CREDIT OPINION
3 June 2025

Update

Send Your Feedback

RATINGS

Vattenfall AB

Domicile	STOCKHOLM, Sweden
Long Term Rating	A3
Type	LT Issuer Rating
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

Contacts

Mark Remshardt +49.69.70730.808
VP-Sr Credit Officer
mark.remshardt@moodys.com

Marco Wang +44.20.7772.1048
Senior Ratings Associate
marco.wang@moodys.com

Andrew Blease +33.1.5330.3372
Associate Managing Director
andrew.blease@moodys.com

Vattenfall AB

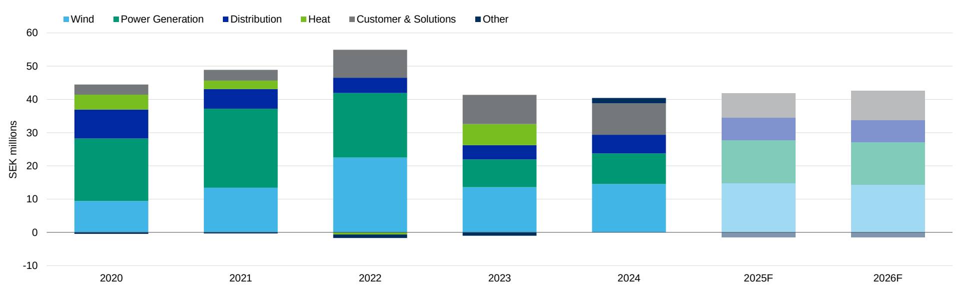
Update to credit analysis

Summary

Vattenfall AB's A3 senior unsecured rating is supported by the breadth and scale of the company's operations; its fossil-free generation portfolio in the Nordics; a moderate contribution from regulated electricity distribution and district heating activities; an increasing contribution from contracted renewables (RES); and its solid financial profile, with funds from operations (FFO)/net debt at around 58% in 2024.

These factors are balanced by Vattenfall's exposure to wholesale prices through merchant power generation and trading, which accounted for around 23% of its underlying EBITDA in 2024; competition in retail markets; and execution risk associated with Vattenfall's strategy to grow its RES energy portfolio and adapt to the evolving energy services industry.

Exhibit 1
Earnings in 2025 are likely to increase moderately
Underlying EBITDA



Moody's forecasts are Moody's opinion and do not represent the views of the issuer.
Sources: Company information and Moody's Ratings

Vattenfall's A3 rating incorporates a one-notch uplift from its Baseline Credit Assessment (BCA) of baa1, taking into account the presence of the Government of Sweden (Aaa stable) as the company's 100% shareholder.

Credit strengths

» Predominantly fossil-free generation mix in the Nordic region

» Solid earnings contribution from regulated and contracted businesses

» 100% state ownership, which supports credit quality

Credit challenges

» High exposure of earnings to wholesale power markets

» Large capital spending programme, which carries some execution risk

» Remuneration structure of RES assets marked by declining subsidies, and a growing share of power purchase agreements (PPAs) and some merchant exposure

Rating outlook

The stable outlook reflects our expectation that Vattenfall will continue to meet our guidance for the current rating, which includes Funds from operations (FFO)/net debt of more than 25% and retained cash flow/net debt in the high-teen percentages.

Factors that could lead to upgrade

An upgrade of Vattenfall's ratings is currently unlikely given the current portion of regulated earnings, its financial targets and expected large capex.

Factors that could lead to downgrade

The ratings could be downgraded if Vattenfall's credit metrics appeared unlikely to meet our guidance for the A3 rating, that is, if FFO/net debt were to fall and remain below 25% and retained cash flow/net debt were to remain below the high-teen percentages, or the share of higher-risk cash flow were to increase without a commensurate strengthening of the company's financial profile. A change in our government support assumption could also result in a downgrade of Vattenfall's ratings.

Key indicators

Exhibit 2

Vattenfall AB

	2019	2020	2021	2022	2023	2024	Moody's 12-18 month forward view
(CFO Pre-W/C + Interest) / Interest Expense	7.1x	8.4x	10.6x	5.4x	5.4x	5.9x	5.0x - 5.5x
(CFO Pre-W/C) / Net Debt	24.7%	27.1%	150.6%	49.8%	24.3%	55.5%	35.0% - 40.0%
RCF / Net Debt	21.6%	22.8%	130.7%	15.1%	20.6%	46.7%	28.0% - 33.0%

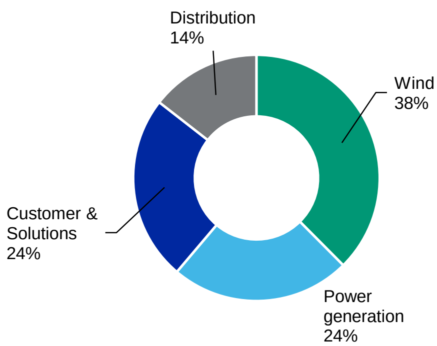
All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology.
Moody's forecasts are Moody's opinion and do not represent the views of the issuer.
For definitions of Moody's most common ratio terms, please see the accompanying User's Guide.
Sources: Moody's Financial Metrics™ and Moody's Ratings forecasts

Profile

Vattenfall AB is a 100% Swedish state-owned integrated utility. With 25.8 gigawatts (GW) of installed electric capacity and around 100 terawatt hours (TWh) of electricity output as of year-end 2024, Vattenfall is one of the largest European energy groups. The company's generation portfolio primarily includes hydro (11.5 GW), onshore and offshore wind (6.4 GW), and nuclear power (5.7 GW), with 8.5 GW of the hydro and all of the nuclear capacity located in Sweden. In addition, Vattenfall has gas and biomass plants in Sweden and the Netherlands (Aaa stable), largely dedicated to combined heat and power generation.

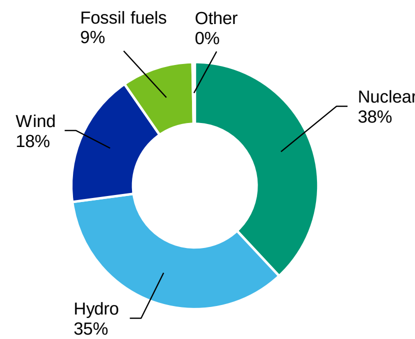
In addition to its power and heat generation operations, Vattenfall owns Sweden's largest electricity distribution network. The company's retail base includes around 8.0 million electricity and 2.3 million gas customers.

Exhibit 3
Vattenfall has a diversified business mix
Underlying EBITDA breakdown (2024)



Total underlying EBITDA of SEK40.4 billion.
Sources: Company information and Moody's Ratings

Exhibit 4
Nuclear and hydro account for the bulk of generation
Breakdown of output (2024)



Total output of 99.6 TWh.
Sources: Company information and Moody's Ratings

Detailed credit considerations

Strategic shift towards fossil-free energy underpinned by high investment spending on renewables and grids

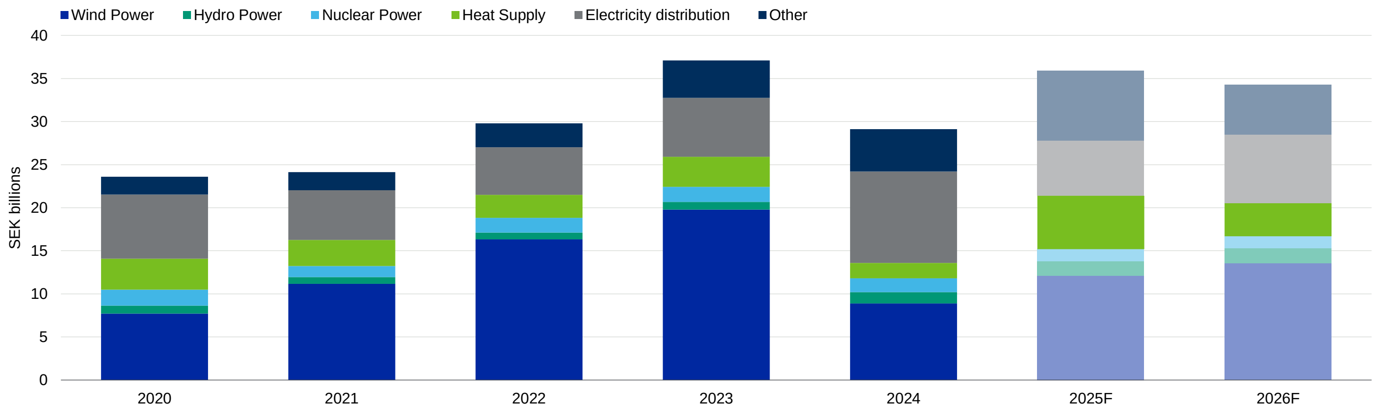
Vattenfall's strategy is to shift towards an increasingly fossil-free business model by driving growth in RES while maintaining hydro and nuclear power as baseload capacity. This includes investments in both centralised and decentralised solutions.

In line with this strategy, the company plans investments of SEK170 billion in 2025-29. Around SEK104 billion of this amount is earmarked for growth capex, primarily for expansion in onshore and offshore wind (SEK72 billion). Other growth projects include development of electricity grids and district heating networks to connect new customers and areas. Maintenance capex is mainly related to investments in distribution networks and modernisation of the heat portfolio, coupled with safety investments in Swedish nuclear and hydropower plants.

Given the company's pipeline of offshore and onshore wind projects, and focus on efficiency and smart grid solutions, we expect most investments to continue to be directed towards RES, often combined with battery storage, and grids.

Exhibit 5

Capex is mainly spent on renewables and the electricity distribution grid



"Other" relates mainly to e-mobility, solar and battery capacity.
Moody's forecasts are Moody's opinion and do not represent the views of the issuer.
Sources: Company information and Moody's Ratings

Power Generation (PG) segment: In 2025, EBITDA could rise moderately, supported by higher output from nuclear and hydro plants, partly offset by lower spot prices in the Nordics and a weaker trading result

The PG segment comprises electricity generation from nuclear and hydro plants as well as trading, including the marketing of output from third-party RES producers. Notably all generation-related hedging operations, also for the Wind segment and the few remaining thermal plants in the Heat segment,[1] are captured within the PG segment.

Key earnings drivers for the PG segment include the following:

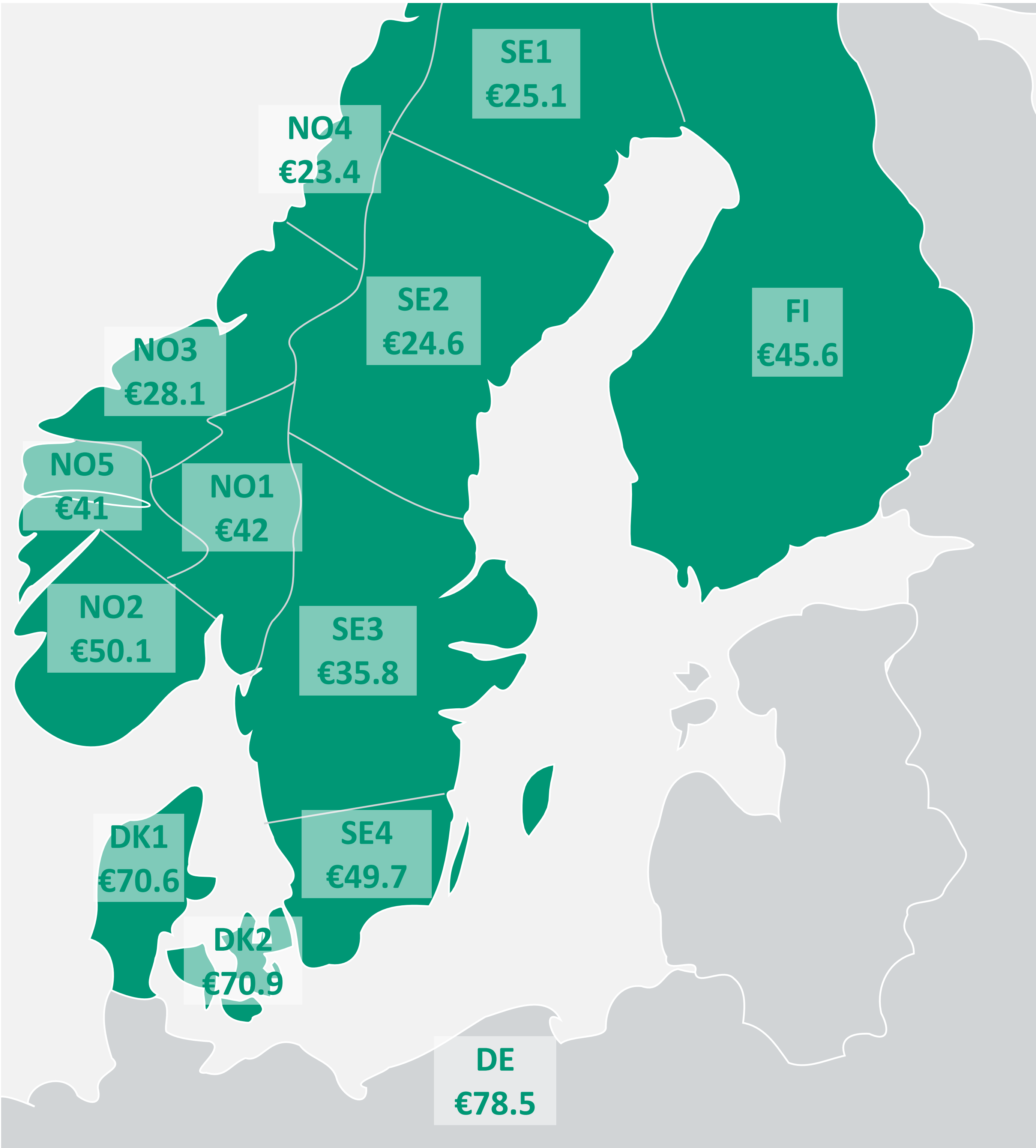
» A high share of Vattenfall's generation fleet is predominantly fixed-cost in nature (around 76% of 2024 output came from nuclear and hydro plants), leading to significant exposure to wholesale power prices.

» Vattenfall's Swedish installed generation capacity is concentrated (around 54%) in the north (price areas SE1 and SE2), which are marked by exposure to hydrology and transmission capacity constraints.

» Securing prices for Swedish output relies on proxy hedging through the Nordpool system price (NPSYS) as there are no hedging products for the Swedish price areas, resulting in base risk exposure.

Vattenfall hedges around 50% of the expected Nordic output of year t+1 and 30%-40% of the output of year t+2. In 2024, this resulted in improved earnings as the company at year-end 2023 had hedged 53% of its 2024 output against NPSYS at an average price of €46/MWh, whereas the average SE1/SE2 spot price decreased to €25/MWh from €40/MWh in 2023, leading to an overall achieved price of €42/MWh, compared with €37/MWh in 2023.

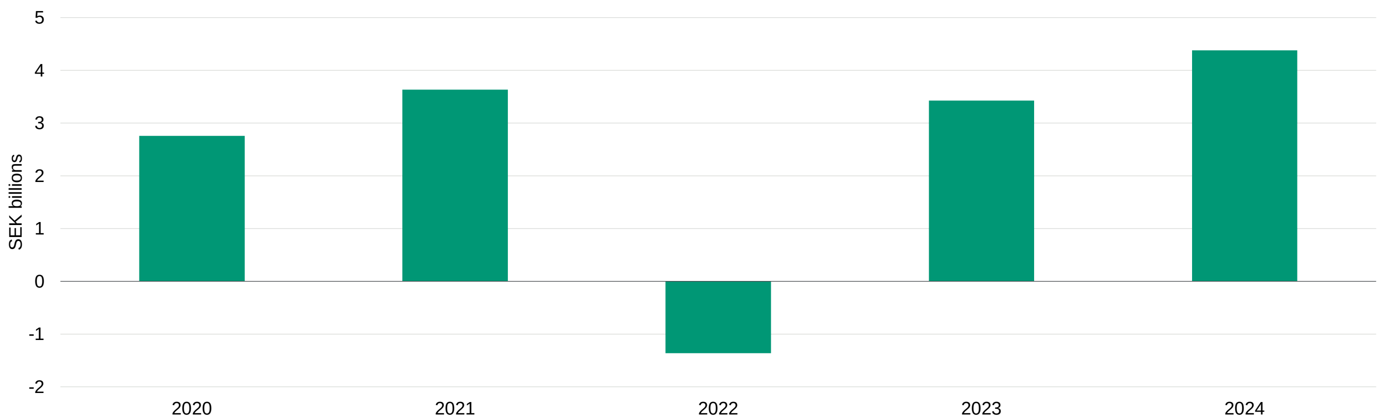
Exhibit 6
Good hydrology in 2024 led to SE1/SE2 prices being among the lowest in Scandinavia
Average day-ahead prices in 2024 converted to euro



Sources: Nordpool and Moody's Ratings

Given that hedging for all of the company's power generation is captured within the PG segment, Vattenfall's trading operations, which are inherently volatile, have a significant impact on the segment earnings. In 2024, the PG segment's underlying EBIT was SEK4.0 billion; however, without the SEK4.4 billion profit from trading, the result would have been negative.

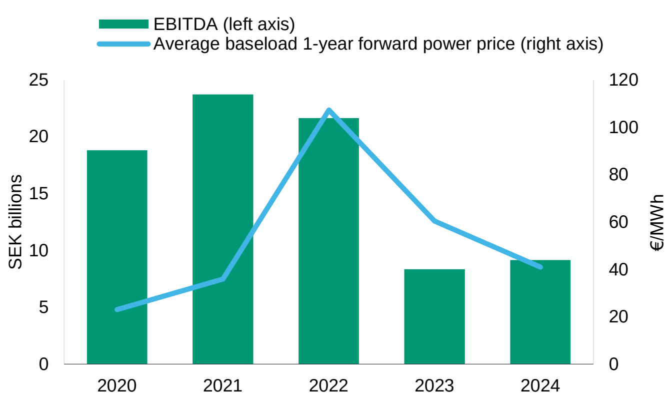
Exhibit 7
Trading activities are volatile
Underlying EBIT contribution of realised trading activities



Sources: Company information and Moody's Ratings

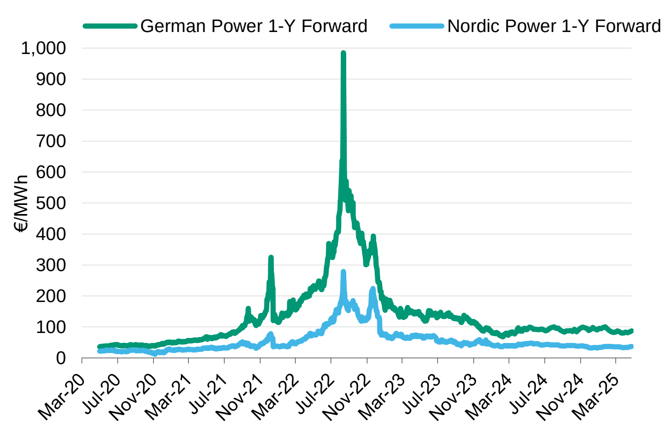
Generally, power prices in the Nordic markets are fundamentally a function of power prices in continental Europe, primarily in Germany (Aaa stable), although there is no exact correlation. As of early May 2025, one-year forward prices in Germany are at around €86/MWh, more than double the forward price of NPSYS at around €37/MWh.

Exhibit 8
Vattenfall's earnings in the PG segment are sensitive to changes in power prices
Underlying EBITDA in SEK billions; one-year forward power price in €/MWh



Sources: Company information, FactSet and Moody's Ratings

Exhibit 9
Power prices peaked in August 2022 but have remained relatively stable since early 2024
One-year forward, in €/MWh



Sources: FactSet and Moody's Ratings

For 2025, PG earnings will be supported by a slightly higher price of €48/MWh of NPSYS-hedged generation in the Nordics, but spot prices in SE1/2 fell to an average of around €15/MWh through the four months that ended April 2025, €10/MWh below the 2024 average, affecting earnings from Swedish hydro plants. In contrast, nuclear production (in SE3) in Q1 2025 benefited from a slight increase in continental power prices.

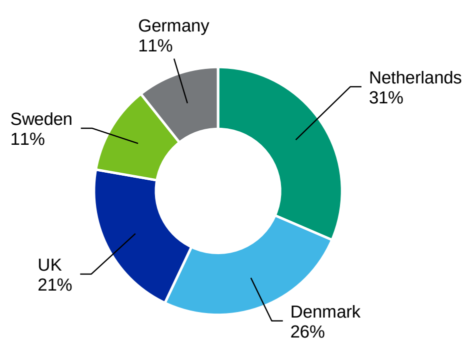
We expect the result from trading to decline in 2025 as price volatility in Europe has somewhat decreased and hedging arrangements from the high-price years of 2022-23 are likely to run off. Assuming higher nuclear availability at around 85%, following longer outages in 2024, which would support an aggregate output of hydro and nuclear plants of around 80 TWh, the levels seen in 2021/22 and around 10% above the output recorded in 2024, PG's EBITDA could surpass that of 2024. Given the exposure to hydrology and Nordic spot prices, the segment's result is difficult to predict.

In the longer term, the PG segment could grow from new nuclear capacity. The Swedish Parliament in November 2023 approved new capacity of 2.5 GW, which could be large blocks or small modular reactors, at the site of the decommissioned Ringhals 3 and 4 blocks, with an aim to have these on the grid by 2035. On 27 March 2025, the Swedish government announced that it would support new nuclear projects with loans and two-way Contracts for Difference (CfD), having received positive signals from the EU Commission that such support would be compliant with EU State Aid rules. Accordingly, Vattenfall in April 2025 announced the set-up of a dedicated subsidiary, Videberg Kraft AB, which will be the vehicle to apply for state funding in Q3 2025 and would house the new projects. Our current view of Vattenfall's credit profile does not include such new capacities, given the early stage of project discussions and the lack of a final investment decision.

Wind segment: Moderate capacity growth through 2027; EBITDA evolution likely to be stable

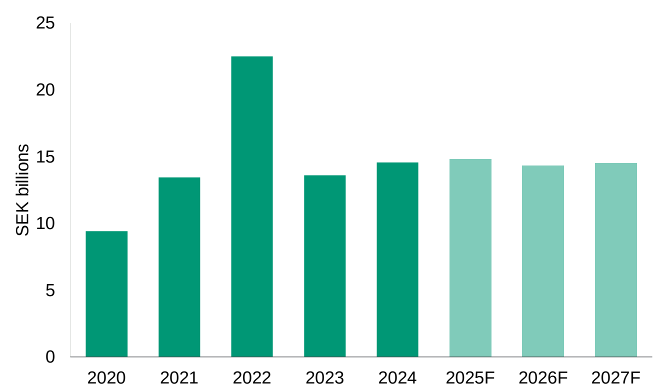
As of the end of March 2025, Vattenfall's installed RES capacity, excluding hydro, was around 6.7 GW, made up of 4.4 GW offshore wind, 2.0 GW onshore wind, and around 0.2 GW solar and batteries. The RES portfolio is spread over five European countries, with the Netherlands accounting for nearly a third of installed capacity, following the full commissioning of the Dutch offshore wind farm Hollandse Kuist Zuid.

Exhibit 10
Vattenfall's RES capacity benefits from geographical diversification
Breakdown of installed capacity (Q1 2025)



Total capacity of 6.7 GW.
Sources: Company information and Moody's Ratings

Exhibit 11
Wind earnings are likely to remain steady on the back of expected stable achieved prices
Underlying EBITDA in SEK billions



Underlying EBITDA as reported.
Moody's forecasts are Moody's opinion and do not represent the views of the issuer.
Sources: Company information and Moody's Ratings forecasts

Key earnings drivers for the Wind segment include the following:

» Capacity growth, primarily focused on wind offshore and onshore;

» Cost inflation and supply chain bottlenecks;

» Type of remuneration, currently mostly through government support schemes but with a growing share of PPAs for new projects;

» Partnerships, mainly for offshore wind, to share risks and allow for a more diversified capital allocation.

According to the company, Vattenfall's development pipeline amounts to more than 13 GW, including almost 3 GW of wind projects (mature stage) and nearly 9 GW of solar capacity, complemented by more than 1.5 GW of battery storage capacity. In addition, various wind onshore projects, mainly in Sweden, and some solar projects in Germany are under construction and could add more than 500 MW through 2027.

The principal offshore wind projects currently in a mature stage of development include the 1.6 GW Nordlicht 1 and 2 wind farms[2] in the German North Sea; the 2 GW Zeevonk wind farm in the Dutch North Sea (50%-owned by Copenhagen Infrastructure Partners); and the 750 MW Muir Mhor (Scotwind) project off the coast of Scotland, 50% owned by Norwegian RES developer Fred. Olsen Seawind.

The Nordlicht projects are slated for commissioning in 2028, while Zeevonk and Scotwind are likely in 2030. Nordlicht and Zeevonk will be remunerated on a merchant basis, mitigated by PPA contracts, whereas Scotwind will rely on a CfD, assuming a successful bid in one of the next CfD auctions. Although the construction of offshore wind farms is risky compared with other well-established RES technologies, Vattenfall has a good operational track record in its RES portfolio.

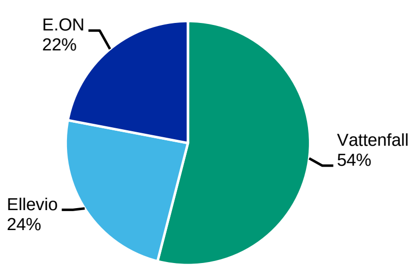
Vattenfall's assets benefit to a large degree from a variety of government support schemes (feed-in tariffs, CfDs with different designs), which provide long-term earnings stability and reduce the company's exposure to wholesale power price volatility. Wind farms in Sweden and in the UK have merchant power price exposure, mitigated by renewable obligation certificates schemes. Merchant price exposure, mitigated by long-term PPAs, will be a growing source of earnings for RES projects, resulting from partly insufficient strike prices in government CfD auctions; more flexibility to structure terms and conditions, than in government support schemes; and growing demand from corporates eager to reduce their carbon exposure.

In 2024, underlying EBITDA grew to SEK14.6 billion from SEK13.6 billion in 2023, supported by higher electricity volumes from the newly commissioned capacity and higher achieved prices. Through 2027, earnings are likely to remain relatively stable as incremental onshore wind and solar capacity comes online, whereas merchant price exposure will still only make up a relatively small share of capacity, and the remainder of output is protected by support schemes and PPAs.

Distribution (DIS) segment: Network earnings are likely to grow moderately through 2026

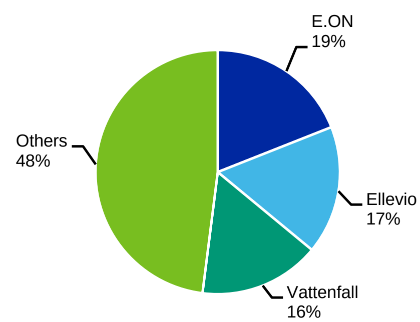
Vattenfall through its unbundled subsidiary Vattenfall Eldistribution AB is Sweden's largest owner and operator of electricity distribution grids (DSO), operating under an evolving regulatory framework set by the Swedish regulator Energimarknadsinspektionen (Ei). Because of the energy transition, future market growth will essentially occur in the regional market.

Exhibit 12
Vattenfall has a significant market share of regional electricity grids in Sweden
Regional market shares



Market shares based on throughput volume and excluding grid losses.
Source: Vattenfall Corporate Factbook (September 2024)

Exhibit 13
Local grids remain a highly fragmented market
Local market shares



Market shares based on the number of connections.
Source: Vattenfall Corporate Factbook (September 2024)

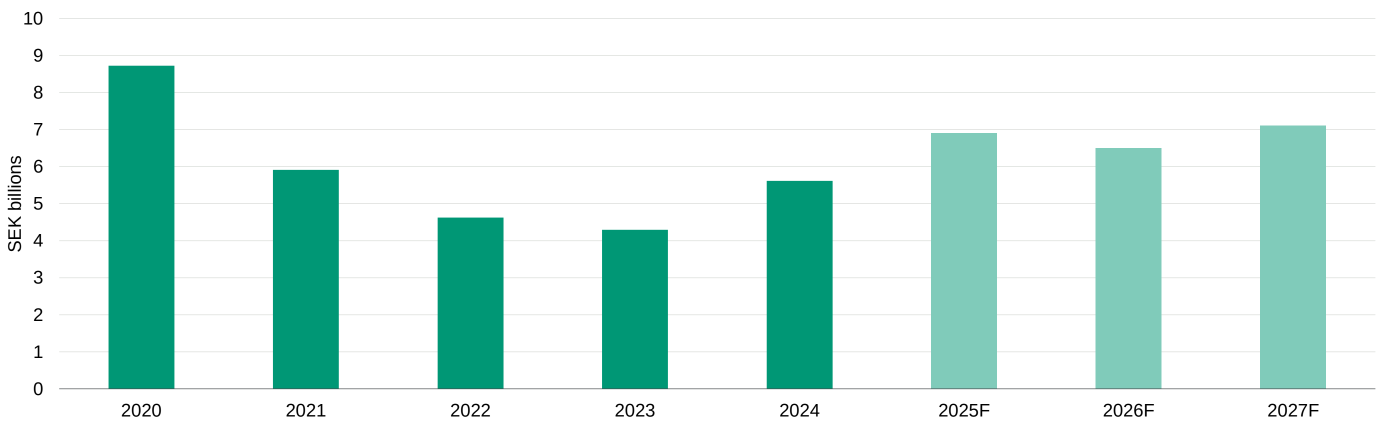
The regulatory framework applicable for the DSO is an incentive-based revenue cap regime, based on a TOTEX approach, which includes qualitative factors and a sharing mechanism for outperformance of controllable cost targets. Deviations between regulatory assumptions, and actual costs and volumes are trued up in the next regulatory period (RP). In 2024, the fourth four-year RP commenced, with Ei setting the return rate, measured as pretax real weighted average cost of capital (WACC), at 4.53%, up from 2.35% for 2020-23. The WACC returns, together with the regulatory depreciation, which in Sweden generally is below the one used in accounting, provide the bulk of cash flow for the DSO are driven by the evolution of the regulated asset base (RAB). Vattenfall's RAB in 2023 was around SEK89 billion, up from SEK68 billion in 2022, driven by investments and the indexing of the RAB to reflect asset replacement values.

Underlying EBITDA in 2024 amounted to SEK5.6 billion, up from SEK4.3 billion in 2023, driven by higher revenue and the absence of the temporary tariff reduction in H2 2023. Given the continued high level of planned investments of around SEK8.2 billion (average 2025-29, against SEK10.1 billion in 2024); the increase in WACC; and the depreciation based on a substantially higher RAB, we generally expect DIS earnings through 2027 to increase. However, we note that new assets only accrue to the RAB with a six-month delay after commissioning, which means that earnings, especially from projects with a longer completion period, commence with a time lag to investments.

Exhibit 14

Earnings from distribution will grow gradually as the RAB increases

Distribution underlying EBITDA



Moody's forecasts are Moody's opinion and do not represent the views of the issuer.
Sources: Company information and Moody's Ratings forecasts

The regulated earnings from the DIS segment carry a lower risk than Vattenfall's generation and supply activities. However, given that this segment contributes a relatively modest share of underlying EBITDA, namely 14% in 2024, the positive effect on our view of Vattenfall's credit quality is limited.

Customers & Solutions (C&S) segment: Sales of energy and heat will remain earnings drivers as cash flow contributions from energy solutions will likely grow slowly

C&S' operations include supply of electricity and gas to residential, commercial and industrial customers; energy solutions and e-mobility charging; and, since 1 January 2024, Vattenfall's remaining heating activities following the disposal of Heat Berlin (see Credit Opinion published on 17 July 2024 for details of the transaction). As the end of December 2024, the company had 12 million customers, with operations in the Nordic countries, the Netherlands, Germany, the UK and France (Aa3 stable).

Key earnings drivers of the C&S segment include the following:

» Growth in sales volumes of electricity and gas, mainly driven by higher customer numbers (be it own customers or indirectly through sales to resellers);

» Gross margin development, which displays relative long-term stability but is exposed to short-term fluctuations as energy price movements are only captured in tariffs with a time lag, especially in the B2C segment;

» Heating results are driven by weather and temperature, and the ability to adjust tariffs for fuel price changes under the prevailing quasi-regulated regimes (note: earnings effects from the sale of co-generated electricity are allocated to the PG segment).

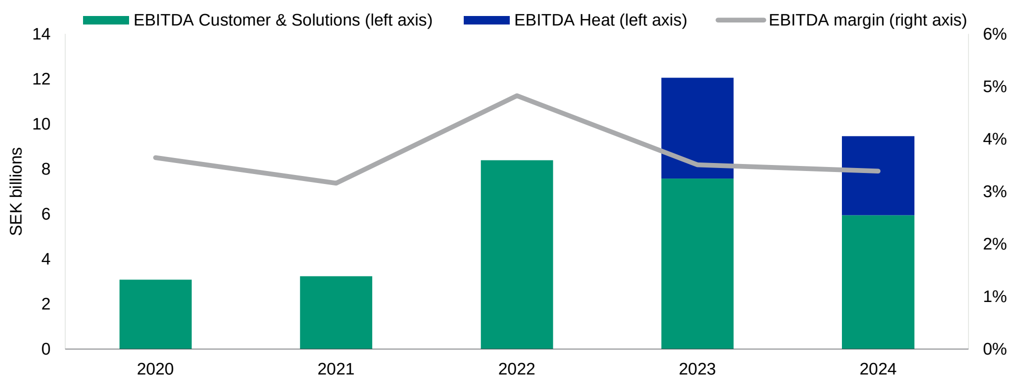
In 2024, the C&S segment contributed SEK9.5 billion, down from SEK12.1 billion in 2023, or around 16%, to Vattenfall's underlying EBITDA, driven, among others, by increased regulatory costs (grid fees within customer tariffs) in Germany; lower gas prices affecting the margins of the heat business in the Netherlands; a 25% drop in electricity sales to resellers; and a base effect of lower electricity sales in the Netherlands resulting from the sale of the Magnum gas-fired plant in Q1 2023. We do not expect energy solutions and e-mobility to be significant contributors to earnings over the next few years as ramp-up costs will likely absorb a large share of incremental revenue.

In March 2025, Vattenfall announced that the company plans to review the heating business to determine whether it will remain core to the group's activities.

Exhibit 15

EBITDA in the C&S business is highly exposed to commodity prices, reflected in heating tariff adjustments and end-customer prices

Underlying EBITDA as reported; before 2023, the C&S business does not include the heating results. In 2023 and 2024, the split assumes that all of the depreciation and amortisation are attributable to Heat.



Sources: Company information and Moody's Ratings

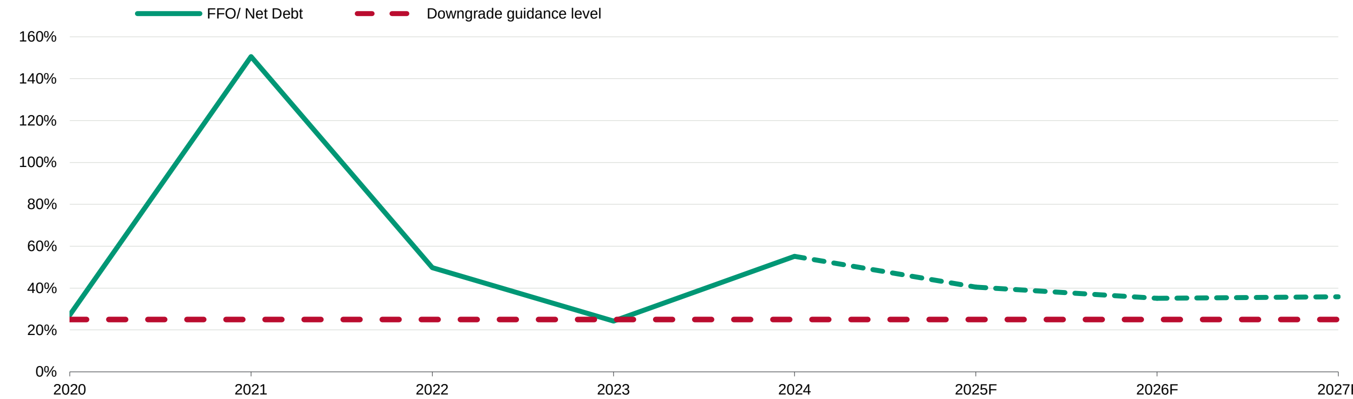
Earnings for this segment are difficult to predict, given the high exposure to commodity prices; price-driven competition, notably in the reseller segment; and weather-related consumption. However, given some stickiness in the retail segment including heating, we estimate average earnings of SEK8 billion-SEK9 billion through 2027.

Credit metrics will remain strong in 2025, supported by stable margin calls and existing financial flexibility

Vattenfall's Moody's-adjusted FFO/net debt was 57.6% for 2024, up from 24.3% in 2023. While FFO improved by around 15% to SEK37.4 billion, the significant improvement in the metric was primarily driven by a substantial reduction in Moody's-adjusted net debt to SEK65 billion as of the end of December 2024 from SEK135 billion a year earlier. Key contributing factors include a favourable shift in margin calls improving working capital (SEK21 billion) and around SEK41 billion of divestments, mainly from the heat operations in Berlin and the Norfolk offshore wind projects in the UK. The achieved leverage comfortably meets our guidance for the current rating and also exceeds Vattenfall's self-imposed target of FFO/net of at least 25% (per the company's definition, tightened from the previous 22%-27%).

In 2024, Vattenfall's Moody's-adjusted gross debt of around SEK146 billion included SEK73 billion in adjustments related to pension and nuclear liabilities for the decommissioning of power plants in Sweden and Germany.

Exhibit 16
Vattenfall's FFO/net debt will likely remain above the guidance



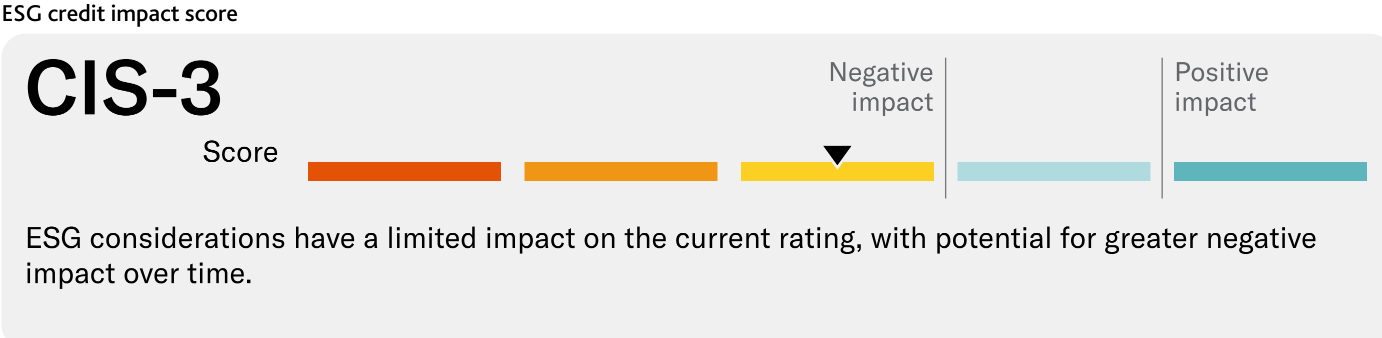
All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology.
Moody's forecasts are Moody's opinion and do not represent the views of the issuer.
Sources: Moody's Financial Metrics™ and Moody's Ratings forecasts

For 2025, we expect FFO to be below 2024 level, at around SEK31 billion-SEK32 billion, thus covering a significant share of planned investments (SEK34 billion on average in 2025-29). In addition, Vattenfall has a track record of moderate dividend payouts, reflecting a supportive shareholder. Consequently, we expect Vattenfall's credit metrics to remain within our guidance through at least 2027.

ESG considerations

Vattenfall AB's ESG credit impact score is CIS-3

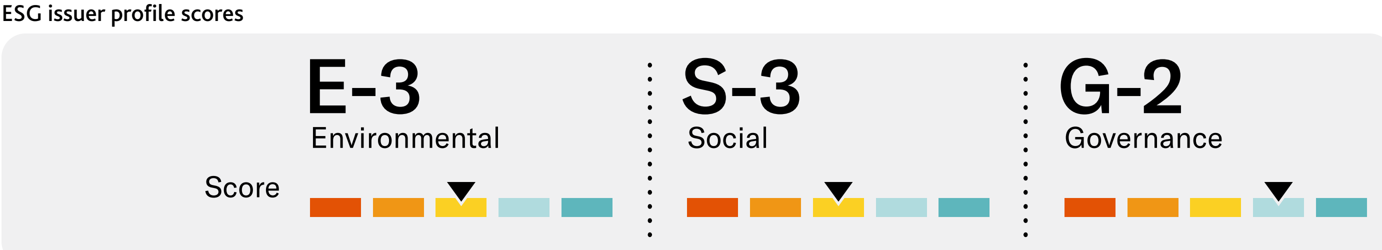
Exhibit 17
ESG credit impact score



Source: Moody's Ratings

Vattenfall's **CIS-3** indicates that its ESG attributes are overall considered as having a limited impact on the current rating, with greater potential for future negative impact over time. The score reflects moderately negative environmental and social risks, partly offset by neutral-to-low governance risks.

Exhibit 18
ESG issuer profile scores



Source: Moody's Ratings

Environmental
Vattenfall is **E-3**, reflecting its low carbon transition risk with power generation comprised mainly of renewables and nuclear. As a large hydro operator, Vattenfall is, however, exposed to a degree of resource risks. The issuer profile score also incorporates a degree of physical climate risks related to its network operations in Sweden where flooding is a risk factor. As a nuclear operator with around 5.5 GW of capacity, Vattenfall's nuclear operations are also exposed to both a degree of physical climate risk and waste and pollution given the costs associated with nuclear decommissioning and nuclear waste treatment.

Social
Vattenfall is **S-3**, reflecting the risk that demographics and societal trends could include concerns over affordability, including the expectation from the public that state-owned utilities should act as a public service. These pressures could turn into adverse political intervention or adverse regulatory decisions for its grid operations, or both.

Governance
Vattenfall is **G-2**, reflecting on one hand our view that, as a government-owned company, the independence of Vattenfall's board is relatively weak and that management may face competing priorities. However, we note that its board has a track record of creditor friendly decisions. Governance risks are also balanced by other considerations associated with government ownership, including transparent reporting and oversight.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

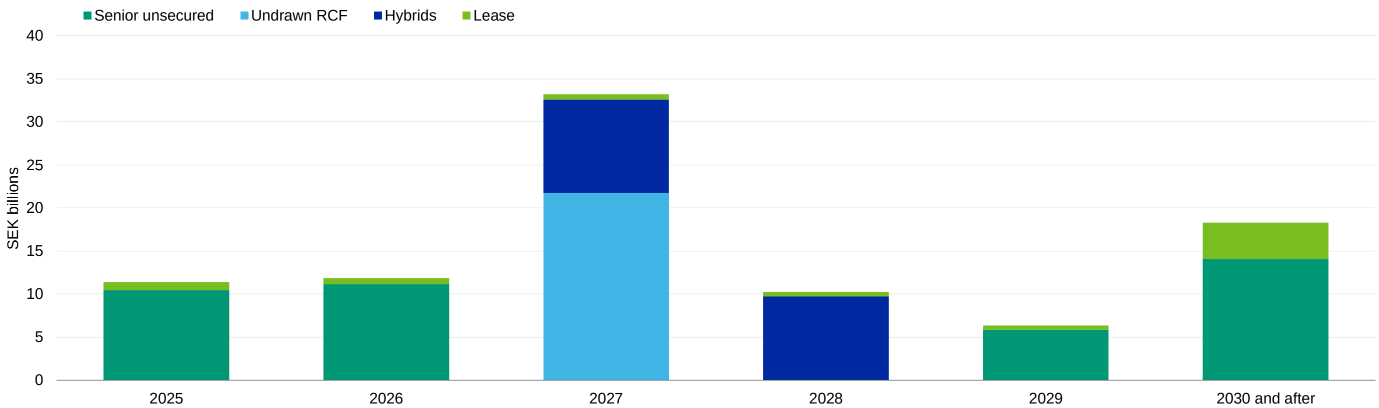
Government support considerations
Given the 100% ownership by the Swedish government, Vattenfall is considered a government-related issuer (GRI) under our Government-Related Issuers methodology. Although Vattenfall is the largest electric utility in Sweden, the company has a broader European footprint, leading us to assess the default dependence with its owner and supporter, the Swedish government, as moderate.

While we recognise the strategic importance of the company for Sweden, we also acknowledge the state's determinedly noninterventionist stance. The authorities would hesitate to intervene (such as through a direct capital injection) except in the most extreme circumstances, that is, where there is a threat to key strategic Swedish assets such as nuclear and hydropower plants, and the network infrastructure. We thus assume a moderate probability of support in case of financial distress at Vattenfall.

Liquidity analysis
As of the end of March 2025, Vattenfall's liquidity was supported by SEK68.0 billion of unrestricted cash and short-term investments, and a committed revolving credit facility (RCF) of €2 billion (SEK21.7 billion). The RCF, which is undrawn, expires in October 2027.

Vattenfall's investments of around SEK30 billion-SEK40 billion over the next 12-18 months, dividend payouts in 2025 and 2026 in an estimated aggregate amount of SEK14 billion, and debt repayments of around SEK20 billion in 2025-26 can comfortably be covered through the said sources and operating cash flow of around SEK35 billion per year.

Exhibit 19
Vattenfall has a fairly well-spread debt maturity profile
As of the end of March 2025



Maturity of hybrids is shown at first call dates.
Sources: Company information and Moody's Ratings

Structural considerations

Vattenfall's capital structure includes a mix of senior unsecured bonds, bank debt and hybrid securities. Given the features of the hybrids, we treat them as 50% debt and 50% equity for financial leverage calculations.

Given that debt is almost entirely raised at the Vattenfall AB level, we do not apply any notching of senior debt for reasons of structural subordination.

Methodology and scorecard

Vattenfall is rated in accordance with the Unregulated Utilities and Unregulated Power Companies and the Government-Related Issuers methodologies.

Exhibit 20

Rating factors

Vattenfall AB

Unregulated Utilities and Unregulated Power Companies Industry Scorecard	Current FY Dec-24		Moody's 12-18 month forward view	
Factor 1 : Scale (10%)	**Measure**	**Score**	**Measure**	**Score**
a) Scale (USD Billion)	Aa	Aa	Aa	Aa
Factor 2 : Business Profile (40%)				
a) Market Diversification	Baa	Baa	Baa	Baa
b) Hedging and Integration Impact on Cash Flow Predictability	Baa	Baa	Baa	Baa
c) Market Framework & Positioning	Ba	Ba	Ba	Ba
d) Capital Requirements and Operational Performance	Ba	Ba	Ba	Ba
e) Business Mix Impact on Cash Flow Predictability	Aa	Aa	Aa	Aa
Factor 3 : Financial Policy (10%)				
a) Financial Policy	Baa	Baa	Baa	Baa
Factor 4 : Leverage and Coverage (40%)				
a) (CFO Pre-W/C + Interest) / Interest (3 Year Avg)	5.5x	Baa	5.0x - 5.5x	Baa
b) (CFO Pre-W/C) / Net Debt (3 Year Avg)	38.8%	A	35.0%- 40.0%	A
c) RCF / Net Debt (3 Year Avg)	25.1%	A	28.0% - 33%	A
Rating:				
a) Scorecard-Indicated Outcome		A3		A3
b) Actual Rating Assigned				A3
Government-Related Issuer	**Factor**			
a) Baseline Credit Assessment	baa1			
b) Government Local Currency Rating	Aaa, Stable			
c) Default Dependence	Moderate			
d) Support	Moderate			
e) Actual Rating Assigned	A3			

All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology. LTM = Last 12 months.
Moody's forecasts are Moody's opinion and do not represent the views of the issuer.
Sources: Moody's Financial Metrics™ and Moody's Ratings forecasts

Appendix

Exhibit 21

Peer comparison

Vattenfall AB

(in € millions)	Vattenfall AB A3 Stable			Statkraft AS A3 Stable			Iberdrola S.A. Baa1 Stable			EnBW Energie Baden-Wuerttemberg AG Baa1 Stable		
	FY Dec-22	FY Dec-23	FY Dec-24	FY Dec-22	FY Dec-23	FY Dec-24	FY Dec-22	FY Dec-23	FY Dec-24	FYE Dec-22	FYE Dec-23	FYE Dec-24
Revenue	22,591	25,310	21,472	15,761	8,636	7,180	53,949	49,335	44,739	56,003	44,431	34,524
EBITDA	2,440	4,051	5,192	6,515	4,716	3,078	12,770	14,146	15,074	3,877	6,058	5,572
Total Assets	71,231	52,855	48,654	32,443	28,308	27,704	149,925	149,652	157,911	69,504	64,719	64,278
Total Debt	22,274	16,587	12,750	4,031	5,341	6,880	53,759	55,703	62,584	22,227	26,593	29,034
Net Debt	7,133	12,081	5,657	(1,544)	1,391	4,269	49,151	52,684	58,502	11,456	12,411	15,127
FFO / Net Debt	49.8%	24.3%	57.6%	-189.5%	163.0%	44.7%	21.3%	20.6%	19.6%	27.7%	49.6%	33.9%
RCF / Net Debt	15.1%	20.6%	46.7%	-124.6%	48.1%	18.2%	14.9%	11.7%	13.2%	24.0%	46.1%	29.5%
(FFO + Interest Expense) / Interest Expense	5.4x	5.4x	6.1x	23.2x	12.8x	7.2x	5.8x	4.8x	4.9x	5.0x	7.2x	6.2x
Debt / Book Capitalization	61.8%	53.1%	39.2%	22.2%	26.3%	31.5%	46.9%	46.9%	49.6%	59.8%	59.7%	59.1%

All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology. LTM = Last 12 months.
Source: Moody's Financial Metrics™

Exhibit 22

Moody's-adjusted net debt reconciliation

Vattenfall AB

(in SEK millions)	2019	2020	2021	2022	2023	2024
As reported total debt	**97,627**	**104,775**	**126,408**	**176,765**	**121,109**	**84,598**
Pensions	44,026	43,824	40,328	27,812	28,092	27,890
Hybrid Securities	(10,082)	(9,652)	(10,211)	(10,966)	(10,494)	(10,940)
Non-Standard Adjustments	31,815	37,794	40,233	53,930	46,011	44,811
Moody's adjusted total debt	**163,386**	**176,741**	**196,759**	**247,542**	**184,719**	**146,359**
Cash & Cash Equivalents	(31,151)	(47,505)	(165,793)	(168,268)	(50,179)	(81,417)
Moody's adjusted net debt	**132,235**	**129,236**	**30,966**	**79,274**	**134,540**	**64,942**

All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology. LTM = Last 12 months.
Source: Moody's Financial Metrics™

Exhibit 23

Moody's-adjusted EBITDA reconciliation

Vattenfall AB

(in SEK millions)	2019	2020	2021	2022	2023	2024
As reported EBITDA	**44,920**	**49,122**	**80,719**	**25,186**	**46,318**	**66,783**
Unusual Items - Income Statement	(4,334)	(1,519)	(21,162)	0	0	(8,087)
Interest Expense - Discounting	(2,297)	(2,165)	(2,033)	(2,009)	(2,133)	(1,629)
Non-Standard Adjustments	1,115	701	910	2,858	2,259	2,316
Moody's adjusted EBITDA	**39,404**	**46,139**	**58,434**	**25,886**	**46,444**	**59,383**

All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology. LTM = Last 12 months.
Source: Moody's Financial Metrics™

Exhibit 24

Overview of select historical Moody's-adjusted financial data

Vattenfall AB

(in SEK millions)	2019	2020	2021	2022	2023	2024
INCOME STATEMENT						
Revenue	166,360	158,847	180,119	239,644	290,168	245,570
EBITDA	39,404	46,139	58,434	25,886	46,444	59,383
EBIT	20,559	27,888	40,993	8,146	25,495	39,193
Interest Expense	5,336	4,713	4,843	9,007	7,496	7,391
Net income	10,823	15,338	28,460	(1,634)	10,500	27,036
BALANCE SHEET						
Net Property Plant and Equipment	256,563	249,060	252,828	276,901	263,031	273,707
Total Assets	450,643	463,188	782,358	791,616	588,591	558,497
Total Debt	163,386	176,741	196,759	247,542	184,719	146,359
Cash & Cash Equivalents	31,151	47,505	165,793	168,268	50,179	81,417
Net Debt	132,235	129,236	30,966	79,274	134,540	64,942
Total Liabilities	347,038	355,859	591,438	670,742	464,632	376,361
CASH FLOW						
Funds from Operations (FFO)	32,604	35,032	46,620	39,495	32,636	37,392
Cash Flow From Operations (CFO)	16,939	41,961	102,176	1,407	(24,219)	62,289
Dividends	4,071	5,627	6,135	27,553	4,917	7,070
Retained Cash Flow (RCF)	28,533	29,405	40,485	11,942	27,719	30,322
Capital Expenditures	(26,995)	(22,311)	(26,132)	(25,800)	(42,679)	(31,057)
Free Cash Flow (FCF)	(14,127)	14,023	69,909	(51,946)	(71,815)	24,162
INTEREST COVERAGE						
(FFO + Interest Expense) / Interest Expense	7.1x	8.4x	10.6x	5.4x	5.4x	6.1x
LEVERAGE						
FFO / Net Debt	24.7%	27.1%	150.6%	49.8%	24.3%	57.6%
RCF / Net Debt	21.6%	22.8%	130.7%	15.1%	20.6%	46.7%
Debt / EBITDA	4.1x	3.8x	3.4x	9.6x	4.0x	2.5x
Net Debt / EBITDA	3.4x	2.8x	0.5x	3.1x	2.9x	1.1x

All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology. LTM = Last 12 months.
Source: Moody's Financial Metrics™

Ratings

Exhibit 25

Category	Moody's Rating
VATTENFALL AB	
Outlook	Stable
Issuer Rating	A3
Senior Unsecured	A3
Jr Subordinate	Baa2
Commercial Paper	P-2

Source: Moody's Ratings

Endnotes

1 In 2024, the Heat segment was merged into the Customers & Solutions segment, and the related continental hedges for co-generated electricity in Dutch heat plants are not material to PG earnings.

2 In March 2025, Vattenfall made the final investment decision and also announced that it would buy back the 49% held by German chemicals giant BASF SE (A3 stable), for a consideration of €181 million, including an €80 million cash payment and the remainder being a PPA option.

REPORT NUMBER 1440615