

# Vattenfall Q1 Results 2023

27 April 2023



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# Vattenfall Q1 Results 2023

## In brief

- Lower electricity prices and reduced Nordic price area differences
  - Repair of Ringhals 4 finalised
  - Completed divestment of the gas-fired power plant Magnum in the Netherlands
  - Important steps in the feasibility study for building small modular reactors at Ringhals
  - Final investment decision for the Bruzaholm onshore wind farm
  - Completed acquisition of district heating network in the UK
  - Partnership entered into with the Stromma Group to electrify the company's boat fleet
  - Continued upgrading of the regional network to meet increasing capacity needs
- Underlying EBIT of SEK 9.5 bn, unchanged compared to Q1 2022
    - Strong contribution from the Heat business due to higher heat prices which were adjusted after the increase in fuel prices last year
    - Lower realised earnings from the Wind business due to lower electricity prices on the continent
    - Fewer gas customers and lower average gas consumption
- Profit for the period increased by SEK 5.8 bn to SEK 11.8 bn.
    - Positive impact from changes in fair value of energy derivatives and higher return from the Swedish Nuclear Waste Fund



# Vattenfall Q1 Results 2023

## Overview

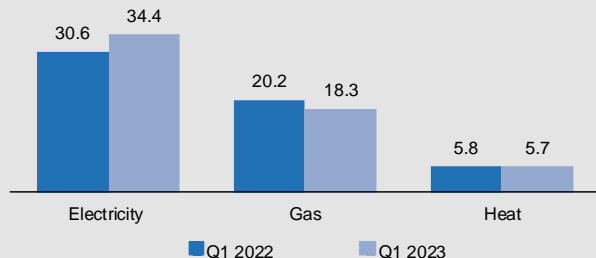
### Result development

SEK BN	Q1 2023	Q1 2022	Δ
Net Sales	96.8	59.6	62%
EBITDA	21.3	17.2	23%
Underlying operating profit (EBIT)	9.5	9.5	0%
EBIT	16.3	12.8	28%
Profit for the period	11.8	6.1	95%

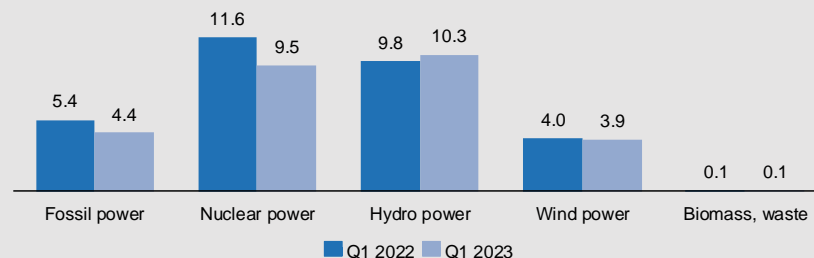
### Financial targets

	Q1 2023	Q1 2022
Return on capital employed (≥8%)	5.4%	21.8%
FFO/adjusted net debt (22-27%)	39.6%	120.5%

### Customer sales (TWh)



### Electricity production (TWh)



# Customers & Solutions

Increased electricity sales and a larger customer base both made a positive contribution to overall sales

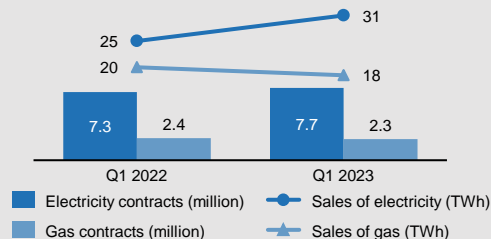
## Highlights

SEK million	Q1 2023	Q1 2022
Net Sales	78,872	42,627
Underlying operating profit	793	1,967

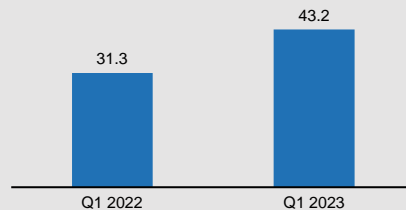
- Net sales increased by 85% compared to 2022. Underlying operating profit decreased by 60% mainly due to fewer gas customers in the Netherlands and Germany and lower average gas consumption. In addition, the profit during the corresponding period in 2022 was positively affected by higher temporary effects from the purchase of electricity and gas
- The customer base increased by 1% compared to the end of 2022 to 11.0 million contracts
- Continuing to expand InCharge public charging network for electric cars. There are now more than 40,000 connected charging points in total
- Acquired Elektro Drämer in Germany, an installation company for different electrical solutions and supplier of energy optimization technology

## Key data

Retail sales development



Charging points for electric vehicles (thousand)





# Power Generation

2023 is off to a good start with higher underlying operating profit

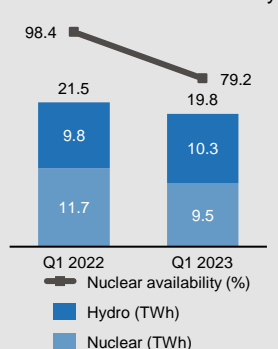
## Highlights

SEK million	Q1 2023	Q1 2022
Net Sales	74,037	49,416
Underlying operating profit	3,772	3,111

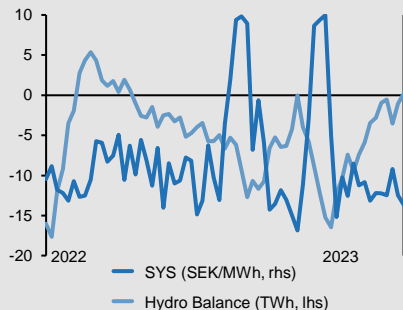
- Net sales increased by 50%. Underlying operating profit increased by 21% mainly due to higher realised trading results and higher achieved prices in the Nordics which was offset by lower generation from nuclear power (-2.1 TWh)
- Hydro power generation increased during the first quarter of 2023 driven by good availability
- Repair of Ringhals 4 finalised. Nuclear power production decreased as a result of the continued shutdown of Ringhals 4 reactor for repairs.
- Important steps in the feasibility study for small modular reactors at Ringhals

## Key data

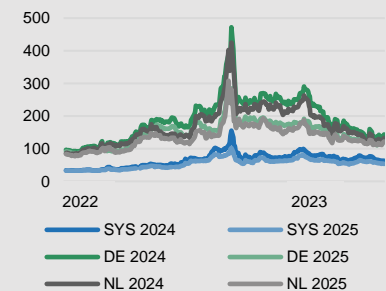
Production and availability



Nordic hydro balance and system price



Electricity futures prices (EUR/MWh)



# Wind

Lower result driven by lower electricity prices

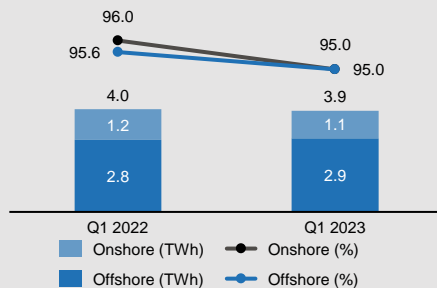
## Highlights

SEK million	Q1 2023	Q1 2022
Net Sales	6,291	7,956
Underlying operating profit	2,393	4,899

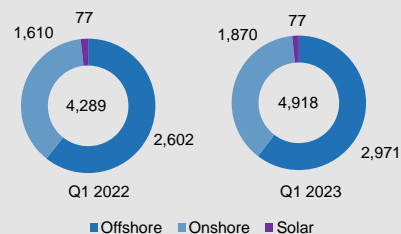
- Net sales decreased by 21% compared to 2022. Underlying operating profit decreased by 51% driven by lower electricity prices in all regions
- Electricity generation decreased slightly by 2%, whereas higher volumes for Hollandse Kust Zuid were offset by somewhat lower production in continental Europe
- The installation of turbines at the offshore wind farm Hollandse Kust Zuid in the Netherlands continues and 34 turbines are now producing electricity
- Final investment decision for the Bruzaholm onshore wind farm
- Innovative project in Germany that combine solar power and sustainable agriculture

## Key data

Production and availability



Total installed wind capacity (MW)<sup>1</sup>



<sup>1</sup> Added capacity during the last 12 months amounted to 630 MW and mostly included Grönhult (67 MW), South Kyle (139 MW of 240 MW), Hollandse Kust Zuid (369 MW of 1,520 MW), Nij Hiddum Houw (15 MW) and A16/Klaverspoor (34 MW).

# Heat

Lower CO2 emissions from cities through new assets and projects

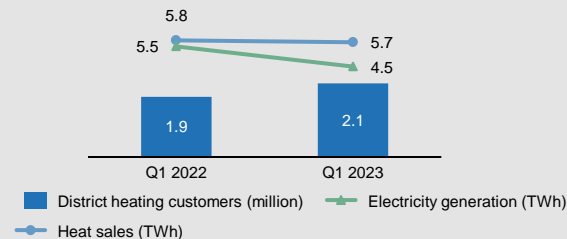
## Highlights

SEK million	Q1 2023	Q1 2022
Net Sales	16,656	17,590
Underlying operating profit	2,270	-905

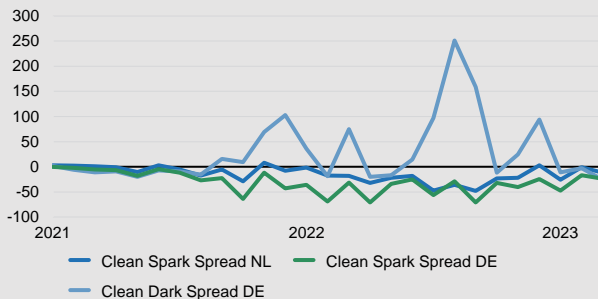
- Net sales decreased by 5% compared to 2022. Underlying operating profit increased mainly due to price adjustments for heating, which compensates for higher fuel costs in 2022
- Heat sales decreased slightly owing to energy savings by the customers
- Completed acquisition of district heating network in the UK
- Completed divestment of the gas-fired power plant Magnum in the Netherlands
- Divestment of Moorburg to Hamburger Energiewerke (HENW)

## Key data

Sales and production



Spreads<sup>1</sup> (EUR/MWh)



<sup>1</sup> CSS NL with 52% efficiency, CSS DE with 50% efficiency, CDS DE with 38% efficiency

# Distribution

Underlying EBIT growth driven by lower costs for the transmission network

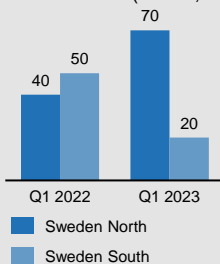
## Highlights

SEK million	Q1 2023	Q1 2022
Net Sales	3,859	3,895
Underlying operating profit	1,356	1,104

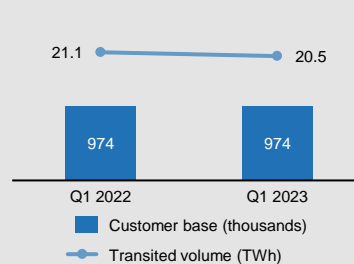
- Net sales decreased by 1% compared with 2022. The underlying operating profit increased by 23% mainly due to extraordinary high costs for the transmission network during 2022. Higher personnel costs and maintenance costs due to growth in the first quarter of 2023 had a countering effect
- Vattenfall is continuing its extensive upgrade programme of the regional grid in order to meet the increasing needs of capacity
- Vattenfall and Stromma Group entered into a partnership to electrify the company's fleet of boats with fossil-free operation

## Key data

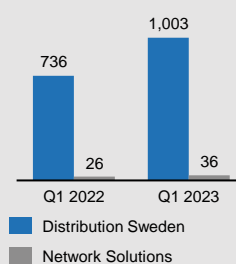
Service level (SAIDI, min)<sup>1</sup>



Customers and volumes



Investments in electricity grids (SEK mn)



<sup>1</sup> 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.



# Financials



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# Vattenfall Q1 Results 2023

## Financial highlights

### Key data

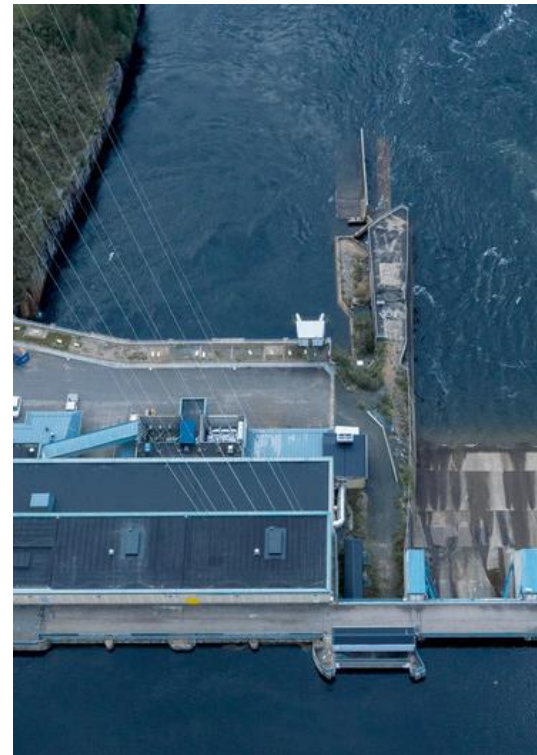
SEK bn	Q1 2023	Q1 2022
Net Sales	96.8	59.6
EBITDA	21.3	17.2
Underlying operating profit (EBIT)	9.5	9.5
EBIT	16.3	12.8
Profit for the period	11.8	6.1
Funds from Operations (FFO)	11.8	8.4
Cash flow operating activities	-32.2	-3.1
Net debt	41.1	-37.6
Adjusted net debt	115.2	33.6
Adjusted net debt/EBITDA (times)	3.3	2.5

### Financial targets

ROCE <sup>1</sup> (≥8%)	5.4	21.8
FFO/adjusted net debt (22-27%) <sup>1</sup>	39.6	120.5

### Key developments

- Net sales increased by SEK 37.2 bn to SEK 96.8 bn due to higher prices in the customer business and partly higher volumes in the business segment in France
- Underlying EBIT was unchanged compared to Q1 2022 as positive contribution from segment Heat driven by higher heat prices was offset by lower contribution in segment Wind due to lower electricity prices on the continent
- Profit for the period increased to SEK 11.8 bn, mainly due to changes in fair value of energy derivatives and higher return from the Swedish Nuclear Waste Fund
- ROCE decreased to 5.4%, affected by negative changes in market value for energy derivatives and inventories. Based on underlying operating profit, ROCE was 12.5%
- FFO/Adjusted net debt decreased to 39.6% and remained above the target interval due to a strong underlying EBITDA. The adjusted net debt increased driven by a negative net change in margin calls for commodity hedging activities



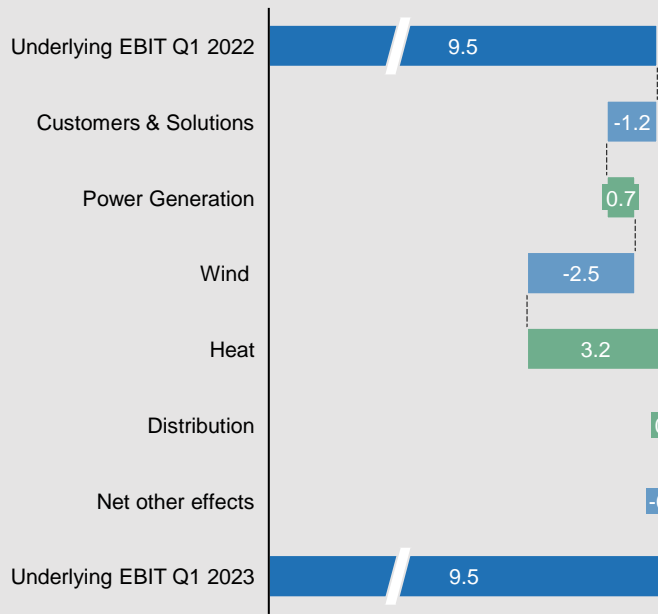
<sup>1</sup> Rolling 12-month

# Development of underlying EBIT Q1 2023

Increase from Heat and Power Generation fully offset by lower earnings from Wind and Customers & Solutions

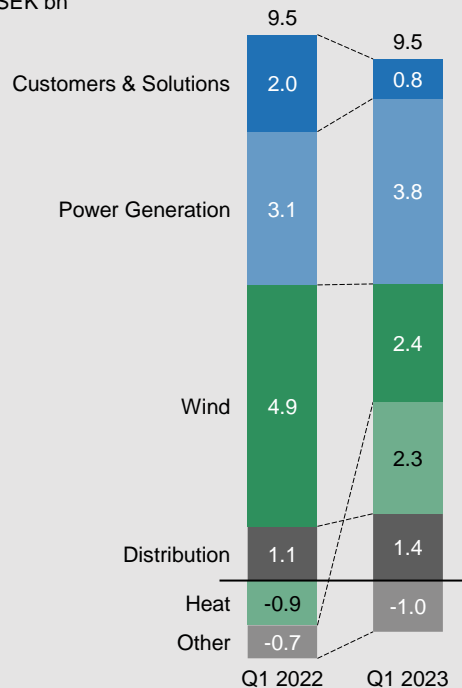
## Change in Q1 2023 vs. Q1 2022

SEK bn



## Breakdown per operating segment

SEK bn

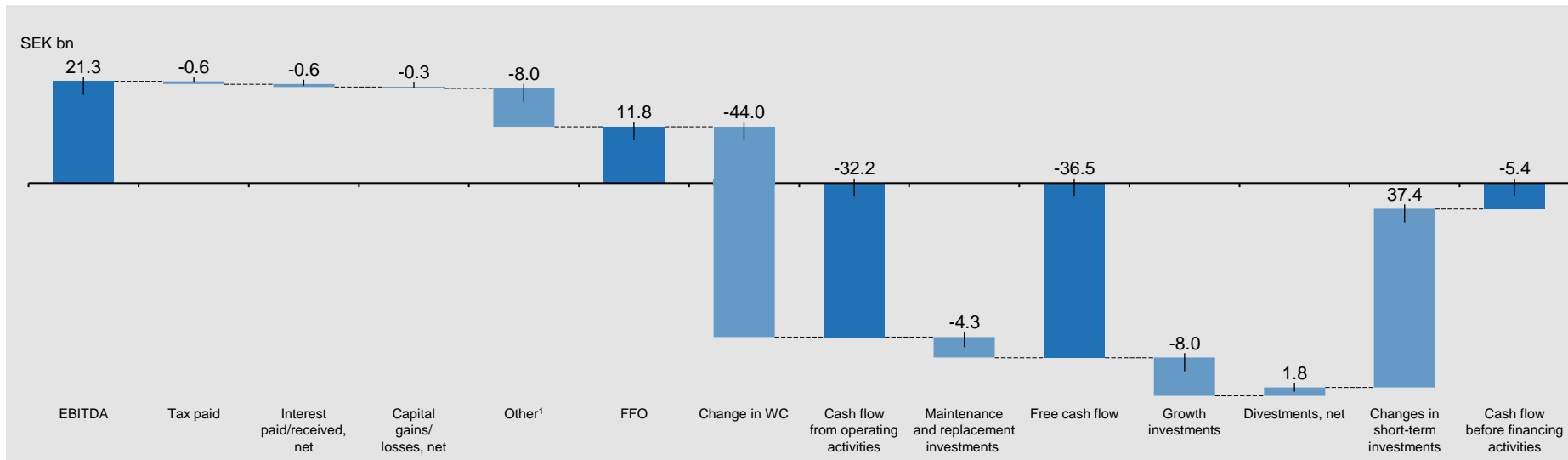


## Highlights

- Customers & Solutions: fewer gas customers in the Netherlands and Germany and lower average gas consumption. In addition, the profit during the corresponding period in 2022 was positively affected by higher temporary effects from the purchase of electricity and gas
- Power Generation: higher realised trading results and higher achieved price in the Nordics which was offset by lower generation from nuclear power (-2.1 TWh)
- Wind: lower electricity prices on the Continent
- Heat: higher heat prices mainly due to price adjustments for heating, which compensates for higher fuel costs in 2022
- Distribution: extraordinary high costs for the transmission network during 2022. Higher personnel costs and higher maintenance costs due to growth during Q1 2023 had an offsetting impact

# Cash flow development Q1 2023

Negative working capital development mainly related to changes in margin calls



## Main effects

Positive EBITDA (SEK 21.3 bn) did not fully compensate negative changes in working capital mainly driven by changes related to net change in margin calls paid for commodity hedging activities (SEK -49.7 bn), resulting in negative cash flow from operating activities in the quarter

Changes in short-term investments are related to sales of short-term papers in order to offset the negative impact from the net change in margin calls paid

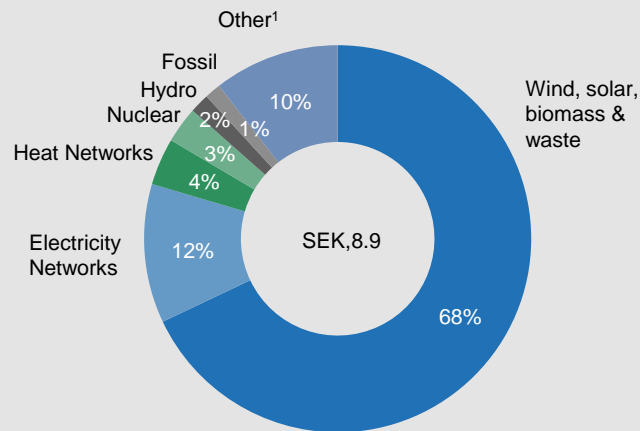
<sup>1</sup> "Other" includes non-cash items included in EBITDA, mainly changes in fair value of commodity derivatives



# Capital expenditures

Majority of investments directed to renewables and electricity networks

Investments per category, Q1 2023



Detailed overview of investments, Q1 2023

SEK bn	Q1 2023	Q1 2022	Δ	2022
Hydro	0,1	0.1	35%	0.8
Nuclear	0.4	0.4	-11%	1.7
Fossil	0.1	0.2	-49%	1.3
Wind, solar, biomass & waste	6.1	2.1	186%	16.4
Electricity networks	1.0	0.8	36%	5.5
Heat networks	0.3	0.2	-71%	1.5
Other	0.9	0.4	168%	2.7
Total	8.9	4.2	82%	29.8

¹ Mainly pertains to investments in immaterial assets

# Overview of key figures Q1 2023

Amounts in SEK bn unless indicated otherwise	Q1 2023	Q1 2022	FY 2022	Last 12 months
Net sales	96.8	59.6	239.6	276.9
EBITDA	21.3	17.2	30.5	34.6
EBIT	16.3	12.8	12.6	16.2
Underlying operating profit (EBIT)	9.5	9.5	37.3	37.4
Profit for the period	11.8	6.1	0.0	5.8
Electricity generation (TWh)	28.2	30.9	108.9	106.2
Sales of electricity (TWh)	45.7	44.6	165.3	166.4
- of which, customer sales (TWh)	34.4	30.6	111.4	115.2
Sales of heat (TWh)	5.7	5.8	14.1	14.0
Sales of gas (TWh)	18.3	20.2	47.3	45.4
Return on capital employed (≥8%)	5.4 <sup>1</sup>	21.8 <sup>1</sup>	4.2	5.4
FFO/adjusted net debt (22-27%)	39.6 <sup>1</sup>	120.5 <sup>1</sup>	55.0	39.6

1 last 12.month values



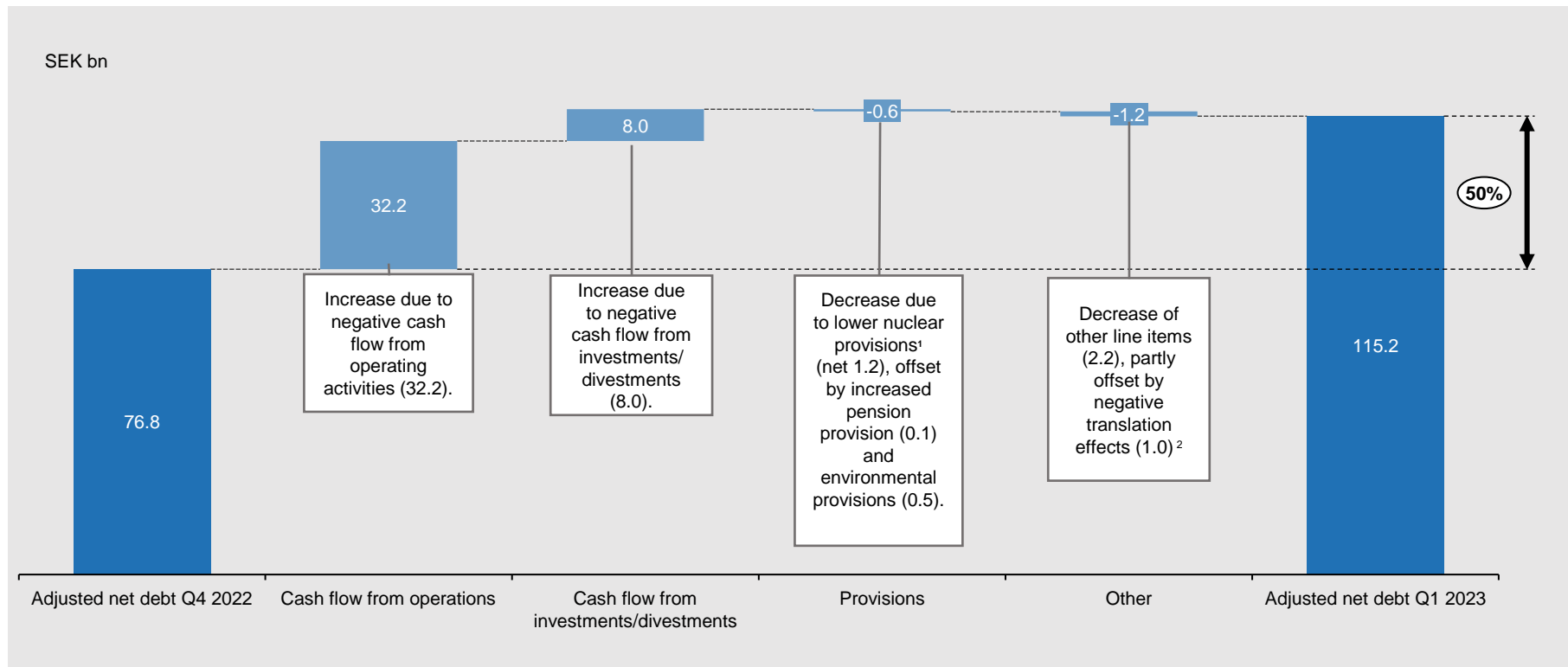
# Appendix



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# Development of adjusted net debt YTD 2023

Adjusted net debt increased mainly due to negative cashflow from operating activities and investments.



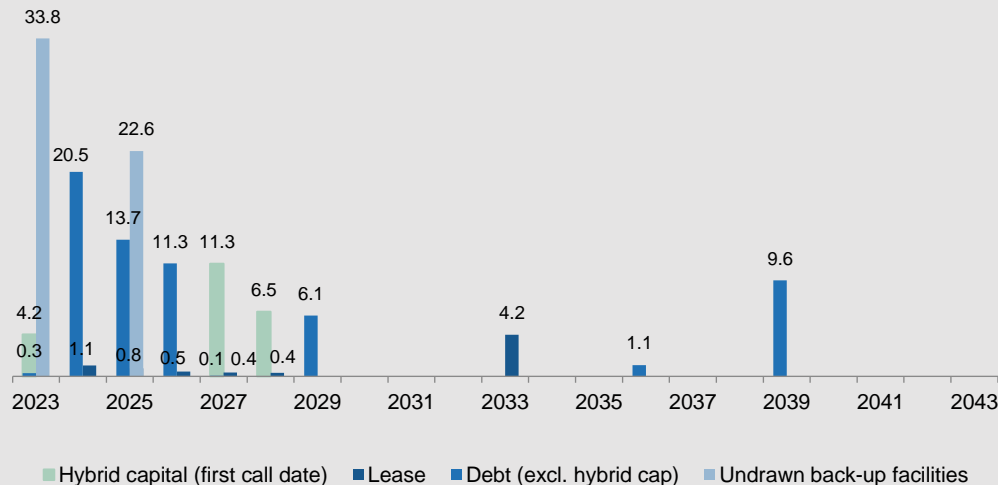
<sup>1</sup> Nuclear provision decreased net by SEK 1.2 bn, whereof in Sweden by 1.1 mainly due to higher return from the nuclear waste fund and decreased provisions.

<sup>2</sup> SEK weakened against EUR (from 11.12 to 11.28); translation of EUR denominated net debt into SEK leads to increase in Adjusted net debt.



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

SEK bn



	31 Mar. 2023	31 Dec. 2022
Duration (years)	3.1	3.2
Average time to maturity (years)	4.7	5.0
Average interest rate (%)	3.8	3.5
Net debt (SEK bn)	- 41.1	- 3.9
Available group liquidity (SEK bn)	79.5	169.4
Undrawn committed credit facilities (SEK bn)	56.4	70.1

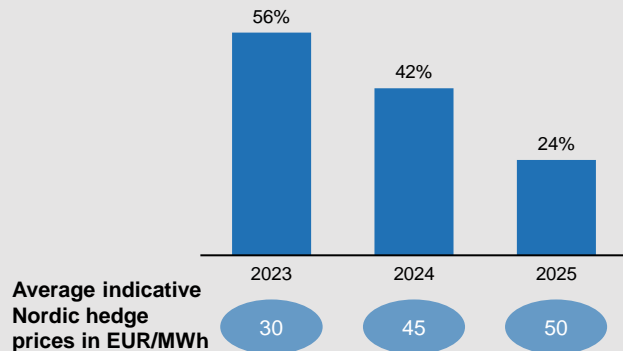
## Cumulative maturities excl. undrawn back-up facilities

	2023- 2025	2026- 2028	From 2029
Debt incl. hybrid capital	41.1	29.9	21.0
% of total	45%	32%	23%

<sup>1</sup> Short term debt (Repo's and Commercial paper: 18.6), 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

## Estimated Nordic<sup>1</sup> volume hedge ratio (%) and indicative prices



## Achieved prices<sup>2</sup> - Nordic portfolio, EUR/MWh

Q1 2023	Q1 2022	FY 2022
40	20	27

Vattenfall's hedging strategy has the objective to stabilize profits over time by selling parts of the planned production in the forward markets. The main exposure arise from outright power in the Nordics (nuclear and hydro), with a growing exposure in wind both in the Nordics and on the Continent/UK. Hedging is mainly based on the Nordic system price (SYS) while delivery takes place in the price areas where generation assets are located. The achieved price in the first quarter 2023 increased due a lower hedge level and lower price area differentials

<sup>1</sup> Nordic: SE, DK, FI

<sup>2</sup> Achieved prices from the spot market and hedges. Includes Nordic (SE, DK, FI) hydro, nuclear and wind power generation

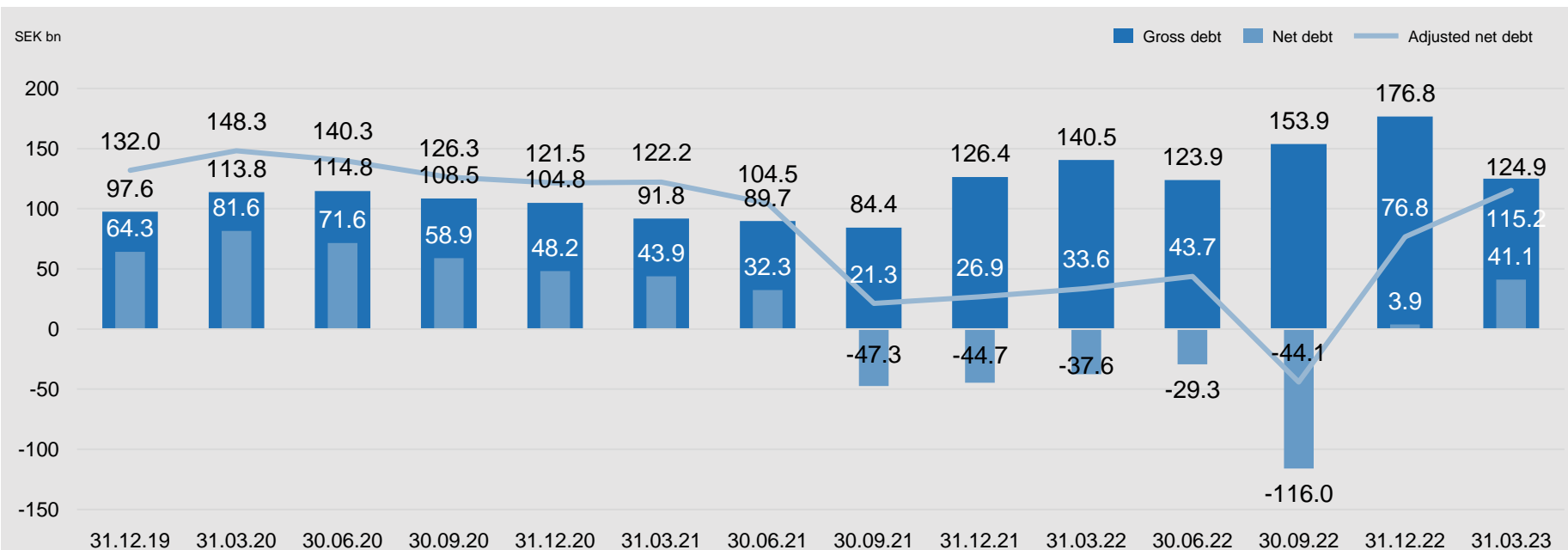
# Liquidity position

Group liquidity	SEK bn	Committed credit facilities	Facility size, EUR bn	SEK bn
Cash and cash equivalents	53.8	Committed credit lines (2023)	3.0	33.8
Short term investments	29.5	RCF (2025)	2.0	22.6
<b>Reported cash, cash equivalents &amp; short term investments</b>	<b>83.2</b>	<b>Total undrawn</b>		<b>56.4</b>
		<b>Debt maturities<sup>2</sup></b>		<b>SEK bn</b>
Unavailable liquidity <sup>1</sup>	-3.7	Within 90 days		0.3
<b>Available liquidity</b>	<b>79.5</b>	Within 180 days		0.3

<sup>1</sup> German nuclear "Solidarvereinbarung" 1.1 SEK bn, Margin calls paid (CSA) 1.6 SEK bn, Insurance "Provisions for claims outstanding" 1.0 SEK bn.

<sup>2</sup> Excluding loans from minority owners and associated companies.

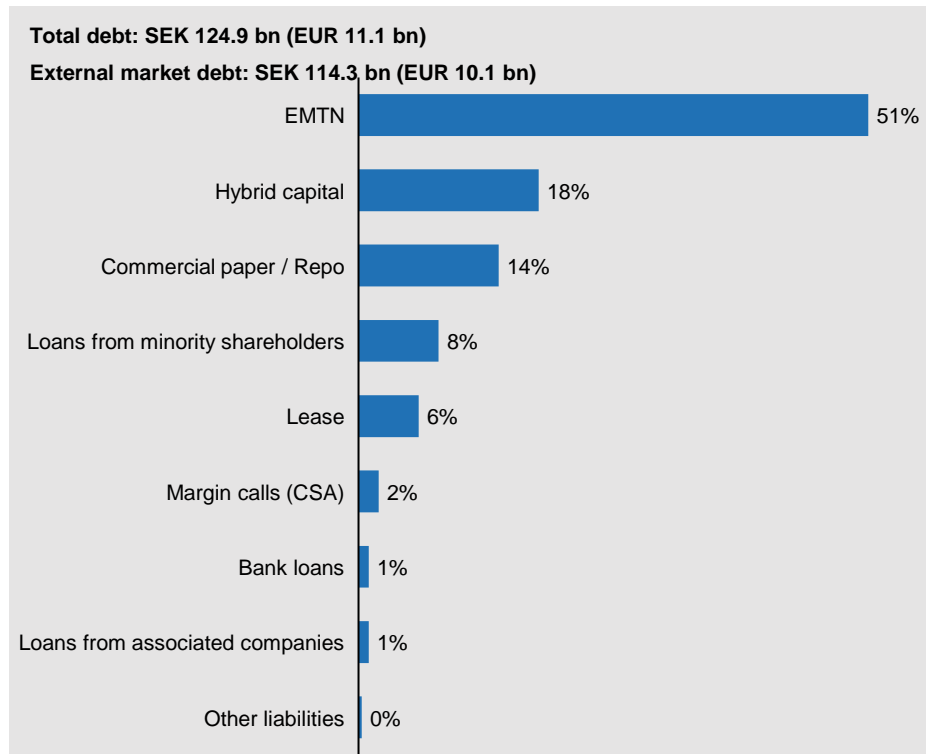
# Debt development



Net debt increased by SEK 37.2 bn to SEK 41.1 compared with the level at 31 December 2022. Adjusted net debt increased by SEK 38.5 bn to SEK 115.2 bn compared with the level at 31 December 2022. For the calculation of adjusted net debt, see slide 22.



# Breakdown of gross debt



Debt issuing programmes	Size (EUR bn)	Utilization (EUR bn)
EUR 10bn Euro MTN	10.0	5.6
EUR 10bn Euro CP	10.0	1.7
Total	20.0	7.2

- 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.

<sup>1</sup> EMTN= Euro Medium Term Notes

# Reported and adjusted net debt

Reported net debt (SEK bn)	31 Mar. 2023	31 Dec. 2022	Adjusted net debt (SEK bn)	31 Mar. 2023	31 Dec. 2022
Hybrid capital	22.1	21.9	Total interest-bearing liabilities	124.9	176.8
Bond issues and liabilities to credit institutions	64.9	63.9	50% of Hybrid capital	-11.1	-11.0
Commercial papers and Repos	17.7	71.0	Present value of pension obligations	27.9	27.8
Liabilities to associated companies	0.9	0.9	Wind & other environmental provisions	12.0	11.5
Liabilities to minority shareholders	9.8	9.7	Provisions for nuclear power (net)	52.8	53.9
Lease liabilities	7.2	6.7	Margin calls received	-2.0	-2.1
Other liabilities	2.4	2.5	Liabilities to minority owners due to consortium agreements	-9.8	-9.7
<b>Total interest-bearing liabilities</b>	<b>124.9</b>	<b>176.8</b>	Adjustment related to assets/liabilities held for sale	0	1.0
Reported cash, cash equivalents & short-term investments	83.2	172.4	<b>= Adjusted gross debt</b>	<b>194.7</b>	<b>246.2</b>
Loans to minority owners of foreign subsidiaries	0.6	0.5	Reported cash, cash equivalents & short-term investments	83.2	172.4
<b>Net debt</b>	<b>41.1</b>	<b>3.9</b>	Unavailable liquidity	-3.7	-3.0
			<b>= Adjusted cash, cash equivalents &amp; short-term investments</b>	<b>79.5</b>	<b>169.4</b>
			<b>= Adjusted net debt</b>	<b>115.2</b>	<b>76.8</b>

# Nuclear provisions

Reactor <sup>1</sup>	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	<b>Total Ringhals: 45.0</b>	<b>Total Ringhals: 45.0<sup>2</sup></b>	
Forsmark 1	984	1980	66.0			
Forsmark 2	1,120	1981	66.0			
Forsmark 3	1,170	1985	66.0	<b>Total Forsmark: 41.8</b>	<b>Total Forsmark: 27.6</b>	
<b>Total Sweden</b>	<b>6,974</b>	<b>-</b>		<b>91.3<sup>3</sup></b>	<b>75.0<sup>3</sup></b>	<b>41.0<sup>4</sup></b>
Brunsbüttel	771	1977	66.7	11.9	8.0	
Brokdorf	1,410	1986	20.0	0	3.7	
Krömmel	1,346	1984	50.0	7.7	7.7	
Stade <sup>5</sup>	640	1972	33.3	-	0.3	
<b>Total Germany</b>	<b>4,167</b>	<b>-</b>	<b>-</b>	<b>19.6</b>	<b>19.7</b>	
<b>Total SE &amp; DE</b>	<b>11,141</b>			<b>110.9</b>	<b>94.7</b>	

<sup>1</sup> Five reactors are in commercial operation in Sweden; Ringhals 3 & 4 and Forsmark 1, 2 & 3.

<sup>2</sup> Vattenfall has 100% liability of Ringhals decommissioning, while owning only 70.4%

<sup>3</sup> Total provisions in Sweden (IFRS accounting) include provisions of SEK 0.5 bn (pro rata SEK 0.5 bn) related to Ägesta, SEK 3.6 bn (pro rata SEK 1.9 bn) related to SVAFO and SEK 0.5 bn (pro rata SEK 0.0 bn) related to SKB.

<sup>4</sup> Vattenfall's share of the Nuclear Waste Fund. IFRS consolidated value is SEK 48.9 bn.

<sup>5</sup> Stade is being dismantled

# Items affecting comparability

	Jan-Mar 2023	Jan-Mar 2022	Full year 2022	Last 12 months	Major items Q1 2023
<b>Amounts in SEK million</b>					
Items affecting comparability	6,787	3,279	- 24,668	- 21,160	<ul style="list-style-type: none"> <li>Changes in market value for energy derivatives (SEK 6.2 billion)</li> </ul>
- of which, capital gains	298	17	312	593	
- of which, capital losses	- 3	- 3	- 122	- 122	
- of which, impairment losses	—	—	- 90	- 90	
- of which, reversed impairment losses	—	—	668	668	
- of which, provisions	944	—	- 5,206	- 4,262	
- of which, changes in the fair value of energy derivatives	6,204	4,810	- 17,709	- 16,315	
- of which, changes in the fair value of inventories	- 656	- 1,542	- 2,406	- 1,520	
- of which, other non-recurring items affecting comparability	—	- 3	- 115	- 112	

## Calculation of EBITDA, underlying EBITDA and underlying EBIT

	Jan-Mar 2023	Jan-Mar 2022	Full year 2022	Last 12 months
<b>Amounts in SEK million</b>				
Operating profit (EBIT)	16,332	12,783	12,645	16,194
Depreciation, amortisation and impairment losses	- 4,968	- 4,466	- 17,868	- 18,370
<b>EBITDA</b>	<b>21,300</b>	<b>17,249</b>	<b>30,513</b>	<b>34,564</b>
Items affecting comparability excl. impairment losses and reversed impairment losses	- 6,787	- 3,279	25,246	21,738
<b>Underlying EBITDA</b>	<b>14,513</b>	<b>13,970</b>	<b>55,759</b>	<b>56,302</b>
Operating profit (EBIT)	16,332	12,783	12,645	16,194
Items affecting comparability	- 6,787	- 3,279	24,668	21,160
<b>Underlying EBIT</b>	<b>9,545</b>	<b>9,504</b>	<b>37,313</b>	<b>37,354</b>


























































# Impairment history 2009 – YTD 2023

SEK bn		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
The Netherlands	Thermal assets		4.3 <sup>1</sup>	0.4 <sup>2</sup>	8.6 <sup>2</sup>	14.7	2.6		2.8			0.7					34.1
	Trading					6.5 <sup>1</sup>	10.0 <sup>1</sup>		0.7								17.2
	Other	1.2	1.2			1.5 <sup>2</sup>	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		0.1		3.4
	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
<b>Impairments</b>		<b>5.5</b>	<b>11.1</b>	<b>11.3</b>	<b>12.3</b>	<b>30.1</b>	<b>23.8</b>	<b>36.8</b>	<b>33.8</b>	<b>0.4</b>	<b>0.1</b>	<b>1.5</b>	<b>14.1</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>	<b>180.9</b>
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	-0.7	0.0	-7.0
<b>Impairments (net)</b>		<b>4.2</b>	<b>9.8</b>	<b>10.9</b>	<b>12.3</b>	<b>30.1</b>	<b>23.8</b>	<b>36.3</b>	<b>32.9</b>	<b>0.4</b>	<b>0.1</b>	<b>1.5</b>	<b>14.1</b>	<b>-1.9</b>	<b>-0.6</b>	<b>0.0</b>	<b>173.9</b>

<sup>1</sup> Impairment of goodwill

<sup>2</sup> Impairment of assets and goodwill

## Wind & Solar - Installed capacity (MW<sup>1</sup>) Q1 2023

	Solar	Onshore	Offshore	Total		United Kingdom – ROC scheme		Denmark – FIT scheme		The Netherlands – MEP/SDE(+)	
United Kingdom	0	522	686	1,208	25%	 Thanet	300.0	 Kriegers Flak	604.8	 Hollandskust Zuid	369.1
Denmark	0	213	1,170	1,383	28%	 Ormonde (51%)	150.0	 Horns Rev 3	406.7	 Princess Ariane	183.8
The Netherlands	75	490	369	934	19%	 Aberdeen	96.8	 Horns Rev 1 (60%)	158.0	 Princess Alexia	122.4
Sweden	0	638	110	748	15%	 Kentish Flats	90.0	 Klim (98%)	67.2	 Haringvliet	37.8
Germany	2	7	636	645	13%	 Kentish Flats Extension	49.5	 Nørrekær Enge 1 (99%)	29.9	 A16 / Klaverspoor	34.2
<b>Total (MW)</b>	<b>77</b>	<b>1,870</b>	<b>2,971</b>	<b>4,918</b>	100%	 Pen Y Cymoedd	228.0	 Rejsby Hede	23.4	 Slufterdam	29.0
						 South Kyle	139.2	 Hagesholm	23.0	 Moerdijk	27.3
						 Ray	54.4	 Nørre Økse Sø	17.3	 Haringvliet	22.1
						 Edinbane	41.4	 Tjæreborg Enge	16.8	 Nij Hiddum Houw	18.6
						 Clashindarroch	36.9	 Bajlum (89%)	15.0	 Eemmeerdiijk	17.0
						 Swinford	22.0	 DræbyFed	9.2	 Irene Vorrink	16.8
						<b>Installed capacity (MW)</b>	<b>1,208.2</b>	 Ejsing (97%)	6.9	 Echteld	8.0
								 Lyngmose	4.6	 Oom Kees (12%)	6.0
								<b>Installed capacity (MW)</b>	<b>1,382.7</b>	 Oudendijk	4.8
						<b>Sweden – certificate scheme</b>				 Eemshaven	5.7
						 Blakliden + Fäbodberget	352.8			 Velsen	2.3
						 Lillgrund	110.4			 Hemweg	2.4
						 Stor-Rottliden	77.8			 Diemen	1.3
						 Grönhult	67.2			 Symbizon	0.7
						 Högabjär-Kärsås (50%)	38.4			 Decentral Solar installations	24.8
						 Höge Väg (50%)	36.9			<b>Installed capacity (MW)</b>	<b>564.9</b>
						 Hjuleberg (50%)	36.0				
						 Juktan (50%)	28.8				
						<b>Installed capacity (MW)</b>	<b>748.3</b>	<b>Germany – EEG scheme</b>			
								 DanTysk (51%)	288.0		
								 Sandbank (51%)	288.0		
								 alpha ventus (26%)	60.0		
								 Westküste (20%)	7.0		
								 Decentral Solar installations	2.2		
								<b>Installed capacity (MW)</b>	<b>645.2</b>		

<sup>1</sup> Capacity in operation: total capacity of the wind farms that Vattenfall has an ownership or is responsible for the operation. Minority shares included as 100%



# Main 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	-	51	2023	Commissioning ongoing, Partnering with BASF
DK	Vesterhav	344	FIT	X	50.000hrs	100	2023/2024	Under construction
UK	South Kyle	240	-	N/A	-	100	2023	Commissioning ongoing
NL	Windplan Blauw	77	SDE+	X	15 yrs	100	2023	Under construction
SE	Battery@Ray	55	-		-	100	2023	Under construction
UK	Battery@Toledo	20	-		-	100	2023	Under construction
<b>In construction</b>		<b>2 236</b>						
UK	Norfolk projects	3 600	CfD		15 yrs	100	2027-2029	Norfolk Boreas received CfD in AR4, Norfolk Vanguard is preparing for CfD bid in AR5
UK	Scotwind	750	CfD			50	2030	Under development with consenting and permitting progressing to ensure participation in the CfD bid, JV with Fred Olsen
DE	Nordlicht I	980	-		-	100	2027	Development rights received in September 2022, FID planned for 2023
<b>In development (in mature stage)</b>		<b>5 330</b>						

	Offshore		Solar
	Onshore		Batteries