



Corporate Factbook

November 2025



VATTENFALL

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A woman with short dark hair, wearing a light-colored trench coat and a matching skirt, stands on a rooftop terrace. She is positioned in the center of the frame, looking directly at the camera. The terrace has a metal railing adorned with warm white string lights. In the background, a dense urban landscape stretches out under a twilight sky with soft clouds. The overall mood is serene and professional.

Overview and Strategy

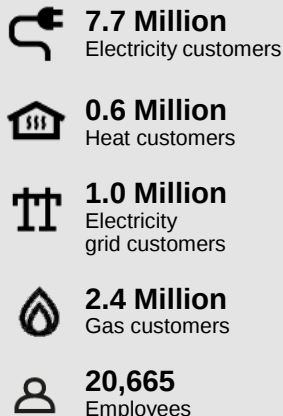


VATTENFALL

This is Vattenfall

In Brief

- Vattenfall is a leading European energy company
- We want to enable the **fossil freedom that drives society forward**
- We are driving the transition to a more sustainable energy system through growth in renewable production and climate smart energy solutions for our customers
- A business model of **an integrated utility**, as being active in generation, flexibility, distribution, sales, services, optimisation and trading.
- **100 per cent owned by the Swedish State**
- Our long-term credit ratings are **BBB+ stable outlook by S&P and A3 stable outlook by Moody's**

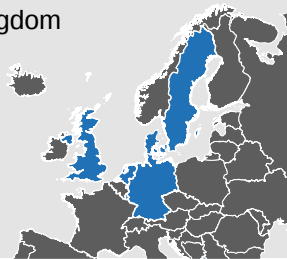


Activities in the Value Chain ● Active ● Inactive

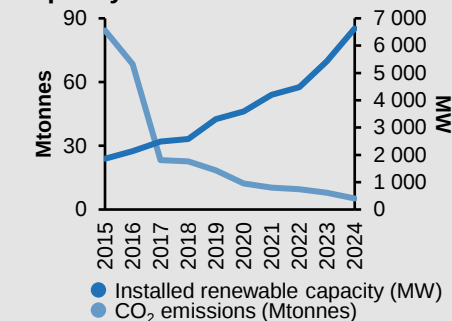


Main markets

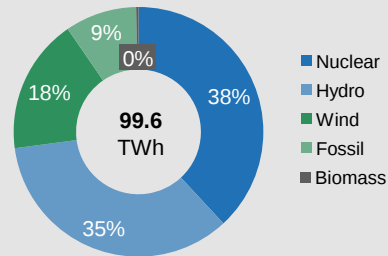
- Sweden
- Netherlands
- Denmark
- United Kingdom
- Germany



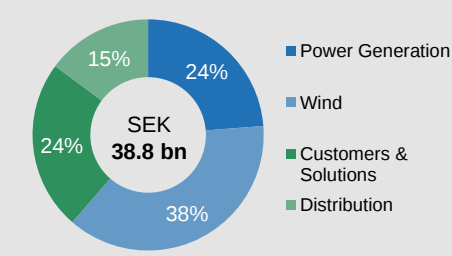
CO₂ emissions & renewable capacity



Electricity generation breakdown by technology, 2024



Underlying EBITDA breakdown by segment, 2024¹



¹ Breakdown excludes other and eliminations

Location of our operations and major plants



Wind ●



Biomass ●



Hydro ●



Gas ●



Nuclear ●

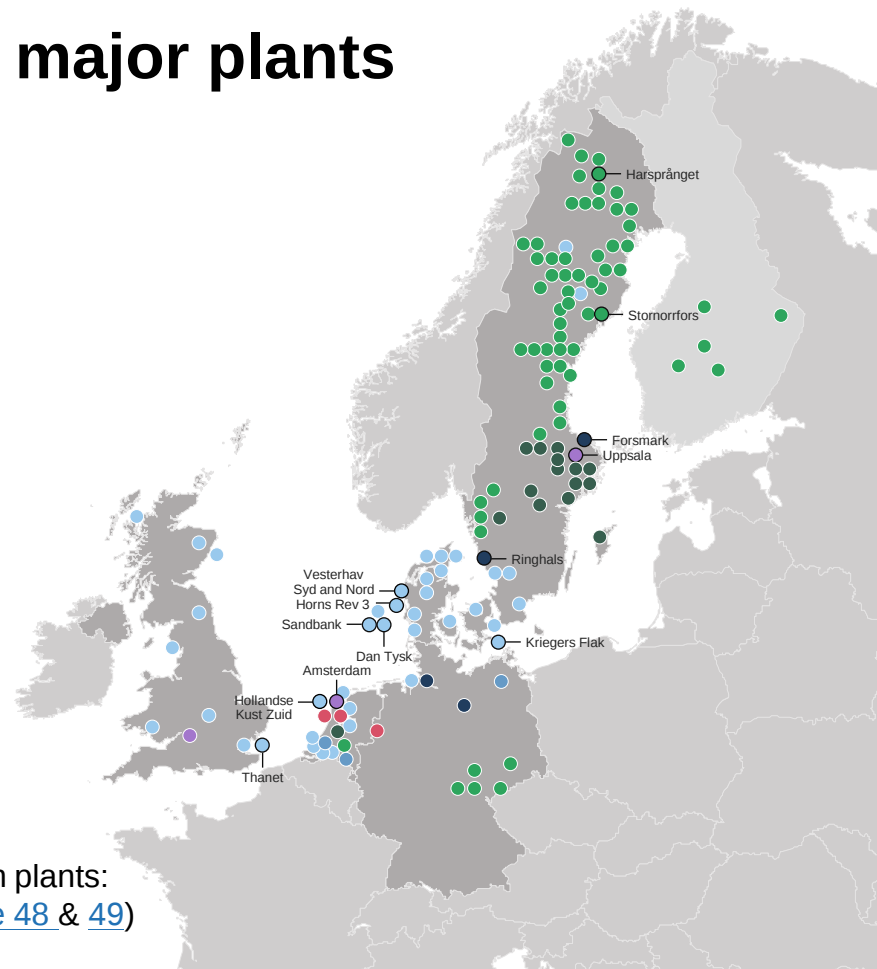


Solar ●



District heating ●

○ Largest facilities marked with a black circle



See pages below for additional information on our main production plants:
Heat ([page 29](#)), Nuclear ([page 33](#)), Hydro ([page 36](#)) & Wind ([page 48](#) & [49](#))

Vattenfall's value chain

Electricity generation and supply

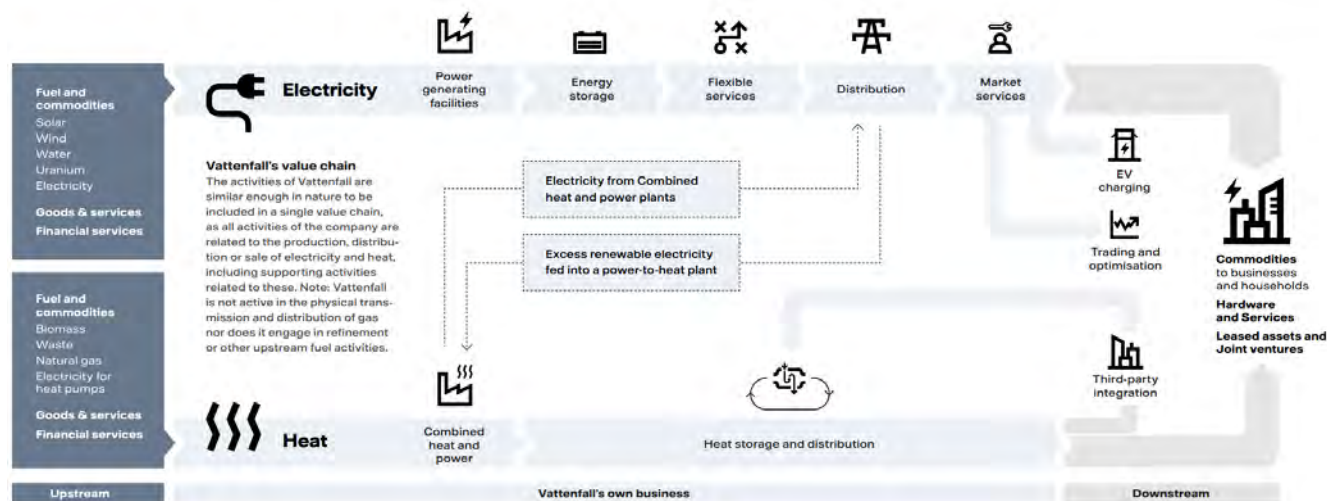
Electricity goes through three main steps before it can be used by end customers: generation, transmission, and distribution. Generation is typically a competitive market both in terms of energy sources and the number of actors. The transmission grid is typically a national monopoly while regional and local grids are regulated monopolies.

Heat generation and supply

District heating systems transport hot water in underground pipe networks to heat up buildings. The water is kept in a closed loop, which means that it is returned to the heating plant, re-heated, and re-used in the network. District heating networks can manage supply and demand by storing and releasing heat to meet actual demand. Heat can also be integrated from third-party sources such as waste heat from industrial processes and data centres that is fed into the heat network.

Two integrated energy systems

In so-called power-to-heat plants, excess electricity from e.g. wind and solar can be used in an e-boiler to generate heat. Plants used for district heating can also produce electricity. These are called combined heat and power (CHP) plants and the co-generation makes more efficient use of the utilised fuel. Electricity from CHP plants are typically fed directly into the grid.



Operating segment overview H1 2025

Operating segments

We report our operations broken down by the Group's operating segments: Customers & Solutions, Power Generation, Wind and Distribution. The operating segments reflect our Business Area organisational structure except for the Power Generation segment, which is divided into the Generation and Markets Business Areas

Number of Employees¹

Power Generation	5,586
Customers & Solutions	5,589
Wind	1,819
Distribution	4,398
Other²	3,585

¹ Full-time equivalents

² Pertains mainly to Staff Functions and Shared Service Centres

Customers & Solutions

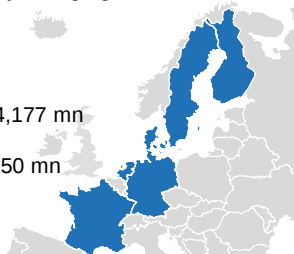
Responsible for our customer relations, heat plants and gas-fired condensing plants as well as sales of electricity, gas, heat and energy services.

- A market leader in Sweden and the Netherlands. A total of 5.1 million electricity and gas contracts in Germany with a leading position as electricity supplier in Berlin and Hamburg.
- Operates 75,413 e-mobility charging points in Sweden, Germany, the Netherlands, and Norway.
- Partnerships with cities for the realisation of carbon reduction plans, supported by a track record of meeting previous reduction targets
- Heat production and distribution systems used as platforms to integrate other energy solutions, like district cooling, e-mobility charging solutions, wind, and solar.

Net Sales: SEK 95,794 mn
(50% of total³)

Underlying EBITDA: SEK 4,177 mn
(16% of total)

Underlying EBIT⁴: SEK 2,850 mn
(18% of total)



Power generation

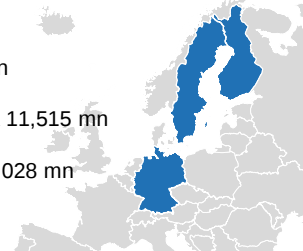
Responsible for Vattenfall's hydro and nuclear power operations as well as business and optimisation and trading operations, including certain large business customers.

- Operates a portfolio with 5.5 GW nuclear power capacity and 11.2 GW hydro power capacity across Sweden, Finland, and Germany
- One of Europe's largest producers of fossil-free electricity, with 21.2 TWh from nuclear power and 18.0 TWh from hydro power in half year (Jan-Jun) 2025
- Provides professional asset optimisation services and market access and is a leading player in commodities trading and power purchase agreements in northwestern Europe.

Net Sales: SEK 76,453 mn
(40% of total³)

Underlying EBITDA: SEK 11,515 mn
(45% of total)

Underlying EBIT⁴: SEK 9,028 mn
(57% of total)



³ Calculation excludes eliminations

⁴ Operating profit excluding items affecting comparability

Operating segment overview H1 2025 (Cont'd)

Wind

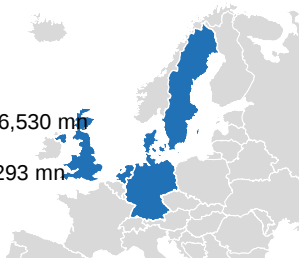
Responsible for development, construction and operation of Vattenfall's wind farms as well as for large-scale solar power plants and batteries.

- One of the largest producers of onshore wind power in Denmark and the Netherlands
- One of the largest producers of offshore wind power in the world excl. China.
- 7.8 TWh of electricity generated from 6.6 GW in operated capacity
- Strong wind, solar and battery pipeline with 2.2 GW in construction and over 3.1 GW in mature stage development
- Forerunner in innovative solutions in solar and batteries, such as co-location.

Net Sales: SEK 10,347 mn
(5% of total¹)

Underlying EBITDA: SEK 6,530 mn
(26% of total)

Underlying EBIT²: SEK 2,293 mn
(15% of total)



Distribution

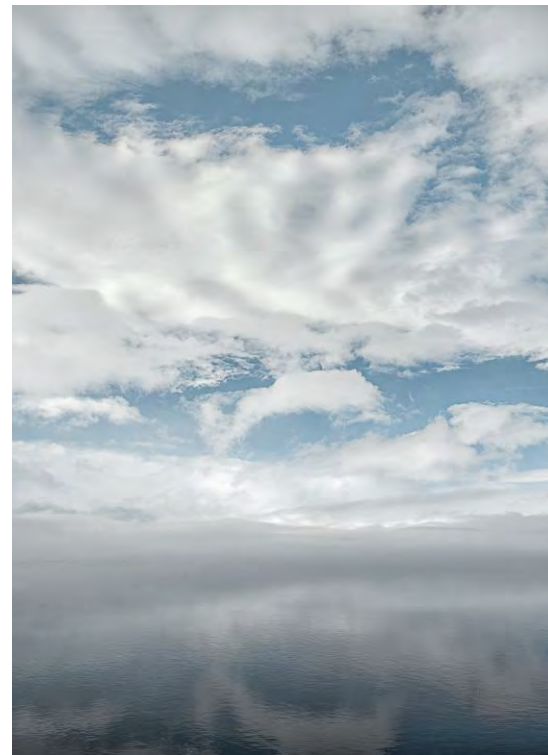
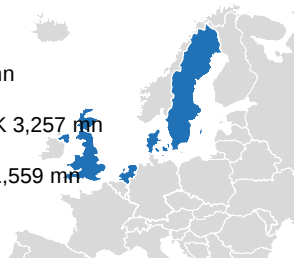
Responsible for Vattenfall's electricity distribution operations in Sweden and the UK, as well as Vattenfall's maintenance service business. Provides Power-as-a-Service where we own and operate electrical-, storage- and charging infrastructure on long-term contracts.

- Leading operator of regional electricity distribution grids and among the top three largest actors in local grids in Sweden
- Distributes over 50% of the electricity in Sweden
- Approximately 1,000,000 business and private customers in Sweden
- Unit for operation and ownership of new grids in the UK established in 2017

Net Sales: SEK 10,010 mn
(5% of total¹)

Underlying EBITDA: SEK 3,257 mn
(13% of total)

Underlying EBIT²: SEK 1,559 mn
(10% of total)



¹ Calculation excludes eliminations

² Operating profit excluding items affecting comparability

Financial characteristics per operating segment

Operating segment	Key drivers for earnings	Characteristics of earnings and cash flow
Customers & Solutions	For the customer business the difference in sourcing costs compared to sales price (gross margin) and development in the customer base. For the condensing business the spread between the electricity prices and the fuel costs with emission allowance. For the heat business the spread between heat price and generation and distribution costs as well as temperature effects impacting the demand.	Earnings stabilising after a couple years of favourable sourcing. Heat's contribution has declined due to divested business activities, condensing's contribution has declined due to reduced generation capacity.
Power Generation	A function of spot price, generation volume, electricity price area differentials, hedge ratio and hedge price	Large outright power price exposure is offset by hedging activities, thereby reducing volatility
Wind	A function of existing subsidies schemes rolling off, net new capacity added, the achieved power price rewarded to new capacity, technological development and synergies	Growing contribution on the back of new capacity
Distribution	Largely a function of regulatory asset base (RAB), regulatory WACC, and the efficiency of the operations	Stable



A strategy based on an “integrated utility logic”

To enable the fossil freedom that drives society forward

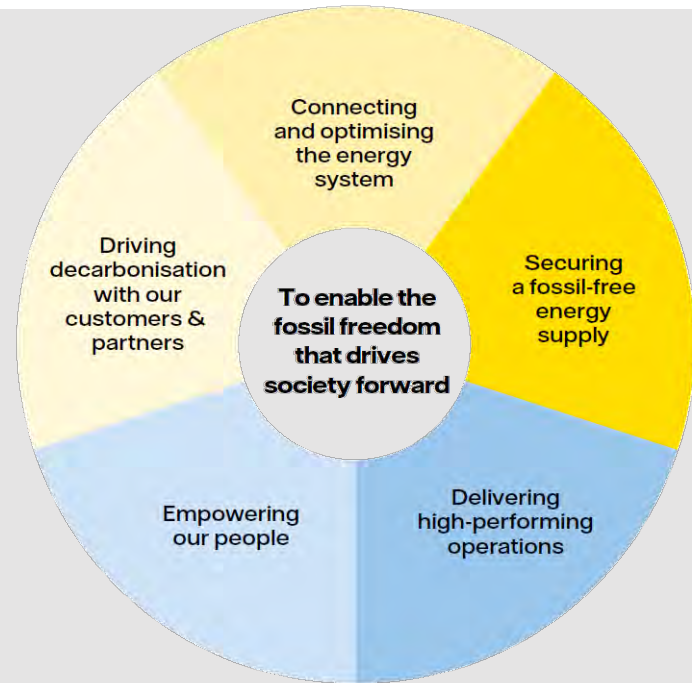
We believe being active in the whole value chain is strategically important:

It increases our competitive advantage in eg. wind auctions, by enabling stable revenues through Corporate PPAs with our customers

Access to renewable volumes on the customer side differentiates us from competitors as fossil-free electricity becomes more scarce

The ability to optimise dispatch across both customer loads and supply brings optimal value of a total portfolio

Diversifying and reducing total portfolio risk means lower cost of capital and an ability to take on more debt



Strategic targets 2025

Strategic focus area	Strategic targets to 2025	Actual 2024	Actual 2023	Progress FY 2024	Comments
Driving decarbonisation with our customers & partners	Customer engagement, absolute Net Promoter Score (NPS) ¹ : +18	+15	+11		Increase in NPS mainly as a result of improvements in the Dutch customer business following lower prices
Securing a fossil-free energy supply	CO ₂ Emissions Intensity ² : ≤86 gCO₂e/kWh	50	69		Improvement due to lower fossil-based generation, mainly due to divestment of the heat business in Berlin
Empowering our people	Lost Time Injury Frequency (LTIF) ³ : ≤1.0	1.3	1.5		Above target levels. Further actions required to enhance safety
	Employee Engagement Index ⁴ : ≥75%	82 ³	80 ³		Outcome above target level after continued improved performance with more engaged employees
Delivering high-performing operations	Funds from operations (FFO) /Adjusted Net Debt ⁵ : 22-27%	49.2%	21.5%		Above target interval as a result of lower adjusted net debt, mainly due to net received margin calls, the divestment of the heat operations in Berlin and the sale of offshore wind power projects
	ROCE ⁶ : ≥8%	12.4%	5.3%		Outcome above target mainly due to positive changes in market value of energy derivatives and capital gains from divestment of offshore wind power projects

¹ Reported on an annual basis

² Consolidated value including the heat business in Berlin until the sale on the 2nd of May 2024. Includes CO₂ and other greenhouse gases such as N₂O and SF₆, as well as indirect emissions from electricity and heat use (scope 2). The target for 2025 is to be on track to achieving the 1.5° C target by 2030, according to SBTi

³ Rolling 12-month values. LTIF (Lost Time Injury Frequency) is expressed in terms of the number of lost time work injuries per 1 million hours worked. The metric pertains only to Vattenfall employees

⁴ Documentation for measurement of target achievement is derived from the results of an employee survey, which is conducted on an annual basis

⁵ Rolling 12-months values

⁶ Rolling 12-month values. The Return on capital employed based on underlying operating profit amounted to 6.3%

Strategic targets 2030

Strategic focus area	Strategic targets to 2030	Actual 2024	Progress FY 2024	Comments
Driving decarbonisation with our customers & partners	Customer engagement, Net Promoter Score (NPS) ¹ : 20	+15	●	Increase in NPS (+11 in 2023) mainly as a result of improvements in the Dutch customer business following lower prices.
Securing a fossil-free energy supply	Mt. Absolute CO2 emissions (includes scope 1, 2 and 3) ² : 18.2	24.6	●	Total emissions reduced compared to 25.8 in 2023 due to more fossil-free electricity sales.
Motivating and empowering our people	Total recordable injury frequency (TRIF+) with a zero fatality threshold ³ : <2.0	3.5	●	Outcome above target level. Further actions required to enhance safety performance.
	Employee Engagement Index ⁴ : 86	86	●	Outcome in line with target, continued efforts to maintain employee engagement.
	Driving diverse leadership ⁵ : 40%	34	●	While we are still below the target set for 2030, we are making significant strides in this area.
Delivering high-performing operations	Funds from operations (FFO) / Adjusted Net Debt ⁶ : ≥25%	41.5% ⁸	●	Above target interval as a result of lower adjusted net debt, mainly due to the divestment of the heat operations in Berlin and the sale of offshore wind power projects.
	ROCE excl. items affecting comparability ⁷ : ≥8%	5.4% ⁹	●	Outcome below target mainly due to lower underlying EBIT.

¹ Reported on an annual basis. ² Total absolute CO2e emissions including Scope 1, 2 and 3, as covered by Vattenfall's 2040 Net Zero targets validated by SBTi. ³ Per 1 million hours worked. This metric includes both Vattenfall employees and contractors. In case of fatality, this target can not be achieved. ⁴ Documentation for measurement of target achievement is derived from the results of the My Opinion employee survey, which is conducted on an annual basis.

⁵ This metric is measured by the Female Manager Ratio, which reflects progress toward gender diversity in leadership.

⁶ Rolling 12-month values. Capital structure metric based on proportional fund from operations excluding dividend attributable to non-controlling interests. Adjusted net debt is excluding margin calls. ⁷ Rolling 12-month values. Profitability metric based on underlying EBIT excluding items affecting comparability. ⁸ The value has been adjusted compared with information previously published in Vattenfall's financial reports. ⁹ The value was restated to 5.4% from 6.3% in Q1 2025.

Financial targets

Financial targets	Targets over a business cycle ¹	Outcome 2024	Comment
Profitability	Return on capital employed, excl. items affecting comparability: ≥8%²	5.4%⁵	Outcome below target level due to lower underlying operating profit partially due to provisions for nuclear power.
Capital structure	FFO/adjusted net debt ³ : ≥25%	41.5%⁶	Above target interval as a result of lower adjusted net debt, mainly due to the divestment of the heat operations in Berlin and the sale of offshore wind power projects.
Dividend policy	Dividend: 40%–70% of adjusted net profit⁴	7.0 billion SEK	A dividend of SEK 7 billion has been paid to the owner.

¹ The financial targets are set over a business cycle (5-7 years). The table below outlines the 2024 outcomes for these targets.

² Based on underlying EBIT excluding items affecting comparability and average capital employed.

³ Metric based on funds from operations excluding dividend attributable to non-controlling interests. Adjusted net debt is excluding margin calls.

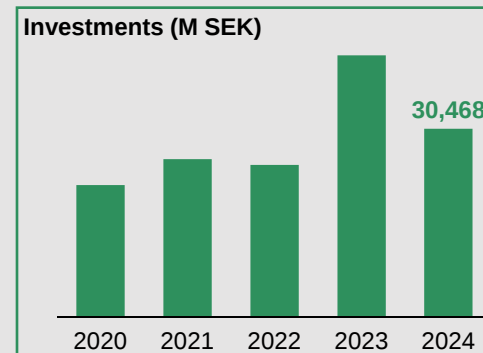
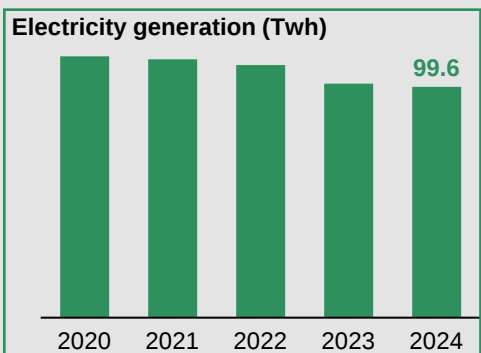
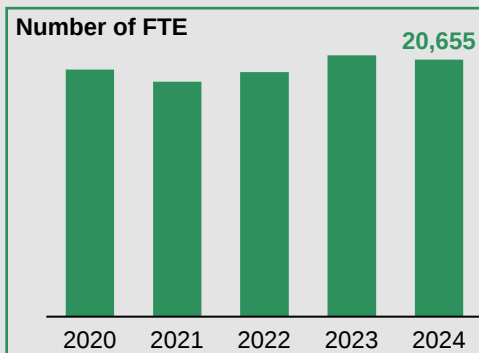
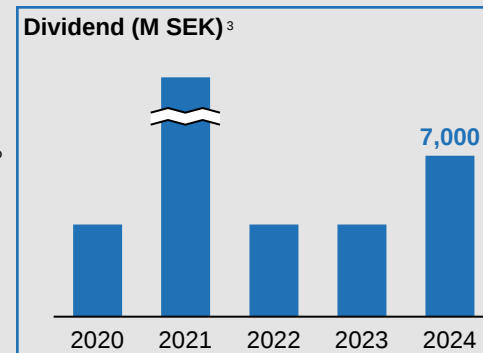
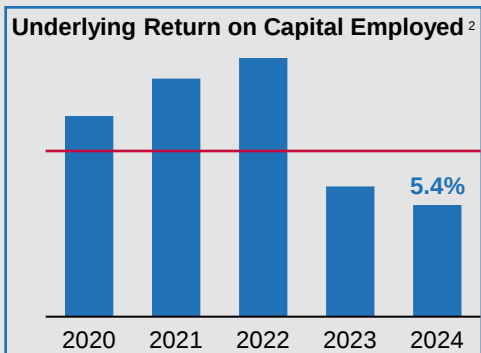
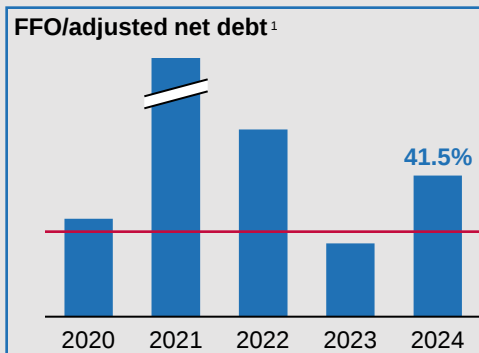
⁴ Adjusted net profit is excluding fair values and return from nuclear waste fund. The updated dividend policy takes into account future developments in capital structure and investment needs.

⁵ The value was restated to 5.4% from 6.3% in Q1 2025.

⁶ The value has been adjusted compared with information previously published in Vattenfall's financial reports.

Vattenfall in figures

Strong balance sheet and attractive growth opportunities



¹ From 2024 the outcome is reported according to the new definition of the capital structure target. The new definition is based on adjusted FFO (Funds From Operations), excluding minority shares, and the adjusted net debt excludes margin calls.

² The ROCE has been adjusted and restated retroactively for the 2024 value. Before the adjustment, it was reported as 6.3%. Starting from Q1 2025, from Q1 2025, changes in fair values of energy derivatives as well as inventory revaluation for proprietary trading activities are recognised in the underlying operating profit to better reflect the overall trading performance.

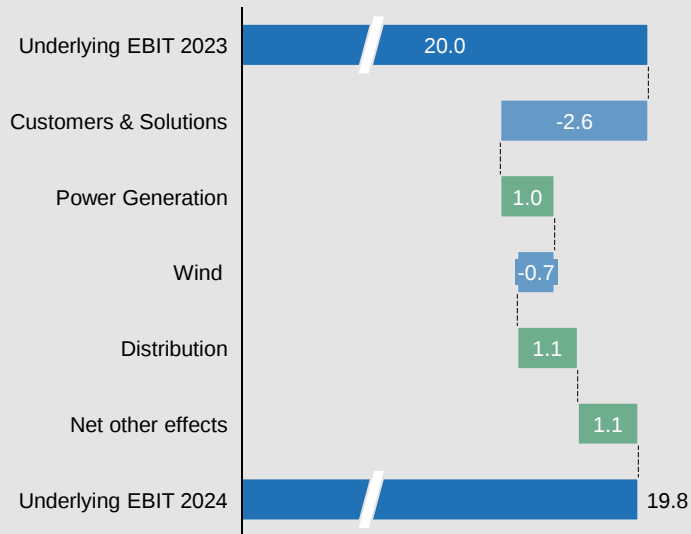
³ From 2024, the outcome is reported in accordance with the new dividend policy. The dividend policy is based on adjusted net profit, excluding fair values and return from the nuclear waste fund. The updated dividend policy is meant to be forward looking and takes into account future developments in capital structure and investment needs.

Development of underlying EBIT FY 2024

Decrease from C&S and Wind partly offset by higher earnings in Power Generation and Distribution

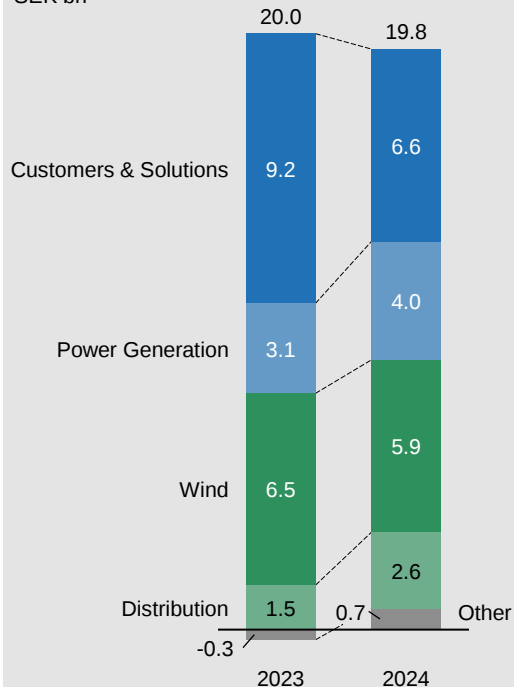
Change in FY 2024 vs. FY 2023

SEK bn



Breakdown per operating segment

SEK bn



Highlights

- Customers & Solutions: decrease partly driven by increased regulatory costs in the German customer business, and partly by lower gas prices impacting the heat business
- Power Generation: positive effect mainly from price hedging in the Nordic region, which counteracted the lower electricity prices and, together with lower price area differences, contributed to a higher achieved electricity price in the Nordics
- Wind: lower electricity prices, higher costs and depreciation mainly due to new assets
- Distribution: higher revenues. The comparison is to a great extent affected by the temporary reduction of the electricity grid tariff during the second half of 2023

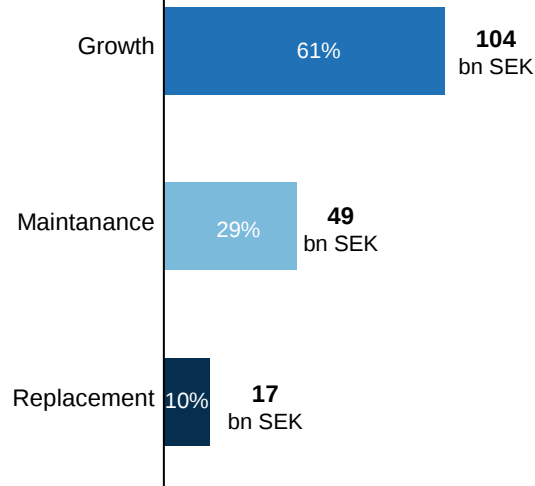
Investment plan 2025-2029

Total capex

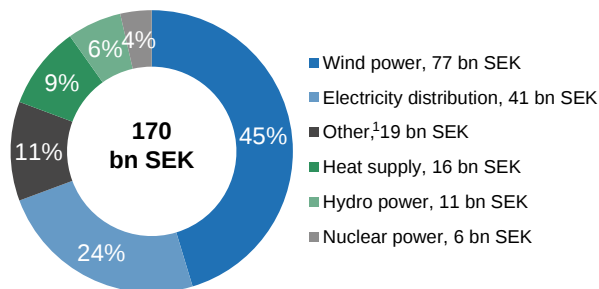
Total capex 2025-2029

170

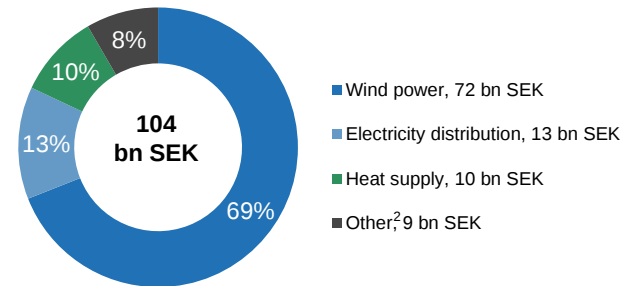
bn SEK



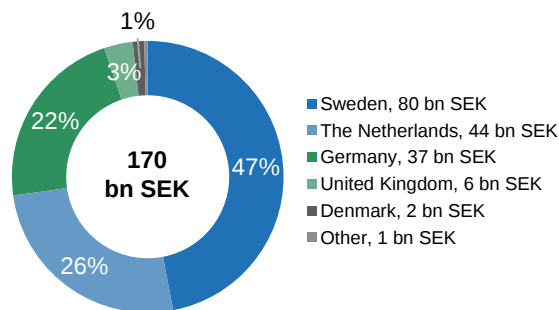
Total capex per technology



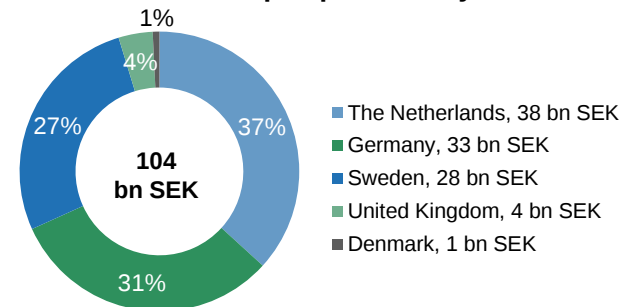
Growth capex per technology



Total capex per country



Growth capex per country



¹ Mainly E-mobility, facility and IT investments

² Mainly E-mobility

Major investment projects

Decided on and in progress¹

Project	Country	Type	Capacity	Est. CO ₂ reduction ² (ktonnes)	Vattenfall's share (%)	Completion	Total investment
Bruzaholm ³		Wind onshore / Battery	139 MW	2	100%	2025	2,360 MSEK
Velinga ³		Wind onshore	67 MW	1	100%	2025	1,182 MSEK
Battery Toledo ³		Battery	55 MW	n/a	50%	2025	43 MEUR
Nauen ^{3,4}		Solar	46 MW	11	100%	2025	25 MEUR
E-boiler Diemen		Electricity as fuel	150 MWth	n/a	100%	2025	45 MEUR
E-mobility - Netto ³		E-mobility	n/a	n/a	100%	2025	86 MEUR
E-mobility - Bunting ³		E-mobility	n/a	n/a	100%	2025	56 MEUR

¹ All numbers in the table reflect the status as per 31 December 2024

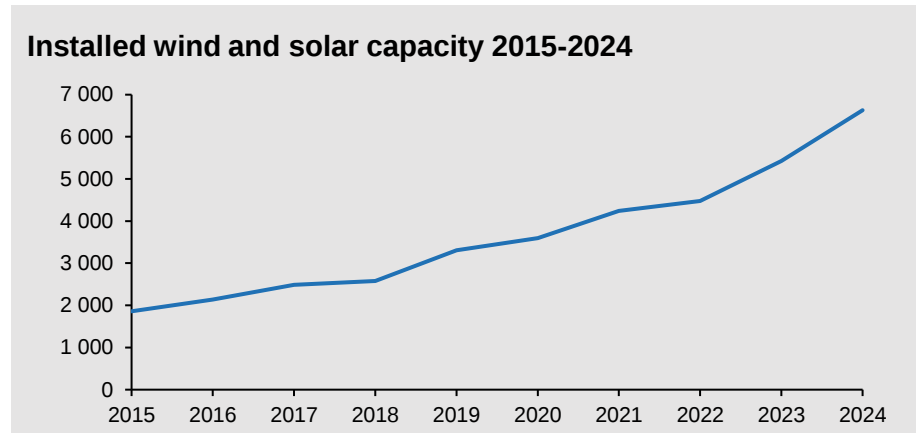
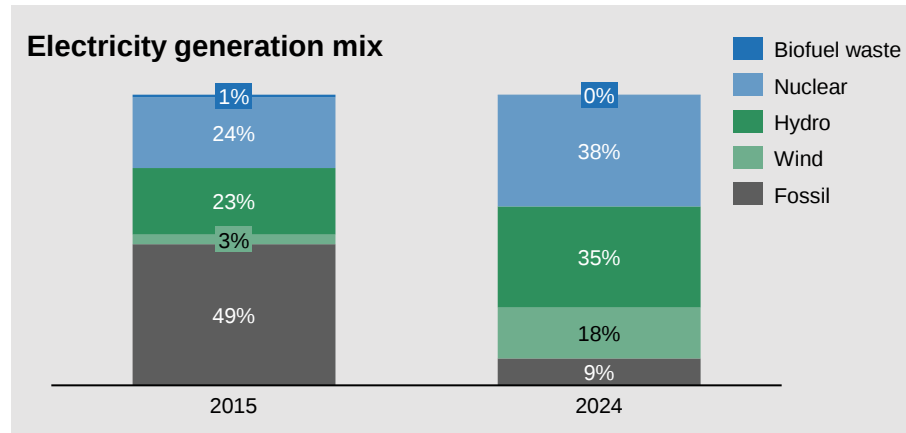
² Production from onshore wind estimated to 2.6 GWh/MW installed, from offshore wind to 3.5 GWh/MW installed, and from solar to 1.0 GWh/MW installed. Resulting production is compared against grid average emission factors which will decline over time as the energy system decarbonises. Actual production emission factors and savings will vary. Other projects are compared to project-specific reference cases.

³ The project is EU taxonomy-eligible and aligned

⁴ Develop-to-sell project

Significant shift in production portfolio

With growing capacity of wind and solar power and fossil fuels being phased out



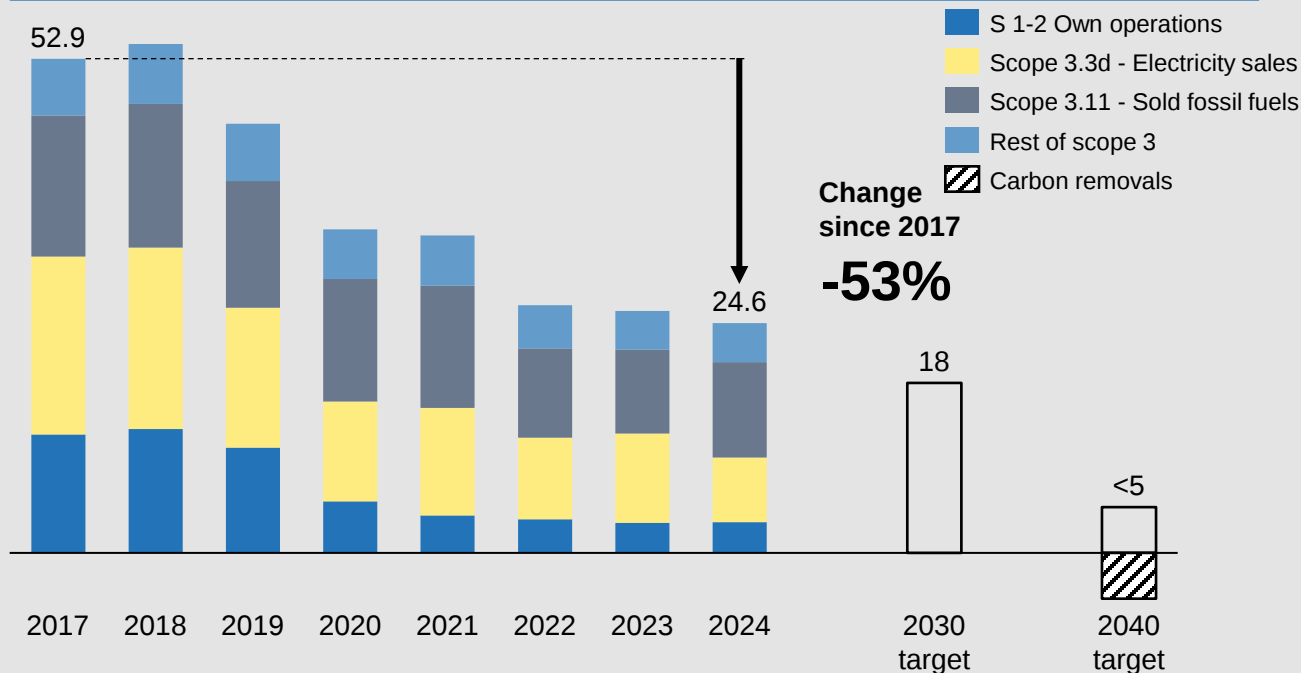
Milestones

- 2017 - Phase out of lignite with closure of Klingenberg CHP plant in Berlin, Germany. Inauguration of Pen y Cymoedd onshore wind farm in Wales
- 2018 - Phase out of peat in Uppsala, Sweden and the start of SamEnergi (third party integration of commercial heat surpluses to district heating networks)
- 2019 - Closure of coal-fired Hemweg-8 power plant in Amsterdam (NL)
- 2020 - Closure of coal-fired Moorburg power plant in Hamburg (DE) and opened Princess Ariane Wind Farm, the largest Dutch Onshore wind farm
- 2021 - Kriegers Flak in Denmark operational as Scandinavia's largest wind farm
- 2022 - Inauguration of Vattenfall's largest onshore wind farm, Blakliden Fäbodberget, in Sweden
 - Inauguration of the biobased heat plant Carpe Futurum enabling a complete phase out of peat in the Swedish operations
- 2023 - Inauguration of South Kyle onshore wind farm in the UK and Hollandse Kust Zuid in the Netherlands
- 2024 - Sale of the heat business in Germany to the State of Berlin completed and inauguration of Vesterhav Nord and Syd offshore wind farms in Denmark

Vattenfall's roadmap to Net Zero

The main drivers of the reduction have been fossil decommission and fossil-free sales

Vattenfall emission baseline, status and targets, Mton CO₂e

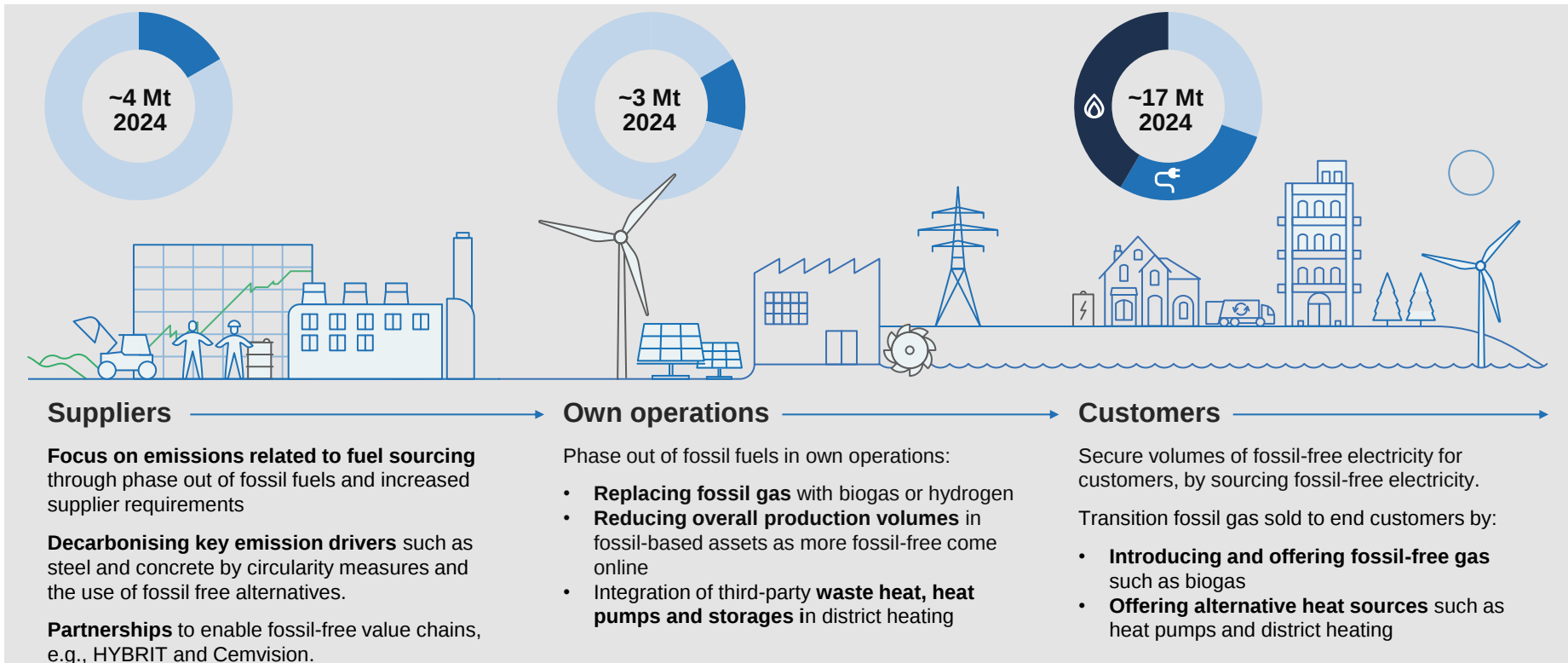


Validated, science-based 2040 Net-Zero targets

- Covering emission scopes 1-3, complete with near-term 2030 targets¹.
- Complemented by internal target on 65% total emission reduction 2030

¹Near term target excludes rest of scope 3 emissions

CO2 emissions cut throughout the value chain



Governance



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State Ownership

State Ownership Policy 2025

Vattenfall is a state-owned company

Vattenfall AB is wholly owned by the Swedish state. This means that the State ownership policy of Sweden is applicable to Vattenfall. In this ownership policy, the Government sets out important principles and overriding objectives for the management and governance of state-owned enterprises.

Conditions for state ownership, Relationship between the Government and the Riksdag (Swedish parliament)

The State's shares in state-owned enterprises are at the disposal of and administered by the Government within the framework of what the Riksdag has decided. However, the Riksdag's authorisation is required for the acquisition of shares, other increases in the State's shareholdings, equity infusions, or changes in an enterprise's public policy assignment. The Riksdag's authorisation is also required to reduce the State's shareholdings in enterprises where the State holds at least half of the votes, but also in cases where the Riksdag has decided otherwise for a particular enterprise. Shares have to be acquired and sold on a commercial basis, unless special reasons preclude this. The Government reports to the Riksdag on its management of state-owned enterprises in an annual report. Following a notification to the board of directors, members of the Riksdag have the right to attend and ask questions at the general meetings of majority state-owned enterprises, including any subsidiaries, that have at least 50 employees.

Articles of association

In the articles of association, the owners establish the business purpose of the enterprise's operations and certain limits for its operations. The business purpose of the operations of majority state-owned enterprises is based on decisions of the Riksdag.

Owner directives

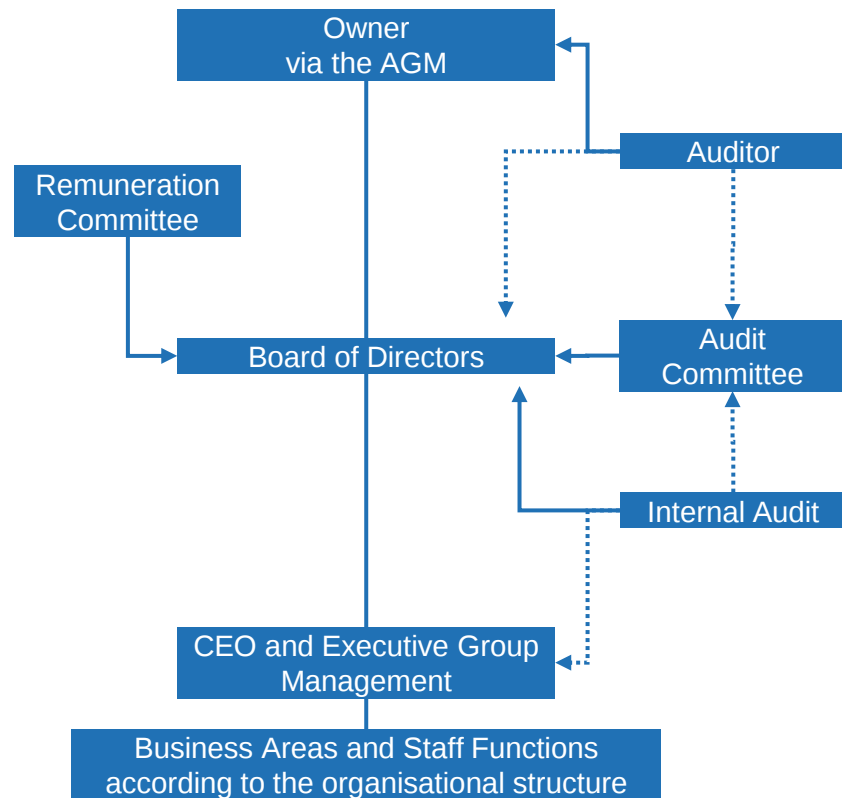
The owners can issue instructions to the enterprise through a resolution in the general meeting. In state-owned enterprises, owner instructions are mainly used when an enterprise has a public policy assignment from the Riksdag, receives budget appropriations, or is being restructured; and also in the context of deregulation or other similar material changes. The content of the owner instructions has to be concrete and clear. If the enterprise has a public policy assignment, the owner instructions have to specify how this assignment will be financed, reported and tracked. Public policy goals are used to enable evaluation and tracking to ensure that the public policy assignments decided by the Riksdag are being performed well. The public policy targets have to make clear the cost of performing the public policy assignment, and thereby the conditions for the enterprise's economic value creation. The owner is responsible for developing the public policy goals in dialogue with the enterprise, which are then established in an owner instruction.

Articles of Association

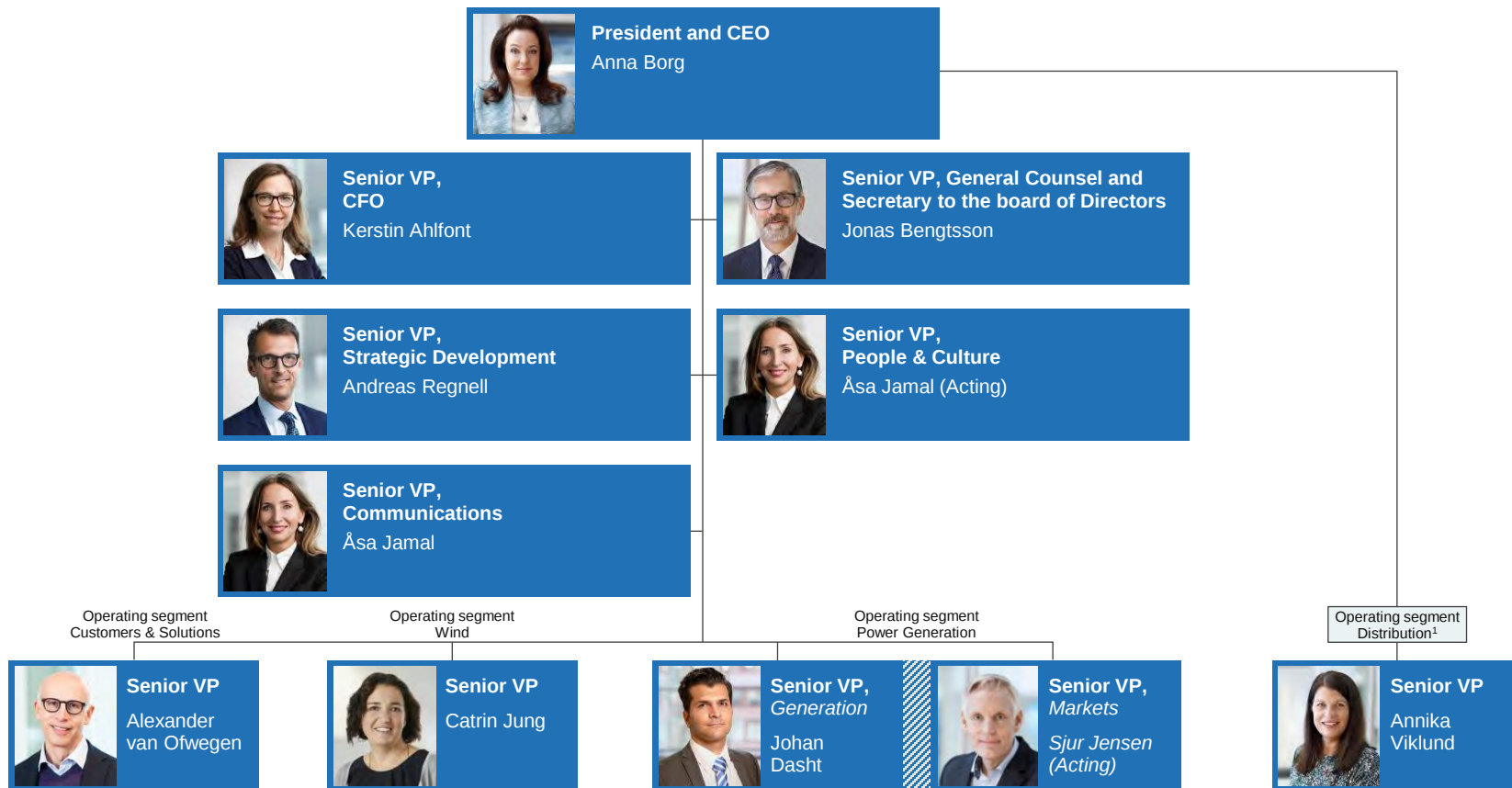
Vattenfall AB is wholly owned by the Swedish state. Ultimately, the Swedish Parliament decides on the assignment for Vattenfall AB. Through a general meeting resolution on the content of the Articles of Association, the shareholder (the owner via its representative) in turn makes decisions on the company's operations. The Government has established the Swedish state's ownership policy and the principles for state-owned companies, which are decided on at the General Meeting. In accordance with the Swedish state's ownership policy, the company's financial targets are also decided on by a general meeting.

The object for the Company's activities is to generate a market rate of return by, directly or indirectly through subsidiaries and associated companies:

- a. operating a commercial energy business that enables the company to be among the leaders in developing environmentally sustainable energy production,
- b. carry on trading with products and services within branches that are promoting, supporting or supplementing the energy business, mainly within the IT and telecom branches, as well as products and services related to subscription,
- c. carry on contracting and consulting activities mainly within the energy sector,
- d. own and administer real estate, shares and other securities associated to the aforesaid business activities,
- e. on behalf of the Group carry on capital and liquidity management operations and engage in trading securities, and carry on other activities consistent there with.

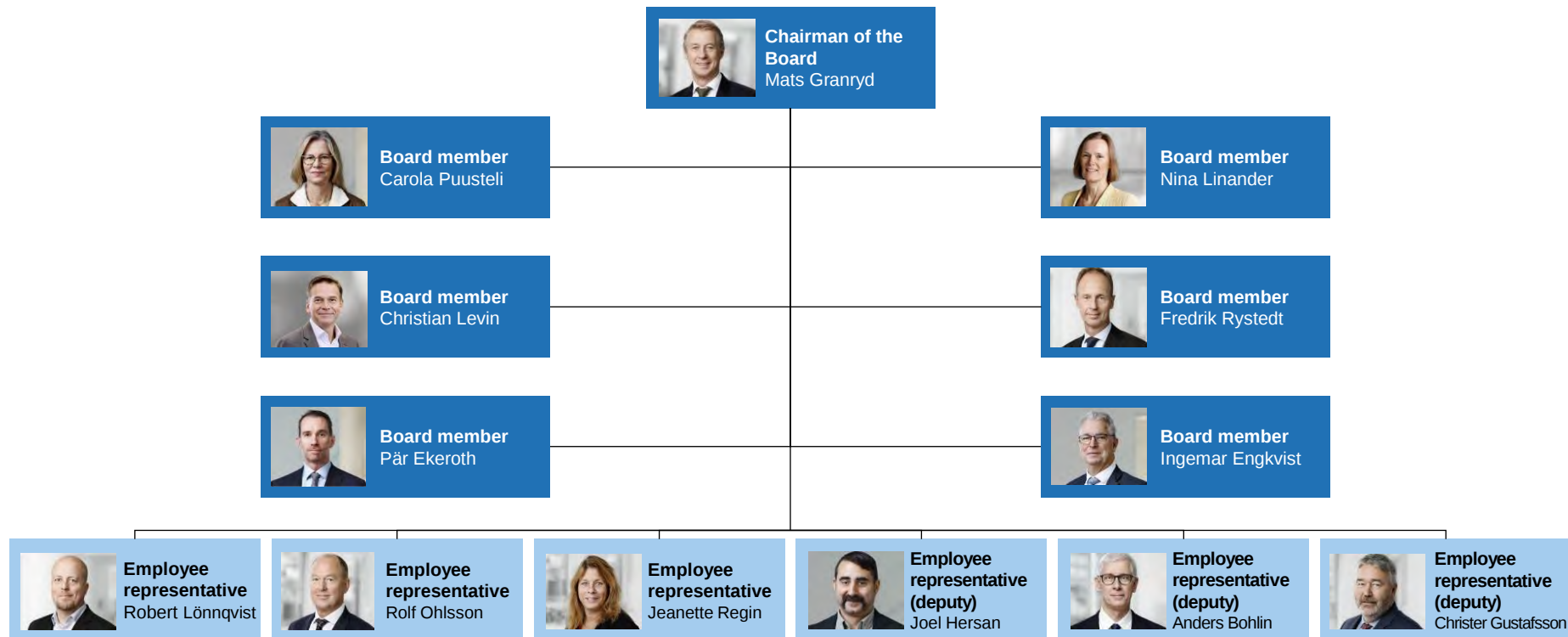


Vattenfall Executive Group Management

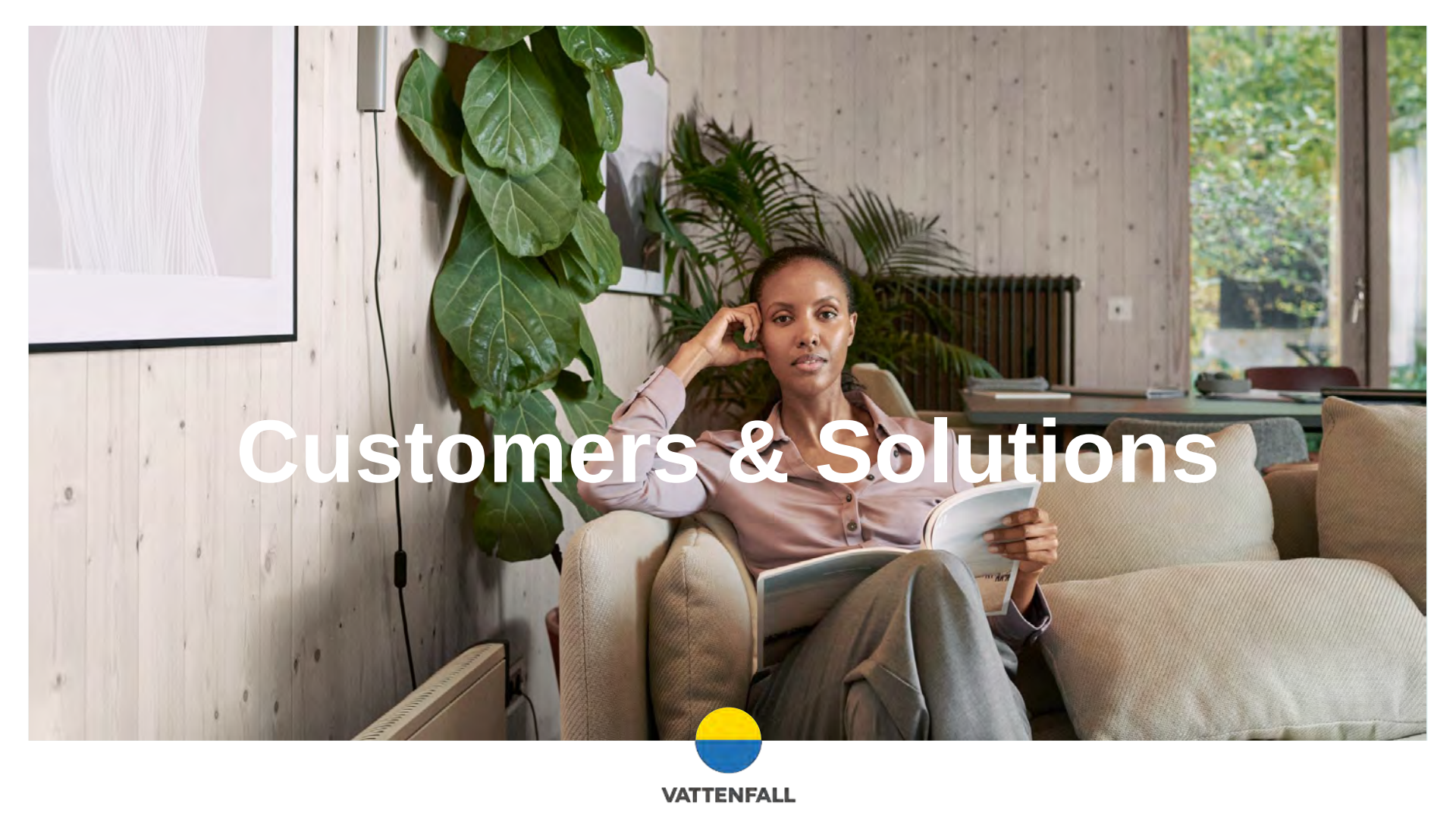


¹ The electricity distribution operations are unbundled from Vattenfall's other operations in accordance with Swedish and British legislation. The head of Business Area distribution is therefore not a member of the EGM.

Vattenfall Board of Directors



For more info: see page 68-69 in the Annual- and Sustainability Report 2024



Customers & Solutions



VATTENFALL

Customers & Solutions¹

Providing sustainable energy solutions and services to retail and business customers

Overview

- Strong incumbent positions in core markets with solid, semi-regulated revenue streams
- A growing customer base with high loyalty
- Attractive growth prospects supported by urbanisation trend and increasing regulatory support for low carbon heating
- Strong expertise across the full energy value chain means that we can offer simple integrated solutions to satisfy increasingly sophisticated customer needs
- Considerable contributions to realise carbon reduction plans/target of cities where we operate heat assets/networks
- Well-developed IT infrastructure keeps operations cost-effective
- Our public charging network - InCharge - is one of the largest in northern Europe

Highlights



11.7 million electricity, gas and heat contracts in Europe end of 2024



106.5 TWh of electricity sold in 2024



65,800 connected charging points for electric vehicle end of 2024



Key data¹

	FY 2024	FY 2023
Net sales (SEK bn)	189.0	235.2
External net sales (SEK bn)	175.5	215.6
Underlying EBIT ² (SEK bn)	6.6	9.2
Sales of electricity (TWh)	106.5	113.5
- of which, private customers	27.3	27.6
- of which, resellers	27.0	36.3
- of which, business customers	52.2	49.6
Sales of gas (TWh)	50.4	44.1
Net Promoter Score (NPS) ³	+15	+11

¹ As per 1 January 2024 Customers & Solutions includes Heat, hence 2023 data has been consolidated in retrospect. Heat Berlin, divested in May 2024, is excluded from all figures.

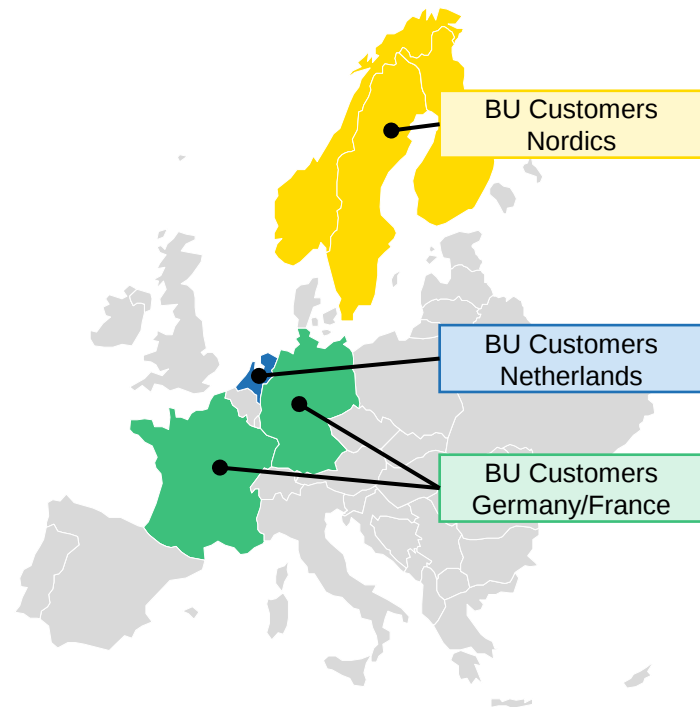
² Operating profit excluding items affecting comparability

Electricity- and gas Customers

We sell electricity to 7.7M customers in our key markets of Sweden, NL, Germany – as well as in Norway, Finland, and France. Gas sales occur in our continental markets. Decarbonisation, and being a partner to the customer as they go through the energy transition, is the key strategic focus.

Overview of electricity- and gas sales and contracts¹

	Nordics	Netherlands	Germany / France
Sales of electricity, B2C Twh	8.9	5.6	15.9
Sales of electricity, B2B Twh	43.7	11.8	20.4
Electricity contracts, in mn	1.1	1.9	4.6
Sales of gas, Twh	-	34.3	16.2
Gas contracts, in mn	-	1.6	0.7



¹ More information available on page 196 in Vattenfall's Annual and sustainability report 2024

Overview of largest heat and condensing plants

The Netherlands

Power and heat plants	Vattenfall ownership share	Fuel	Capacity heat (MW)	Capacity electricity (MW)
Diemen	100%		815	684
Almere	100%		517	0
A'dam South East	100%		501	2
WPW	50%	 	310 *	2
Arnhem	100%	 	215 *	0
Leiden	100%		150 *	0
Rotterdam	100%	 	150 *	0
Velsen	100%	 	105	869
Nijmegen	100%	 	87 *	0
Lelystad	100%	 	51 *	0
Hemweg	100%		0	440
Ede	100%		10 *	0

Sweden

Power and heat plants	Vattenfall ownership share	Fuel	Capacity heat (MW)	Capacity electricity (MW)
Uppsala	100%		814	27
Drefviken	100%		326	19
Nyköping	100%		185	35
Vänernborg	100%		80	0
Motala	100%		65	4
Ludvika	51%		50 *	0
Gotland Visby	75%		44 *	155 *

United Kingdom

Power and heat plants	Vattenfall ownership share	Fuel	Capacity heat (MW)	Capacity electricity (MW)
Castle Park	100%	 	6	0
Broughton House	100%	 	5	0
100 Temple St	100%		4	1
Gardiner Haskins	100%		4	0
Shawfair	50%	 	9	0
Brentcross Town**	100%		6	0

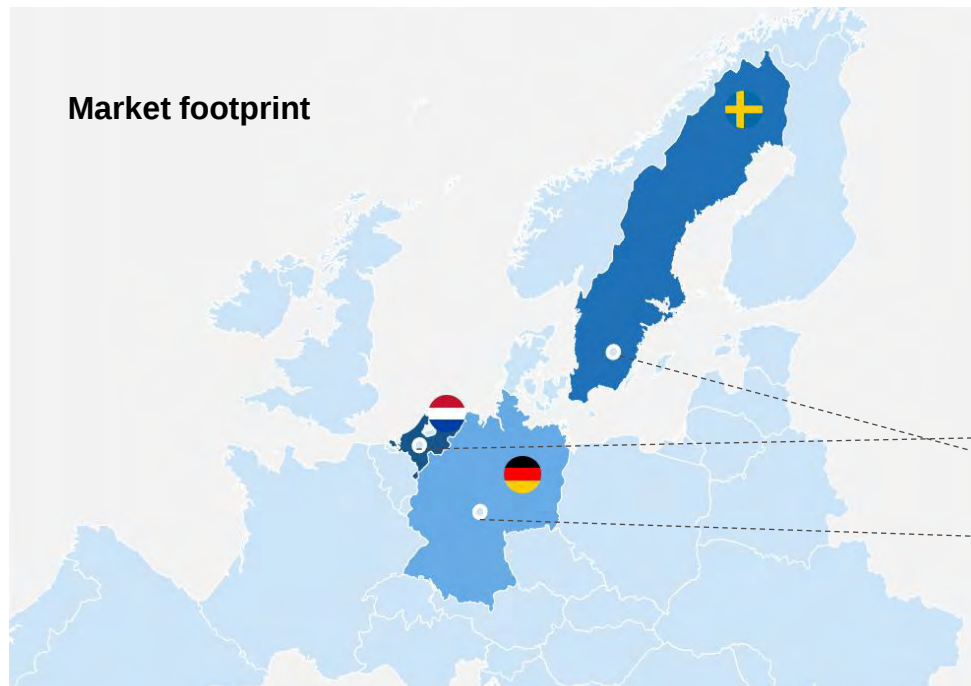
 Biomass
  Electric
  Gas
  Steam

* This includes third party contracted capacity

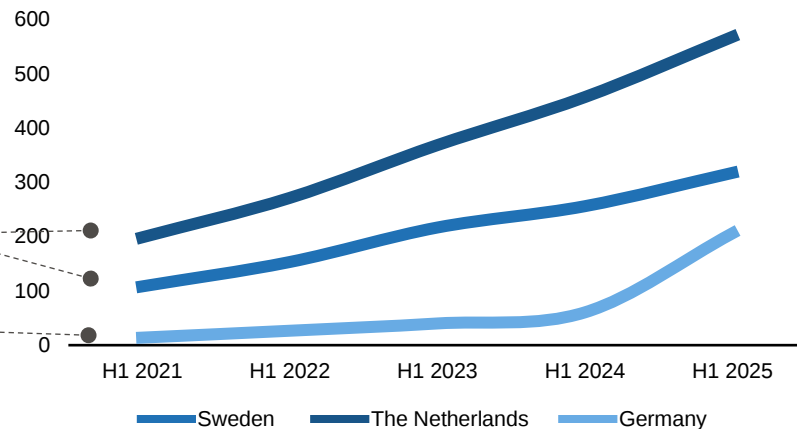
**Temporary energy center.

E-Mobility Customers

Vattenfall is enabling fossil-free transportation in Sweden, The Netherlands, and Germany



Volume growth over the past 4 years
Connected Charging Capacity (mW)



Key
partners

NH | HOTEL GROUP

Dawonia



Lufthansa

WETTO



VATTENFALL



An aerial photograph of a large concrete dam and reservoir. The reservoir is a calm, dark blue body of water. The dam is a long, light-colored concrete structure. A long, straight, light-colored structure, possibly a spillway or a road, extends from the dam down a steep, densely forested hillside. The surrounding landscape is covered in lush green trees. The text "Power Generation" is overlaid in white, bold, sans-serif font in the center of the image.

Power Generation



VATTENFALL

Power Generation

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

Overview

- Largest segment by power production volume in Vattenfall, contributing to our position as Europe's second largest provider of fossil-free electricity
- Century-long roots in hydro power and a leading position in Sweden's hydro power development
- Major owner of nuclear power with vast experience of nuclear operations, decommissioning and management of radioactive waste and spent nuclear fuel
- One of the leading energy trading companies in Europe offering reliable, responsible and flexible access to all relevant commodity wholesale markets
- Sourcing of gas, biomass and carbon credits for Vattenfall and third parties
- Maximising value and managing risk by optimising and dispatching as well as hedging of Vattenfall's assets and sales positions
- Proprietary trading within the risk mandate set by Vattenfall's Board of Directors
- Offer PPAs to renewable asset owners and offer fossil-free energy to large customers

Highlights



5.5 GW nuclear power



11.2 GW hydro power



Key data

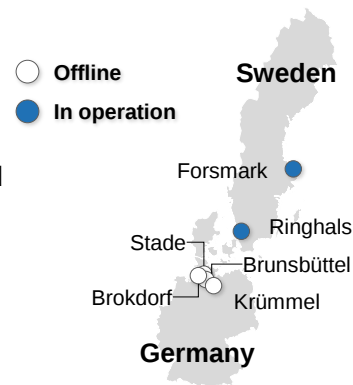
	FY 2024	FY 2023
Net sales (SEK bn)	169.9	207.5
External net sales (SEK bn)	44.9	37.8
Underlying EBIT (SEK bn)	4.0	3.1
Electricity generation (TWh)	72.6	73.5
- of which, hydro	36.1	36.1
- of which, nuclear	37.4	37.4
Customer sales of electricity (TWh)	8.5	11.3
- of which, resellers	6.6	9.4
- of which, business customers	1.9	1.9

¹ The value has been adjusted compared with information previously published in Vattenfall's financial reports, see note 1 Accounting policies, risks and uncertainties.

Nuclear power

Vattenfall's nuclear power plants

- Vattenfall owns eleven nuclear reactors. Seven reactors are located in Sweden (four at Ringhals, three at Forsmark), and four in Germany (Brunsbüttel, Krümmel and minority stakes in Brokdorf and Stade)
- Five of our reactors are in commercial operation in Sweden
- Our last operational nuclear asset in Germany, Brokdorf, was decommissioned at year-end 2021
- Vattenfall's nuclear power generation in 2024 amounted to 37.9 TWh (37.4). Combined availability was 80.4% (80.5%)



Nuclear Power Plant list

Nuclear Power Plant	Country	Installed Capacity (MW)	Vattenfall ownership share	Pro Rata Share of Installed Capacity (MW)	Co-Owners	Commission Year	Final operating year	Operation status	Decommissioning status
Ringhals	Sweden	3,967*	70.4%	2,793	Sydkraft Nuclear Power AB (29.6%)	Ringhals 1: 1976; Ringhals 2: 1975; Ringhals 3: 1981; Ringhals 4: 1983	Ringhals 2: 2019; Ringhals 1: 2020	In operation	Ringhals 1 & 2: Shutdown, in pre-decommissioning planning
Forsmark	Sweden	3,271	66.0%	2,159	E.ON (8.5%) and Mellansvensk Kraftgrupp (25.5%)	Forsmark 1: 1980; Forsmark 2: 1981; Forsmark 3: 1985	-	In operation	-
Brunsbüttel	Germany	771	66.7%	514	E.ON (33.3%)	1977	2007	Offline	Decommissioning mode
Krümmel	Germany	1,346	50.0%	673	E.ON (50.0%)	1984	2011	Offline	Planned to initiate decommissioning in 2021
Stade	Germany	640	33.3%	213	PreussenElektra GmbH (66.7%)	1972	2003	Offline	Undergoing decommissioning since Oct 2005
Brokdorf	Germany	1,410	20.0%	282	PreussenElektra GmbH (80.0%)	1986	2021	Offline	Decommissioned in 2021

*Whereof inoperational capacity: Ringhals 1 (881 MW) & Ringhals 2 (900 MW)

New Nuclear

Why Vattenfall wants to invest in nuclear & Roadmap

It is part of our core business



It is a key component of the energy system



It aligns with our strategic direction



Path toward new nuclear



Develop Videberg Kraft AB

Further formalise the collaboration with Industrikraft



Apply for risk-sharing

Refine and submit the risk-sharing application



Continue site development

Acquire properties and continue work related to the nature reserve



Select supplier

Supplier selection following an in-depth evaluation



Submit application

Applications in accordance with the Environmental Code and the Nuclear Technology Act

The financing system for post-operational nuclear costs

Financial implications of the various steps in the financing systems in Sweden and Germany

In Sweden

Nuclear power plant owners in Sweden are obligated to finance the costs for dismantling and management of spent nuclear fuel. The financing is handled by payment of fees for each generated kWh to the Swedish Nuclear Waste Fund, which manages paid-in funds. The fund also reimburses owner for the payment to SKB (responsible for long term safe-handling of radioactive waste) meeting the obligation based on Swedish law.

In Germany

Following the nuclear accident in Fukushima, Japan in 2011, Germany's government decided to shut down all the 17 nuclear power plants by 2022. The German state took over the responsibility for interim and final storage of low and intermediate level spent nuclear fuel in 2017, funded by the contributions that the NPP operators paid to state-controlled fund. The German Federal Council must agree on a suitable location for permanent storage of spent nuclear fuel by 2031 and final repository by 2050. The spent nuclear fuel and radioactive waste must be stored in interim storage close to the nuclear power plant.

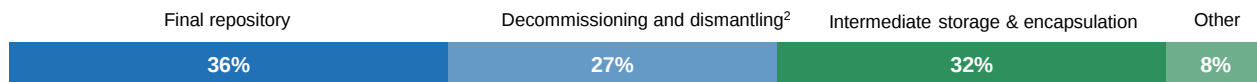
Sweden

Nuclear power operators	Payments based on generated kWh	Swedish Nuclear Waste Fund	Financial implications	EBIT	Funds from operations (FFO)	Adjusted net debt (AND)
	Swedish National Debt Office decides on disbursements from the fund	The fair value of the the Swedish Nuclear Waste Fund was SEK 77,8 billion Vattenfall Group's share was SEK 55,7 billion as end December 2024	Valuation of nuclear provisions	Provision value depreciated over operating life-time of nuclear power plant ¹	N/A	Included in AND
			Payments to the Swedish Nuclear Waste Fund	No impact	Negative impact through payment to the Swedish Nuclear Waste Fund	Increase fund balance (offset AND)
			Decommissioning activities	No impact	FFO neutral	AND neutral

Swedish Nuclear Fuel and waste Management Company (SKB)

Remaining post-operational costs for the entire Swedish nuclear fleet

110,1
SEK billion



Germany

Nuclear power operators	German state	Financial implications	EBIT	Funds from operations (FFO)	Adjusted net debt (AND)
Decommissioning and dismantling	Transport Intermediate storage Final repository	Valuation of nuclear provisions	Non-operating plants – change in provision valuation directly impacts EBIT	N/A	Included in AND
		Decommissioning activities	N/A	Negative impact	AND neutral

¹ For reactors no longer in operation, nuclear provisions has an immediate effect on EBIT

² Decommissioning and dismantling are the responsibility of the nuclear power operators and are not included in SKB's operations

Hydro power

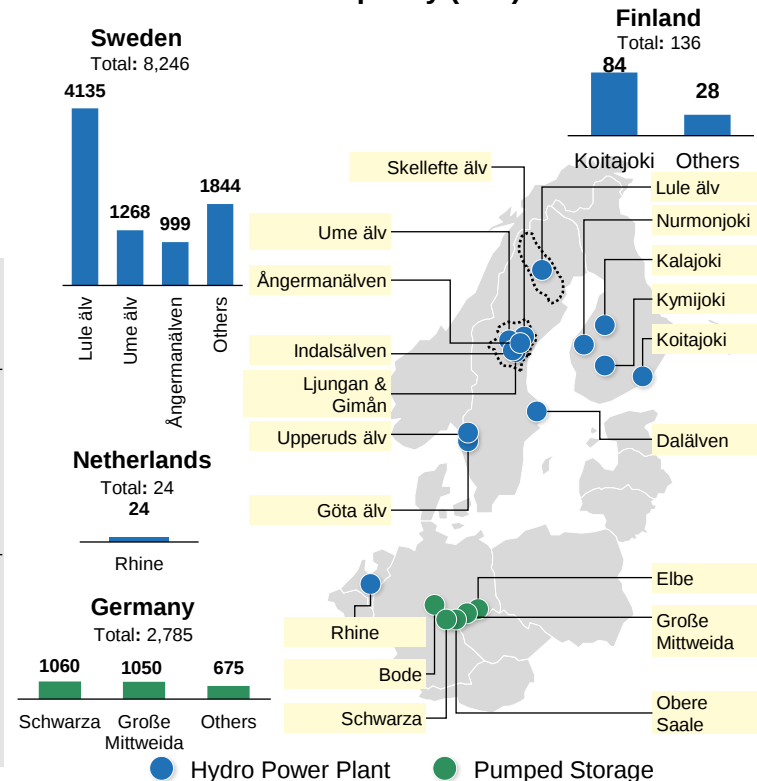
Hydro overview

- Vattenfall owns and operates hydro power plants, most of which are located in Sweden (79 sites). Additional sites are located in Germany (pumped storage, 8 sites), Finland (9 sites) and the Netherlands (1 site). In 2024, Vattenfall's hydro power plants' capacity of 11.2 GW generated 31.1 TWh (32.8 TWh in 2023). In response to the increasing value of dispatchable production, investments in our hydro power stations have focused on refurbishments and upgrades that increase availability and flexibility. We are also undertaking a number of initiatives to reduce the negative effects of hydro power on ecosystems and biodiversity.

Major Hydro Power Plants

	Project	Turbine Type	Country	River	Installed Capacity (MW)	Vattenfall ownership share	Pro Rata Share of Installed Capacity (MW)	Commission Year
Hydro Power	Harsprånget	Francis	Sweden	Lule älv	871	100%	871	1951
	Letsi	Francis	Sweden	Lule älv	486	100%	486	1967
	Messaure	Francis	Sweden	Lule älv	463	100%	463	1963
	Porjus	Francis	Sweden	Lule älv	430	100%	430	1915
	Stornorrfors	Francis	Sweden	Ume älv	604	74%	447	1958
Pumped storage	Goldisthal	Francis/Ossberger	Germany	Schwarza	1,060	100%	1,060	2004
	Markersbach	Francis/Ossberger	Germany	Große Mittweida	1,050	100%	1,046	1981
	Hohenwarte II	Francis	Germany	Obere Saale	320	100%	320	1966

River stream installed capacity (MW)

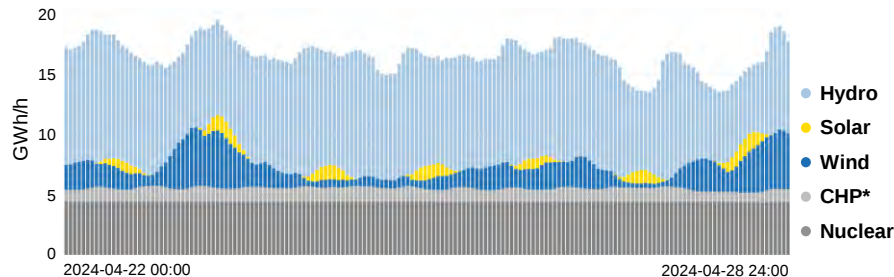


The inherent flexibility of hydro power

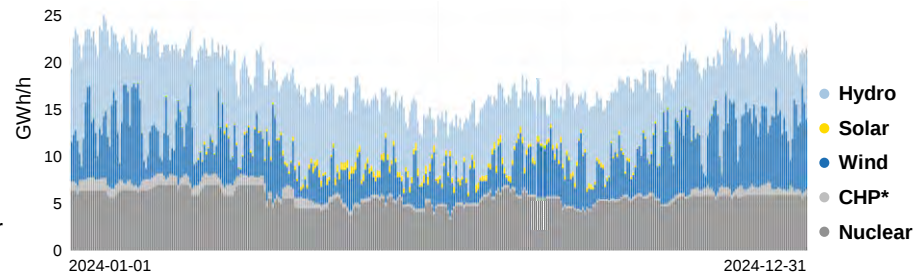
Flexible hydro power plays a central role decarbonising the energy system

The intensified focus on climate change and CO₂ emissions has contributed to significant growth of renewable energy sources. However, the variability of wind and solar power makes it more challenging to balance the energy system. Flexible hydro power offers its huge reservoirs of stored water as a giant “green” battery. This capacity can be increased by upgrading existing plants and building new pumped-storage plants. The valuable balancing capabilities of hydro power could be utilised even more by increasing the transfer capacity of the Swedish power grid in north-south direction. The below graphs show how hydro can

Swedish electricity production (hourly resolution), one week in 2024



Swedish electricity production (daily resolution) year 2024



Fluctuations on the energy market

Real-time balancing

Quarter-hourly variations

Multi-day variations

Seasonal variations

Yearly variations

Market mechanisms

Ancillary services

Balancing services

Intraday & day-ahead markets

Day-ahead market

Forwards, markets for futures

Forwards, markets for futures

Up and downward regulation

Hydro power

*Combined heat and power plant (CHP)

Major deals on Corporate PPAs and PPAs

Since 2023 our contracted volume has increased to 8.15 TWh of renewable electricity (Corporate PPAs).

Contracted
volume
CPPA:
8.15 TWh



97 GWh

Vattenfall will provide solar power to PASM, energy supplier for the Telekom Group, from 76 MW solar farm Tützpatz over a tenor of 10 years. The solar farm is located in Mecklenburg-Vorpommern.



307 GWh

Vattenfall will provide wind power to steel company Salzgitter Flachstahl from 980 MW offshore wind farm Nordlicht I over a tenor of 15 years. The wind farm is located in the North Sea.



450 GWh

Vattenfall will provide wind power to chemical company Basell Polyfine from 980 MW offshore wind farm Nordlicht I over a tenor of 15 years. The wind farm is located in the North Sea.

A large-scale photograph of an offshore wind turbine being installed. The nacelle, a large white cylindrical component, is being lowered into place by a red lattice crane. The background shows several other wind turbines on a blue sea under a clear sky. The word "Wind" is overlaid in white text.

Wind



VATTENFALL

Wind

One of the biggest renewable energy players in Europe

Overview

- Strong position within Offshore Wind with an extensive pipeline
- A pioneer within Offshore Wind from the outset and a leader in the reduction of levelised cost of energy
- One of the largest producers of Onshore Wind power in Denmark and the Netherlands
- Highly experienced team managing all key processes with close supplier collaboration along the value chain
- Strong platform and project execution track record
- Reputation as a trustworthy partner helps securing financing and off-takers
- Front-runner on innovative solutions within Solar PV & Batteries such as co-location with wind farms and shared infrastructure

Highlights



4.5 GW installed Offshore Wind capacity



2 GW installed Onshore Wind capacity



~13 GW Solar PV and battery pipeline (all stages)

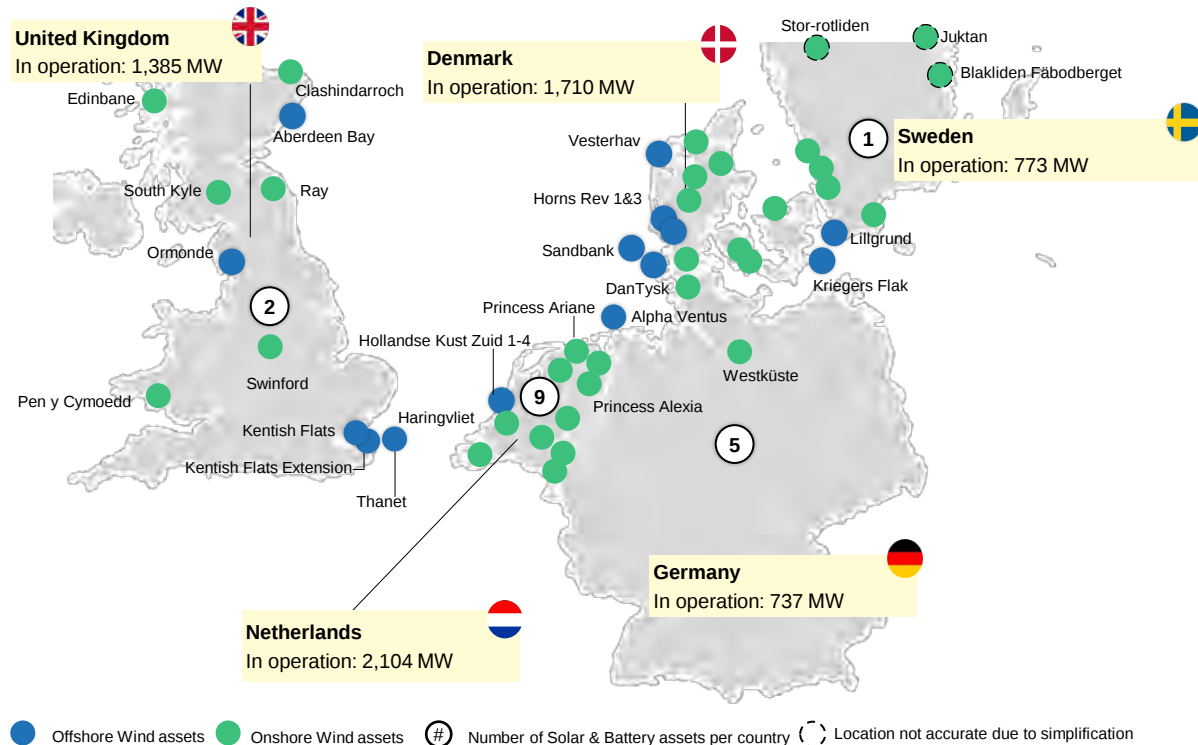


Key data

	FY 2024	FY 2023
Net sales (SEK bn)	21.6	25.4
External net sales (SEK bn)	4.2	8.5
Underlying EBIT ¹ (SEK bn)	5.9	6.5
Electricity generation (TWh)	17.1	13.8

¹ Operating profit excluding items affecting comparability

Overview of our wind, solar and battery assets



4.5 GW

**Installed
Offshore Wind
capacity**

2.0 GW

**Installed
Onshore Wind
capacity**

158 MW

**Installed Solar
PV capacity**

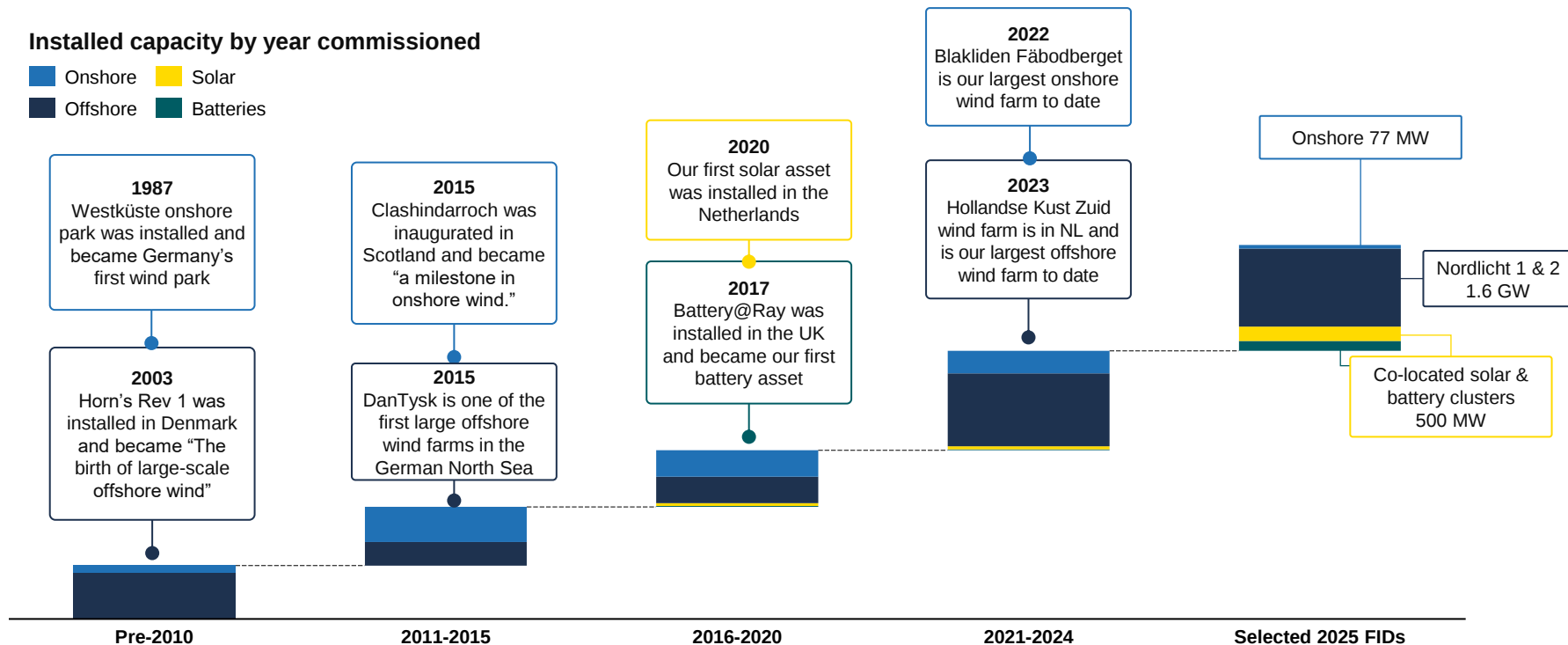
118 MW

**Installed Battery
capacity**

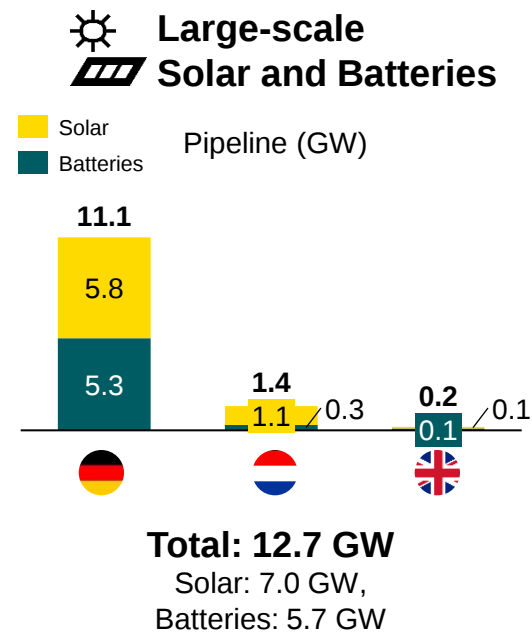
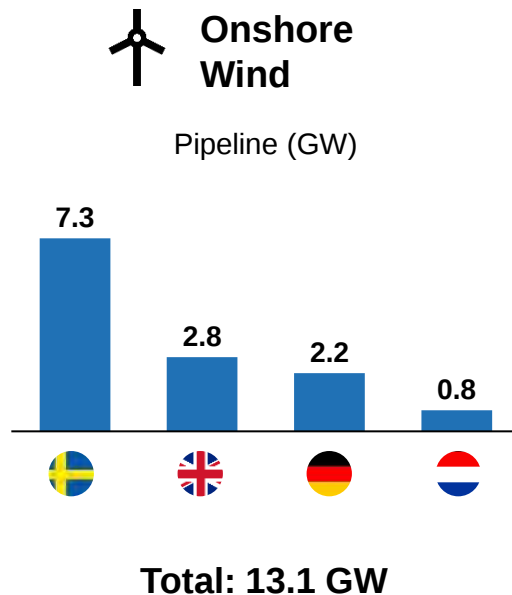
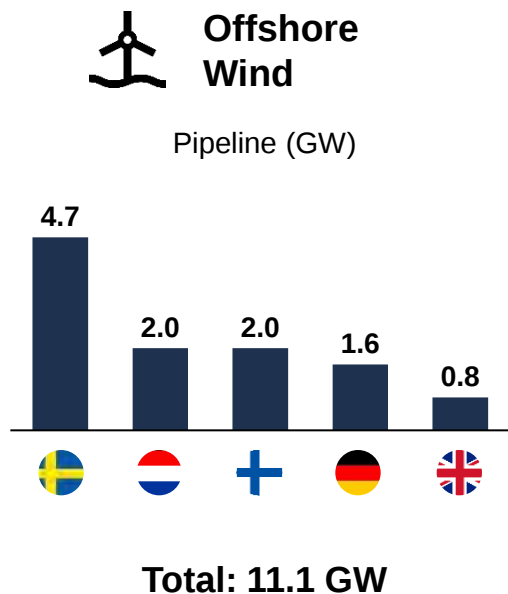
¹ As of June 2025

Growing capacity of wind, solar and battery assets

New projects in the past 15 years have increase our installed capacity of wind, solar and battery assets. The graph above shows some of our milestone projects over the years.



Growth pipeline of ~36 GW: projects under development and construction



Note: numbers may not add up due to rounding; selected countries; includes minority / partner shares; OFS are TG1-2; ONS and SoBa are TG0-2; data as of April 2025

Nordlicht: Germany's largest offshore wind farm



1.6 GW OFS, 100% VF owned with FID in March 2025

- **Nordlicht 1:** 1.0 GW, unconditional FID
- **Nordlicht 2:** 0.6 GW, FID conditional on permit receipt, expected by end of 2025

Revenue de-risking ongoing



All major supplier contracts signed

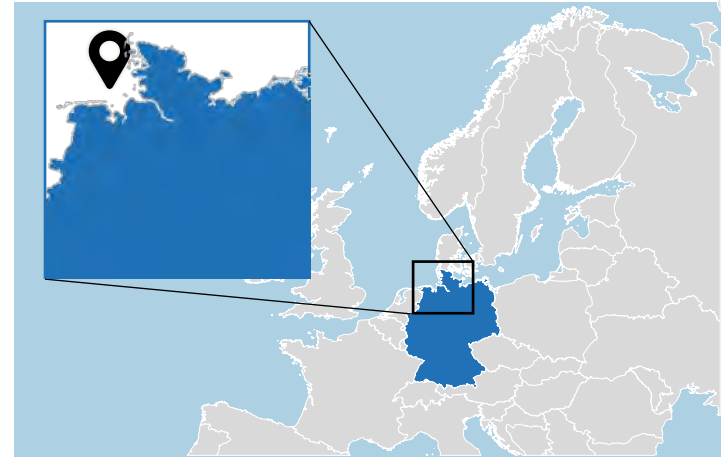
Foundation manufacturing commenced

Vattenfall may in the future look to partner again for the projects



Prepare for construction of Nordlicht 1, planned to start in 2026

Planned COD: 2028 (Nordlicht 1), 2029 (Nordlicht 2)



BA Wind reduces project risks by securing revenues and sharing costs with equity partners and suppliers



Secure revenues

- Diversified, secure revenue stack using PPAs with corporate partners and offtakers in addition to regulatory mechanisms, e.g., CfDs or ancillary services



Share equity stakes

- Reduced capital intensity and shared risk to increase project viability
- Target equity positions in offshore wind of 50% or more



Partner with suppliers

- Simplify (e.g., tender requirements), standardise (e.g., industry standards) and share risks with our suppliers
- Innovate with suppliers for a sustainable supply chain

Examples



Bruzaholm

10-year agreement for Volvo to purchase half of the electricity produced



Nordlicht 1

15-year deal with Salzgitter Group to supply 300 GWh per year from 2028



Zeevonk

50/50 partnership with Copenhagen Infrastructure Partners (CIP)



Hollandse Kust Zuid

BASF holds a 24.3% stake and Allianz owns 25.2%



Low-carbon steel

MoU with Dillinger to accelerate the use of CO₂-reduced steel



From blades to skies

Vattenfall announces circular partnership with Gjenkraft and EVI

Overview of current regulatory regimes

Country	Name	Founding year/ Status/Technology	Overview	Time period
	SDE++/ CfD ¹	Founding year: 2011 Status: in force Eligible technology ² :	  - Provides a feed-in-premium subsidy that covers the financial gap between the cost of the subsidised sustainable technology and the cost of the fossil alternative, e.g., difference between wholesale electricity prices and cost of electricity from renewable sources - The budget is based on an auction system, where the lowest bidder receives the premium - Total budget of SDE++ 2024: at least € 11,5 billion - In 2024 a clawback mechanism is introduced to reduce risk on oversubsidizing. Only received subsidies can be clawed back. - Aim is to replace the SDE++ by a two-way CfD from 2027 onwards for wind and solar developments.	Premium is paid for a period of up to 15 years
	EEG	Founding year: 2000 Status: in force Eligible technology:	   - A tendering process with prices set by competitive auctions, where projects receive contracts to sell the produced electricity at the bid price. Note that marketing schemes for Offshore, Onshore and Solar PV are diverging. - Bids are based on floating market premium - Market Premium: reference value of the respective renewable energy plant minus its technology-specific market value	Market premium is paid for a period of 20 years
	2 sided CfDs	Founding Year: 2023	  A two-sided CfD guarantees RES producers a fixed strike price: they receive top-ups if market prices fall below but pay back surplus if prices rise. The EEG law historically funded RES through feed-in tariffs and market premiums.	Typically, 20 years from the start of electricity generation of project.
	The Electricity Certificate System	Founding year: 2003 Status: in force Eligible technology:	   - The demand for certificates is regulated by a quota system, which is fixed in proportion to total electricity use (energy intensive industry is exempted) - The electricity producer receives a certificate for each MWh from renewable sources and sells it to electricity consumers on the open market - Since December 2021, the Electricity Certificate system is closed for new plants.	The system will be entirely closed by 2036

¹A Contract for difference (CfD) guarantees power providers a strike price: if the market price is lower, they receive a top-up, and if higher, the excess profit is shared with the government, stabilizing revenue against hourly market fluctuations.

²including other renewable sources and CO₂ abatement technologies such as biomass, geothermal, aquathermal, CCS, heat pumps, e-boilers, hydrogen, etc.

Overview of current regulatory regimes

Country	Name	Founding year/ Status/Technology	Overview	Time period
	CfD	Founding year: 2019 Status: in force Eligible technology:	 - A settlement price is guaranteed to the Offshore power provider. The support is based on the difference between agreed and market price - New tender round in 2026; revised tender conditions; end to state co-ownership	Maximum of 20 years (after the wind farm has been connected to the grid)
	Feed-in premium	Founding year: 2009 Status: in force Eligible technology:	  Since 2020, all onshore solar and wind run at merchant risk. However, projects before 2020 receives subsidies equivalent to the difference between the spot market price and the fixed support income. Vattenfall has disinvested from onshore wind and solar development. Four existing onshore wind farms receive subsidies.	Depends on the type of technology and date of commissioning
	CfD	Founding year: 2014 Status: in force Eligible technology:	   - A Contract for Difference (CfD) is a private law contract between a renewable electricity generator and the CfD counterparty – Low Carbon Contracts Company (LCCC) - There is an open seabed leasing round “Celtic Sea Floating Offshore Wind Leasing Round 5” for 12GW; - Some challenges in recent CfD Allocation Rounds (e.g., AR5 in 2023), where OFS wind projects failed to secure contracts due to low strike prices and inflationary pressures. Adjustments are being made to strike price indexing and auction design to attract more bids.	CfD contracts are awarded for a period of 15 years, index linked to CPI
	CfD	Founding year: 2010 Status: in force Eligible technology:	   Post 2024, future projects will most certainly have a mix of CfD and PPA (70% - 30% ventilation).	20 years, partially indexed on labour and industrial production

Main projects BA Wind in our 5 core countries

Country	Name	Capacity (MW)	Support scheme	Ownership (%)	Pro Rata	Commissioning	Current status
DE	Nordlicht I	980	-	100%	980	2028	FID received in March 2025
DE	Nordlicht II	630	-	100%	630	2028	FID received in March 2025
SE	Bruzaholm	139		100%	139	2025/2026	Under construction, cPPA* signed
SE	Velinga	60		100%	60	2026	Under construction
SE	Battery@Bruzaholm	38		100%	38	2025/2026	Under construction
DE	Silberstedt	23		100%	23	2025	Develop2Sell project; under construction, cPPA* signed
DE	Neubrandenburg	84		100%	84	2026	Develop2Sell project; under construction, cPPA* signed
DE	Nauen	46		100%	46	2025	Develop2Sell project; under construction, cPPA* signed
DE	Martensdorf	94		100%	94	2026	FID received in June 2025
DE	Döbrichau	70		100%	70	2026	FID received in June 2025
DE	Bärwalde	18		100%	18	2026	FID received in June 2025
In construction		2.182			2182		
NL	Zeevonk (Ijmuiden Ver Beta)	2.000		50%	1000	2030	Bid awarded in June 2024, partnering with CIP
UK	Muir Mhor (Scotwind)	750	CfD	50%	375	2030	Under development with consenting and permitting progressing to ensure participation in the CfD bid, JV with Fred Olsen
DE	Wolfsberg	17	EEG	100%	16,8	2026	Develop2Sell project. FID planned for May 2025
GB	Clashindarroch II	63	CfD	100%	63	2028	Conditional FID
GB	Ourack	250		55%	137,5	2028	Permit granted and irrevocable
DE	Battery @ Tützpatz	50		100%	50	2025	FID planned for 2025
In development (in mature stage)		3.130			1642		

Offshore
Onshore
Solar
Batteries

* cPPA stands for Commercial Power Purchase Agreement. For these projects, BA Wind has signed a contract with a partner for the sale of contractually agreed amount of MW per year, for a fixed period of time (usually ranging between 10-15 years)

Wind & Solar - Installed capacity (MW¹) Q2 2025

100%	Solar	Onshore	Offshore	Batteries	Total												
United Kingdom	-	623	685	77	1.385	United Kingdom	Ownership %	Pro Rata	100%	Denmark	Ownership %	Pro Rata	100%	The Netherlands	Ownership %	Pro Rata	100%
Denmark	-	196	1.514	-	1.710	Thanet	100%	300	300	Kriegers Flak	100%	605	605	Hollandskust Zuid	51%	770	1.509
The Netherlands	65	515	1.509	15,00	2.104	Ormonde	51%	77	150	Horns Rev 3	100%	407	407	Princess Ariane	100%	184	184
Sweden	-	638	110	25,00	773	Aberdeen	100%	96	96	Horns Rev 1	60%	95	158	Princess Alexia	100%	122	122
Germany	93,4	7,0	636,0	1,0	737	Kentish Flats	100%	90	90	Vesterhav	100%	344	344	Windplan Blauw	100%	77	77
Total (MW)	158	1.978	4.454	118	6.709	Kentish Flats Extension	100%	50	50	Klim (98%)	98%	66	67	A16 / Klaverspoo	100%	34	34
						South Kyle (AMA ²)	0%	-	240	Nørrekær Enge 1	99%	30	30	Slufterdam	100%	29	29
						Pen Y Cymoedd	100%	228	228	Rejsby Hede	100%	23	23	Moerdijk	100%	27	27
						Ray	100%	54	54	Hagesholm	100%	23	23	Haringvliet	100%	22	22
						Edinbane	100%	41	41	Tjæreborg Enge	100%	17	17	Echteld	100%	8	8
						Clashindarroch	100%	37	37	Bajlum (89%)	89%	13	15	Oom Kees	100%	6	6
						Swinford	100%	22	22	DræbyFed	100%	9	9	Oudendijk	100%	5	5
						Battery@Ray	100%	55	55	Ejsing (97%)	97%	7	7	Haringvliet	100%	38	38
						Battery@PyC	100%	22	22	Lyngmose	100%	5	5	Kooypunt	100%	12	12
						Installed capacity (MW)		1.071	1.385	Installed capacity (MW)		1.643	1.710	Velsen	100%	2	2
														Hemweg	100%	2	2
														Diemen	100%	1	1
														Symbizon	100%	1	1
														Decentral Solar installations	100%	8	8
														Alexia	100%	3	3
														Haringvliet	100%	12	12
														Installed capacity (MW)		1.965	2.104
Pro Rata	Solar	Onshore	Offshore	Batteries	Total	Sweden	Ownership %	Pro Rata	100%	Germany	Ownership %	Pro Rata	100%				
United Kingdom	0	383	612	77	1.071	Lillgrund	100%	110	110	DanTysk	51%	147	288				
Denmark	0	192	1.451	0	1.643	Blakiden + Fäbodberget	30%	106	353	Sandbank	51%	147	288				
The Netherlands	65	515	770	15	1.364	Stor-Rotliden	0%	-	78	Alpha Ventus	26%	16	60				
Sweden	0	209	110	25	345	Grönhult (AMA ²)	50%	34	67	Westküste	20%	1	7				
Germany	87	1	309	1	399	Högbjör-Kärsås	50%	19	38	Tützpatz	100%	77	77				
Total (MW)	152	1.301	3.252	118	4.822	Höge Våg	50%	18	37	Decentral Solar installations	100%	10	10				
						Hjuleberg	50%	18	36	Geesthacht ³	0%	-	2				
						Juktan	50%	14	29	Markersbach Damm ³	0%	-	4				
						Toledo	100%	25	25	Ingredion	100%	1	1				
						Installed capacity (MW)		345	773	Installed capacity (MW)		345	737				

¹ 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%

² Asset divested but in operation by Vattenfall under Asset Management Agreement (AMA)

³ Assets on VF Hydro' sites, but operated by BA Wind

Distribution



VATTENFALL

Distribution - overview

We accelerate fossil freedom for our customers through sustainable electrical infrastructure

Overview

- Largest operator of regional electricity distribution grids in Sweden and top-3 position in local grids
- Regulated business with stable demand
- Demand set to grow – Vattenfall grids are located in areas with population growth and strong demand for industrial electrification
- Enabler of the energy transition by connecting renewable production to the grid
- The business area also includes the construction, service and maintenance business in Sweden as well as offerings in the unregulated Power-as-a-Service (PaaS)

Highlights



~1,000,000 household and business customers



~139,000 km of electricity grids



SEK 10.2 billion in investments 2024



SEK 91 billion RAB 2024



Key data⁴

	FY 2024	FY 2023
Net sales (SEK bn)	13.9	11.1
External net sales (SEK bn)	13.2	10.4
Underlying EBIT ¹ (SEK bn)	2.6	1.5
Investments (SEK bn)	10.2	7
SAIDI ² (minutes/customer)	123	132
SAIFI ³ (number/customer)	1.92	1.91
RAB (SEK bn)	91	89

¹ Operating profit excluding items affecting comparability

² SAIDI: System Average Interruption Duration Index

³ SAIFI: System Average Interruption Frequency Index

⁴ Key data does not include Vattenfall Services Nordic (2024)

Vattenfall own and operate regional and local electricity grids

We own, build and operate electricity grids for our private and business customers



Largest operator of regional grids in Sweden.
One of the three largest owners of local grids



Over 50% of the electricity used in Sweden is distributed through our electricity grid



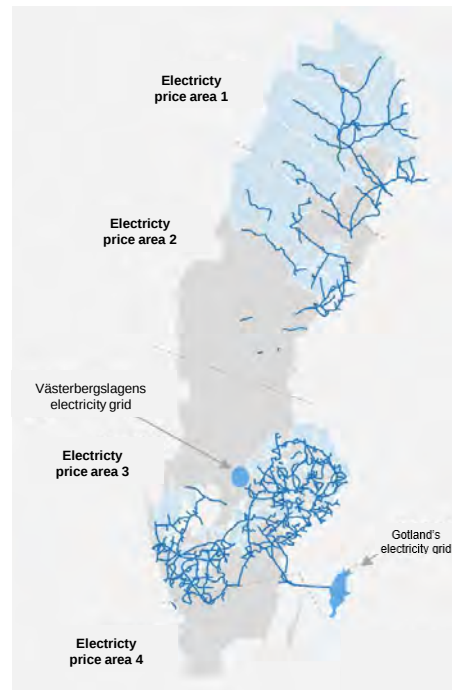
Our mission is to maintain and operate our electricity grid and to connect new customers while ensuring reliability and cost-effectiveness



~1,000,000 customers

Market share*

- Regional network 54%
- Local network 16%



— Vattenfall Eldistribution's regional network

■ Vattenfall Eldistribution's local network

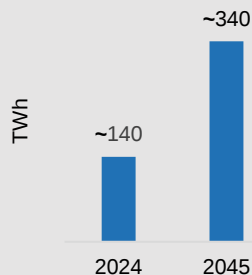
*Includes only Vattenfall Eldistribution AB. Based on reported data EI, transited energy excl. grid losses (2023)

Electricity grids are the backbone of the energy system, enabling the energy transition

Electricity demand will increase due to growth in society, electrification of industry and transport and new electricity intensive business

The amount of renewable energy in the system increases at the same time. However, the pace of the transition has become more uncertain due to geopolitical and economical uncertainties but the direction is clear.

Forecast – Total electricity demand (Sweden)¹



Main drivers for Vattenfall Distribution connected to the energy transition

Large customer demand

Continued high inflow of new requests to connect to our grids.

Capacity need and reinvestments to increase grid capacity

Increased need for capacity in together with aging grid assets requires reinvestments to enable the energy transition.

Swedish TSO's growth plans for the swedish transmission system

The TSO plans for both growth and reinvestments which drives significant investments in our regional grids.



¹Energimyndigheten, Huvudrapport Myndighetsgemensam uppföljning av samhällets elektrifiering, 2024

Swedish electricity grid companies operates on a regulated market

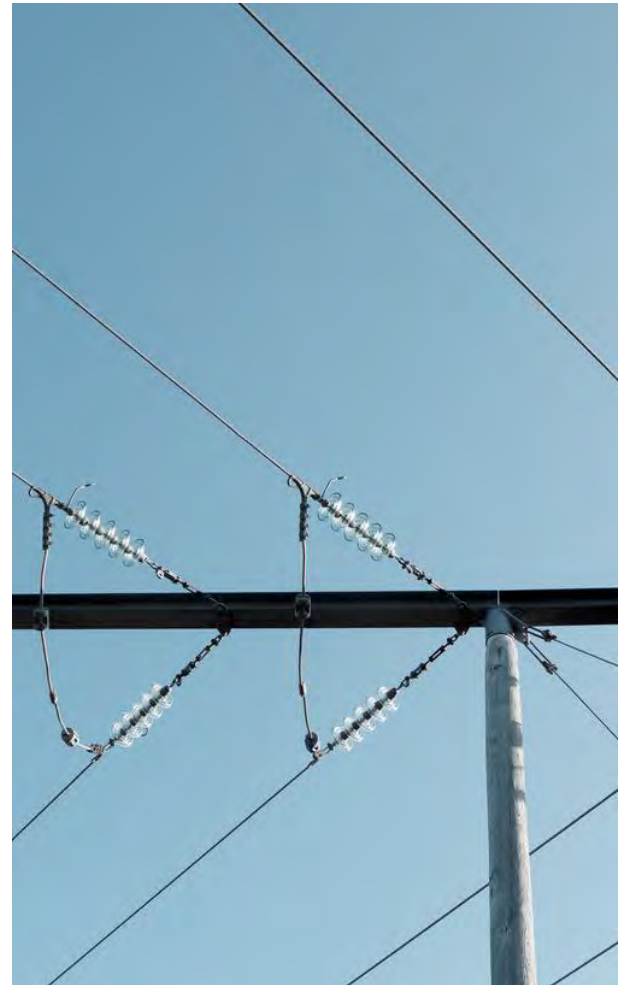
An electricity grid company operates on a natural monopoly market where the grid company holds a network concession in a specific geographical area in Sweden.

The network concession is a permit that gives the electricity grid company the exclusive right to build and operate power lines within that area.

The regulator, the Swedish Energy Markets Inspectorate, supervises the grid company to ensure that obligations are fulfilled.

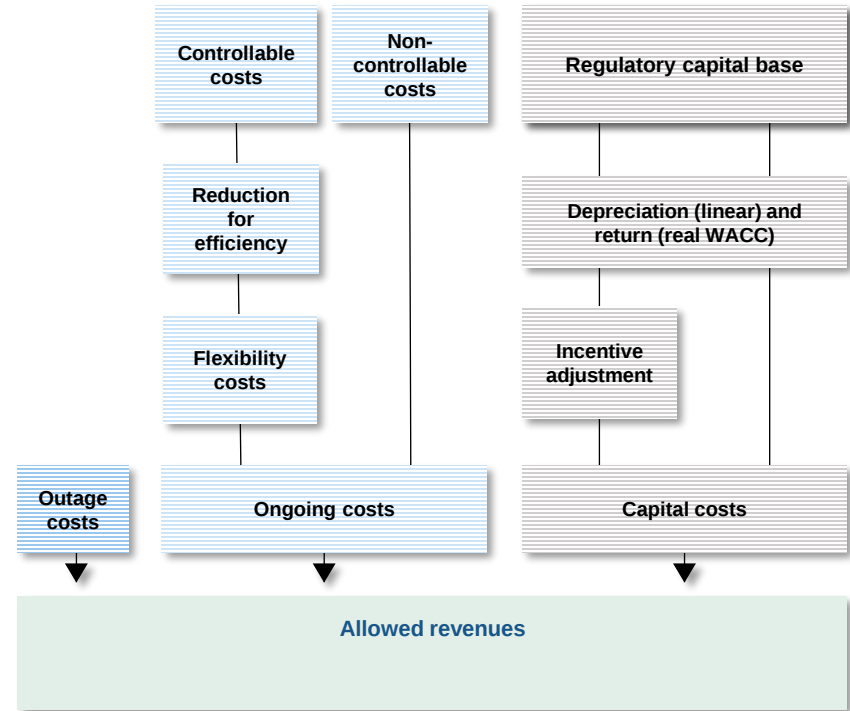
Obligations as a regulated DSO

- Obligation to connect customers
- Fair & transparent grid fees
- Responsible for metering
- Quality of supply



Swedish DSOs revenues are regulated

- Since 2012, the revenues of electricity grid companies are regulated by the Energy Markets Inspectorate (Ei), which establishes **a revenue framework for each regulatory period** that sets the maximum allowed revenue for the company's grid operations. As a general rule, a regulatory period consists of four years.
- **This creates a cap** on the tariff revenues that grid companies can collect from their customers, and the purpose of the revenue cap regulation is to ensure that electricity grid companies operate efficiently at low costs, receive a reasonable return, and provide customers with a fair price for the grid service, among other objectives.
- The revenue cap, as shown in the image on the right, is **primarily composed of capital costs, ongoing controllable costs, and ongoing non-controllable costs**.



Hedging, debt and funding

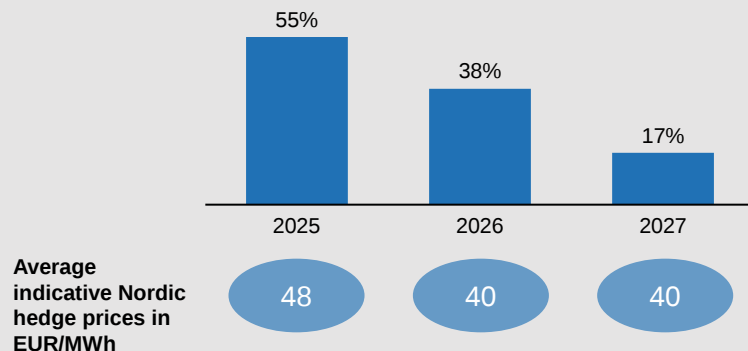
H1 2025



VATTENFALL

Price hedging

Estimated Nordic¹ volume hedge ratio (%) and indicative prices



Achieved prices² - Nordic portfolio

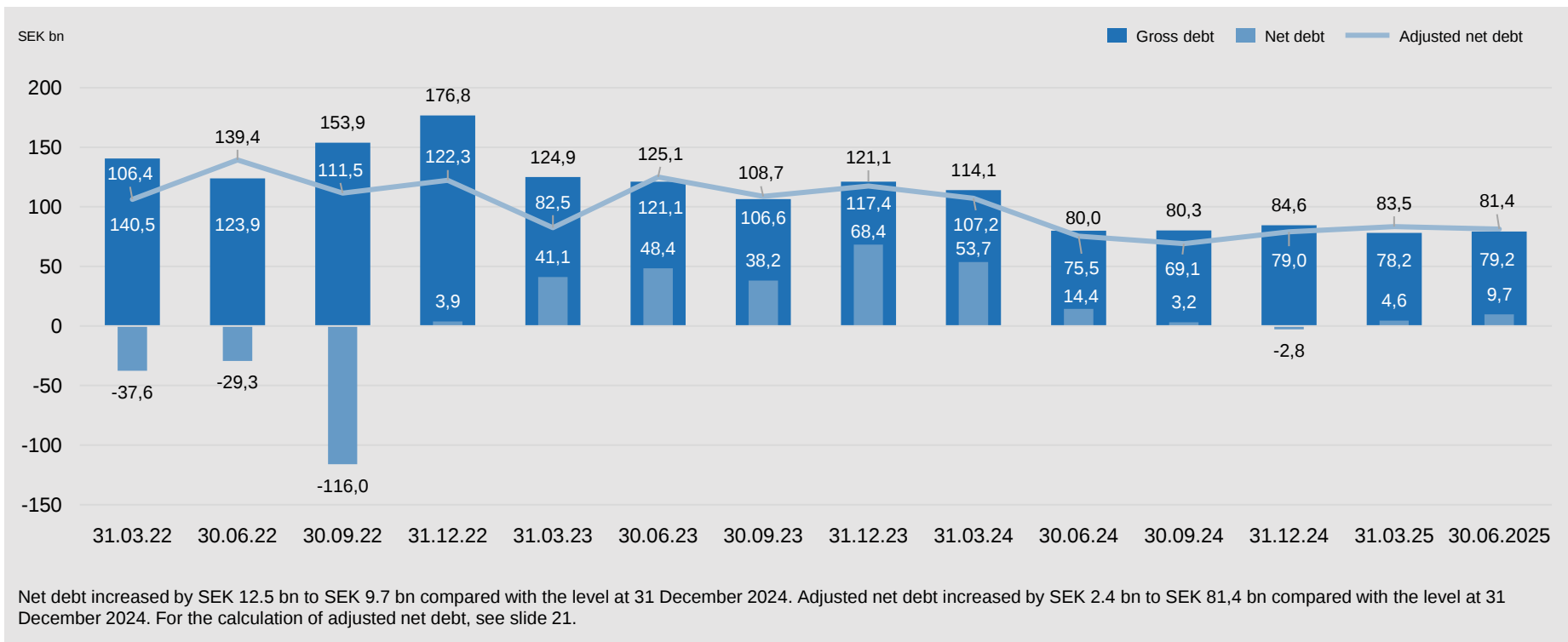
YTD 2025	YTD 2024	Q2 2025	Q2 2024	FY 2024
39	45	39	40	42

Vattenfall's price hedging strategy is primarily focused on the Nordic generation assets because the primary risk exposure is linked to base production of nuclear power and hydro power. The degree of hedging is highest for the next few years and decreases thereafter. 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 second quarter 2025 decreased compared with the second quarter 2024 primarily due to lower market prices.

¹ Nordic: SE, DK, FI

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

Debt development



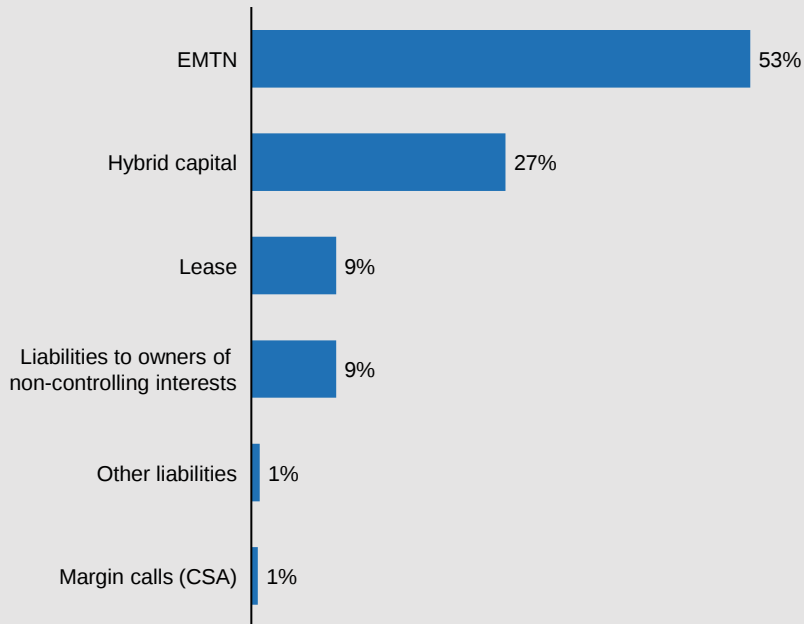
Reported and adjusted net debt

Reported net debt (SEK bn)	30 Jun. 2025	31 Dec. 2024	Adjusted net debt (SEK bn)	30 Jun. 2025	31 Dec. 2024
Hybrid capital	21.2	21.9	Total interest-bearing liabilities	79.2	84.6
Bond issues and liabilities to credit institutions	41.7	43.0	50% of Hybrid capital	-10.6	-10.9
Short-term debt, commercial papers and repo	0.1	3.9	Present value of pension obligations	26.9	27.9
Liabilities to associated companies	0.4	0.4	Dismantling and other environmental provisions	16.3	16.5
Liabilities to owners of non-controlling interests	7.3	6.8	Provisions for nuclear power (net)	42.4	44.8
Lease liabilities	7.4	7.2	Less margin calls received treasury	-0.4	-0.6
Other liabilities	1.1	1.4	Less liabilities to owners of non-controlling interests	-7.3	-6.8
Total interest-bearing liabilities	79.2	84.6	= Adjusted interest-bearing liabilities	146.5	155.4
Reported cash, cash equivalents & short-term investments	68.9	87.1	Reported cash, cash equivalents & short-term investments	68.9	87.1
Loans to minority owners of foreign subsidiaries	0.7	0.2	Less margin calls energy trading	0.3	-6.9
Net debt	9.7	-2.8	Unavailable liquidity	-4.2	-3.8
			= Adjusted interest-bearing assets	65.1	76.4
			= Adjusted net debt	81.4	79.0

Breakdown of gross debt

Total debt: SEK 79.2 bn (EUR 7.1 bn)

External market debt: SEK 71.5 bn (EUR 6.4 bn)

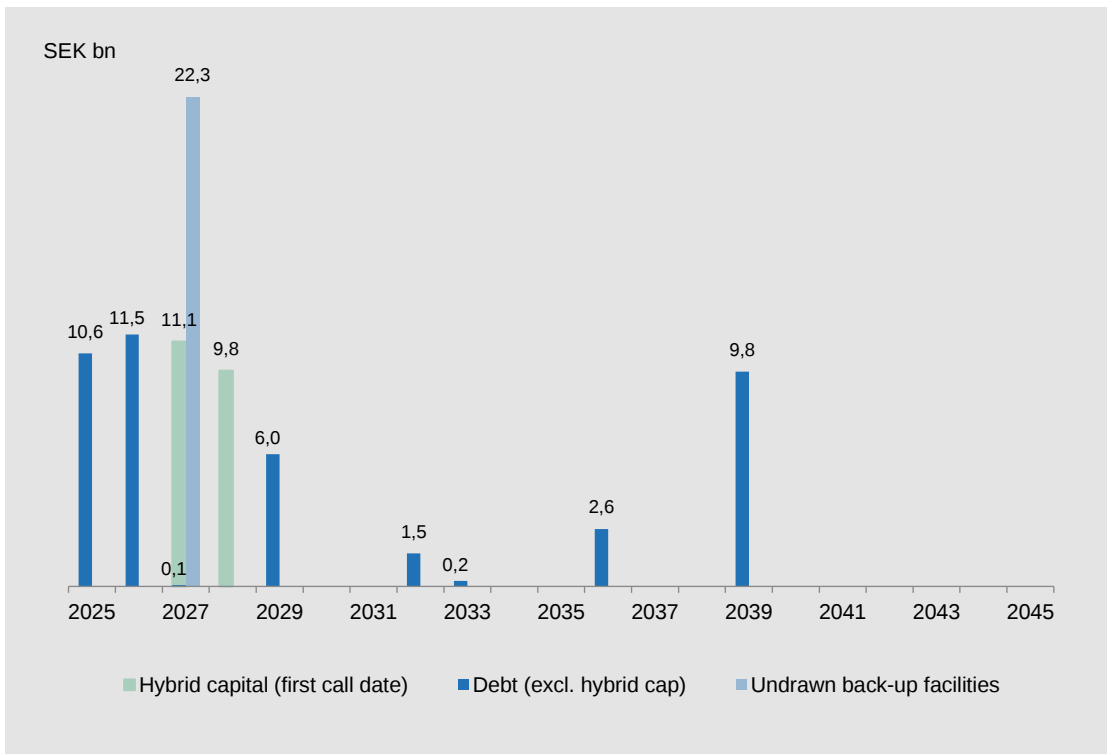


Debt issuing programmes	Size (EUR bn)	Utilization (EUR bn)
EUR 10bn Euro MTN	10.0	3.7
EUR 10bn Euro CP	10.0	0.1
Total	20.0	3.8

- 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

Debt maturity profile¹



	30 Jun. 2025	31 Dec. 2024
Duration (years)	3.8	4.5
Average time to maturity (years)	4.2	4.8
Average interest rate (%)	3.7	3.6
Net debt (SEK bn)	9.7	-2.8
Available group liquidity (SEK bn)	64.7	83.3
Undrawn committed credit facilities (SEK bn)	22.3	22.9

Cumulative maturities excl. undrawn back-up facilities			
	2025- 2027	2028- 2030	From 2031
Debt incl. hybrid capital	33.3	15.8	14.1
% of total	53%	25%	22%

¹ Short term debt (commercial paper and repo's: 0.0), loans from associated companies, loans from owners of non-controlling interests, margin calls received (CSA) and valuation at fair value are excluded.
Currency derivatives for hedging debt in foreign currency are included.

Liquidity position

Group liquidity	SEK bn	Committed credit facilities	Facility size, EUR bn	SEK bn
Cash and cash equivalents	25.9	RCF (2027)	2.0	22.3
Short term investments	43.0	Total undrawn		22.3
Reported cash, cash equivalents & short-term investments	68.9			
		Debt maturities²		SEK bn
Unavailable liquidity ¹	-4.2	Within 90 days		0.0
Available liquidity	64.7	Within 180 days		10.6

¹ German nuclear "Solidarvereinbarung" 1.1 SEK bn, Margin calls paid (CSA) 2.3 SEK bn, Insurance "Provisions for claims outstanding" 0.8 SEK bn.

² Excluding loans from minority owners and associated companies.

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: 44.0	Total Ringhals: 44.0²	
Forsmark 1	984	1980	66.0			
Forsmark 2	1,120	1981	66.0			
Forsmark 3	1,170	1985	66.0	Total Forsmark: 40.0	Total Forsmark: 26.4	
Total Sweden	6,974	-		88.5³	72.8³	47.5⁴
Brunsbüttel	771	1977	66.7	10.7	7.1	
Brokdorf	1,410	1986	20.0	-	2.7	
Krömmel	1,346	1984	50.0	7.5	7.5	
Stade ⁵	640	1972	33.3	-	0.2	
Total Germany	4,167	-	-	18.1	17.5	
Total SE & DE	11,141			106.7	90.2	

¹ Five reactors are in commercial operation in Sweden; Ringhals 3 & 4 and Forsmark 1, 2 & 3. Ringhals 1 & 2 and all reactors in Germany are taken out of commercial operation. Stade is being dismantled.

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

³ Total provisions in Sweden (IFRS accounting) include provisions of SEK 0.2 bn (pro rata SEK 0.2 bn) related to Ågesta, SEK 3.9 bn (pro rata SEK 2.1 bn) related to SVAFO and SEK 0.4 bn (pro rata SEK 0.0 bn) related to SKB.

⁴ Vattenfall's share of the Nuclear Waste Fund. IFRS consolidated value is SEK 57.1 bn.

An aerial photograph of a combine harvester moving through a field of green crops, likely corn. The harvester is equipped with a large blue tank and a long horizontal spray boom that extends across the frame. A fine mist of spray is being emitted from the boom, covering the crops. The field is divided into neat rows of plants, and the overall scene is captured from a high angle, showing the scale of the agricultural operation.

ESG and Credit Ratings



VATTENFALL

Environmental, social and governance (ESG) ratings

Vattenfall is assessed by several sustainability rating agencies on its ESG performance

We aim to be as open and transparent as possible in our sustainability reporting and we are proud to be highly ranked for our sustainability performance. The below table shows the agencies we actively engage with and our most recent rating scores

Rating Agency	Rating focus	Score	Latest assessment
 CDP DISCLOSE INSIGHT ACTION	The leading system globally for disclosing environmental data for investors, companies, cities, states and regions.	B. A-level rating achieved in 14 of 16 sub-categories.	April 2025
 ecovadis	An online platform that enables companies to monitor the performance of their supply chains by providing supplier sustainability ratings.	Score: 82 / 100. "Platinum rating"	April 2025
 ISS ESG	ESG rating mainly for the investment community. The assessment spans over a range of ESG issues that are analysed on the basis of up to 100 rating criteria, most of them sector specific.	Score: B / A+	December 2022
 MSCI	ESG rating mainly for the investment community. Uses methodology to identify industry leaders and laggards. Ranks companies according to their ESG risk exposure and how well they manage those risks relative to peers.	Score AAA/AAA	December 2024
 SUSTAINALYTICS a Morningstar company	ESG rating mainly for the investment community. Uses a two-dimensional materiality framework that measures a company's exposure to industry-specific material risks and how well a company is managing those risks.	Score: Medium Risk	July 2025

Credit ratings overview



Long term rating: A3¹

Short term rating: P-2

Outlook: Stable

Latest publication: 17 September 2025

- “Vattenfall AB's credit profile is supported by the high share of contracted and regulated earnings, estimated at 40-45% of underlying EBITDA over the period to 2029; the group's scale and geographical diversification across well-developed markets in Europe; its low carbon exposure; and its prudent financial policy, evidenced by a track record of moderate dividend payouts and reflected in strong leverage metrics, expressed as Moody's-adjusted funds from operations (FFO)/net debt of around 50% as of the last 12 months to June 2025 (LTM June 2025).”
- “The stable outlook reflects our expectation that Vattenfall will record solid cash earnings over 2025-29, allowing the company to fund most of its CAPEX from its own cash flow; and that the company will maintain a prudent financial policy, enabling it to at least meet our guidance of FFO/net debt of 25%, as required for the BCA of baa1”



Long term rating: BBB+¹

Short term rating: A-2

Outlook: Stable

Latest publication: 5 December 2024

- “In our view, Vattenfall should be able to maintain its strong credit ratios on the back of divestments, and further supported by our expectation of higher achieved power prices.”
- “The stable outlook reflects our assumption that Vattenfall's share of EBITDA from regulated operations will be at least 15%-20% over 2024-2026, excluding subsidized wind. If the share of regulated earnings is diluted further, we believe that this risk to increase earnings volatility. At the same time, Vattenfall's generation fleet is expected to produce almost 100TWh annually. We forecast FFO to debt to increase to about 35%-40% in 2024, from 26% in 2023, and FFO to debt to also remain above 30% in 2025 and 2026.”
- “Capex will shape credit ratios in 2025-2027. Despite the temporary decline in investments in 2024, we view Vattenfall's investment program as ambitious and likely to be the main driver of its credit ratios in 2025-2027. The strategy for 2024-2025 points to SEK 65 billion of investment, already a historical high. In the coming period, we expect investments will increase further such that FFO to debt approaches the group's financial policy range of 22%-27%.”

Vattenfall credit highlights

A leading European energy company with activities across the value chain

BBB+ stable outlook by S&P and A3 stable outlook by Moody's

100 per cent owned by the Swedish State

Regulated and predictable cash flow from electricity distribution and district heating

Leading towards sustainable production



A significant transformation has already happened

Significant growth in renewable production and climate smart energy solutions

Experienced player in renewables and one of the leaders in wind power generation

Green financing



VATTENFALL

Vattenfall's green financing framework

Use of proceeds - eligible categories with examples of technologies¹

Renewable energy

- Solar power
- Wind power
- Hydro power
- Geothermal power
- Bio power
- Hydrogen
- Heat/cool using waste heat



Energy efficiency

- Smart grids
- District heating
- Power to heat



Clean transportation

- Infrastructure for clean transportation



Transmission and distribution of electricity

- Transmission and distribution of electricity



¹ The complete green financing framework can be found on Vattenfall's website:
[green_financing_framework_220913.pdf \(vattenfall.com\)](https://www.vattenfall.com/press/2022/09/13/green-financing-framework-220913.pdf)

Green bond investor report

Investments under Vattenfall's Green Bond Framework, as of year-end 2024¹

Category	Project/country	Type	Capacity/ impact	Est. CO ₂ reduction (ktonnes) ²	Vattenfall's share	Start/ completion	Total investment	2024	2023	Total
Renewable energy and related infrastructure	Hollandse Kust Zuid 1–4 / Netherlands	Wind offshore	1,509 MW	1,563	51%	2020/2024	2,600 MEUR	410	13,004	13,413 MSEK
	Kriegers Flak / Denmark	Wind offshore	604 MW	345	100%	2019/2021	7,600 MDKK	0	9,694	9,694 MSEK
	Vesterhav-projects / Denmark	Wind offshore	344 MW	89	100%	2022/2023	657 MEUR	1,131	6,068	7,199 MSEK
	Princess Ariane / Netherlands	Wind onshore	180 MW	113	100%	2018/2020	220 MEUR	0	1,348	1,348 MSEK
	Bruzaholm /Sweden	Wind onshore	139 MW	3	100%	2023/2025	2,360 MSEK	1,256	226	1,482 MSEK
	Velinga / Sweden	Wind onshore	67 MW	1	100%	2024/2026	1,182 MSEK	330	0	330 MSEK
	Battery Toledo / Sweden	Battery	55 GW		33%	2024/2025	43 MEUR	206		206 MSEK
Industry projects	HYBRIT / Sweden	Fossil-free steel	Pilot project	–	33%	2019/2021	858 MSEK	0	480	480 MSEK
Total								3,332	30,819	34,151 MSEK
Outstanding green bonds										25,217 MSEK

¹ The reporting of spend relating to green bonds has been updated from 2023 with the aim to be fully comparable with other, financial reporting of the projects. This is reflected in all active projects above, including for historic investments, i.e. accrued expenses and not cash flow

² Production from onshore wind estimated to 2.6 GWh/MW installed, from offshore wind to 3.5 GWh/MW installed, and from solar to 1.0 GWh/MW installed. Resulting production is compared against grid average emission factors which will decline over time as the energy system decarbonises. Actual production emission factors and savings will vary. Other projects are compared to project-specific reference cases.

Dark green shading by CICERO

“Vattenfall has a clear strategic commitment to become fossil free within a generation with clear, timebound quantitative targets for greenhouse gas emission intensities validated by the Science Based Targets initiative as aligning with a 1.5 degree C warming scenario”

*“Based on the overall assessment of the projects that will be financed under this framework, and governance and transparency considerations, Vattenfall’s green financing framework receives a **CICERO Dark Green shading** and a governance score of **Excellent**.”*



	Categories	Green shading
	Renewable energy	Dark Green
	Energy efficiency	Medium to Dark Green
	Transmission and distribution of electricity	Dark Green
	Clean transportation	Dark Green

HYBRIT

HYBRIT – towards the world's first fossil-free steel

What is HYBRIT?

- HYBRIT – short for Hydrogen Breakthrough Ironmaking Technology – is a joint venture between Vattenfall, SSAB (steel) and LKAB (mining and minerals). The aim is to create a completely fossil-free value chain from mine to finished steel, with fossil-free pellets, fossil-free electricity and hydrogen
- In 2021 the world's first fossil-free steel was manufactured and delivered by SSAB to Volvo Group, introducing fossil-free steel in its trucks
- In 2022, SSAB made a policy decision to convert the entire Nordic production system to fossil-free iron ore and scrap-based steel production. Since then, SSAB has made investment decisions for the transition of the production facilities in Oxelösund and Luleå in Sweden
- LKAB is developing a project to transition its production in Malmberget to hydrogen direct reduced iron. In the 1st step 1.35 Mt/year and in the 2nd and 3rd step an additional 1.35 Mt and 2.7 Mt respectively, in total 5.4 Mt/year

Why is this important?

- The steel industry is one of the highest CO₂-emitting industries, accounting for 7% of global and 10% of Swedish total CO₂ emissions
- Steel demand is set to grow due to population and urbanisation → carbon footprint of the industry needs to be addressed



A joint initiative by

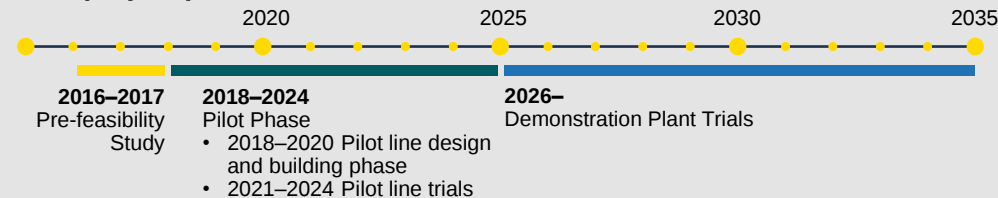


Financing and timeline

The total cost for the pilot phase was estimated to more than SEK 2 billion, with the Swedish Energy Agency contributing about SEK 600 million towards the pilot phase. The three owners, SSAB, LKAB and Vattenfall, each would contribute one third of the remaining costs, together approximately 70% of the total investment. The Swedish Energy Agency has earlier contributed SEK 60 million to the pre-feasibility study and a four-year-long research project.

In 2024, the HYBRIT initiative reported the results of six years of research to the Swedish Energy Agency, entering a new phase focused on the large-scale industrialisation of the technology. After the pilot phase, HYBRIT Development AB continues to own the intellectual property and run the pilot plants on assignment basis.

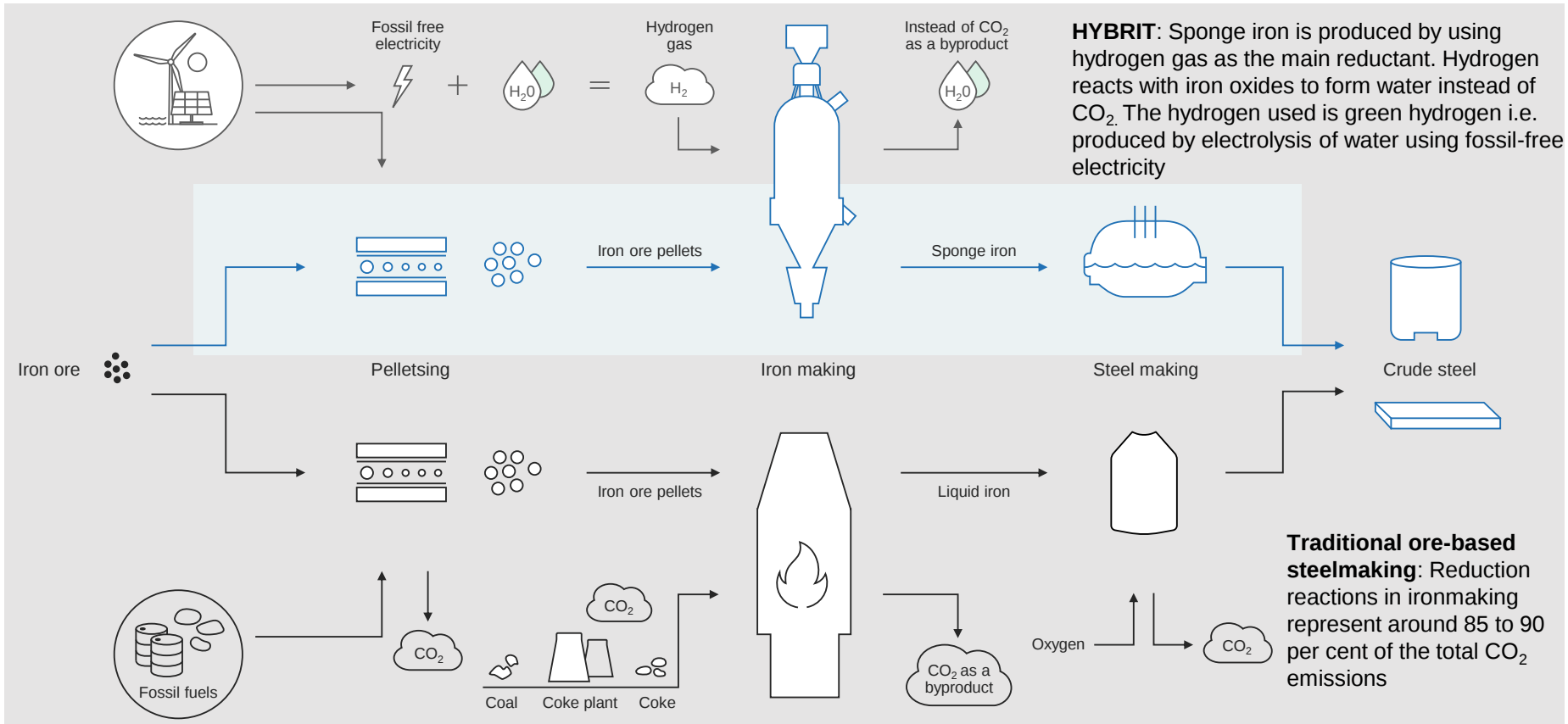
Main project phases

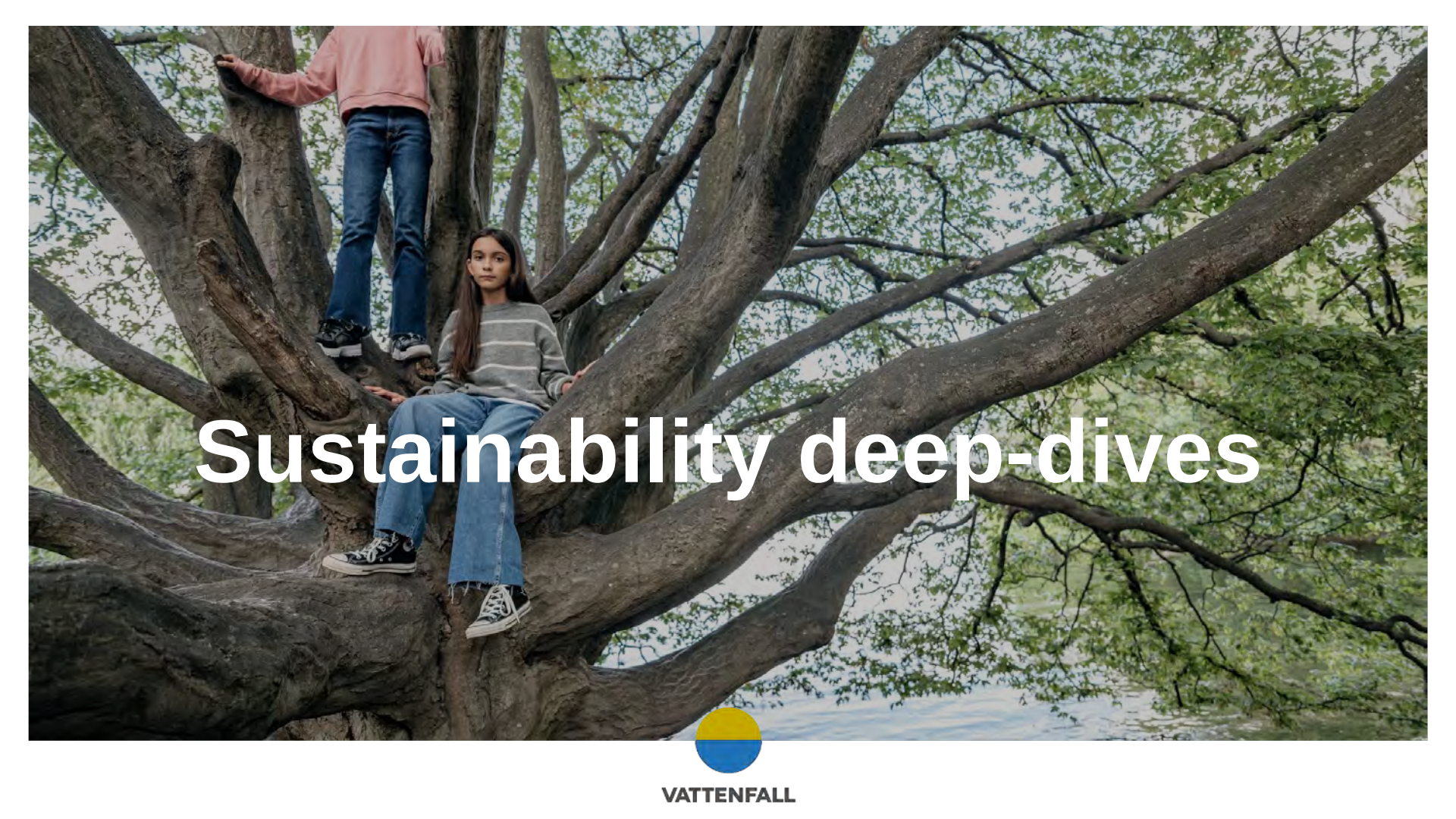


UN SDG's



HYBRIT vs traditional steel production



A photograph of two children climbing a large, gnarled tree. One child is standing on a higher branch, wearing a pink long-sleeved shirt and blue jeans. The other child is sitting on a lower branch, wearing a grey and white striped sweater and blue jeans. The background shows a body of water and more trees under a clear sky.

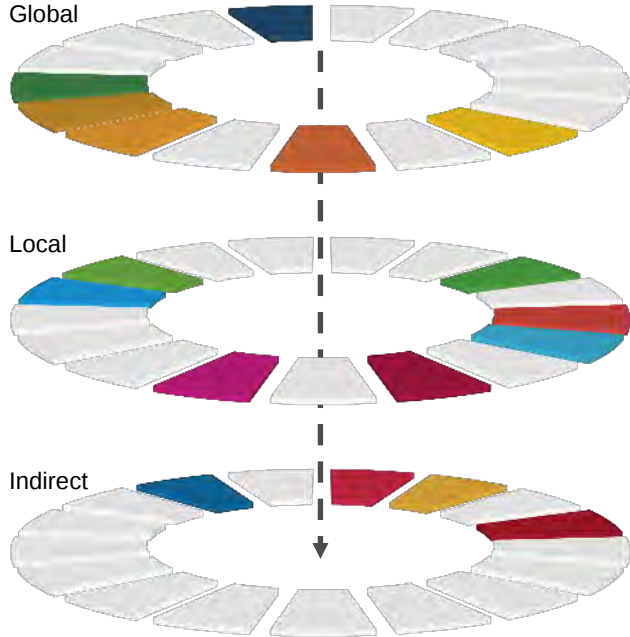
Sustainability deep-dives



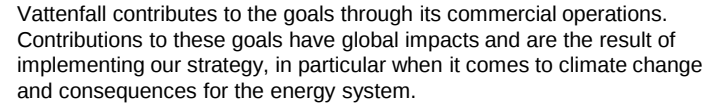
VATTENFALL

Vattenfall's strategy is driving our contribution to the UN's Global Sustainable Development Goals (SDGs)

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Strategic SDGs with global impact



Vattenfall contributes to the goals through its ways of working. Our responsible operations contribute locally, whether in the form of e.g., health & safety or internal diversity standards, or working to have a net positive contribution to biodiversity at our external operating sites.

Vattenfall contributes to the goals through its engagement and influence in the value chain via suppliers and partners. By engaging only with suppliers and partners who meet our social and environmental standards, we ensure that they make positive contributions to the goals that are most relevant for developing countries, as exemplified here.

Execution of our strategy contributes the most to six prioritised goals

Overview

- In 2016, Vattenfall identified the most relevant SDG's for the business, where we can have the greatest global impact
- These remain valid internally, as reflected in our strategy, as well as for our stakeholders, as confirmed by our materiality analysis

Examples of contribution to our selected SDGs by sub-category



SDG 7.2

Target: By 2030, substantially increase the share of renewable energy in the global energy mix.

Example: Vattenfall has continued to grow and develop its fossil free energy pipeline that span various renewable energy sources and technologies, such as wind farms, solar parks, and battery storage. Currently, Vattenfall operates 6.6 GW of capacity in wind and solar power.



SDG 12.2 & SDG 12.5

Target: By 2030, achieve sustainable management and efficient use of natural resources.

Example: Vattenfall strives to maximise the value of resources in its value chain, such as using excess heat from various third parties for local heating networks or recycling or repurposing old wind turbine blades.

Target: By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

Example: More than 95 per cent of residual products from our combustion plants are sold for re-use mainly to the construction industry.



SDG 9.4

Target: By 2030, upgrade infrastructure and retrofit industries to make them sustainable.

Example: Vattenfall has developed and maintained energy infrastructure for years. Hence, sustainable retrofitting activities, such as those in our heat operations in the Netherlands or upgrades, like those in our hydro operations, are core to our business.



SDG 13.1

Target: Strengthen resilience and adaptive capacity in relation to climate-related hazards and natural disasters.

Example: Climate risks are part of our ERM. Some examples of climate adaptation measures include strengthening our hydro power dams and weatherproofing our grid infrastructure against anticipated future climate risks.



SDG 11.6

Target: By 2030, reduce the adverse environmental impact of cities

Example: We operate 66,000 charging points, install heat pumps in homes, and develop microgrids for communities to enable the decarbonisation of cities and their surroundings.



SDG 17.17

Target: Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships.

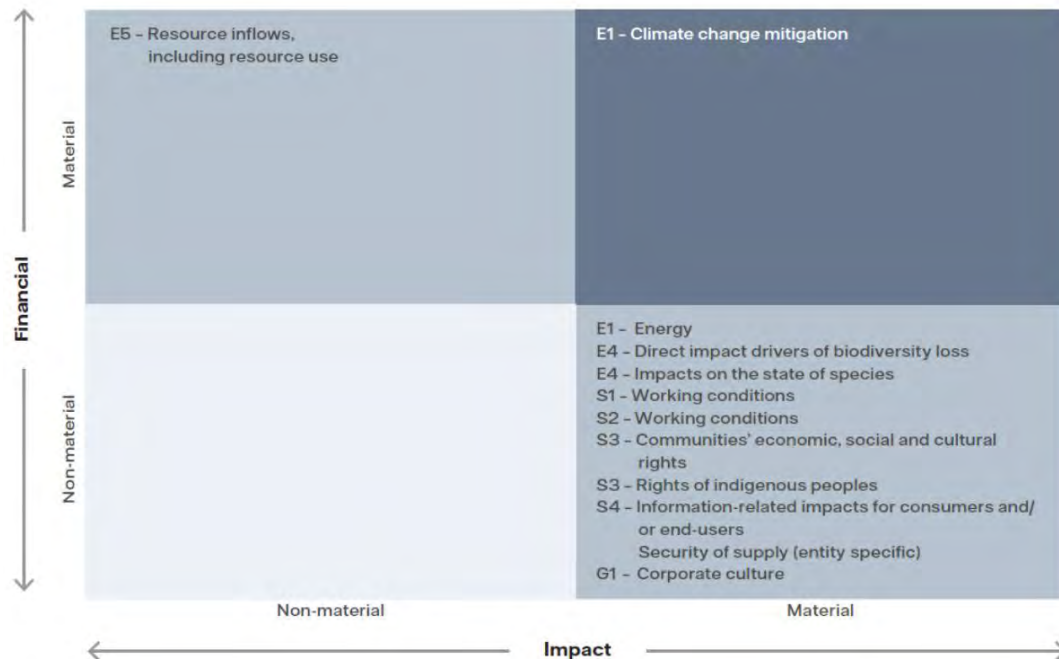
Example: Together with a plethora of academia, public, and private partners, Vattenfall has magnified its impact. From creating international responsible business conduct agreements to evaluating the feasibility of new nuclear power, these partnerships drive society forward.

Material topics based on 2024 DMA

In 2024, Vattenfall conducted a Double Materiality Assessment, in accordance with the ESRS 1 guidelines. The DMA was executed by a dedicated project team comprising experts from various domains including Sustainability, Environment, Risk, Legal, and Finance, and supported by an extended team of representatives from all business areas.

2024 DMA

- Once material impacts, risks and opportunities (IROs) were identified, group-level experts assessed the IROs based on criteria according to the ESRS guidelines. The individual scores were combined into a single score per IRO.
- In a 2nd phase, 8 workshops were held with 64 representatives from across the business. The information from these workshops was used by the project team to recalibrate the scores.
- In a 3rd phase, a total of 22 internal (including executive group management) and 4 external key selected stakeholders were interviewed, to gather input on the recalibrated scores from an overall company perspective. The feedback from the individual interviews was used to recalibrate the scores into the final assessment.



Industrial partnerships for a fossil-free society

Together with our partners, we pave the way for a new generation of transports, industries and materials

Developing the world's first fossil-free steel



VATTENFALL 

Investigation of opportunities for electrification to enable fossil-free fuel production



VATTENFALL 

One of Northern Europe's largest charging network for e-vehicles



VATTENFALL 

Supporting development of near zero emission cement and a future demand



VATTENFALL 

Co-operation for e-mobility



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Industry partnerships offshore wind: HKZ and Zeevonk



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Green guaranteed energy delivery large customers, e.g.



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Investigating joint investments in new fossil free energy production in Sweden



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Excess heat from algae cultivation to heat households



VATTENFALL 

24/7 matching fossil-free energy for data centers



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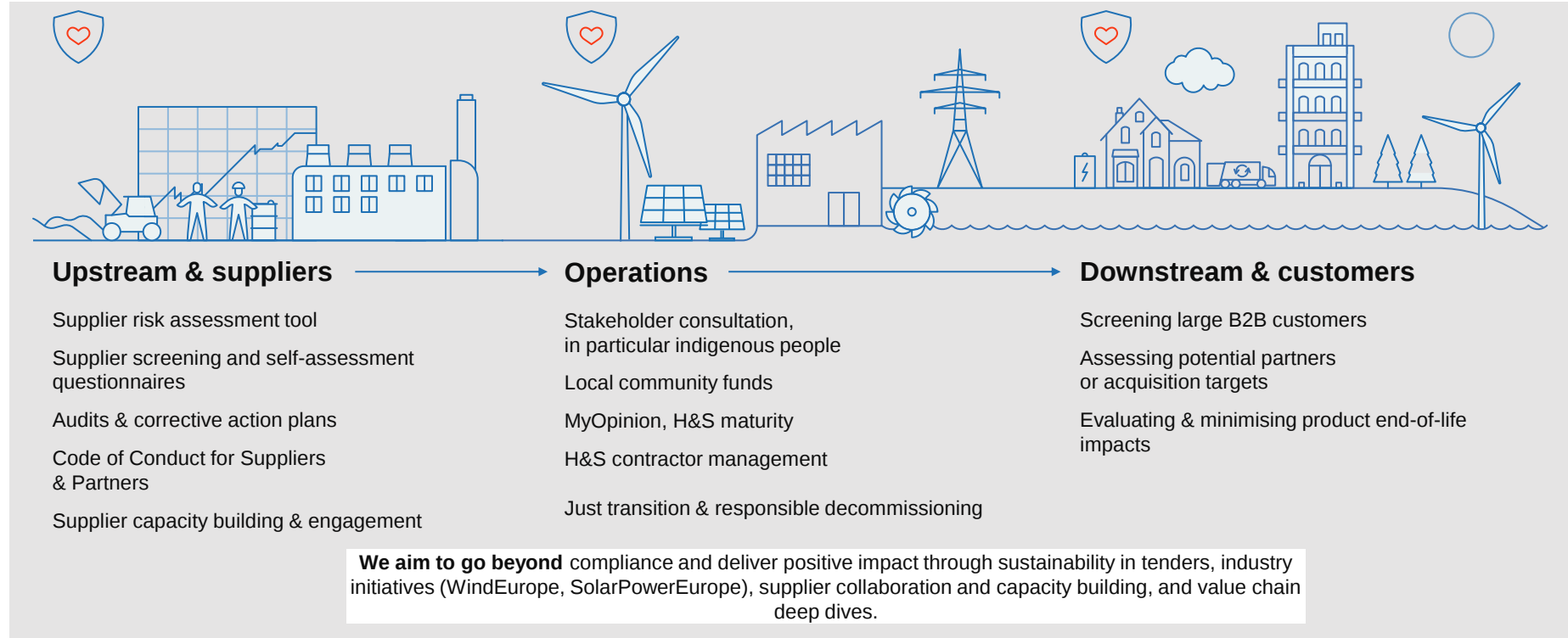
Developing flexible solutions for grid stability



VATTENFALL 

Respect for human rights throughout our value chain ensures we create value in a sustainable way

Tools, processes and actions to respect human rights



Working for a Nature-Inclusive Energy Transition

We are committed to contribute to halting and reversing biodiversity loss

A nature-inclusive energy transition

At Vattenfall, our commitment to a nature inclusive energy transition drives us to continuously explore ways to integrate biodiversity into our operations and land management. We aim to develop solutions that provide benefits for both nature and society. Thus, our belief is that co-existence between nature and energy production is possible.

Vattenfall contributes to a Nature-Inclusive Energy Transition:



Mitigation, restoration and nature-based solutions

- Actively avoiding and mitigating impacts
- Implementing nature restoration and nature-based solutions



Innovation and biodiversity R&D

- Active R&D to ensure a robust scientific foundation for implementation of mitigating actions and solutions
- Ensuring innovation in planning and design, developing solutions providing benefits for both nature and society



Accelerate partnership and collaboration

- Actively seeking opportunities to collaborate with others to achieve a broader impact

Examples of activities



Hollandse Kust Zuid SeaLab

An offshore research platform for monitoring and testing nature-inclusive designs, aiming to boost biodiversity around offshore wind farms



Dancing rods

Vattenfall R&D is testing bio-based foam rods that sway like seaweed to guide salmon safely past hydropower turbines



Waterway restoration in Forsmark

Vattenfall is restoring fish routes at Forsmark through the historic dam system, opening 800 hectares of watercourses for biodiversity recovery

Contributing to biodiversity throughout our operations

Examples of measures

Business area	Aim	Examples
Hydro power	Identify new solutions to reduce environmental impact of hydro power production	 “Laxelatorn” is a unique, large-scale laboratory for hydro power-related environmental and hydraulic experiments that was inaugurated in 2018. It combines knowledge of biology and hydraulics to find solutions that allow and attract fish to safely pass by the power plant with the smallest possible effect on operations. During 2022 and 2023 several initiatives were ongoing. An AI-based fish recognition system is used in the fish ladder in the hydropower plant Stornorrforss in northern Sweden to count and register properties of salmon and trout individuals providing valuable knowledge on behaviour of the fish and status of fish populations. To improve downstream migration of fish several activities was ongoing using both pumps to direct water flows and net as physical barriers to guide the migration.
	Biotope restoration and species protection	
	Knowledge building activities includes both research and pilot studies	
	Preserve and manage biodiversity and enhance recreation values	
Wind power	Restore peat land functioning and carbon storage	 We have been carrying out habitat restoration work at two of our sites in the UK. In Pen y Cymoedd a larger scale peat land restoration work (up to 1400 ha) began in late 2021 and will continue for several years to come. At the Aberdeen offshore wind farm in Scotland, Vattenfall has conducted a pilot study of specific birds' flight paths during the summer of 2022 to test a promising new technology – a video camera and an AI-based solution from the Norwegian start-up Spoor.
	Avoiding sea bird collisions	
Power distribution	Maintenance of habitats and protecting species	 Clearance work for power lines opens meadow-like fields for threatened and rare species, like the butterfly marsh fritillary. With GIS mapping and field inventories, important biodiversity hotspots have been identified, and tailored maintenance plans have been developed for each of the 980 identified hotspots. The tailored maintenance has been conducted on 30% of the hotspots in 2023, and the target is to have introduced the approach at 100% of the hotspots by 2026.

Towards a circular economy

We are committed to enable sustainable use of resources and contribute to a circular economy

A circular economy is based on the principles of keeping products and materials in use, designing out waste and pollution, and using regenerative natural systems. It is a sustainable alternative to the current 'take-make-dispose' linear economic system. The transition to a more circular economy is central to the Green Deal – EU's policy road map towards a low-carbon, sustainable society.

In circular systems, focus is on extending the life-time of products and materials, sharing and pooling of resources, repairing, reusing and recycling to create closed-loop systems, and utilising smart designs to minimise resource input and the generation of waste, pollution and CO₂ emissions.

Vattenfall's Circular Economy Framework:

Circular sourcing

We will collaborate proactively with suppliers to secure the future supply of resources, reduce resource consumption and switch towards circular sourcing to fast forward our journey to fossil freedom.

Circular assets

We will embed circularity into the design and management of assets to reduce use of resources, extend the lifetime of assets and recycle valuable resources.

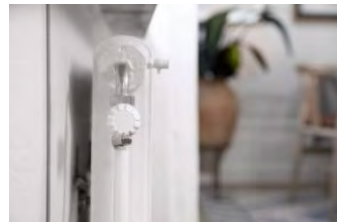
Circular innovation

We will collaborate with partners to develop circular business models solving the key resource issues in society and rethink our customer value propositions so they are circular by design.

Circular capabilities

We will build circular awareness and capabilities within Vattenfall to apply a circular approach when facing operational challenges.

Examples of activities



Recycling excess heat

In the initiative Samenergi, Vattenfall collaborates with SMEs, like cold stores and data centres to help them recycle excess heat and utilise it in the district heating network.



Reusing substation buildings

As part of our efforts to reduce environmental impact, Vattenfall Eldistribution test circular construction and reuse of existing secondary substation buildings in a pilot project launched early 2024.



Creating demand for near-zero cement

Vattenfall and CemVision have partnered to develop and supply near-zero emission cement, potentially reducing CO₂ emissions by 95% compared to traditional cement by 2030.

We are adapting to a changing climate

We continuously monitor, invest in and modernise our assets to ensure safety and resilience

- There is increasing urgency linked to climate change and the reduction of emissions needs to accelerate. Climate change affects Vattenfall through both physical effects on our assets and operations, and through changes associated with the transition to a fossil-free society. We are committed to building a future where everyone can choose fossil-free ways to move, make and live and have a high focus on adapting to change.
- Vattenfall discloses climate related risks and opportunities in accordance with the European Sustainability Reporting Standards (ESRS)¹.



Climate change affects Vattenfall

Today, the world is about 1 °C warmer than preindustrial levels and it is rising. Climate change leads to physical changes in parameters such as temperature, rainfall and sea level. This will affect Vattenfall's assets and operations.

As an example, changes in the frequency and magnitude of extreme weather events such as strong winds, flooding or forest fires can lead to infrastructure damage. Similarly, changes to rainfall and snowmelt affects river flows, which has relevance for our hydropower production, planning and dam safety aspects. Vattenfall continuously works to improve the safety and robustness of our operations.



Ensuring security of supply and resilient operations

We have assessed physical effects of climate change on Vattenfall's operations, considering both intermediate (+2°C) and high-end (+4°C) climate scenarios. Vattenfall is generally well equipped to adapt to a changing climate. Where relevant, measures and margins are adjusted to account for larger changes and variability.

Examples of measures to ensure resilient operation include adapting hydropower dams to be able to manage larger future flows, ensuring cooling solutions for exposed infrastructure, and weather-proofing the distribution grid. Vattenfall will continue to have strong focus on management of climate risks, through e.g. scenario analyses and increased focus on supply chain aspects.

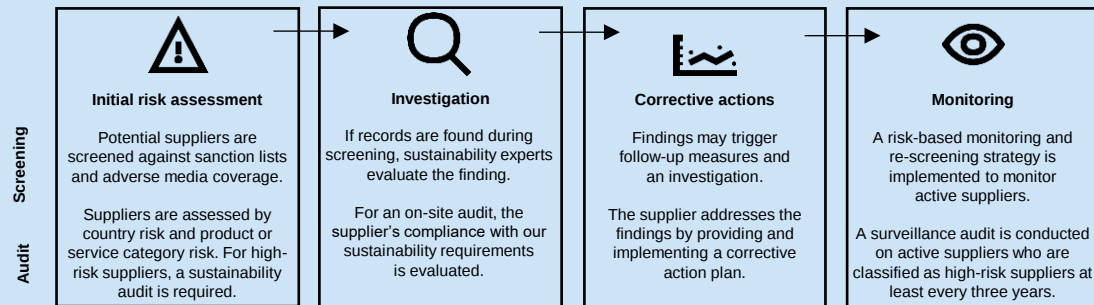
¹ For more info see page 89-90 in Vattenfall's Annual- and sustainability report 2024

Promoting responsible business practices throughout the supply chain

Key actions in 2024

- Collective actions on improving worker welfare**
 Vattenfall took part in two collective actions aimed at addressing H&S risks and ensuring worker welfare during the construction and operations of energy generation sites, run by the German Energy Sector Dialogue and the International Responsible Business Conduct Agreement (IRBC) for the Renewable Energy Sector respectively. Both multi-stakeholder initiatives have a focus on particularly vulnerable groups such as migrant workers. The two initiatives have collaborated in developing a toolbox of measures to identify and address human rights and risks.
- Gap analysis on internal compliance procedures**
 Vattenfall engaged with a third party to conduct a gap analysis of our enhanced due diligence process. The external partner has reviewed and evaluated our internal procedure that we use to investigate suppliers that provide selected high-risk product categories more thoroughly, and based on the gaps identified, recommended improvements to live up to current and upcoming legislation as well as deliver positive impact.

Due diligence process for suppliers and partners



Counterparty screenings, sustainability audits, and findings

	Number of counterparties	Screenings conducted	Number of screening findings related to value chain workers' H&S	Number of sustainability site audits conducted at (potential) suppliers	Number of audit findings related to value chain workers' H&S
Goods and services	25,932	3,869	4	48	131
Waste & biomass	173	168	N/A	42	N/A
Natural gas	N/A	N/A	N/A	N/A	N/A
Nuclear fuel	12	20	2	4	8