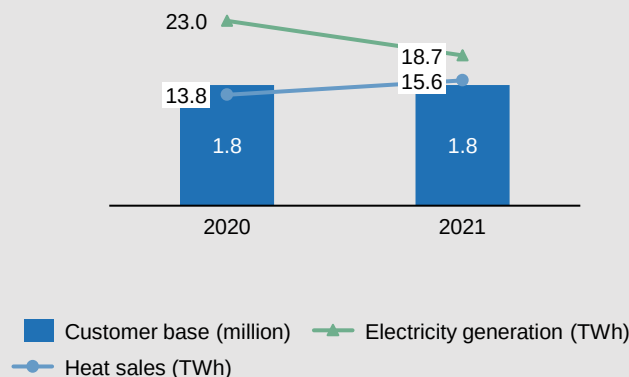
Highlights

SEK million	FY 2021	FY 2020
Net Sales	34,759	23,328
Underlying operating profit	-343	978

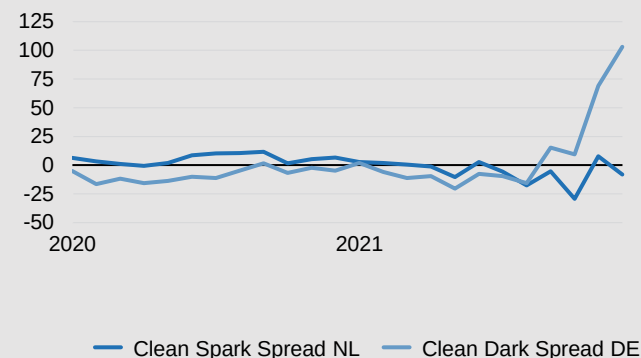
- Net sales increased by 49%. Underlying operating profit decreased by 135% mainly owing to higher gas and CO₂ prices which led to lower clean spark spreads largely affecting the heat operations in Berlin. End of commercial operation at the Moorburg plant in December 2020 had a positive effect
- Sales of heat increased as a result of lower temperatures and a growing customer base
- In Sweden, Vattenfall has entered into new partnerships with AstaReal and Oxelö Energi that will facilitate the integration of district heating
- The connection of the district heating networks in Amsterdam has been completed and an auxiliary heat plant with heat-buffer was opened in October

Key data

Sales and production



Spreads¹ (EUR/MWh)



¹ CSS NL with 52% efficiency, CDS DE with 38% efficiency

Distribution

Lower earnings due to price reductions and higher costs for the transmission network

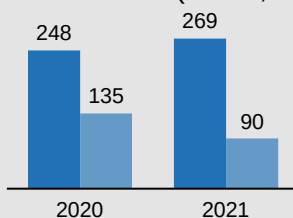
Highlights

SEK million	FY 2021	FY 2020
Net Sales	17,262	21,644
Underlying operating profit	3,152	5,325

- Net sales decreased by 20%. Underlying operating profit decreased by 41% as a result of lower gross margin in the Swedish operations, mainly due to price reductions in local grids, higher costs for the transmission network and network losses caused by higher electricity prices
- The sale of Stromnetz Berlin on 1 July 2021 negatively affected the net sales comparison by SEK 4.8 billion and underlying operating profit by SEK 0.6 billion.
- The administrative court of appeal in Jönköping has granted leave to appeal in the case regarding allowed revenue frames for 2020-2023
- Markets for flexibility reduce capacity shortages in the electricity grid during the winter season
- High inflow of connection requests and continued large investments in the electricity grid

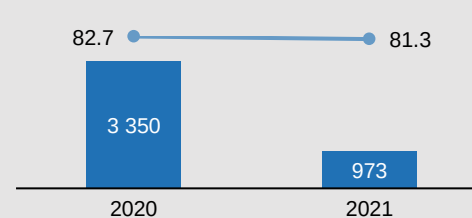
Key data

Service level (SAIDI, min)¹



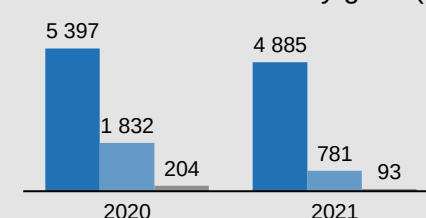
Sweden North
Sweden South

Customers and volumes



Customer base (thousands)²
Transited volume (TWh)

Investments in electricity grids (SEK mn)



Sweden
Germany²
Network Solutions



¹ All outages longer than 1 second in medium and low voltage networks are included. Vattenfall's Swedish network covers both urban areas and large rural areas.

² Reduction in customer base and investments due to divestment of Stromnetz Berlin on 1 July 2021

Financials



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Vattenfall FY Results 2021

Financial highlights

Key data

SEK bn	FY 2021	FY 2020
Net Sales	180.1	158.8
EBITDA	75.8	46.5
Underlying operating profit (EBIT)	31.2	25.8
EBIT	60.3	15.3
Profit for the period	48.0	7.7
Funds from Operations (FFO)	46.1	35.0
Cash flow operating activities	100.1	41.7
Net debt	-44.7	48.2
Adjusted net debt	26.9	121.5
Adjusted net debt/EBITDA (times)	0.4	2.6
Financial targets		
ROCE (≥8%)	22.2	5.8
FFO/adjusted net debt (22-27%)	171.2	28.8

Key developments

- Net sales increased by SEK 21.3 bn to SEK 180.1 bn due to higher spot prices and higher sales volumes in the Nordics and Germany
- Underlying EBIT increased by SEK 5.4 bn mainly due to increased earnings in segment Power Generation due to increased nuclear and hydro power generation and higher realised trading result. The Wind segment also contributed positively due to higher prices and new capacity
- Profit for the period increased to SEK 48.0 bn, mainly due to the agreement on compensation for the closure of nuclear power in Germany, changes in market value for energy derivatives and inventories and capital gain from sale of Stromnetz Berlin
- ROCE increased to 22.2% mainly due to changes in market value for energy derivatives and inventories, the agreement on compensation for the closure of nuclear power in Germany and the capital gain from Sale of Stromnetz Berlin. ROCE FY 2020 was negatively affected by impairments
- FFO/Adjusted net debt increased to 171.2%, mainly as a result of a significant decrease in adjusted net debt largely driven by a positive net change in margin calls for commodity hedging activities

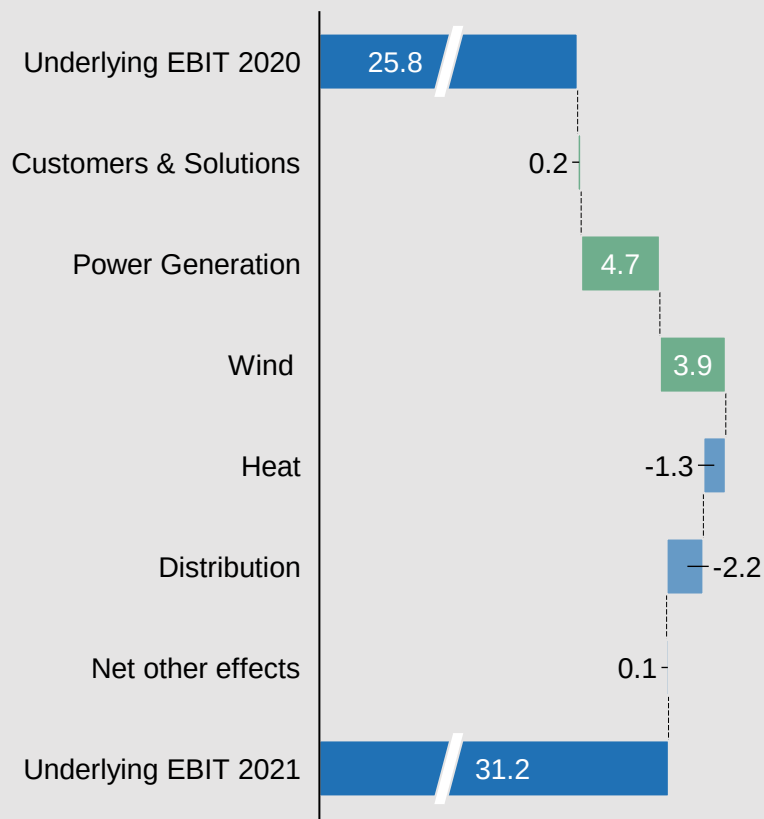


Development of underlying EBIT FY 2021

Increase from Power Generation and Wind partly offset by lower earnings in Heat and Distribution

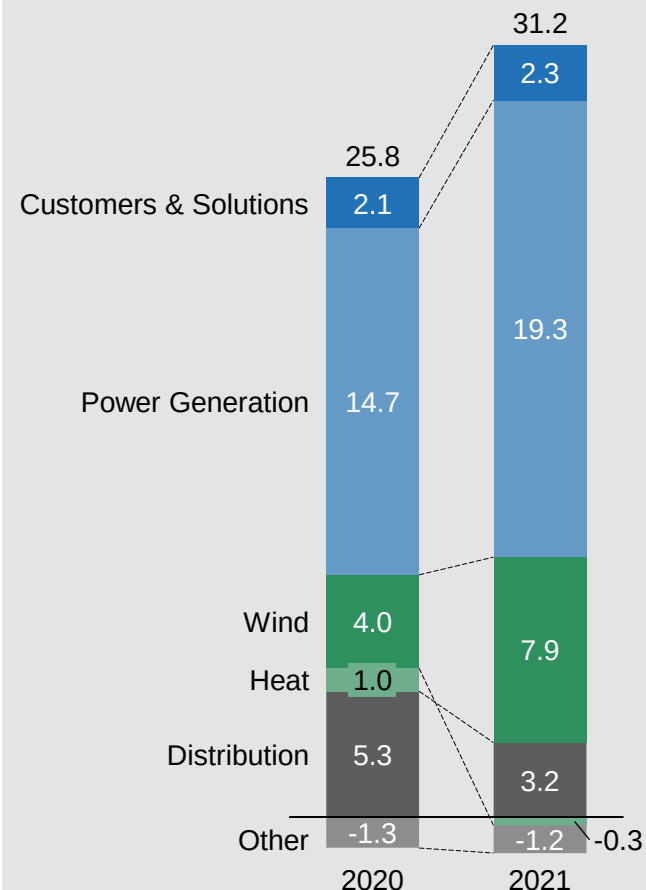
Change in FY 2021 vs. FY 2020

SEK bn



Breakdown per operating segment

SEK bn

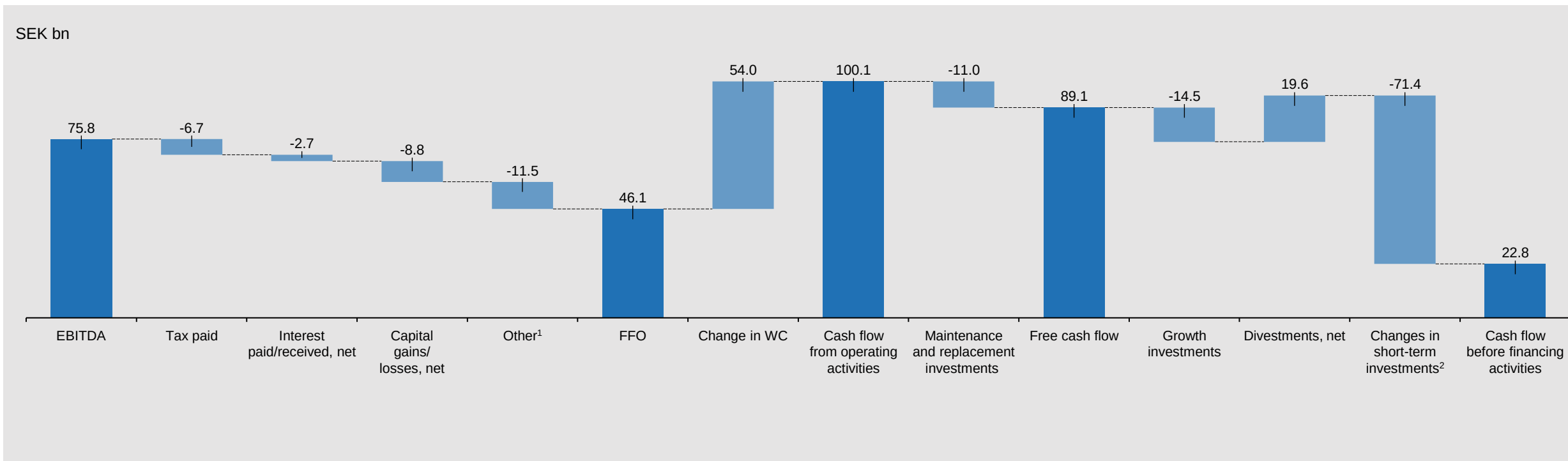


Highlights

- Customers & Solutions: increased customer base and lower average temperatures in the Netherlands and Germany
- Power Generation: higher nuclear and hydro power generation, increased contribution from pumped hydro storage in Germany and a higher realised trading result
- Wind: higher electricity prices and new capacity, partly offset by lower wind speeds
- Heat: higher gas and CO₂ prices led to lower clean spark spreads
- Distribution: lower gross margin in the Swedish operations, mainly due to price reductions in local networks, higher costs for the transmission networks and network losses caused by higher electricity prices

Cash flow development FY 2021

Positive working capital development mainly related to changes in margin calls



Main effects

- Change in working capital mainly driven by changes related to net change in margin calls received for commodity hedging activities (SEK 88.0 bn) following sharp price increases for gas and electricity on the Continent. Increase in inventories (SEK -23.1 bn), increase in operating receivables in the Customers & Solutions operating segment (SEK -4.4 bn) and changes related to CO₂ emission allowances (SEK -3.4 bn) had an offsetting impact
- Changes in short-term investments are mainly related to inflows from margin calls and include commercial papers, repo's, bonds and margin calls paid

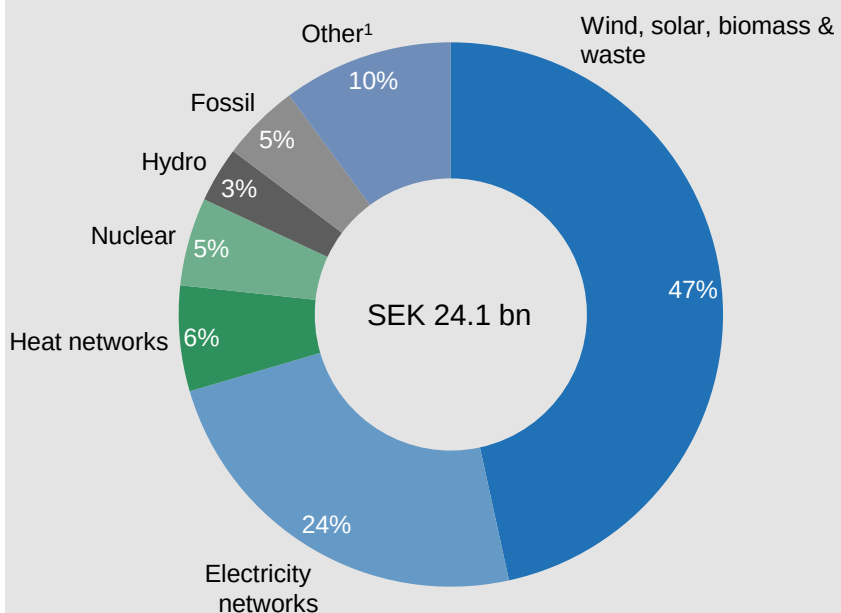
¹ "Other" includes non-cash items included in EBITDA, mainly changes in fair value of commodity derivatives

² Change from Financing activities to Investing activities

Capital expenditures

Majority of investments directed to renewables and electricity networks

Investments per category, FY 2021



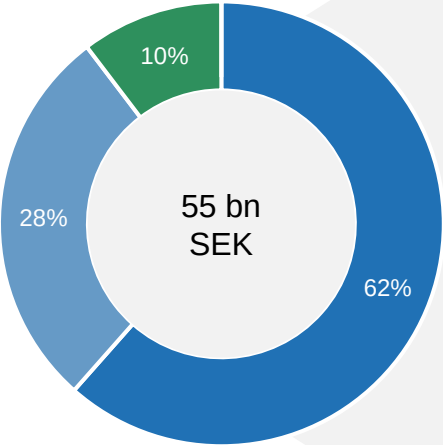
Detailed overview of investments, FY & Q4 2021

SEK bn	FY 2021	FY 2020	Δ	Q4 2021	Q4 2020	Δ
Hydro	0.8	0.9	-14%	0.3	0.3	-10%
Nuclear	1.3	1.9	-33%	0.4	0.5	-16%
Fossil	1.1	1.5	-24%	0.6	0.4	25%
Wind, solar, biomass & waste	11.2	8.0	40%	2.0	2.6	-25%
Electricity networks	5.8	7.4	-23%	1.9	2.5	-24%
Heat networks	1.5	1.4	8%	0.6	0.6	2%
Other	2.4	2.5	-2%	1.1	0.9	22%
Total	24.1	23.6	2%	6.9	7.9	-13%

¹ Mainly pretains to investments in immaterial assets

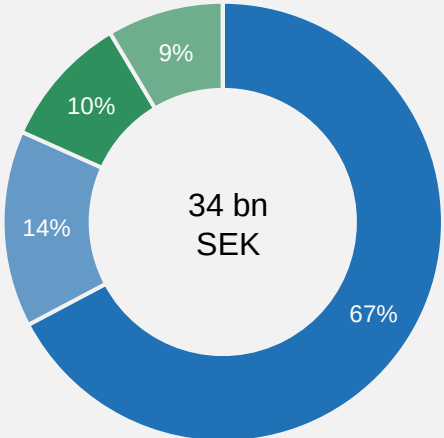
Investment plan 2022-2023

Total capex
2022-2023



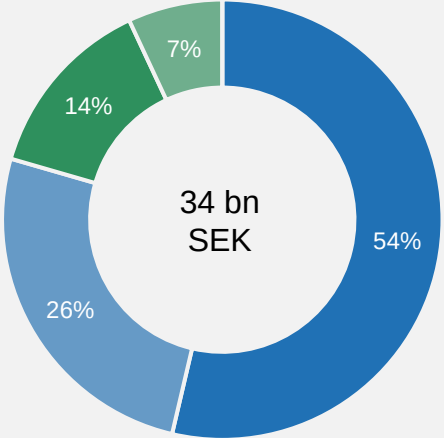
- Growth, 34 bn SEK
- Maintenance, 16 bn SEK
- Replacement, 6 bn SEK

Growth capex per
technology 2022-2023



- Wind power, 23 bn SEK
- Heat supply, 5 bn SEK
- Electricity distribution, 3 bn SEK
- Other¹, 3 bn SEK

Growth capex per country
2022-2023



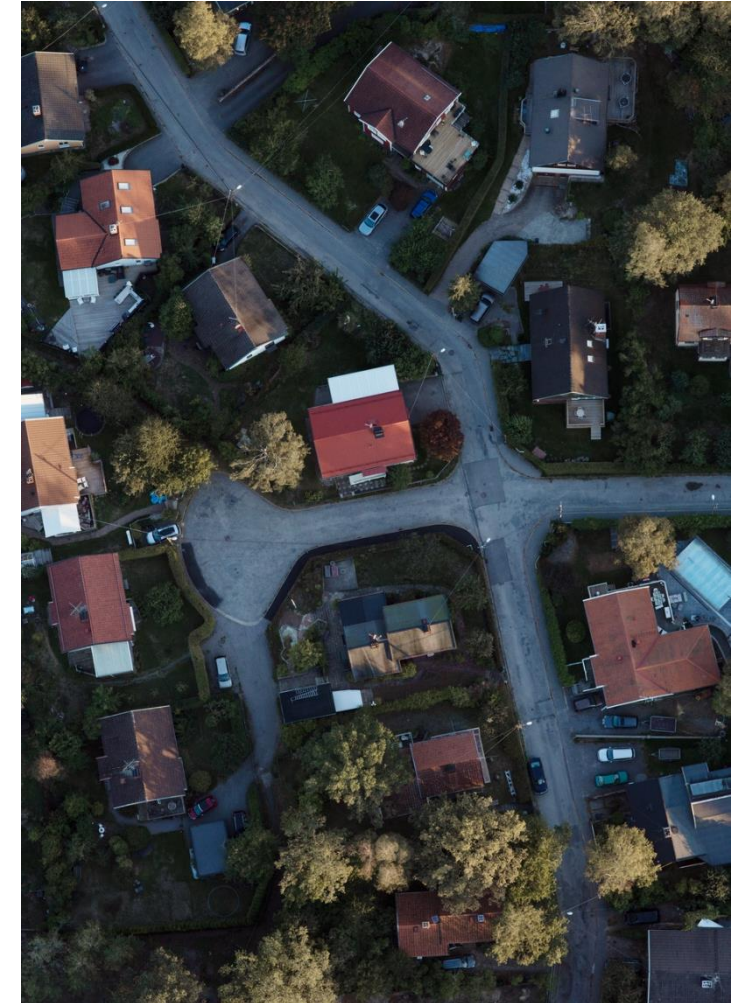
- The Netherlands, 18 bn SEK
- Denmark, 9 bn SEK
- Sweden, 5 bn SEK
- Germany and other, 2 bn SEK

¹ Mainly charging solutions, solar and battery projects, heat and energy solutions and the HYBRIT project

² Germany (3.1 bn SEK) and other (-0.7 bn SEK). Other countries mainly include France and the UK, negative value due to expected income from partnerships and from sales of projects developed for sale

Overview of key figures FY and Q4 2021

Amounts in SEK bn unless indicated otherwise	FY 2021	FY 2020	Q4 2021	Q4 2020
Net sales	180.1	158.8	63.5	44.0
EBITDA	75.8	46.5	10.2	12.1
EBIT	60.3	15.3	7.8	5.2
Underlying operating profit (EBIT)	31.2	25.8	9.1	8.0
Profit for the period	48.0	7.7	6.1	5.7
Electricity generation (TWh)	111.3	112.8	30.5	30.5
Sales of electricity (TWh)	168.9	164.1	45.6	44
- of which, customer sales (TWh)	120.5	118.2	32.1	31.7
Sales of heat (TWh)	15.6	13.8	5.1	4.5
Sales of gas (TWh)	57.1	56.8	17.3	18.9
Return on capital employed ($\geq 8\%$)	22.2	5.8	22.2	5.8
FFO/adjusted net debt (22-27%)	171.2	28.8	171.2	28.8



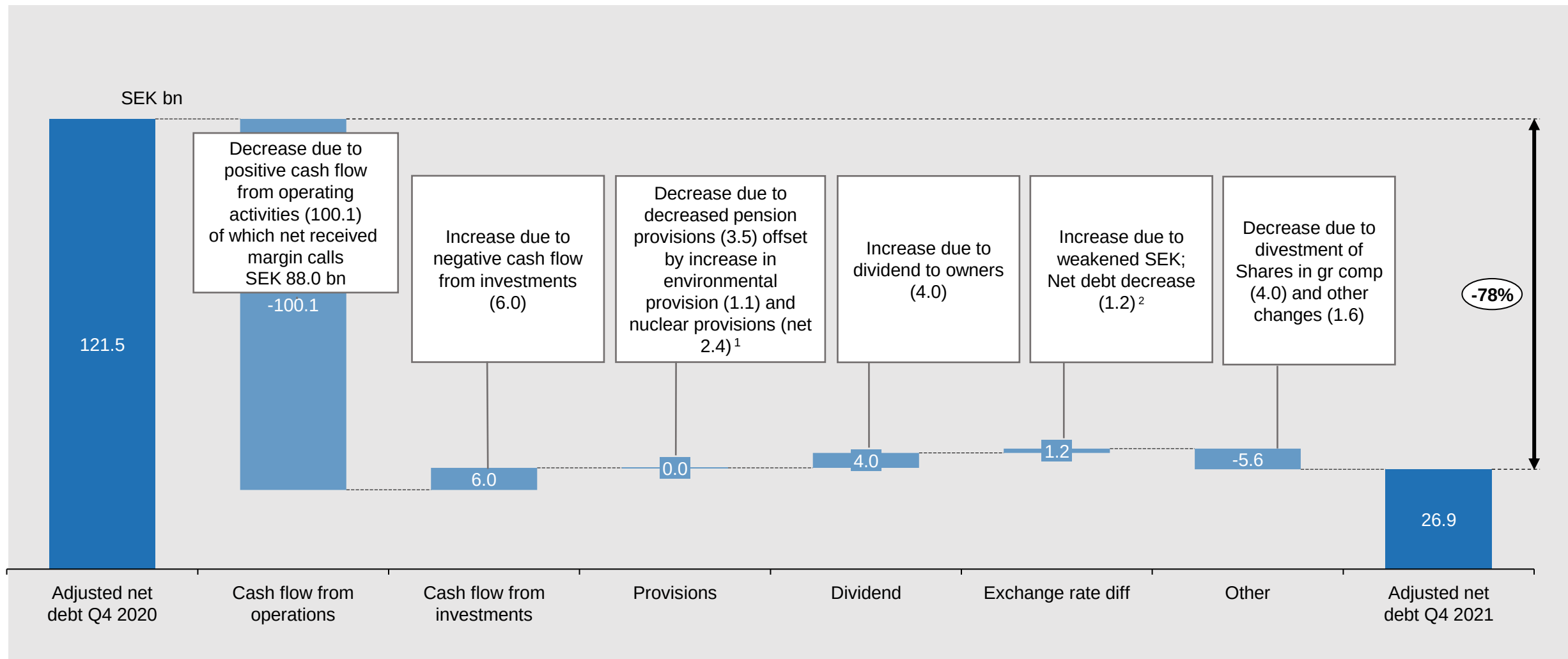
Appendix



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Development of adjusted net debt YTD 2021

Adjusted net debt decreased mainly due to the effect of incoming margin calls

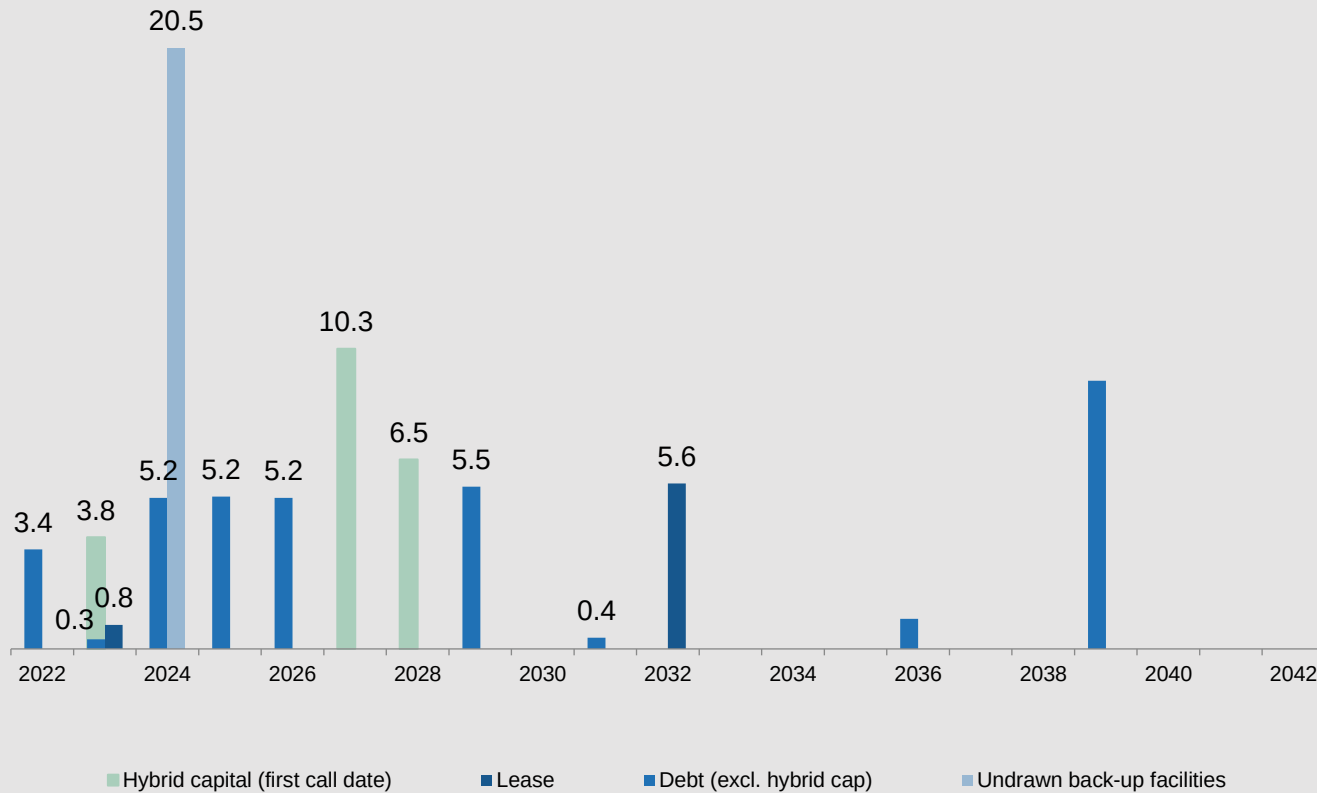


¹ Nuclear provision increased net by SEK 2.4 bn, whereof in Sweden by 3.4 offset by decrease in Germany by 0.9.

² SEK weakened against EUR (from 10.03 to 10.25); translation of EUR denominated net debt into SEK leads to increase in Adjusted net debt

Debt maturity profile¹

SEK bn



	31 Dec. 2021	31 Dec. 2020
Duration (years)	4.7	3.8
Average time to maturity (years)	6.8	5.1
Average interest rate (%)	2.9	3.4
Net debt (SEK bn)	-44.7	48.2
Available group liquidity (MSEK)	167.4	50.8
Undrawn committed credit facilities (MSEK)	20.5	23.1

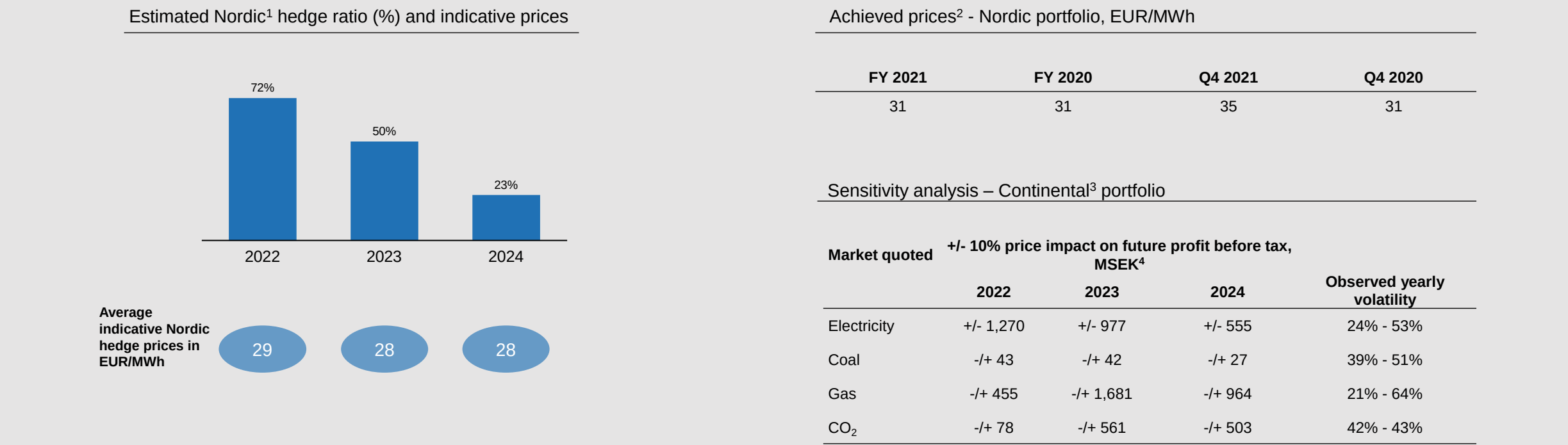
Cumulative maturities excl. undrawn back-up facilities

	2022- 2024	2025- 2027	From 2028
Debt incl. hybrid capital	13.5	20.7	28.2
<i>% of total</i>	22%	33%	45%

¹ Short term debt (Repo's and Commercial paper: 46.2), loans from associated companies, minority owners, margin calls received (CSA) and valuation at fair value are excluded. Currency derivatives for hedging debt in foreign currency are included.

Price hedging

Vattenfall continuously hedges its future electricity generation through sales in the forward and futures markets. Spot prices therefore have only a limited impact on Vattenfall’s earnings in the near term



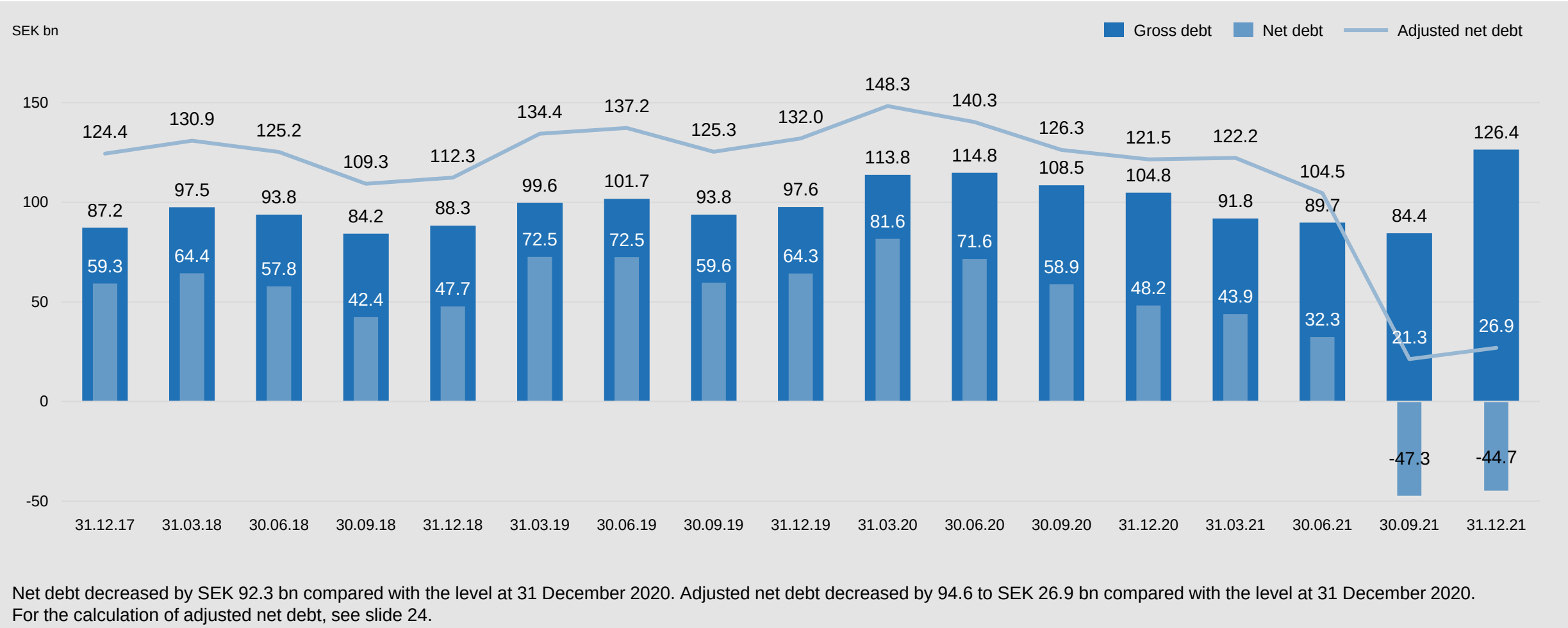
Liquidity position

Group liquidity	SEK bn	Committed credit facilities	Facility size, EUR bn	SEK bn
Cash and cash equivalents	68.2	RCF (maturity Nov 2023)	2.0	20.5
Short term investments	102.7	Total undrawn		20.5
Reported cash, cash equivalents & short term investments	170.9			
		Debt maturities²		SEK bn
Unavailable liquidity ¹	-3.4	Within 90 days		3.2
Available liquidity	167.4	Within 180 days		3.2

¹ German nuclear "Solidarvereinbarung" 1.0 SEK bn, Margin calls paid (CSA) 1.6 SEK bn, Insurance "Provisions for claims outstanding" 0.8 SEK bn

² Excluding loans from minority owners and associated companies

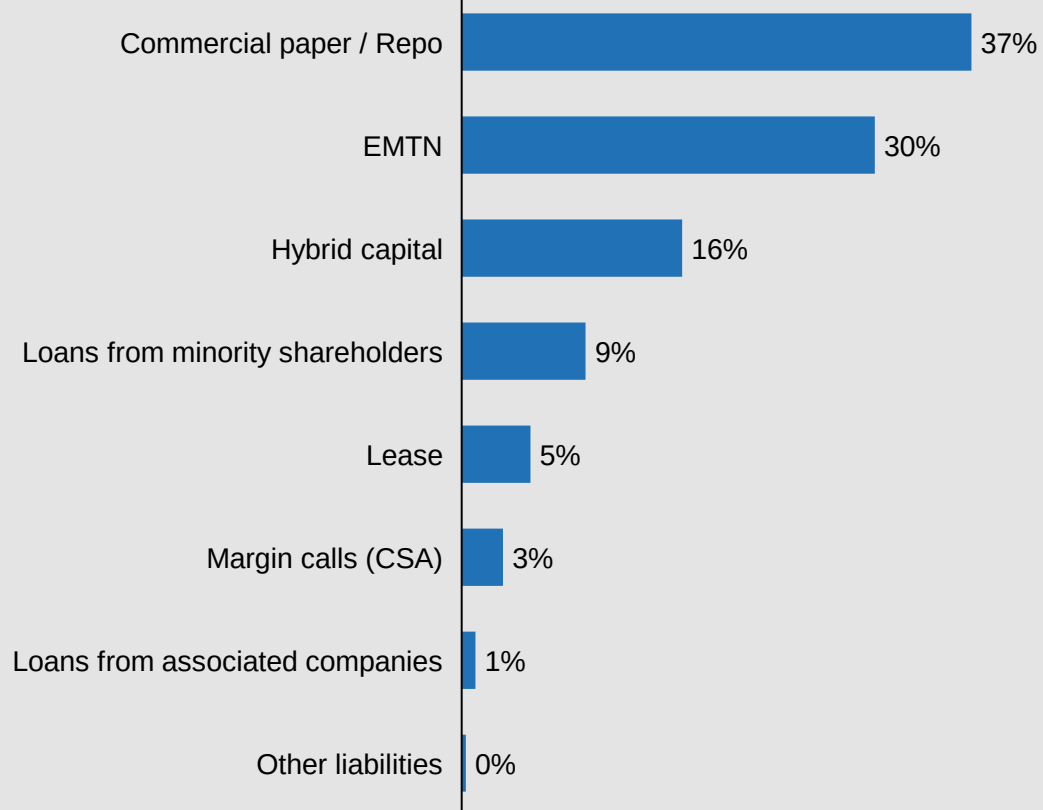
Debt development



Breakdown of gross debt

Total debt: SEK 126.4 bn (EUR 12.3 bn)

External market debt: SEK 114.2 bn (EUR 11.1 bn)



Debt issuing programmes	Size (EUR bn)	Utilization (EUR bn)
EUR 10bn Euro MTN	10.0	3.0
EUR 4bn Euro CP	4.0	2.7
Total	14.0	5.7

- All public debt is issued by Vattenfall AB
- The main part of debt portfolio has no currency exposure that has an impact on the income statement. Debt in foreign currency is either swapped to SEK or booked as hedge against net foreign investments.
- No structural subordination

¹ EMTN= Euro Medium Term Notes

Reported and adjusted net debt

Reported net debt (SEK bn)	31 Dec. 2021	31 Dec. 2020	Adjusted net debt (SEK bn)	31 Dec. 2021	31 Dec. 2020
Hybrid capital	20.4	19.3	Total interest-bearing liabilities	126.4	104.8
Bond issues and liabilities to credit institutions	37.7	49.6	50% of Hybrid capital	-10.2	-9.7
Commercial papers and Repos	46.2	13.3	Present value of pension obligations	40.3	43.8
Liabilities to associated companies	1.5	0.7	Wind & other environmental provisions	11.7	10.6
Liabilities to minority shareholders	10.7	10.9	Provisions for nuclear power (net)	40.2	37.8
Lease liabilities	6.2	6.0	Margin calls received	3.3	-4.1
Other liabilities	3.7	4.9	Liabilities to minority owners due to consortium agreements	-10.7	-10.9
Total interest-bearing liabilities	126.4	104.8	= Adjusted gross debt	194.4	172.3
Reported cash, cash equivalents & short-term investments	170.9	56.2	Reported cash, cash equivalents & short-term investments	170.9	56.2
Loans to minority owners of foreign subsidiaries	0.2	0.4	Unavailable liquidity	-3.4	-5.4
Net debt	-44.7	48.2	= Adjusted cash, cash equivalents & short-term investments	167.4	50.8
			= Adjusted net debt	26.9	121.5

Nuclear provisions

Reactor ¹	Net capacity (MW)	Start (year)	Vattenfall share (%)	Vattenfall provisions, SEK bn (IFRS accounting)	Vattenfall provisions, SEK bn (pro rata)	Sw nuclear waste fund SEK bn (Vattenfall pro rata share)
Ringhals 1	879	1976	70.4			
Ringhals 2	809	1975	70.4			
Ringhals 3	1,070	1981	70.4			
Ringhals 4	942	1983	70.4	Total Ringhals: 40.8	Total Ringhals: 40.8²	
Forsmark 1	984	1980	66.0			
Forsmark 2	1,120	1981	66.0			
Forsmark 3	1,170	1985	66.0	Total Forsmark: 36.9	Total Forsmark: 24.4	
Total Sweden	6,974	-		81.3³	67.3³	44.6⁴
Brunsbüttel	771	1977	66.7	11.8	7.9	
Brokdorf	1,410	1986	20.0	0	3.6	
Krümmel	1,346	1984	50.0	7.1	7.1	
Stade ⁵	640	1972	33.3	0	0.4	
Total Germany	4,167	-	-	19.0	19.1	
Total SE & DE	11,141			100.3	86.4	

¹ Five reactors are in commercial operation; Ringhals 3 & 4 and Forsmark 1, 2 & 3.

² Vattenfall has 100% liability of Ringhals decommissioning, while owning only 70.4%

³ Total provisions in Sweden (IFRS accounting) include provisions of SEK 0.6 bn (pro rata SEK 0.6 bn) related to Ågesta, and SEK 3.0 bn (pro rata SEK 1.6 bn) related to SVAFO

⁴ Vattenfall's share of the Nuclear Waste Fund. IFRS consolidated value is SEK 53.1 bn.

⁵ Stade is being dismantled

Items affecting comparability

Amounts in SEK million	Full year 2021	Full year 2020	Oct-Dec 2021	Oct-Dec 2020
Items affecting comparability	29,090	- 10,514	- 1,342	- 2,741
- of which, capital gains	8,960	301	156	86
- of which, capital losses	- 199	- 241	- 32	- 184
- of which, impairment losses	- 38	- 12,980	- 38	- 2,447
- of which, reversed impairment losses	1,922	—	1,922	—
- of which, provisions	- 3,785	- 3,488	- 1,332	- 2,803
- of which, changes in the fair value of energy derivatives	8,715	4,753	- 1,822	1,967
- of which, changes in the fair value of inventories	1,313	476	- 488	418
- of which, restructuring costs	—	- 854	—	- 709
- of which, other non-recurring items affecting comparability	12,202	1,519	292	931

Major items FY 2021

- Compensation for closure of nuclear power in Germany and sales of related production rights (SEK 12.5 billion, reported in other non-recurring items affecting comparability)
- Changes in market value for energy derivatives and inventories (SEK 10.0 billion)
- Increase in provisions pertains to the nuclear operations (SEK -3.8 billion)
- Capital gain mainly related to the sale of Stromnetz Berlin (SEK 8.4 billion)

Calculation of EBITDA, underlying EBITDA and underlying EBIT

Amounts in SEK million	Full year 2021	Full year 2020	Oct-Dec 2021	Oct-Dec 2020
Operating profit (EBIT)	60,271	15,276	7,750	5,246
Depreciation, amortisation and impairment losses	- 15,519	- 31,231	- 2,476	- 6,875
EBITDA	75,790	46,507	10,226	12,121
Items affecting comparability excl. impairment losses and reversed impairment losses	- 27,206	- 2,466	3,226	294
Underlying EBITDA	48,584	44,041	13,452	12,415
Operating profit (EBIT)	60,271	15,276	7,750	5,246
Items affecting comparability	- 29,090	10,514	1,342	2,741
Underlying EBIT	31,181	25,790	9,092	7,987

Impairment history 2009 – 2021

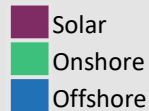
SEK bn		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
The Netherlands	Thermal assets		4.3 ¹	0.4 ²	8.6 ²	14.7	2.6		2.8			0.7			34.1
	Trading					6.5 ¹	10.0 ¹		0.7						17.2
	Other	1.2	1.2			1.5 ²	1.9				0.1	0.2			6.1
Germany	Thermal assets			0.3		4.3	5.7	19.2	26.1			0.1	11.3		67.0
	Nuclear assets			10.5											10.5
	Transmission		5.1												5.1
	Other					0.1	1.1	0.3	2.3	0.4			1.2		5.4
The Nordic Countries	Renewable assets						1.4		0.1			0.2	1.6		3.3
	Thermal assets	4.1				3.0		0.1							7.2
	Nuclear assets							17.0	0.4						17.4
	Other								0.3						0.3
UK	Renewable assets						1.1	0.2				0.1			1.4
	Other											0.1			0.1
Not allocated		0.2	0.5	0.1											0.8
Impairment Liberia					1.3										1.3
Impairments; shares in Enea S.A. Poland					2.4										2.4
Impairments; shares in Brokdorf and Stade									1.1						1.1
Impairments		5.5	11.1	11.3	12.3	30.1	23.8	36.8	33.8	0.4	0.1	1.5	14.1	0.0	180.8
Reversed impairment losses		-1.3	-1.3	-0.4	0.0	0.0	0.0	-0.5	-0.9	0.0	0.0	0.0	0.0	-1.9	-6.3
Impairments (net)		4.2	9.8	10.9	12.3	30.1	23.8	36.3	32.9	0.4	0.1	1.5	14.1	0.0	174.5

¹ Impairment of goodwill

² Impairment of assets and goodwill

Wind & Solar - Installed capacity (MW¹) Q4 2021

	Solar	Onshore	Offshore	Total
United Kingdom	0	383	686	1,069
Denmark	0	213	1,170	1,383
The Netherlands	74	602	0	676
Sweden	0	357	110	467
Germany	2	7	636	645
Total (MW)	77	1,562	2,602	4,241



United Kingdom – ROC scheme	
■ Thanet	300
■ Ormonde (51%)	150
■ Aberdeen	97
■ Kentish Flats	90
■ Kentish Flats Extension	50
■ Pen Y Cymoedd	228
■ Ray	54
■ Edinbane	41
■ Clashindarroch	37
■ Swinford	22
Installed capacity (MW)	1,069

Sweden – certificate scheme	
■ Blakliden + Fäbodberget	139
■ Lillgrund	110
■ Stor-Rotliden	78
■ Högabjär-Kärsås (50%)	38
■ Höge Väg (50%)	37
■ Hjuleberg (50%)	36
■ Juktan (50%)	29
Installed capacity (MW)	467

Denmark – FIT scheme	
■ Kriegers Flak	605
■ Horns Rev 3	407
■ Horns Rev 1 (60%)	158
■ Klim (98%)	67
■ Nørrekær Enge 1 (99%)	30
■ Rejsby Hede	23
■ Hagesholm	23
■ Nørre Økse Sø	17
■ Tjæreborg Enge	17
■ Bajlum (89%)	15
■ DræbyFed	9
■ Ejlsing (97%)	7
■ Lyngmose	5
Installed capacity (MW)	1,383

Germany – EEG scheme	
■ DanTysk (51%)	288
■ Sandbank (51%)	288
■ alpha ventus (26%)	60
■ Westküste (20%)	7
■ Decentral Solar installations	2
Installed capacity (MW)	645

The Netherlands – MEP/SDE(+)	
■ Princess Ariane	298 ²
■ Princess Alexia	122
■ Jaap Rodenburg	38
■ Haringvliet	38
■ Slufterdam	29
■ Haringvliet	18
■ Eemmeerdijk	17
■ Irene Vorrink	17
■ Nieuwe Hemweg	13
■ Echteld	8
■ Moerdijk	27
■ Oom Kees (12%)	6
■ Oudendijk	5
■ Hiddum Houw	4
■ Eemshaven	6
■ Velsen	2
■ Hemweg	2
■ Diemen	1
■ Decentral Solar installations	25
Installed capacity (MW)	676

¹ Capacity in operation: total capacity of the wind farms that Vattenfall has an ownership

in. Minority shares included as 100%

² One turbine remains to be installed

Main renewables projects in our 5 core countries

Country	Name	Capacity (MW)	Support scheme	Awarded	Duration of support	Ownership (%)	Commissioning	Current status
NL	Hollandse Kust Zuid 1-4	1,520	-	X	-	50.5	2023	Offshore works started, Partnering with BASF
NL	Haringvliet	22	SDE+	X	15 yrs	100	2021	Commissioning ongoing
NL	Ny Hiddum Houw	19	SDE+	X	15 yrs	100	2023	Under construction
UK	South Kyle	240	-	N/A	-	100	2022	Under construction
NL	A16	20	SDE+	X	15 yrs	100	2022	Under construction
SE	Blakliden + Fäbodberget	353	Certs	N/A	-	30	2022	Under construction
SE	Grönhult	67	Certs	N/A	-	0 ¹	2023	FID received in Q1 2021
DE	Kogel cluster	28	EEG	(X)		100	2021	Completed construction / Approved TG5
NL	Windplan Blauw	77	SDE+	X	15 yrs	58	2023	FID received in Q3 2021
DK	Vesterhav	344	FIT	X	50.000hrs	100	2023/2024	FID received in Q4 2021
UK	Battery@Ray	20	-		-	100	2022	FID received in Q4 2021
In construction		2,710						
UK	Norfolk projects	3,600	CfD		15 yrs	100	2027-2029	Development consent in 12-2021, preparing for CfD bid
In development (in mature stage)		3,600						

■ Offshore
 ■ Onshore
 ■ Solar
 ■ Batteries

¹ The project has been sold but Vattenfall will build and operate the wind farm

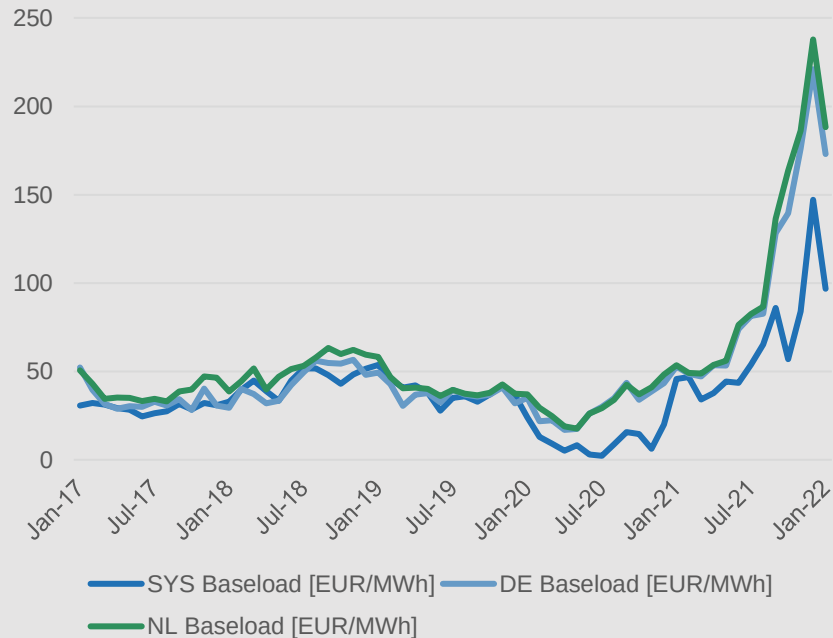
Additional webinar slides



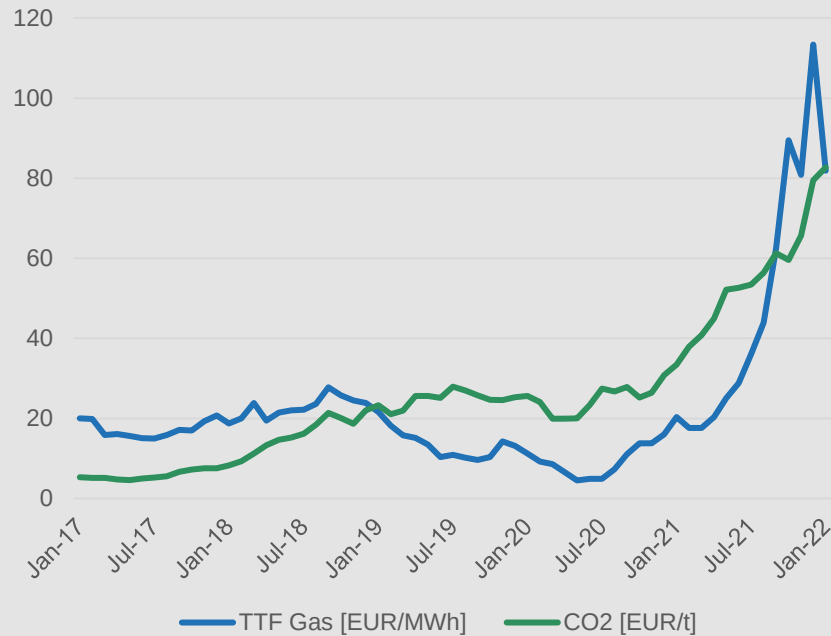
Market development – electricity and fuel prices

Steep increase in electricity prices in H2'21 – gas and CO₂ price rally major driver on the continent

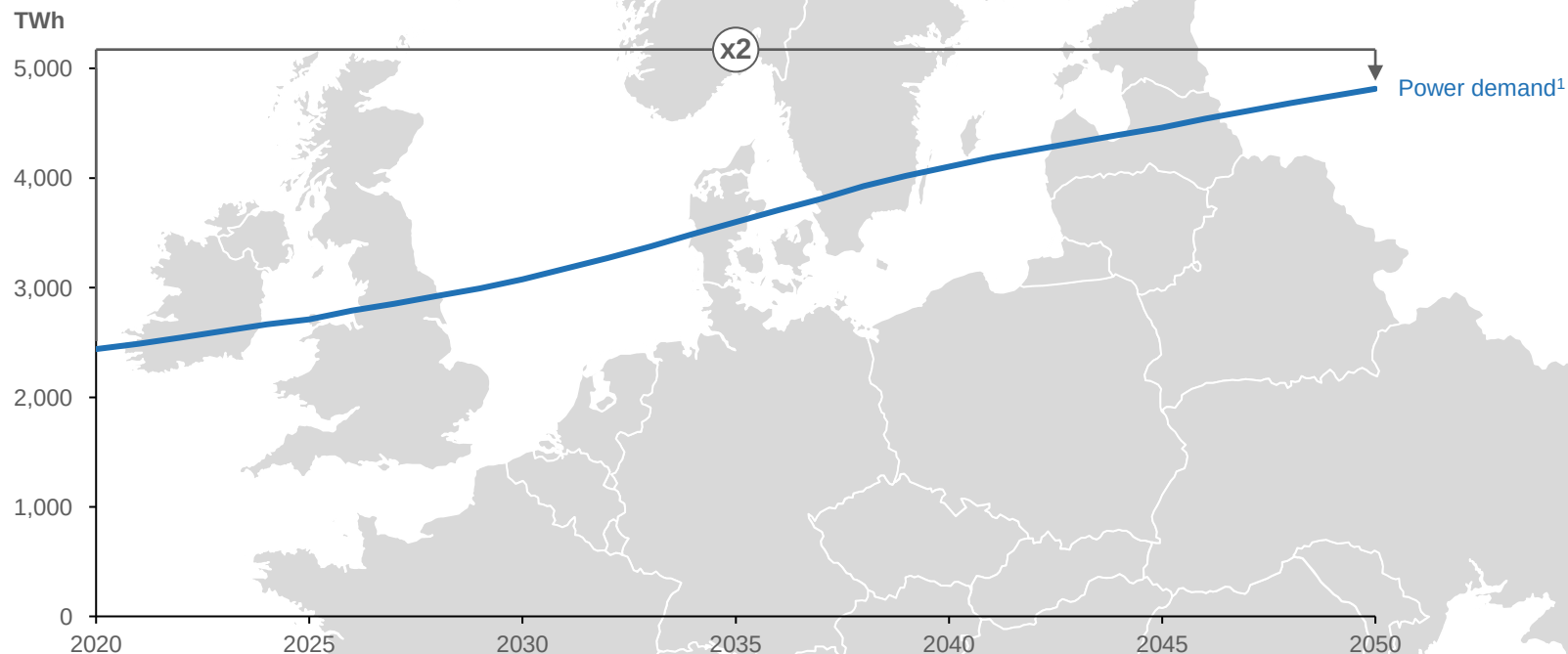
Electricity spot prices, 2017-2021



Natural gas and CO2 emissions allowance prices, 2017-2021



Energy transition accelerates - power demand to double

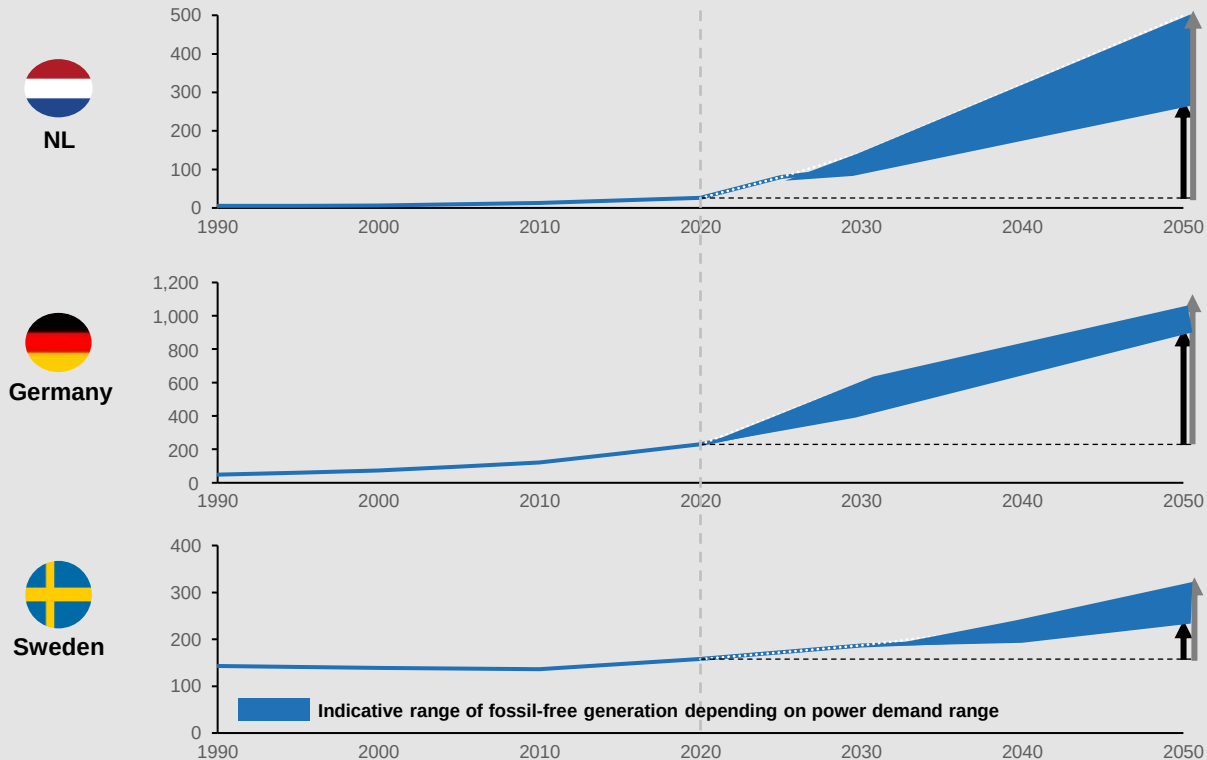


¹Power demand projection for Sweden, Germany, Netherlands, UK, Norway, Finland, Denmark, Poland, Belgium, Switzerland and Austria

Fossil-free electricity enable the transition

Starting points differ across markets

Historic and required future fossil-free production, high & low range, TWh



2050

~10-20x

~4-5x

~1.5-2x