

A photograph of three children standing on a grassy hill. On the left is a boy with brown hair wearing a dark navy blue cable-knit sweater and dark trousers, with his hands in his pockets. In the center is a girl with blonde hair in two braids, wearing a grey t-shirt under an olive green jacket. On the right is a boy with dark, curly hair wearing a dark blue button-down shirt over a white long-sleeved shirt. The background shows a blurred cityscape and a river under an overcast sky.

# VATTENFALL



A photograph of three children standing on a grassy hill. On the left is a boy with long brown hair wearing a dark blue cable-knit sweater. In the center is a girl with blonde braids wearing a green jacket over a grey shirt. On the right is a boy with dark curly hair wearing a blue button-down shirt over a white t-shirt. They are all looking towards the camera. In the background, a city with a river is visible under a cloudy sky.

# Working for fossil freedom

Vattenfall AB  
Group presentation 2023

# Agenda

## Introduction

This is Vattenfall  
Group Executive Management  
Value chain  
Market trends

## Strategy

Targets  
Investment plan

## Financials

Targets  
Highlights

## Sustainability

UN Sustainable Development Goals  
Reduction of CO<sub>2</sub> emissions  
Partnerships

## Operating segments

Operating segments  
Customers & Solutions  
Power Generation  
Wind  
Heat  
Distribution



Introduction

# This is Vattenfall

One of Europe's largest producers  
and retailers of electricity and heat

## Introduction



**100%**

Owned by the Swedish State



**7.5 million**

Electricity customers



**1.0 million**

Electricity network customers



**2.0 million**

Heat customers



**2.3 million**

Gas customers



**19,638**

Employees



Introduction

# Summary of key data 2022



**SEK 239.6 bn**  
Net sales



**SEK 37.3 bn**  
Underlying operating profit



**108.9 TWh**  
Electricity production

## Introduction

# Key data

### SEK bn

	FY 2022	FY 2021
Net sales	239.6	180.1
Underlying operating profit <sup>1</sup>	37.3	31.2
Operating profit (EBIT)	12.6	60.3
Profit for the period	0.0	48.0
Return on capital employed, %	4.2	22.2
Return on capital employed excl. items affecting comp., %	12.5	11.5
Funds from operations/ adjusted net debt, %	55.0	171.2

### TWh

	FY 2022	FY 2021
Electricity generation	108.9	111.4
Customer sales, electricity	111.4	120.5
Customer sales, heat	14.1	15.6
Customer sales, gas	47.3	57.1

<sup>1</sup> Operating profit excluding items affecting comparability

Introduction

# Vattenfall's geographical footprint



**Sweden**

**Finland**

**Norway**

**Denmark**

**Poland**

**Germany**

**The Netherlands**

**Belgium**

**France**

**United Kingdom**



Introduction

# Vattenfall's main markets



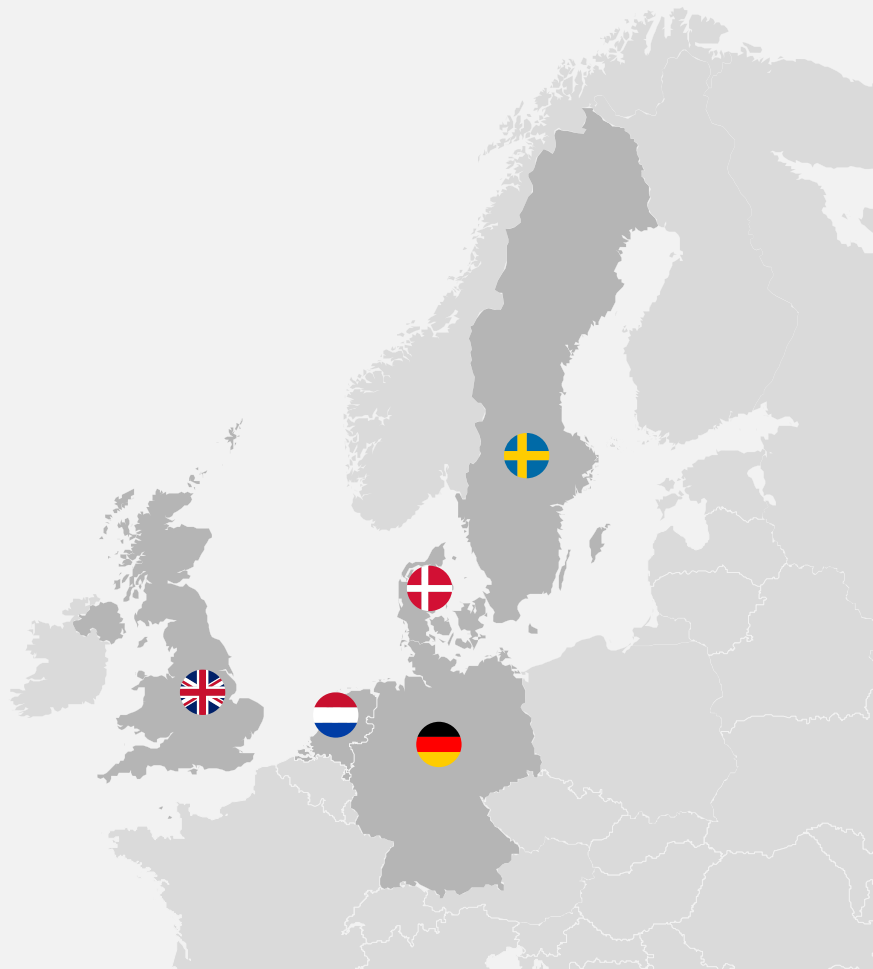
**Sweden**

**Germany**

**Netherlands**

**Denmark**

**United Kingdom**



## Introduction

# Location of our operations and major plants



Wind ●



Biomass ●



Hydro ●



Gas ●



Nuclear ●



Coal ●

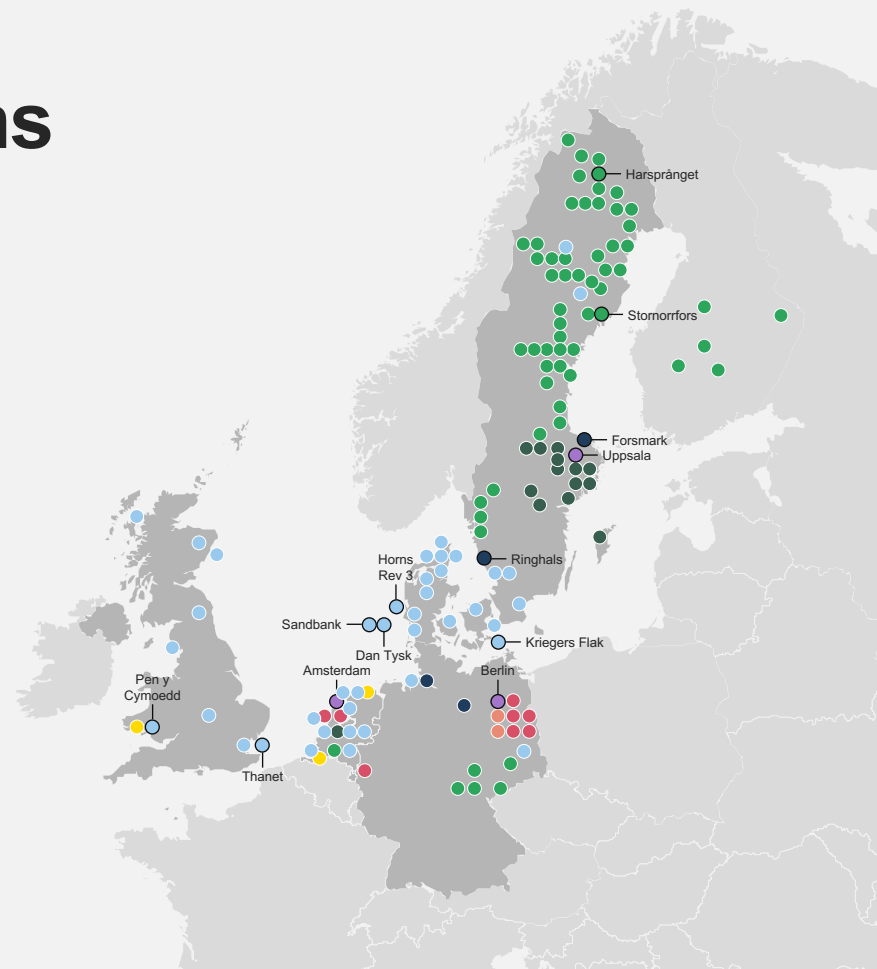


Solar ●



District heating ●

○ Largest facilities marked with a circle



# Introduction

## Executive Group Management



**President and CEO**  
Anna Borg



**Senior VP,  
CFO**  
Kerstin Ahlfont



**Senior VP, General Counsel and  
Secretary to the board of Directors**  
Anne Gynnerstedt



**Senior VP,  
Strategic Development**  
Andreas Regnell



**Senior VP,  
People & Culture**  
Christian Barthélémy



**Senior VP,  
Communications**  
Åsa Jamal

Operating segment  
Heat



**Senior VP**  
Martijn  
Hagens  
(interim Head)

Operating segment  
Customers & Solutions



**Senior VP**  
Martijn  
Hagens

Operating segment  
Wind



**Senior VP**  
Helene  
Biström

Operating segment  
Power Generation



**Senior VP,  
Generation**  
Torbjörn  
Wahlborg



**Senior VP,  
Markets**  
Anna Karin  
Stenberg

Operating segment  
Distribution<sup>1</sup>



**Senior VP**  
Annika  
Viklund

<sup>1</sup> Vattenfall's electricity distribution operations are unbundled from other operations, in accordance with Swedish and UK legislation



## Value chain



### Production

Vattenfall generates electricity from many types of energy sources.

We are actively phasing out fossil fuels and investing to expand renewable generation.



### Electricity distribution

Guarantee secure supply requires well-functioning distribution networks and development of smart network solutions.

Vattenfall also enables customers to feed self-generated electricity into the grid.



### Sales of electricity, heat & gas

Sells electricity, heat and gas to consumers and business customers.

Focuses on various price and service models. We give customers the opportunity to understand and reduce their environmental impact.



### Energy services and decentralised generation

Battery storage, network services, charging solutions for electric vehicles etc.

We also provide market-places where customers can buy and sell electricity, as well as solutions for customers to optimise their energy use.



### District heating

One of Europe's largest producers and distributors of district heating, supplying households and industries in metropolitan areas.

In partnership with cities and regions we are driving the transformation towards fossil-free heating solutions.



## Introduction

# Beliefs that underpin our strategy

**There will be a shortage of fossil-free electrons on the market for some time to come**

**We can attract and retain the people and competencies we need**

**We can secure enough sustainable supplies in the long term**

**The value of flexibility will increase over time**

**Our role in the hydrogen value chain is primarily to provide fossil-free electricity**





# Strategy

## Strategy



## Strategy

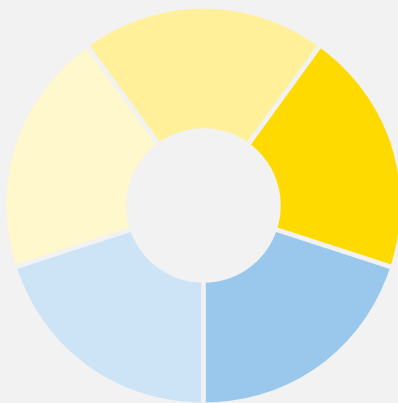
# Being active in the whole value chain is strategically important

## Increases our competitive advantage

Our ability to establish partnerships with industrial off-takers makes us an attractive candidate in e.g. wind auctions.

## Differentiates us from competitors

Access to renewable volumes on the customer side as fossil-free electricity becomes more scarce.



## Brings optimal value of a total portfolio

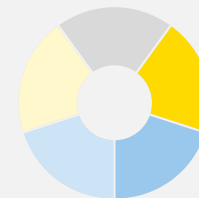
The ability to optimise dispatch across both customer loads and supply.

## Diversifying & reducing total portfolio risk

Means lower cost of capital and an ability to take on more debt.

## Strategy

# Strategic targets 2025



Strategic focus area	Strategic targets to 2025	Actual 2022	Actual 2021	Progress	Comments
Driving decarbonisation with our customers & partners	Net Promoter Score <sup>1</sup> (Absolute): <b>+18</b>	+16	+10		Higher NPS mainly owing to the Customers & Solutions operating segment with strong performance especially in Germany
Securing a fossil-free energy supply	CO <sub>2</sub> Emissions Intensity <sup>2</sup> : <b>≤86 gCO<sub>2</sub>e/kWh</b>	78	82		Improvement due to lower fossil-based generation
Empowering our people	Lost Time Injury Frequency: (LTIF): <b>≤1.0</b>	1.1	1.7		Improved results after initiatives to improve safety, including common H&S strategy and framework for follow-up throughout the organisation
	Employee Engagement Index: <b>≥75%</b>	80 <sup>3</sup>	75		Outcome above target level after continued improved performance with more engaged employees
Delivering high-performing operations	FFO/Adjusted Net Debt: <b>22-27%</b>	55.0%	171.2%		Above target interval as a result of continued strong underlying EBITDA
	ROCE: <b>≥8%</b>	4.2%	22.2%		Outcome below target, mainly due to changes in market value of energy derivatives and inventories

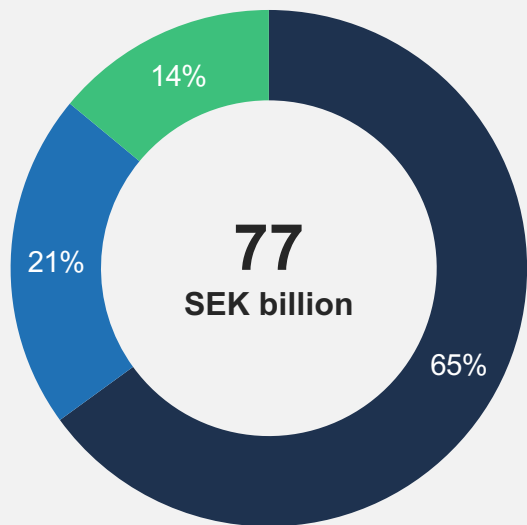
<sup>1</sup> NPS absolute target is calculated with a weighting of 80% from Customers & Solutions and 20% from Heat resembling size of customer basis

<sup>2</sup> Targeting 86 gCO<sub>2</sub> /kWh by 2025 puts us on a "1.5°C" trajectory by 2030 according to Science Based Target levels

<sup>3</sup> Documentation for measurement of target achievement is derived from the results of an employee survey, which is conducted on an annual basis. Due to a change in the answering options in the survey, the results may differ by up to 3 p.p. in both directions



# Investment plan 2023-2024



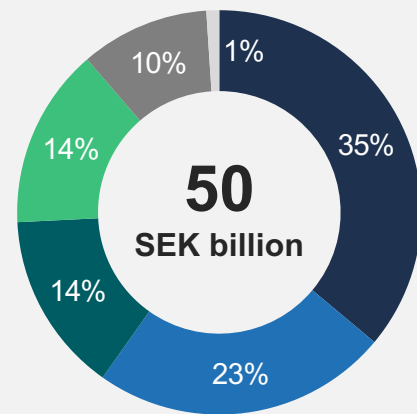
■ Growth, 50 BSEK   ■ Maintenance, 16 BSEK  
■ Replacement, 11 BSEK

Growth capex per technology



■ Wind power, 38 BSEK   ■ Heat supply, 6 BSEK  
■ Electricity distribution, 3 BSEK   ■ Other<sup>1</sup>, 4 BSEK

Growth capex per country



■ The Netherlands, 18 BSEK   ■ UK, 12 BSEK  
■ Sweden, 9 BSEK   ■ Denmark, 7 BSEK  
■ Germany, 5 BSEK   ■ France, 0 BSEK

<sup>1</sup> Mainly charging solutions, solar and battery projects as well as heat and energy solutions





# Financials

Financials

# Outcome 2022

4.2%

Return on capital  
employed

55.0%

FFO/adjusted  
net debt

SEK 4.0 bn

Dividend

## Financials

# Financial targets

Financial targets	Targets over a business cycle <sup>1</sup>	Outcome 2022	Comment
<b>Profitability</b>	Return on capital employed: ≥8% <sup>2</sup>	<b>4.2%</b>	Outcome below target, which was heavily impacted by temporary effects from changes in the fair value of energy derivatives and inventory.
<b>Capital structure</b>	FFO/adjusted net debt: <b>22%–27%</b>	<b>55.0%</b>	Above target interval as a result of continued strong underlying EBITDA. The metric continues to be positively affected by temporary decrease in adjusted net debt following a positive net change in margin calls received related to price hedging.
<b>Dividend policy</b>	Dividend: <b>40%–70% of the year's profit after tax</b>	<b>4.0 billion SEK</b>	

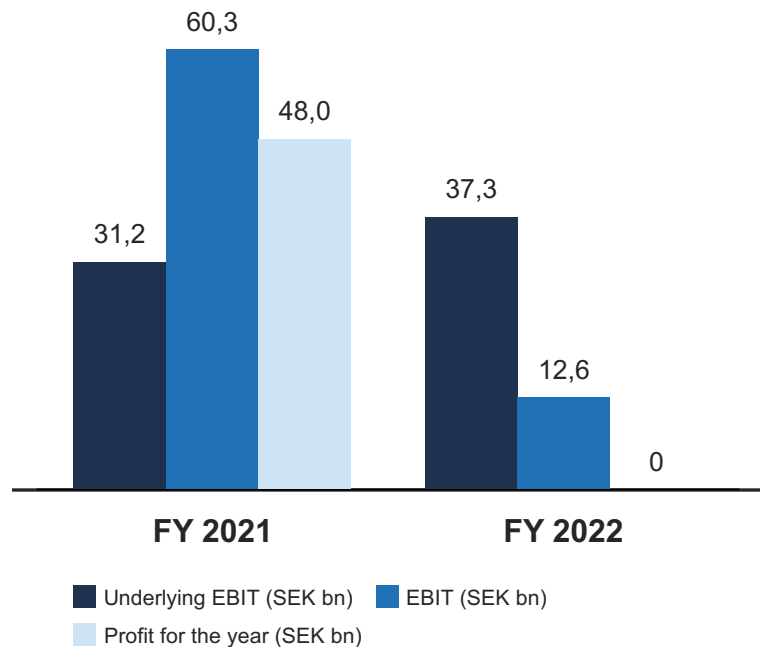
<sup>1</sup> Operating profit excluding items affecting comparability

<sup>2</sup> The key ratio is based on average capital employed



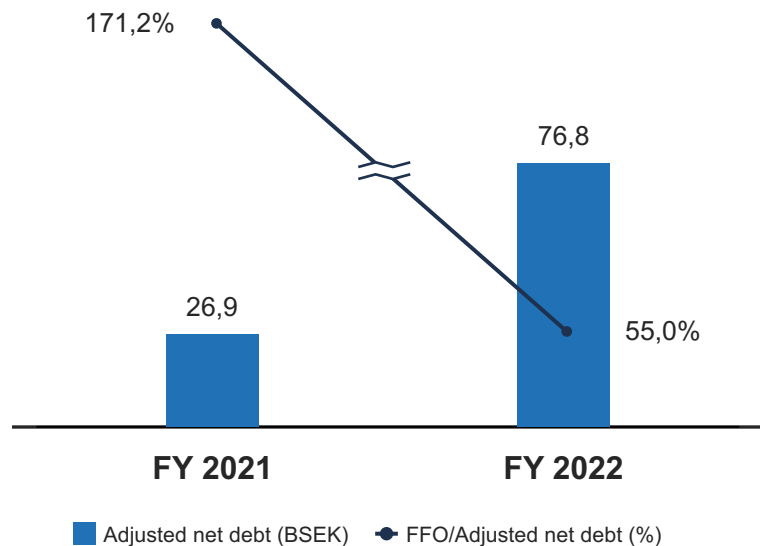
## Financial highlights

# Earnings



## Financial highlights

# Adjusted net debt





# Sustainability

# Our commitments toward Net Zero

**-51%**

Emission intensity  
reduction since 2017

**1.5°C**

Target for own emission  
reductions – alignment  
with 1.5°C trajectory

**Net Zero**

Emissions in our  
full value chain

→ 2021

→ 2030

→ 2040

# Our prioritised UN Sustainable Development Goals

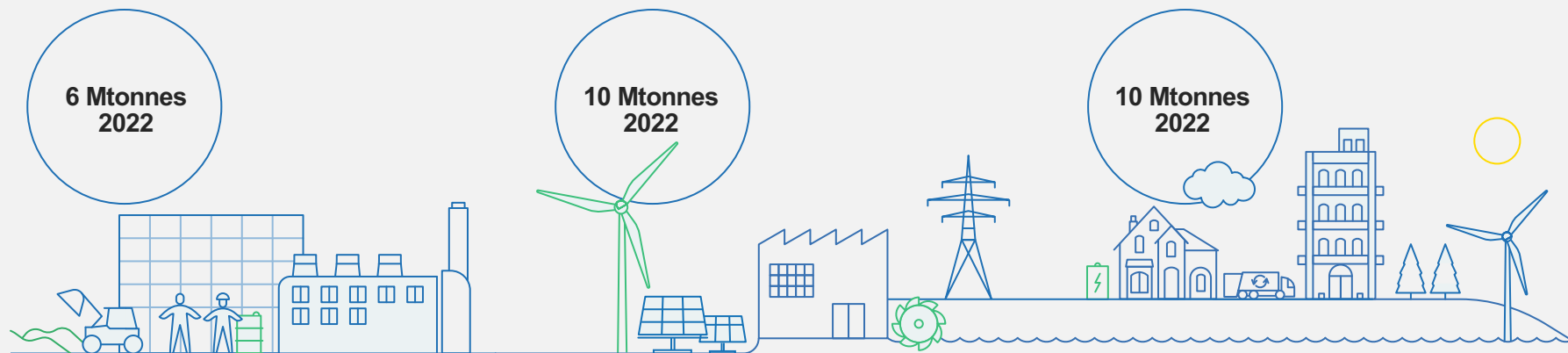


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**Vattenfall's strategy is driving our contribution to the UN's  
Global Sustainable Development Goals**



# Cut CO<sub>2</sub> emissions throughout the value chain



## Suppliers

Supplier dialogues and sustainability requirements in tenders

Lifecycle Assessments

Industry collaborations

## Own operations

Reducing emissions in line with climate science

Growth in renewables

Reducing emissions from employee travelling

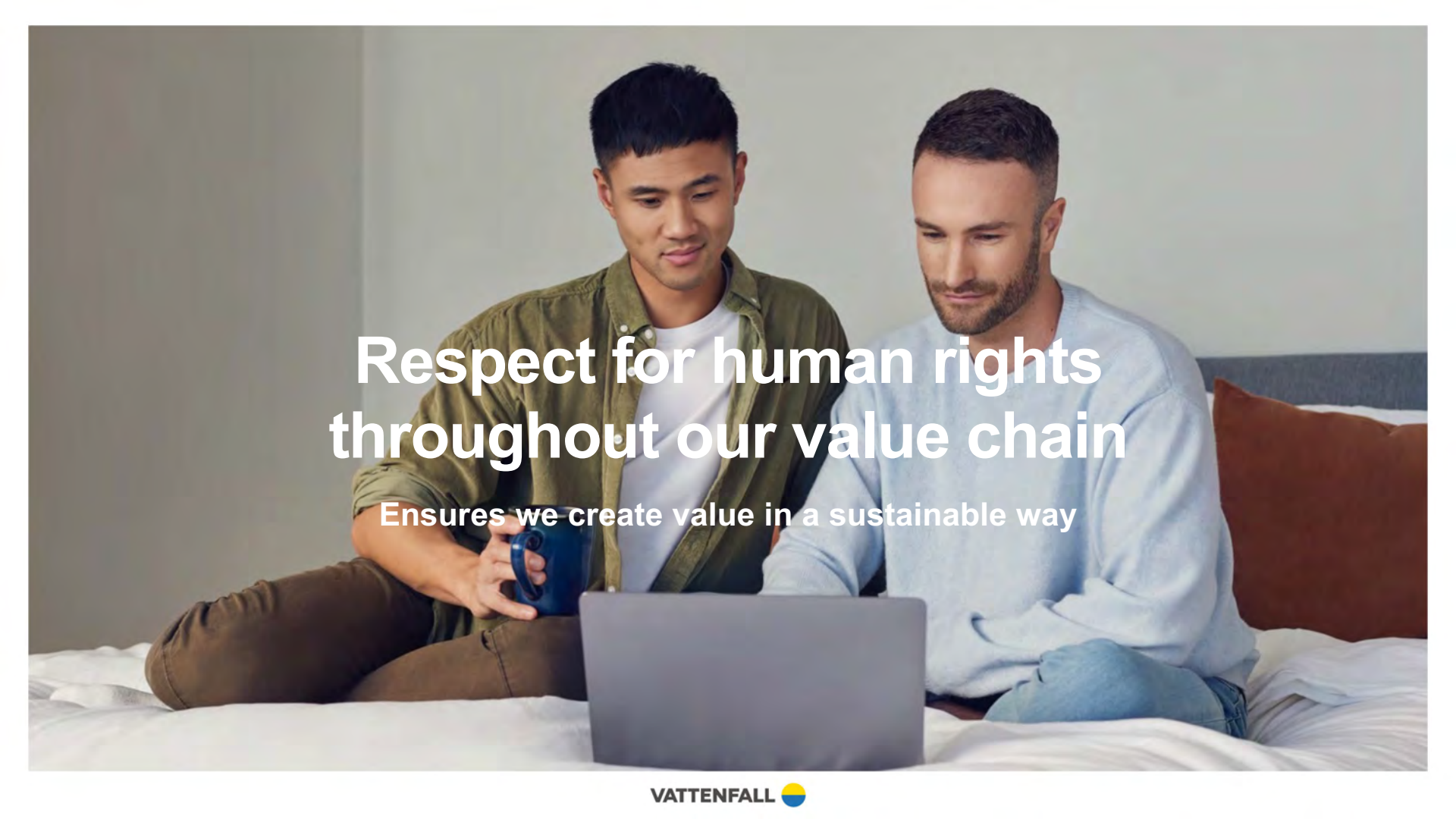
## Customers

Climate smart solutions for homes and cities

City partnerships

Environmental product offerings



A photograph of two men sitting on a bed, looking at a laptop. The man on the left is wearing a green shirt and holding a blue mug. The man on the right is wearing a light blue sweater. The background is a simple, light-colored wall.

# Respect for human rights throughout our value chain

Ensures we create value in a sustainable way

# Tools, processes and actions to respect human rights



## Upstream & suppliers

- Supplier risk assessment tool
- Supplier screening and self-assessment questionnaires
- Audits & corrective action plans
- Code of Conduct for Suppliers & Partners
- Supplier capacity building & engagement

## Operations

- Stakeholder consultation, in particular indigenous people
- Local community funds
- MyOpinion, H&S maturity
- H&S contractor management
- Just transition & responsible decommissioning

## Downstream & customers

- Screening large B2B customers
- Assessing potential partners or acquisition targets
- Evaluating & minimising product end-of-life impacts

**Collaborate throughout the value chain to deliver positive impact**



## Sustainability

# A new generation of transports, industries and materials together with our partners

Developing the world's first fossil-free steel

HIT  
FOSSIL-FREE STEEL



Development of H2 supply from offshore wind to enable fossil-free fuel production



Northern Europe's largest charging network for e-vehicles

nCharge



World's first synthetic sustainable aviation fuel



Support of a major enterprise for battery production



Powering sustainable datacentres



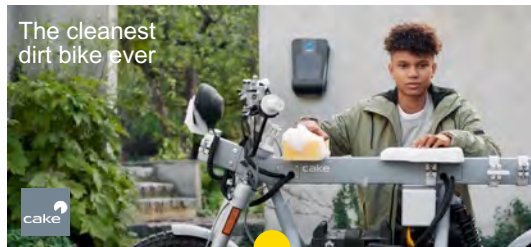
## Sustainability

# A new generation of transports, industries and materials together with our partners

Electrification of mines and smelters



The cleanest dirt bike ever



Co operation for e mobility



Green guaranteed energy delivery large customers



Developing flexible solutions for grid stability



Excess heat from algae cultivation to heat households



# Operating segments

## Operating segments



### Customers & Solutions

Responsible for sales of electricity, gas and energy services in all of Vattenfall's markets.



### Power Generation

Responsible for Vattenfall's hydro and nuclear power operations, maintenance services business, and optimisation and trading operations including certain large business customers.



### Wind

Responsible for development and operation of Vattenfall's wind farms as well as large-scale and decentralised solar power and batteries.



### Heat

Responsible for Vattenfall's heat business (district heating and decentralised solutions) and gas-fired condensing plants.



### Distribution

Responsible for Vattenfall's electricity distribution operations in Sweden as well as operations in the UK focused on owning and operating new networks.

A woman with dark hair, wearing a beige knitted sweater, is looking up at a row of light bulbs in a kitchen. The kitchen has white subway tiles on the wall and a stainless steel sink. The lighting is warm and focused on the bulbs.

# Customers & Solutions

Leading market position in the retail segment in  
Sweden, the Netherlands, Hamburg and Berlin

## Operating segments

# Customers & Solutions



Sweden, Finland, Denmark, Germany,  
the Netherlands and France

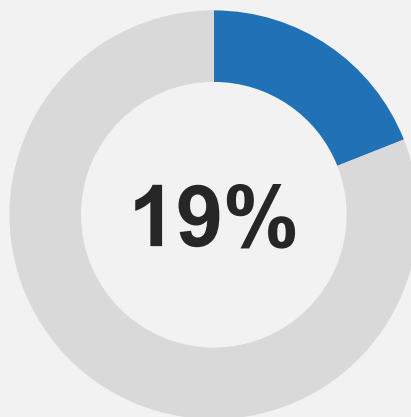
### Key data

	FY 2022	FY 2021
Net sales (SEK bn)	183.2	106.6
External net sales (SEK bn)	174.0	102.3
Underlying EBIT <sup>1</sup> (SEK bn)	7.4	2.3
Sales of electricity (TWh)	93.5	96.1
- of which, private customers	27.1	26.8
- of which, resellers	20.7	7.9
- of which, business customers	45.7	61.4
Sales of gas (TWh)	46.4	56.0
Net Promoter Score (NPS) absolute <sup>2</sup>	+16	+10
Electricity customers	7,530,000	7,080,000
Gas customers	2,320,000	2,370,000
Number of employees (FTE)	3,289	3,213

<sup>1</sup> Operating profit excluding items affecting comparability

<sup>2</sup> Weighted 80% from Customers & Solutions and 20% from Heat.

### Share of underlying EBIT



### Highlights 2022

The customer base increased by 4% to 10.9 million contracts in 2022 compared to year-end 2021

Vattenfall delivered 100% fossil-free electricity from wind, solar and hydro for the first time to its retail customers in the Netherlands

Operates 39,600 e-mobility charging points in Sweden, Germany, the Netherlands, and Norway

# Power Generation

One of Europe's largest providers  
of fossil-free electricity

## Operating segments

# Power Generation



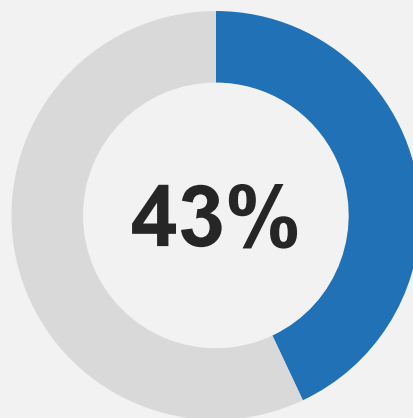
Sweden, Finland  
and Germany

### Key data

FY 2022 FY 2021

Net sales (SEK bn)	205.8	126.3
External net sales (SEK bn)	28.2	40.3
Underlying EBIT <sup>1</sup> (SEK bn)	16.6	19.3
Electricity generation (TWh)	80.1	81.2
Sales of electricity (TWh)	15.6	22.2
- of which, resellers	13.8	17.5
- of which, business customers	1.8	4.7
Sales of gas (TWh)	0.9	1.1
Number of employees (FTE)	7,219	7,260

### Share of underlying EBIT



### Highlights 2022

Government decision for final repository of spent nuclear fuel and radioactive waste in Forsmark, Sweden

Feasibility study initiated for construction of small modular reactors at Ringhals

Acquisition of an early pumped storage hydro power project in Germany with the possibility to build a 400 MW power plant

<sup>1</sup> Operating profit excluding items affecting comparability

A wide-angle photograph of an offshore wind farm. Numerous wind turbines are visible, stretching across the horizon over a calm blue sea. The sky is filled with soft, white clouds, suggesting a clear day. The perspective is from a low angle, looking out over the water towards the distant turbines.

# Wind

One of the biggest renewable  
energy players in Europe

## Operating segments

# Wind



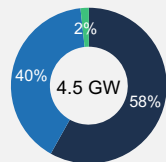
The UK, Denmark, the Netherlands,  
Sweden and Germany

### Key data

FY 2022 FY 2021

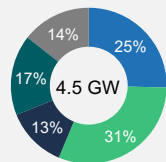
Net sales (SEK bn)	29.1	20.9
External net sales (SEK bn)	4.3	7.8
Underlying EBIT <sup>1</sup> (SEK bn)	16.5	7.9
Electricity generation (TWh)	12.2	11.2
Number of employees (FTE)	1,521	1,279

### Split by type of generation



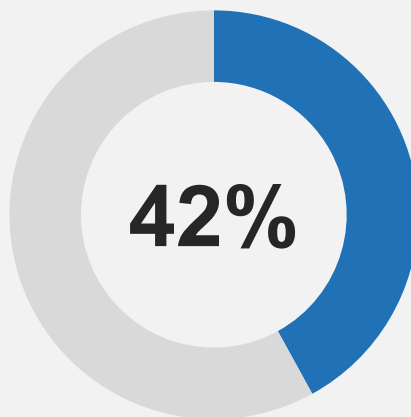
■ Offshore ■ Onshore ■ Solar

### Split by geography



■ UK ■ Denmark  
■ The Netherlands ■ Sweden  
■ Germany

### Share of underlying EBIT



### Highlights 2022

Inauguration of Vattenfall's largest onshore wind farm, Blakliden Fäbodberget (353 MW)

Foundation installation completed and delivery of first electricity from the offshore wind farm Hollandse Kust Zuid in the Netherlands

Vattenfall gets to build Finland's first large offshore wind farm with a total capacity of 1.3 GW

<sup>1</sup> Operating profit excluding items affecting comparability

A man with a beard and tattoos, wearing a green button-down shirt over a grey t-shirt, is looking at a white smartphone. He is standing next to a large, dark grey Vattenfall heating unit. The unit has a digital display showing a control interface. The background shows a modern interior with white walls and a doorway.

# Heat

One of Europe's largest producers  
and distributors of district heating

## Operating segments

# Heat



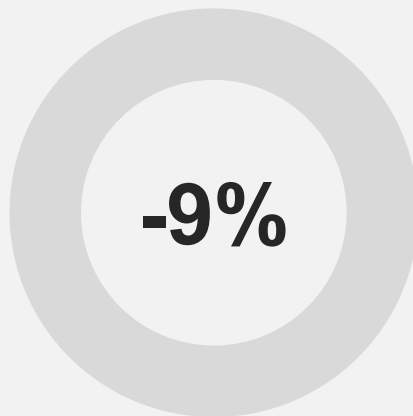
Sweden, Germany,  
the Netherlands and the UK

Key data	FY 2022	FY 2021
Net sales (SEK bn)	60.5	34.8
External net sales (SEK bn)	20.9	14.7
Underlying EBIT <sup>1</sup> (SEK bn)	-3.6	-0.3
Sales of heat (TWh)	14.1	15.6
Electricity generation (TWh)	16.6	19.0
CO <sub>2</sub> emissions <sup>2</sup> (Mtonnes)	9.4	10.2
Nitrogen oxide, NO <sub>x</sub> (ktonnes)	4.6	5.0
Sulphur dioxide, SO <sub>2</sub> (ktonnes)	1.2	1.3
Particulate matter, PM (ktonnes)	0.1	0.1
Number of employees (FTE)	3,188	3,126

<sup>1</sup> Operating profit excluding items affecting comparability

<sup>2</sup> CO<sub>2</sub> emissions are pro rata

## Share of underlying EBIT



## Highlights 2022

Inauguration of the biofuel-fired heat plant, Carpe Futurum, in Uppsala

Initiation of a strategic review of the Berlin district heating business

Sale of gas-fired Magnum power plant in the Netherlands to RWE

# Distribution

Leading owner and operator of electricity  
distribution grids in Sweden

## Operating segments

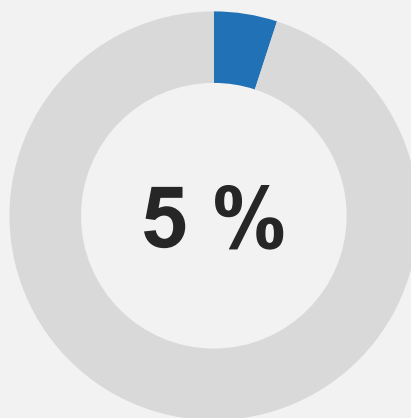
# Distribution



## Sweden and the UK<sup>1</sup>

Key data	FY 2022	FY 2021
Net sales (SEK bn)	12.5	17.3
External net sales (SEK bn)	11.7	14.6
Underlying EBIT <sup>2</sup> (SEK bn)	2.1	3.2
Investments (SEK bn)	5.5	5.8
SAIDI <sup>3</sup> (minutes/customer)	157	112
SAIFI <sup>4</sup> (number/customer)	2.08	1.75
Number of employees (FTE)	1,340	1,165

## Share of underlying EBIT



## Highlights 2022

Continued roll-out of smart electricity meters and high demand for connections to the electricity grid

Two regional grid projects selected by the Swedish Energy Markets Inspectorate to identify solutions that enables shorter lead times for permitting processes

Pilot project for flexible fast charging of electric vehicles in Riksgränsen in northern Sweden

<sup>1</sup> Power-as-a-service also offered in Denmark and the Netherlands

<sup>2</sup> Operating profit excluding items affecting comparability

<sup>3</sup> SAIDI: System Average Interruption Duration Index

<sup>4</sup> SAIFI: System Average Interruption Frequency Index



Contact

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A photograph of three children standing on a grassy hill. On the left is a boy with brown hair wearing a dark blue cable-knit sweater. In the center is a girl with blonde hair in pigtails wearing a green jacket over a grey shirt. On the right is a boy with dark curly hair wearing a blue button-down shirt over a white long-sleeved shirt. The background shows a blurred cityscape and a river under an overcast sky.

# VATTENFALL

