

**ASSESSMENT**

4 June 2026



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# Vattenfall AB

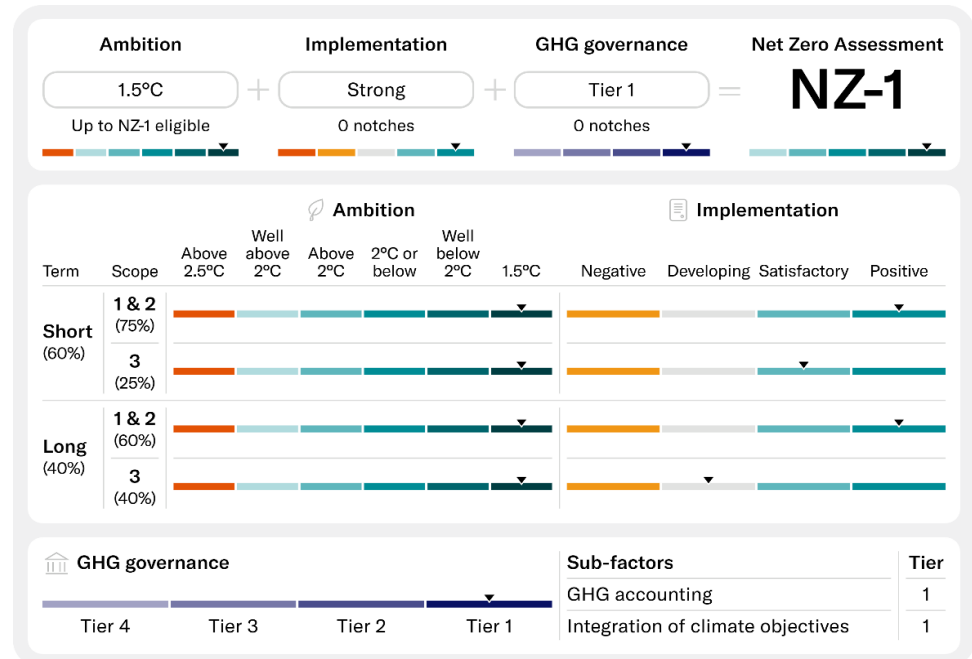
## Net Zero Assessment - Vattenfall assigned an NZ-1 score

### Summary

We have assigned an NZ-1 (leading) net zero assessment (NZA) score to Vattenfall AB's carbon transition plan. Vattenfall's emissions reduction targets are aligned with an ambition to limit temperature rises to 1.5 Celsius (C) on our scoring scale. We assess Vattenfall's implementation as strong, and compatible with delivering its level of ambition.

In the last few years, Vattenfall has exhibited significant progress in completely eliminating its coal exposure and becoming a top company in Europe's renewable energy sector, with a leadership position in offshore wind. The bulk of its capital expenditure plan is concentrated in wind power, with long-term plans to continue expanding its strong baseload capacity of nuclear and hydropower over time.

Vattenfall's tangible progress and investments are further supported by sound greenhouse-gas (GHG) governance practices. These include unambiguous and transparent GHG emissions reduction targets, with broad coverage across its value chain, consistent reporting, and adequate third-party verification.





### NZA strengths

- Low carbon power producer with over 92% decarbonised power production in 2025
- Outstanding track record phasing out coal, installing wind power and reducing power emissions
- Unambiguous and transparent emissions reductions targets compared to most corporates
- Operating in countries with supportive policies and relatively low power demand growth
- Full ownership by the Government of Sweden, which has a net zero target by 2045, enshrined in law, enhances GHG Governance



### NZA weaknesses

- Although emissions related to gas sales have shown positive progress, they have partially rebounded in the last two years and are lagging overall reductions
- Less details on plans to reduce scope 3 emissions in the long term
- Recent headwinds in offshore wind sector have led to delays in certain major projects



### What could strengthen or weaken the NZA?

- ▼ Implementation score could worsen if gas-related use of sold product emissions continue to meaningfully rebound without a transitory driver or justification

This assessment reflects our point-in-time opinion of the company's carbon transition plan as of the publication date of this report. Our view draws on public and non-public information provided by the company, and is based on our [Net Zero Assessments](#) framework, published on 9 November 2023.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on <https://ratings.moody's.com> for the most updated credit rating action information and rating history.

## Entity profile

Vattenfall AB is a 100% Swedish state-owned company. With 23.4 gigawatts (GW) of installed capacity and 102.1 terawatt hours (TWh) of electricity output as of year-end 2025, Vattenfall is one of the biggest European energy groups. The company's generation portfolio primarily includes hydro (9.0 GW) and nuclear power (5.7 GW), with 8.5 GW of the hydro output and all of the nuclear output located in Sweden. In addition, Vattenfall has district-heating gas operations in the Netherlands. In 2024, the company sold its combined heat and power (CHP) plants in Germany and therefore no longer owns any coal power plants. The company also has a growing portfolio of wind assets (5.7 GW), mostly in the Netherlands, Denmark and the UK.

In addition to dealing in power and heat generation, Vattenfall owns Sweden's largest electricity distribution network and an electricity and gas retail business in several European countries. The company's retail base included around 7.4 million electricity and 2.4 million gas customers as of year-end 2024, with over 70% of electricity customer volumes sold going to commercial/industrial customers.

In keeping with similar utility peers, power generation activities have previously accounted for a significant share of Vattenfall's GHG emissions. As of 2017, which is the base year for its climate targets, scope 1 emissions related to this activity represented around 24% of overall emissions. However, sizeable progress in decarbonising its power portfolio has significantly altered this, with scope 1 reducing by 73% over the base year to 2025. As a result, scope 1 now only represents just 15% of overall emissions (see Exhibit 1).

Vattenfall has also made good progress on indirect value chain emissions (scope 3), although slower than operational emissions. Most of the group's GHGs in this area arise from three main sources:

- (1) scope 3 category 3, related to the extraction and transportation (upstream) emissions of the fossil fuels it sells and uses in its remaining fossil-fired cogeneration plants;
- (2) also within category 3, the emissions related to the production of electricity that it purchases from the grid or third parties for resale to customers; and
- (3) the combustion-phase emissions of the gas it sells to customers as part of its energy retail business (category 11, use of sold products).

Exhibit 1

**Due to rapid reductions in other areas, emissions from gas sales (use of sold products) now represent about half of Vattenfall's current GHG footprint**

**Vattenfall's complete GHG inventory, track record and main carbon reduction targets\***

Activity	Scope	Absolute emissions (2017) MtCO <sub>2</sub> e	Absolute emissions (2025) MtCO <sub>2</sub> e	Share of emissions (2017)	Share of emissions (2025)	CO <sub>2</sub> e intensity (2017)	2030 target*	Absolute reduction 2025 vs 2017	Intensity reduction vs 2017	2040 targets*
<b>Direct emissions from owned or controlled sources</b>	<b>Scope 1</b>	<b>12.6</b>	<b>3.4</b>	<b>23.8%</b>	<b>14.6%</b>					
<b>Indirect emissions from the generation of purchased energy and T&amp;D conversion losses</b>	<b>Scope 2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1%</b>	<b>0.1%</b>	<b>110 gCO<sub>2</sub>e/kWh</b>	<b>25 gCO<sub>2</sub>e/kWh</b>	<b>-73%</b>	<b>-70%</b>	<b>9 gCO<sub>2</sub>e/kWh</b>
<b>Indirect emissions from the value chain</b>	<b>Scope 3</b>	<b>40.3</b>	<b>19.8</b>	<b>76.1%</b>	<b>85.2%</b>	<b>na</b>	<b>na</b>	<b>-51%</b>	<b>na</b>	
Purchased goods and services	Scope 3, Cat 1	0.5	0.2	0.9%	0.9%	na	na	-60%	na	
Capital goods	Scope 3, Cat 2	0.4	0.8	0.8%	3.4%	na	na	100%	na	
Fuel- and Energy-Related	Scope 3, Cat 3	23.3	7.3	44.0%	31.4%	199 gCO <sub>2</sub> e/kWh for all sold electricity	44 gCO <sub>2</sub> e/kWh for all sold electricity	-69%	-76%	90% absolute reduction all scope 3 and 95.4% intensity reduction for sold electricity intensity
Waste	Scope 3, Cat 5	0.2	0.0	0.3%	0.2%	na	na	-77%	na	
Business travel	Scope 3, Cat 6	0.0	0.0	0.0%	0.0%	na	na	-53%	na	
Other scope 3	Scope 3, Cats 4,7,8,12,15	0.1	0.1	0.3%	0.3%	na	na	-54%	na	
Use of sold products	Scope 3, Cat 11	15.8	11.4	29.8%	49.1%	na	-54.6% absolute reduction	-28%	na	90.0%
<b>Total Emissions</b>	<b>Scopes 1, 2, &amp; 3</b>	<b>53.0</b>	<b>23.2</b>	<b>100%</b>	<b>100%</b>	<b>na</b>	<b>na</b>	<b>-56%</b>	<b>na</b>	<b>-90%</b>

\*See text below for an exhaustive list of Vattenfall's announced GHG emissions reduction targets.

Sources: Vattenfall and Moody's Ratings

As part of its carbon transition plan, the company has set a series of emissions reduction targets:

» **By 2030:**

- reduce scope 1 and 2 GHG emissions intensity by 77% from 110 grams of carbon-dioxide equivalent per kilowatt-hour (gCO<sub>2</sub>e/kWh) in 2017 (to about 25 gCO<sub>2</sub>e/kWh)
- reduce 'all sold electricity' emissions intensity (from Vattenfall's power plants, as well as the emissions related to electricity purchased from third parties for resale, the latter included in scope 3 category 3) by 78.1% from 199 gCO<sub>2</sub>e/kWh in 2017 (to about 44 gCO<sub>2</sub>e/kWh)
- reduce absolute emissions related to sold fossil fuels (scope 3 category 11) by 54.6% compared with 2017
- reduce scope 1,2 and 3 overall absolute emissions by 65.6% compared with 2017

» **By 2040:**

- reduce scope 1 and 2 GHG emissions intensity by 91.7% from 110 gCO<sub>2</sub>e/kWh in 2017 (to about 9 gCO<sub>2</sub>e/kWh)
- reduce 'all sold electricity' emissions intensity (from Vattenfall's power plants, as well as the emissions related to electricity purchased from third parties for resale, the latter included in scope 3 category 3) by 95.4% from 199 gCO<sub>2</sub>e/kWh in 2017 (to about 9 gCO<sub>2</sub>e/kWh)
- reduce absolute emissions related to sold fossil fuels (scope 3 category 11) by 90% compared with 2017
- reduce absolute emissions related to the rest of scope 3 by 90% compared with 2017
- reduce scope 1,2 and 3 overall absolute emissions by 90% compared with 2017

## Ambition assessment — 1.5 C

Overall, we assess the ambition of Vattenfall's emissions reduction targets as consistent with limiting temperature rises to 1.5 C.

We have assessed Vattenfall's power generation targets using our global power sector benchmark. This benchmark represents different scenarios of decreasing carbon intensity in the power generation industry. We have assessed both Vattenfall's scope 1 and 2 targets, as well as Vattenfall's 'all sold electricity' targets (which cover own-generated electricity but also electricity purchased from third parties for resale).

In terms of scope 3, we have used our sector-agnostic absolute emissions rate-of-reduction benchmark. In the short term (2030), Vattenfall does not have an explicit target covering the entirety of scope 3. However, the combination of targets that the company has set (covering all emissions, scope 1 and 2 and parts of scope 3) enables the creation of an implied trajectory for the whole scope 3, which we have assessed in lieu of an explicit target. For the construction of this implied trajectory, we have assumed that the company's electricity generation and sales grow at around 2.8% per annum, in line with the trajectory of electricity demand growth for the EU under the IEA's Stated Policies Scenario (STEPS). This trajectory implies a 53% reduction in total scope 3 emissions between 2017 and 2030.

### Short-term scope 1 and 2 — 1.5 C

Vattenfall's target of reducing all sold electricity emissions intensity by 77% by 2030 is aligned with a global 1.5 C pathway (see Exhibit 2). We have also assessed its scope 1 and 2 target and find it to also be consistent with a 1.5 C trajectory.

### Short-term scope 3 — 1.5 C

Vattenfall's implied scope 3 trajectory through 2030 is consistent with a global 1.5 C pathway (see Exhibit 3). We have also assessed Vattenfall's target for reducing emissions related to sold fossil fuels by 2030, compared with our global oil and gas downstream emissions (combustion) pathway, and also find it to be aligned with a 1.5 C trajectory.

### Long-term scope 1 and 2 — 1.5 C

Vattenfall's target of reducing all sold electricity emissions intensity by 95.4% by 2040 is aligned with a global 1.5 C pathway (see Exhibit 2). We have also assessed its 2040 scope 1 and 2 target and find it to also be consistent with a 1.5 C trajectory.

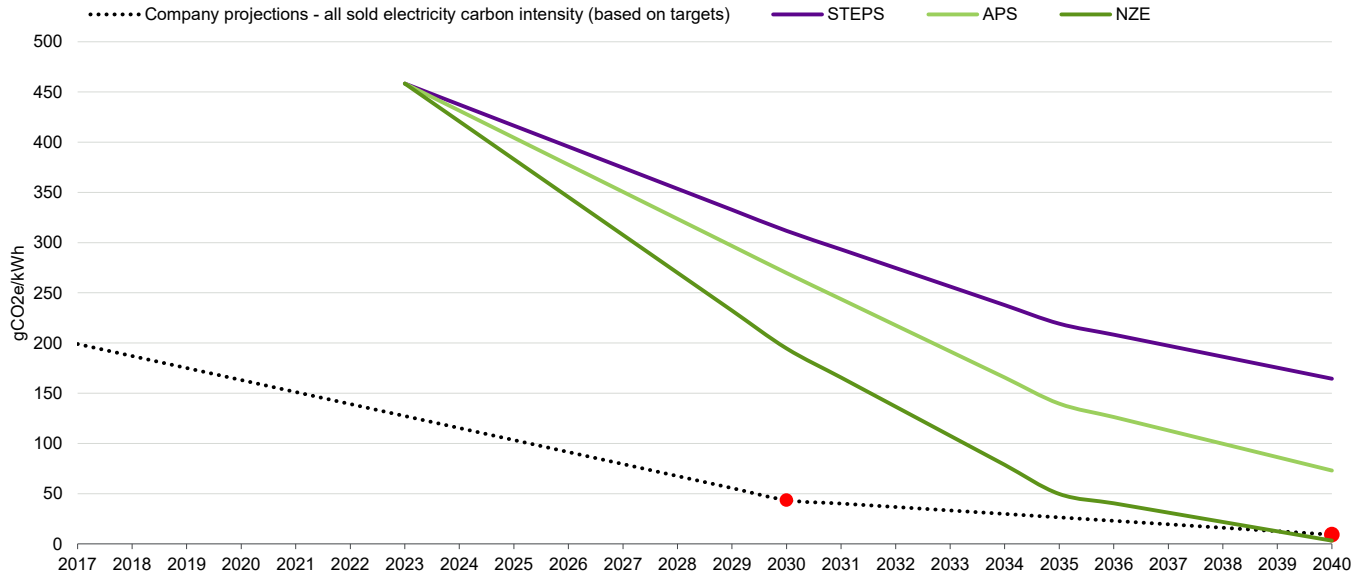
### Long-term scope 3 — 1.5 C

Vattenfall's explicit target to reduce scope 3 absolute emissions by 90% by 2040 is aligned with a 1.5 C pathway (see Exhibit 2).

Exhibit 2

**Vattenfall's electricity-related carbon intensity targets are aligned with a 1.5 C trajectory**

All sold electricity targets, gCO<sub>2</sub>e/kWh, by 2030 and 2040, compared with our global power sector carbon intensity benchmark



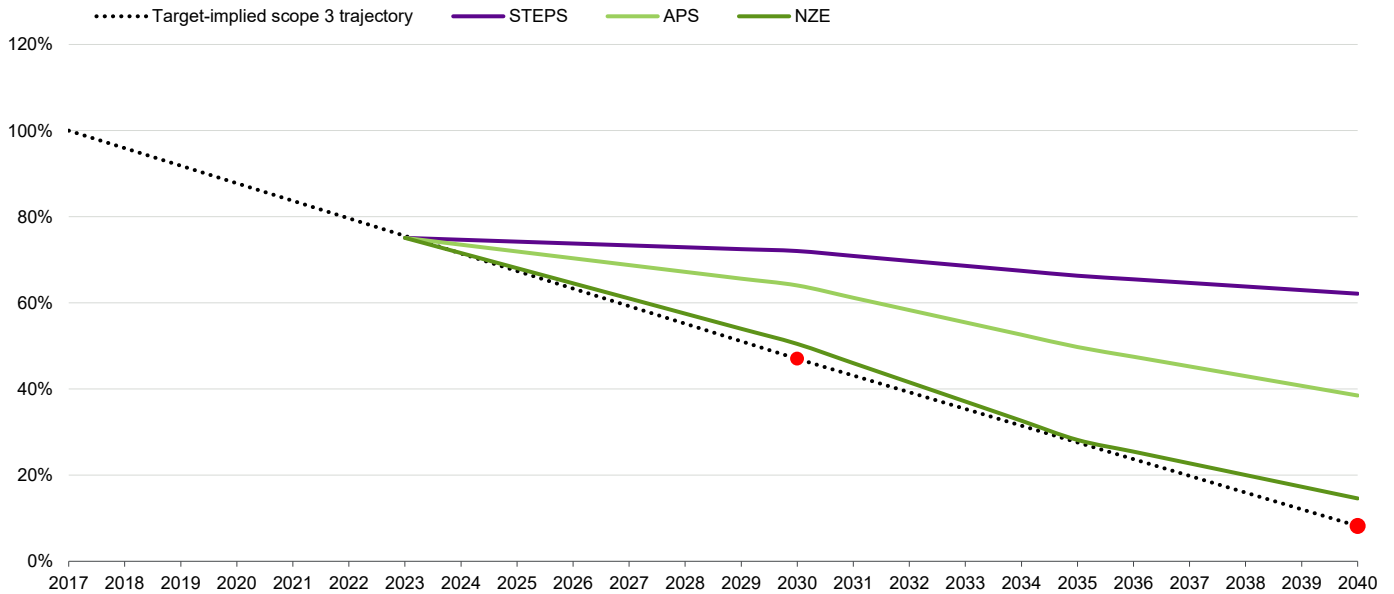
NZE = International Energy Agency (IEA) Net Zero Emissions by 2050 Scenario; APS = IEA Announced Pledges Scenario; STEPS = IEA Stated Policies Scenario. Assumes flat production in line with company expectations.

Source: Moody's Ratings

Exhibit 3

**Vattenfall's implied scope 3 trajectory is aligned with a 1.5 C absolute emissions reduction trajectory**

Total scope 3 trajectory implied by Vattenfall's targets, under Moody's assumptions, compared with our global absolute emissions reduction sector-agnostic benchmark



NZE = International Energy Agency (IEA) Net Zero Emissions by 2050 Scenario; APS = IEA Announced Pledges Scenario; STEPS = IEA Stated Policies Scenario. Assumes flat production in line with company expectations.

Source: Moody's Ratings

## Implementation assessment — Strong

We assess the overall quality of Vattenfall's implementation as strong.

Our assessment is primarily driven by the company's strong track record in reducing the GHG intensity of its power generation operations, underpinned by the full phase-out of coal and its position as the world's second-largest operator of offshore wind farms. Vattenfall's diversified low-carbon generation mix, with a balanced exposure to hydropower and nuclear baseload capacity, enhances system flexibility and supports the large-scale integration of renewables. This portfolio structure allows the company to exit fossil-fired generation with lower volatility and execution risk than many other low-carbon European peers.

As of 2025, Vattenfall has reduced the carbon intensity of its sold electricity by around 70% compared with 2017 levels, achieving more than 90% of its 2030 target. Over the same period, the company has also reduced absolute scope 3 value-chain emissions by about 51%, reflecting progress beyond its own generation fleet.

The company's strategy is centred on a continued shift toward a fossil-free business model, driven by growth in renewable generation while retaining hydropower and nuclear energy as baseload capacity. This approach encompasses investments in both centralised and decentralised energy solutions. In line with these priorities, Vattenfall plans net investments of around SEK165 billion over 2026-30, in line with the previous five-year plan. Growth capital expenditure is predominantly allocated to wind power, which accounts for roughly 65% of planned investments, underscoring the company's focus on expanding renewable capacity. A further 15% of growth investments are directed toward electricity distribution, while investments in the heat segment include selected e-boiler and biomass projects to support the gradual decarbonisation and modernisation of the heat portfolio. Maintenance capital expenditure is mainly focused on distribution network upgrades, existing heat assets, and investments on the company's Swedish nuclear and hydropower facilities.

With respect to nuclear generation, Vattenfall's planning assumptions allow for up to 60 years of operation for its five reactors currently in service, with potential lifetime extensions into the 2060s under assessment. This is supported by a favourable policy backdrop in Sweden, where the government is actively reviving the nuclear sector, targeting at least two large-scale reactors by 2035 and up to ten by 2045, including small modular reactors (SMRs). Vattenfall is positioned at the forefront of this strategy, having applied in December 2025 for state financing to develop SMRs at Ringhals. The policy framework includes state-backed loans, streamlined permitting, and a revised 'fossil-free' energy target, replacing the previous '100% renewable' objective, with a roadmap targeting 2.5 GW of new nuclear capacity by 2035 and 10 GW by 2045.

### Short-term scope 1 and 2 — Positive

The strong score for Vattenfall's short-term power generation targets reflects our expectation that the company will achieve more than 90% of the planned reduction. This threshold had already been reached by 2025, although some uncertainty remains around the company's ability to sustain this level over time. The assessment is supported by the substantial progress achieved to date and by a continued and expanded capital expenditure plan that positions wind power at the core of the generation strategy, underpinning further progress toward the stated target.

Vattenfall benefits from a solid renewables development pipeline, with 2.2GW of wind capacity under construction and a further 3.2GW at a mature stage of development, which could more than double current installed wind capacity over the next few years. While longer permitting timelines, higher costs and supply-chain constraints have led to several offshore wind project delays and suspensions across Europe in recent years, our estimates indicate that Vattenfall could still meet its 2030 power generation targets by commissioning only around 10% of its existing pipeline annually, even excluding contributions from solar and hydro projects. This reflects the company's significant progress toward its targets to date.

Under the IEA's conservative STEPS scenario, gas-fired power plants in the EU are expected to experience a continued decline in load factors through the remainder of the decade. If Vattenfall's remaining gas-fired generation follows this trend, alongside the ongoing expansion of its renewable portfolio, the company could exceed its 2030 power generation target.

However, because Vattenfall's remaining fossil fuel assets are predominantly CHP plants used for district heating, which are harder to replace, there is a risk that their load factors could decline more slowly than assumed under the STEPS scenario for the European power system. This risk is mitigated by two crucial factors. First, the company is investing significant capital expenditure to reduce the carbon

intensity of its district heating operations, including through efficiency upgrades and increased use of biomass and electric boilers. Second, Vattenfall has publicly stated that it is reviewing the ownership of this business, including the possibility of divestment, and has an established track record of exiting district heating activities, as demonstrated by the sale of its German coal-fired district heating operations (Heat Berlin) in 2024.

### **Short-term scope 3 — Satisfactory**

The satisfactory score reflects our expectation that the company will achieve between 75% and 90% of the implied scope 3 emissions reductions by 2030. This assessment is primarily supported by significant progress to date in line with the implied decarbonisation trajectory, although some uncertainty remains following the rebound in emissions from the use of sold products (gas sales) over the past two years.

The company achieved around a 51% reduction in scope 3 emissions over the eight-year period to 2025, close to the 53% reduction targeted by 2030 under the implied trajectory. This progress has been driven mainly by a sharp decline in emissions from electricity sales (negative 64%) and from the extraction of fossil fuels used in Vattenfall's own power generation (negative 40%), reflecting the reduced role of fossil fuels in its generation mix. Notably, emissions from procurement-related scope 3 categories — purchased goods and services and capital goods — have remained broadly stable, despite a significant increase in renewable energy investments and construction activity in recent years, supported by the company's efforts to promote more sustainable materials procurement.

Emissions related to gas sales, which are considered the most challenging scope 3 category to decarbonise, declined by about 28% over the same period. However, this reduction was largely driven by price effects linked to the war in Ukraine, and emissions have partially rebounded over the past two years. Despite this volatility, a structural decline in gas demand in Europe as a result of recent geopolitical tensions — driven by energy security concerns, policy measures and substitution in building heating and industrial processes — is expected to support further decarbonisation of this category over the medium to long term. In addition, Vattenfall has ceased onboarding gas-only customers in the German market, and its retail exposure is primarily concentrated in commercial and industrial clients, which are generally more responsive to price signals and regulatory developments arising from current geopolitical conditions.

### **Long-term scope 1 and 2 — Positive**

The strong score for Vattenfall's long-term power generation targets reflects the expectation that the company will achieve more than 90% of its planned reduction. This assessment is supported by Vattenfall's solid delivery track record and positive expectations for the 2030 assessment, which indicate that the company remains well positioned to meet its 2040 targets.

If Vattenfall meets its 2030 power generation targets — corresponding to a 77%-79% reduction in GHG intensity — the 2040 targets would require a more moderate incremental reduction of around 15%-17% over the subsequent decade. Over the longer term, the company is expected to further benefit from planned expansions in nuclear and hydropower capacity, supported by significant government backing, as well as from an increasingly competitive cost position for utility-scale battery storage solutions for baseload generation. Together, these factors are expected to further reduce reliance on fossil fuels in power generation. Finally, full ownership by the Government of Sweden, alongside its legally enshrined commitment to achieve net zero emissions by 2045, provides additional support for the credibility of the targets and the continued execution of the company's planned investments in the long term.

### **Long-term scope 3 — Developing**

The developing score reflects our expectations that the company will achieve between 66% and 75% of its targeted scope 3 emissions reductions by 2040. Vattenfall provides limited visibility into specific, long-term initiatives to decarbonise scope 3 emissions beyond 2030. However, the company discloses evidence of several concrete short-term actions that are expected to support progress toward its longer-term objectives, including circular economy programs and participation in industry-led green procurement initiatives, particularly for carbon-intensive materials such as cement and steel. In addition, Vattenfall is investing in biomethane projects and in expanding its heat pump installation business.

The assessment is further supported by expected passive decarbonisation trends across the European economy, notably the continued decarbonisation of power grids and a gradual shift away from fossil-based heating in buildings, which are expected to structurally reduce value-chain emissions over time.

## GHG governance assessment — Tier 1

We score Vattenfall's GHG governance as Tier 1, which is the highest possible outcome (see Appendix).

The company's GHG accounting practices are assessed as Tier 1, achieving the highest scores across all indicators. A key strength is the third-party verification of scope 1, 2 and 3 emissions by PwC, which includes a broad limited assurance statement and reasonable assurance for carbon-intensity disclosures. In addition, the company complements its carbon-intensity targets with absolute emissions targets covering all operations, ensuring that absolute emissions are not expected to increase should growth outpace improvements in carbon efficiency. Compared with most corporates, Vattenfall's emissions reporting and target setting are particularly clear and transparent with respect to the role of beyond-value-chain mitigation,<sup>1</sup> explicitly distinguishing gross emissions reductions embedded in its net zero targets.

The integration of climate objectives subfactor is assessed as Tier 1, with only limited penalties applied across three of the six indicators. The company demonstrates a strong integration of climate considerations into its strategic decision-making, providing adequate evidence of how potential ESG externalities arising from its carbon transition plan and broader operations are identified and managed. Its decarbonisation strategy is well aligned with its overall corporate strategy, and no corporate actions have been identified that would appear to conflict with its stated environmental objectives. Governance is further underpinned by full ownership by the Government of Sweden, with Vattenfall representing a strategically important asset in supporting the country's transition toward clean electrification.

Although some constraints remain within this subfactor, they were not considered sufficient to deviate from a Tier 1 score, given the overall company profile and track record. The link between remuneration and environmental objectives is primarily implemented at lower management levels, reflecting statutory and legal limitations for a government-owned entity. In addition, while the board is regularly engaged on environmental matters and receives related training, public disclosures provide limited detail on the scope of these engagements. Although there is clear evidence of recurring and consistent board involvement in the determination and approval of the decarbonisation strategy, responsibility for climate-related oversight is not currently formally assigned to a dedicated board-level committee.

## Appendix – Detailed GHG governance scorecard

Exhibit 4

Sub-factors	Aspect	Score	Comment
GHG Accounting	Emissions reported comprehensively for all scopes	4	No significant exclusions, all scope 3 categories are included.
	The entity separately reports the carbon offsets, carbon removals and avoided emissions in its key GHG metrics and target disclosures	4	GHG accounting system is based on gross emissions, without counting for offsets, avoided emissions and carbon removals.
	GHG disclosures for Scope 1&2 are third-party verified	4	Limited Assurance from PwC + Reasonable assurance for carbon intensity
	GHG disclosures for Scope 3 are third-party verified	4	Limited Assurance from PwC
	Targets are formulated based on absolute emissions	4	Absolute targets covering all emissions sources.
	Progress against key material targets is tracked and reported (inc. for Scope 3)	4	Detailed annual reporting, including progress on targets, and GHG emissions.
<b>Total GHG Accounting score</b>		<b>24</b>	<b>Tier 1</b>
Integration of Climate Objectives	The entity's behaviour is coherent with its stated environmental commitments	4	No significant evidence of adverse lobbying or other coherence issues.
	Environmental and social risks associated with the implementation of transition plans are identified and managed	4	We do not see salient environmental and social risks associated with the implementation of the transition plan that would put the transition plan at material risk. The coal phase-out has been completed and has been successful from a social perspective.
	The entity discloses evidence of board or board committee oversight of the management of climate change	3	The annual planning for the Board and its committees includes recurring items in several of the areas for sustainable business which are identified in the Swedish state ownership policy. These areas are furthermore included as an integral part of the handling of concrete board matters and are also handled by the Executive Group Management. Vattenfall's strategic focus areas in themselves constitute sustainability objectives and among others, sustainability aspects such as climate and environmental impact and human rights are included in the Board's handling of the strategy and in the business planning process. However, there is no formal climate change committee at the board level.
	The board demonstrates experience with respect to managing climate risks	3	The board is regularly exposed to climate change issues and topics in presentations and proposals from the sustainability department, but there are no members of the board who could be considered climate experts according to our criteria.
	Climate-related Key Performance Indicators (KPIs) are tied to CEO or other senior executive compensation plans	3	Vattenfall has a 2030 emissions reduction target aligned with SBTs, embedded in its strategic scorecard. These targets are cascaded to business areas and reviewed quarterly in performance meetings with business area heads and the CEO. At Group level, scorecard targets underpin the company-wide bonus program, covering all managers, including the Head of Sustainability, Environment and Business Operations. While Swedish state-owned company rules prohibit bonus components for C-suite executives, overall target achievement is still considered in their performance reviews.
	Targets are subject to approval and oversight by owners or public authorities	4	Reduced climate impact is explicit in the company's statement of incorporation. 100% owned by the Government, which has a net-zero law by 2045.
<b>Total Integration of Climate Objectives score</b>		<b>21</b>	<b>Tier 1</b>

Sources: Vattenfall and Moody's Ratings

### Our Net Zero Assessment: Summary of scoring approach

Our Net Zero Assessment provides an independent and comparable evaluation of an entity's carbon transition plan, consisting of the Ambition score and the Implementation score.

#### Ambition score

The Ambition score assesses the level of ambition in an entity's emissions reduction targets. We compare the entity's emissions targets with sector-specific decarbonisation pathways derived from scenario modelling conducted by the International Energy Agency (IEA). The most ambitious pathway considered aims to achieve global net zero emissions by 2050 and limit global temperature increases to 1.5 C.

We assign a score to each target based on the implied global warming, known as the Implied Temperature Rise (ITR). To determine the ITR, we project the entity's GHG emissions using reported emissions and targets, comparing them with emissions estimates from three benchmarks (corresponding to three IEA scenarios: Net Zero Emissions by 2050, Announced Pledges Scenario and Stated Policies Scenario) in the target year. Linear interpolation is used between these three benchmarks (that imply different levels of global warming) and the entity's projected emissions in the target year, to determine the implied level of global warming in the entity's targets (the ITR).

The Ambition score is expressed on a six-point temperature scale, ranging from 1.5 C to above 2.5 C.

#### Implementation score

The Implementation score evaluates the quality of an entity's transition plan implementation. We examine the actions, assumptions and strategic coherence of the entity's emissions transition plan. A higher Implementation score indicates a higher likelihood of achieving targeted emission reductions. This score is expressed on a five-point scale.

Implementation is evaluated by scoring the same four subfactors as Ambition: Short-term scopes 1 and 2, short-term scope 3, long-term scopes 1 and 2, and long-term scope 3. Each subfactor is scored on a four-point scale (positive, satisfactory, developing, negative) based on the strengths and areas requiring further development along technical, business and financial considerations.

#### GHG Governance score

Governance is assessed using a predefined list of questions, assigning points for each and mapping them to a final factor score along a four-point scale of Tier 1-4.

#### Arriving at the final Net Zero Assessment score

The Ambition and Implementation scores are combined to generate the final NZA score, which represents the overall assessment of an entity's carbon transition plan. The Ambition score determines the maximum NZA that a company may receive, which may be lowered on account of implementation or governance risks. The NZA is expressed on a five-point scale, ranging from NZ-1 (leading) to NZ-5 (limited).

For more details on the framework, please see the [Net Zero Assessments Framework](#), 9 November 2023.

## Endnotes

- 1 'Beyond-value-chain mitigation' includes external carbon offsets, carbon credits, avoided emissions (scope 4) accounting and carbon removals.

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REPORT NUMBER 1482913