

Vanguard's Report on Climate-related Impacts 2025

In alignment with the Task Force on Climate-related Financial Disclosures (TCFD)

VANGUARD'S CORE PURPOSE

To take a stand for all
investors, to treat them fairly,
and to give them the best
chance for investment success.

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This report has been prepared by The Vanguard Group, Inc., in alignment with the guidelines of the Task Force on Climate-related Financial Disclosures. Reporting against such guidelines is a growing regulatory requirement in certain jurisdictions where Vanguard operates. Unless otherwise specified, the data used for this report are as of December 31, 2025.

Introduction

About Vanguard

Vanguard was founded in 1975 on the basis of a simple but revolutionary idea: An investment company should manage its funds in the best interests of its clients. What sets Vanguard apart in the industry is our unique mutual ownership structure. Vanguard is owned by our U.S.-domiciled funds, which in turn are owned by their investors. This structure is reflected in our core purpose: **To take a stand for all investors, to treat them fairly, and to give them the best chance for investment success.**

Today, we are one of the world's leading asset management companies, offering investment products, advice, and retirement services to individuals, financial professionals, and institutions.

A focus on the individual investor

Vanguard serves more than 50 million individual investors around the world who have chosen to entrust us with their hard-earned savings to invest for important goals, such as education, the purchase of a home, or retirement. We serve these investors directly, through workplace plans and financial intermediaries.

The Vanguard funds are managed in the best interests of the funds' shareholders and are used as tools to help our clients meet their financial objectives. Each portfolio strives to meet a specific investment objective, follow well-defined strategies, and adhere to clear policies.

The Vanguard funds' approach to climate risk

Vanguard offers more than 400 products, each of which is managed by one or more of over two dozen highly respected investment managers with their own approaches to understanding and attending to material risks that can erode investors' long-term returns, which may include climate-related risks.

- We provide investors with the information and products they need to make sound investment choices and reflect their personal preferences. These can include some investments with clearly stated climate or sustainability-related considerations as part of their mandates, such as exclusionary environmental, social, and governance (ESG) index products or certain actively managed ESG funds.
- On behalf of Vanguard's internally managed equity index funds, our investment stewardship professionals engage with companies held by Vanguard funds to understand how boards of directors oversee and disclose material risks.
- Some fund investors may wish to have a greater voice in corporate governance matters at companies held in their funds. Through [Vanguard's U.S. Investor Choice program](#) and U.K. Investor Choice pilot, equity index fund investors can choose from a menu of proxy voting policy options and select an option that best aligns with their personal preferences regarding proxy voting matters.
- We offer our perspectives on markets and material risks to policymakers, who are specifically empowered to address complex societal matters like climate change.
- We publicly report on Vanguard's efforts with respect to climate risk in line with the broadly accepted recommendations of the TCFD, in line with our deep commitment to our investors and their financial well-being.

Governance

In this section, we discuss Vanguard's approach to governance of climate-related risks and opportunities.

Governance

Vanguard's oversight of both climate-related impacts and clients' best interests is carried out through an integrated structure of boards, committees, and functions.

Board oversight of climate-related risks and opportunities

The Vanguard Group, Inc. (VGI) is owned by our U.S.-domiciled funds, which in turn are owned by their investors. As of December 31, 2025, the VGI Board of Directors (VGI board) was comprised of 14 directors, 13 of whom also served as the U.S.-domiciled funds' Boards of Trustees (fund boards). Each member of these boards offers a wealth of executive leadership experience derived from their service as senior executives, board members, and leaders of various public operating companies, academic institutions, government agencies, and other organizations. The VGI board and fund boards meet regularly throughout the year to fulfill their functions and obligations.

The VGI board is responsible for, among other matters, setting broad policies for the company and overseeing risk management relating to Vanguard's corporate operations. Where applicable, the execution of these responsibilities includes consideration of material issues, such as sustainability- and climate-related risks and opportunities, as relevant to Vanguard's corporate operations.

The fund boards and applicable committees oversee the Vanguard funds' risk management, including consideration of sustainability- and climate-related risks and opportunities.

The VGI board and fund boards, including committees as appropriate, also oversee the various Vanguard functions that conduct day-to-day risk management as applicable. This includes compliance, fund services and oversight, enterprise investment services, investment management, legal, product, and risk management. The fund boards, through their investment committees, also oversee the investment stewardship function. In addition, the VGI board and fund boards' Audit and Risk Committees have regular interactions with internal and external auditors.

Outside the U.S., the boards of our international businesses exercise similar oversight responsibilities in their respective regions. For a regional example, see "In focus: European ESG governance framework" on page 11.

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Board engagement on climate matters affecting our product lineup

The U.S. fund boards, through their investment committees, retain proxy voting authority for the U.S. Vanguard-advised funds and receive periodic updates on the funds' investment stewardship activities, including voting and portfolio company engagement. Investment stewardship professionals independently conduct proxy voting on behalf of our internally managed Vanguard U.S. equity index funds. For funds participating in Vanguard Investor Choice, a portion of those funds equivalent to the proportionate holdings of investors choosing to select a policy other than the fund's default proxy voting policy will be voted in a manner consistent with the recommendations of the chosen policies of such investors. Vanguard does not have a singular perspective on corporate governance practices, nor do the funds vote in a uniform manner. The U.S. fund boards' investment committees receive

information on key themes and emerging areas of risk for portfolio companies identified through investment stewardship activities (for example, financially material risks related to climate change) and, as applicable, provide guidance on how to consider those risks in a manner consistent with the funds' proxy voting policies and guidelines. The investment committees of the funds' boards consider updates to those policies and guidelines annually to address new or evolving issues.

Vanguard's investment stewardship teams do not seek to dictate portfolio company strategy or operations; rather, they maintain that the board of each portfolio company is responsible, and best situated, for determining the appropriate risk-mitigation approaches for that company to maximize shareholder value.¹ To the extent that any legally binding or government-specified limits related to carbon emissions or other climate-related activities are applicable to portfolio companies held by the Vanguard-advised funds, we believe companies should disclose how their business strategies are

appropriate in the context of those factors. Working on behalf of our investors, the Vanguard-advised funds encourage companies to provide fulsome disclosures related to any disclosed targets and their underlying strategies so that their share prices reflect the market's assessment of the associated risks and opportunities.

As part of the oversight process for our global investment product lineup, the U.S. fund boards' relevant investment committees meet directly with the managers of our actively managed funds as appropriate and receive reporting on each manager's consideration of material issues, including material climate-related topics.

The relevant investment committees also receive an annual report on the external advisors' proxy voting and approve their proxy voting policies and procedures. The 2025 proxy voting report for the externally managed funds included a discussion of key themes and material votes in 2025.

¹ On January 12, 2026, The Vanguard Group, Inc. (VGI) and its affiliates (together, "Vanguard") completed an internal reorganization of investment management and investment stewardship functions, which resulted in two independent investment stewardship teams: Vanguard Capital Management Investment Stewardship (VCMIS) and Vanguard Portfolio Management Investment Stewardship (VPMIS). This report describes the proxy voting and engagement activities conducted by Vanguard's Investment Stewardship program from January 1, 2025, through December 31, 2025 ("the reporting period"). Any forward-looking discussion of Vanguard investment stewardship in this report refers to proxy voting and engagement activities by VCMIS and VPMIS, separately.

Management's role regarding climate-related risks and opportunities

Sustainability Risk and Strategy Oversight Committee

The Sustainability Risk and Strategy Oversight Committee (RSOC), composed of senior leaders across our product, communications, stewardship, compliance, risk, and legal functions, was the governing leadership forum in 2025. It facilitated oversight of global sustainability-related matters by:

- Sharing awareness of sustainability-related global risks, strategic opportunities, and investment perspectives.
- Building knowledge of precedent-setting sustainability-related reporting requirements and their implications.
- Deciding how to address such risks and opportunities or aligning department resources to do so.

RSOC aimed to facilitate enterprise strategic alignment and enhance accountability through a cross-functional structure. In 2025, RSOC discussed emerging regulatory trends, our enterprise climate-risk strategy, and enterprise sustainability-related reporting—including the TCFD—among other topics. Vanguard's approach to climate-related governance continues to evolve, informed by enterprise-wide discussions, regulatory developments, and the growing expectations of investors.

Investment products and services

Vanguard takes a disciplined, long-term approach to product development and strategy, and our product governance structure is intended to cover material risks and opportunities, including those that are climate-related. As an integral part of this process, dedicated teams develop our global product strategy, monitor the performance of each Vanguard fund, and oversee the funds and their investment advisors to ensure that they follow defined investment objectives and collectively offer diverse investment exposures consistent with our investment philosophy.

Regional teams conduct product research and product management to evaluate local market conditions and assess local client preferences. Vanguard's Portfolio Review Department regularly convenes Vanguard's Global Investment Committee (GIC) to engage on key issues relevant to product oversight. The committee's work includes matters regarding new products and risk guidelines, among other things. The committee's input is incorporated into final recommendations to the fund boards, and in certain cases to the regional investment committees (for non-U.S. businesses). Vanguard's chief executive officer serves as the committee chair, and members include senior leaders from Vanguard's investment, product, business, legal, compliance, and risk functions.

In addition to the GIC, the Manager Oversight Committee regularly meets with current and prospective managers as part of the oversight and selection process. The work of this committee supports the product-related recommendations made to the GIC and, ultimately, to the fund boards or their relevant investment committee for review and approval as appropriate.

Governance

Stewardship of portfolio securities

Vanguard offers more than 400 products, each of which is managed and stewarded by one or more of over two dozen highly respected investment managers with their own approaches to proxy voting and engagement. On behalf of Vanguard's internally managed equity index funds, our investment stewardship professionals engage with portfolio companies held by Vanguard funds to understand how boards of directors oversee and disclose material risks, including material climate risks, and are responsible for the day-to-day administration of the funds' proxy voting process. Consistent with the investment philosophy of the internally managed funds, Vanguard's investment stewardship teams do not seek to influence or dictate portfolio company strategy or operations; their focus is on corporate governance practices associated with long-term investment returns for fund shareholders.

At the direction of the relevant board or investment committee, an oversight committee is responsible for overseeing proxy

voting and stewardship activity with respect to the equity securities held in Vanguard's internally managed index funds. The oversight committee periodically reviewed stewardship practices and proxy voting policies, including those concerning material climate risks. Those reviews encompassed such topics as changes to proxy voting policies, portfolio company engagement and voting activities, and risk control processes. The committee reviewed and assessed any appropriate proxy voting policy changes before those changes were recommended to fund boards. The committee includes senior officers from several functions, including investment, product, risk, legal, and compliance. The investment stewardship team provided periodic reports to the fund boards and, as appropriate, to other boards responsible for the oversight of proxy voting for other U.S. and non-U.S. products.

Since 2019, the proxy voting responsibilities for externally managed Vanguard equity funds have been delegated to the third-party investment advisors who manage those funds, allowing these firms to fully integrate their stewardship

approaches with their unique investment processes and perspectives. A Proxy Oversight team conducts ongoing oversight to ensure that external advisors are consistently exercising their obligations with respect to voting proxies. The Proxy Oversight team also provides annual updates to the fund board investment committees. Each external investment advisor that Vanguard partners with maintains its own policies and guidelines designed to meet its proxy voting obligations, which are reviewed and approved by the respective fund board's investment committee at least annually.

Vanguard as a corporate actor

Vanguard has established goals and targets for operational sustainability to help responsibly manage and reduce our own environmental footprint. Our corporate sustainability efforts are led by the Global Workplace Experience (GWx) department, which reports to Vanguard's chief financial officer. See "Vanguard as a company" on page 32 for more information.

Governance

IN FOCUS

European ESG governance framework

In addition to our global governance structure, we have regional structures in place to navigate the market and regulatory environments of each of the jurisdictions in which we operate. The Vanguard companies in Europe include our U.K.-regulated entities, Vanguard Asset Management, Ltd. (VAM), and Vanguard Investments UK, Limited (VIUK), as well as other affiliates, including but not limited to Vanguard Group (Ireland) (VGIL), and Vanguard Group Europe GmbH (VGEG) (collectively, Vanguard Europe).

Vanguard Europe's boards oversee risk management in their respective jurisdictions, including risks associated with ESG matters, within Vanguard Europe's overall business strategy, and regulatory and governance risk frameworks. Vanguard Europe's boards oversee the risk management of various functions, including compliance, fund accounting, financial reporting, fund administration, investment management, investment stewardship, legal, product, and regional risk management. The boards typically meet at least five times a year. They consider issues affecting Vanguard Europe's evaluation of ESG risk and strategy matters and engage with Vanguard's executive management to help determine effective actions to discharge their responsibilities and oversight. Management arranges for periodic relevant training to the boards on ESG matters.

European ESG Management Oversight Council

The European ESG Management Oversight Council (ESG MOC) was the governing leadership forum in place through March 31, 2025. It provided oversight of ESG risks and strategy in relation to Vanguard Europe that had the potential to impact the broader Vanguard enterprise and its investment products and services. The ESG MOC reported to Vanguard's European Leadership team and the Managing Director of Europe. In March 2025, European ESG governance was streamlined following the maturation of several ESG initiatives and their integration into core business operations. The ESG MOC was discontinued, with responsibilities consolidated under the European ESG Programme Steering Committee (ESG Steer-Co). This shift reflected an evolution in the operating model, enhancing efficiency and accountability while maintaining full oversight of ESG regulatory and strategic priorities.

ESG Steer-Co

The ESG Steer-Co is a European regional forum established in March 2025. The committee's voting members include subject matter experts and representatives from areas such as risk management, business, operations, legal, and compliance. The ESG Steer-Co is responsible for providing oversight of regulatory change and other strategic initiatives related to environmental, social and governance topics. The ESG Steer-Co is overseen by the Head of Office of the General Counsel, Europe.

Strategy

In this section, we discuss how Vanguard considers climate-related risks and opportunities across our business.

Strategy

We manage our business with the goal of creating long-term value for our clients.

Our client-centric strategy

Vanguard's strategy as a corporate actor and asset manager is grounded in our investor-owned structure. Vanguard is owned by our U.S.-domiciled funds, which in turn are owned by their investors.

In support of our strategy, we have an important role to play in understanding and responding to risks and opportunities that impact our ability to serve clients and help them meet their financial goals.

At Vanguard, climate risk is not considered a discrete risk. Instead, climate change and the resulting global response is viewed as a potential root cause or driver of the principal near-term and long-term risks facing the organization, namely financial, strategic, technology, and investment management risks. The central objective of Vanguard's investment management is to maximize long-term returns for investors through our product lineup.

We identify and seek to manage short- and medium-term top risks to the enterprise while conducting longer-term horizon scanning to evaluate and prioritize action planning for future risks.

Climate-related risks and opportunities

In general, organizations face both physical and transition risks from climate change. Physical risk involves the tangible impacts of climate change, including extreme weather events such as flooding, wildfires, and droughts. Transition risk involves the move to a low-carbon economy through policy, preferences, technology, and market changes.

Vanguard seeks to understand and monitor physical and transition risk drivers that may present material risks to our ability to serve our investors. We conduct ongoing investment, expense management, and operational oversight to modernize and maintain the resiliency of our core infrastructure (such as computer systems and buildings) and to implement evolving regulatory and reporting requirements.

Strategy

Figure 1 highlights examples of climate-related risks that Vanguard could face. We actively monitor these potential risks and remain confident in our approach to effectively managing risks that could affect our clients' long-term investments.

FIGURE 1
Summary of climate-related risks

	Risk category	Risk description	Illustrative risk impacts	Driver type
Investment product and management	Investment management risk	Market, credit, and liquidity risks that impact returns or impede our ability to manage assets on behalf of clients	Mass market movements and decreased liquidity driven by either sudden transition activity (like policy change) or the impact of extreme climate events	Transition and physical
			Market repricing or increased volatility due to uncertainty about climate risks makes an impact on companies by sector or geography	Transition and physical
	Operational risk	The risk to operations due to human error, or inadequate or failed processes, systems, or service providers	Reputational damage and compensation costs related to holding securities that are not aligned to the ESG objectives of an ESG product	Transition
			Business interruptions to Vanguard's investment services stemming from extreme climate events	Physical
			Regulatory breach and legal costs associated with inaccurate disclosures or requirements related to climate objectives	Transition
Strategic risk	Risks related to management's ability to make appropriate business decisions to prepare for and react to the broader economic or regulatory environment	Investment product range fails to align with changing investor sentiment	Transition	
		Regulatory policies or incentives drive new or customized product offering for which the business is unprepared	Transition	
Business operations and financial health	Financial risk	Risk related to the organization's ability to manage its financial resources efficiently and responsibly	Loss of revenue from fund drawdowns as clients shift away from investment approaches not aligned with their preferred climate-risk-mitigation strategies	Transition and physical
	Operational risk	Risk of failure or deficiency in resiliency preparedness	Business interruptions to Vanguard's corporate services stemming from extreme climate events	Transition and physical
	Regulatory risk	The risk of noncompliance with new or existing laws and regulations	Increased financial costs because of complex global regulatory requirements	Transition
	Strategic risk	Risks related to management's ability to make appropriate business decisions to prepare for and react to the broader economic or regulatory environment	Employee skill sets prove inadequate to address climate-related challenges (such as failing to meet requirements or misinterpreting data and client needs)	Transition
Regulations on climate change and sustainable investing interfere with Vanguard's ability to conduct business			Transition	

Strategy

While certain risks exist, efforts to adapt to climate-related risks and encourage innovation may also present Vanguard with opportunities, such as those outlined in **Figure 2**.

Transition-related corporate and investment risks

In the near term, Vanguard considers transition risks to be a greater driver of enterprise risk than physical risks related to Vanguard's operations, as we believe that regulations and reporting requirements are more likely to affect Vanguard than physical risks in the short-term. Climate-related regulations and reporting requirements are evolving at different paces and with varying degrees of complexity in markets around the world.

We also consider transition risks to be a more pressing driver of risk in the short-term and medium-term for companies held in our products, with physical risks either being event-driven or generally acting as a driver of longer-term risk. As governments and sectors diverge in climate policy approaches, and global markets approach key dates outlined in the Central Banks and Supervisors Network for Greening the Financial System (NGFS) scenarios, there is greater potential for transition risks driven by the emergence of disorderly transition scenarios.

FIGURE 2
Summary of climate-related opportunities

	Opportunity	Opportunity description	Illustrative opportunity impact	Driver type
Investment product and management	Operational	Innovations that stem from addressing climate change foster increased efficiency	Availability of improved datasets leads to enhanced oversight of investment companies, improving market performance	Transition
	Strategic	Investor demand for investment products and advice focused on managing through climate change drives growth	Development of climate-related products that meet client demand drives enduring value for clients	Transition and physical
Business operations and financial health	Financial	Greater understanding of operational resiliency	Improvements in identification and mitigation of risks and enhancements to operational resilience in response to climate-related challenges leads to more efficient use of capital and cost savings achieved through optimized risk management and effective risk transfer strategies, such as insurance	Transition and physical

Meeting investment needs of clients

Vanguard has an opportunity to meet the evolving investment needs of our clients through products that consider certain risks and opportunities, including those that are climate-related.

Our product lineup includes both index and actively managed funds. Our index funds enable investors to construct broadly diversified portfolios and frequently serve as core building blocks underlying our array of multi-asset products. Our equity index and fixed income passive funds seek to track the performance of broad market indexes created by third-party index providers. Vanguard also offers its U.S. Investor Choice proxy voting program and, starting in 2026, our U.K. Investor Choice pilot, which is available to eligible professional intermediaries in select U.K.-domiciled equity index funds. Through the U.K. pilot, participating intermediaries can select from a focused set of proxy voting policy options designed to reflect various governance principles. This initiative specifically helps demonstrate operational robustness in a new market and assess U.K. investor interest in this emergent capability. With Investor Choice, investors can choose a proxy voting policy that is best aligned with their personal preferences; their chosen policy directs how their proportionate share of eligible mutual funds and ETFs are voted at corporate shareholder meetings. For equity index fund investors who choose to not participate in Investor Choice or do not own a participating fund, our investment stewardship professionals continue

to evaluate proxy proposals and engage with portfolio company boards and management teams. Vanguard's investment stewardship teams do not seek to dictate company strategy or day-to-day operations at portfolio companies. Investment stewardship professionals engage with companies to understand how boards disclose and oversee material risks. See "Investment Stewardship" on page 22 for more information.

Some of our investment products are designed to include specific goals and objectives related to ESG factors for investors who select such approaches. Our exclusionary ESG index products, for example, avoid or reduce exposure to specific business practices and industries, including many that are carbon-intensive, while still seeking to achieve market-like returns.

Our actively managed funds include several ESG-focused funds that aim to generate excess return by allocating capital to companies with leading or improving ESG practices. In some instances, these actively managed ESG funds account for climate considerations and may have specific and clearly stated net zero objectives.

We also offer many actively managed products that do not have ESG-specific mandates. The managers of these products may pursue their own approaches to considering material ESG risks.

Resilience of our strategy

Our U.S. mutual fund ownership structure enables us to continually invest in people and technology to ensure that we can serve our clients and remain operationally resilient at all times.

Vanguard's focus on long-term returns, rather than quarterly results, keeps our business resilient, even during challenging macroeconomic environments. We have captured positive net cash flows into our funds for 47 consecutive years, and our asset base is diversified across product type, asset class, and management style. We maintain a strong balance sheet and liquidity position, which are regularly monitored through stress testing to ensure that we can withstand the financial implications of significant, unexpected events, including those resulting from climate change.

We are confident in each fund's investment advisor's approach to managing risks that could affect our clients' long-term investments, including material risks resulting from climate change. Our multifaceted approach includes: the balanced menu of policy options available through Vanguard Investor Choice; the portfolio company engagements and voting conducted by our investment stewardship professionals on behalf of Vanguard's internally managed equity index funds; our rigorous processes for selection and oversight of the managers of our internally managed fixed income and multi-asset funds and externally managed funds; and our thoughtful approach to product development.

IN FOCUS

Vanguard U.K. stress and scenario testing

A key component of Vanguard U.K. (VAM and VIUK) risk processes is a material risk assessment of harms.

The assessment's objectives are to:

- **Identify material harms:** Determine potential harms that could arise from the ongoing operation of Vanguard's U.K. business.
- **Determine material risks:** Assess the risks facing Vanguard's U.K. business, clients, and financial markets over various time horizons.
- **Assess probability and impact:** Evaluate the likelihood and potential impact of identified risks and stress testing where appropriate to inform strategic and financial planning.
- **Identify mitigating actions:** Assess and identify management actions and internal controls to mitigate material risks.
- **Provide assurance:** Ensure stakeholders are confident in the effectiveness of management actions related to the level and nature of risks faced.

The material risk assessment of harms supports Vanguard U.K.'s overall risk life cycle and provides assurance that:

- Vanguard U.K. can remain financially viable throughout the economic cycle, with the ability to address any material potential harm that may result from its ongoing activities.
- Vanguard U.K.'s business could be wound down in an orderly manner, minimizing harm to customers and other market participants.

Vanguard U.K. has identified a series of severe but plausible risk scenarios with which to stress test our business. Stress testing involves adjusting specific parameters that affect the financial position of Vanguard U.K., including capital and liquidity, income, and profit.

Our stress tests specifically evaluate:

- **Greenwashing risks:** The potential for misleading claims about the environmental benefits of our products.²
- **Resilience to physical climate-related risks:** The robustness of Vanguard U.K.'s strategies in addressing physical climate-related risks and opportunities.

Greenwashing risk

Greenwashing risk is considered within a broader product misrepresentation scenario, which is used to estimate potential client redress costs following a material compensation event, of which greenwashing could be one potential driver.

This scenario uses a Monte Carlo simulation to estimate a severe but plausible 1-in-200-year operational risk financial outcome, informed by management judgment and modeling assumptions. The modeling assumptions are related to potential compensation outcomes arising from product misrepresentation, not any specific greenwashing event.

Limitations of the greenwashing risk scenario analysis

A limitation of this assessment is that greenwashing risk is not modeled as a standalone financial scenario. Rather, it is considered within a broader product misrepresentation scenario used as a proxy for potential conduct-related compensation outcomes. As a result, the assessment does not quantify the financial impact of greenwashing risk in isolation and does not rely on the forecasting of specific greenwashing-related events. Instead, it relies on modeling assumptions and management judgment to assess financial resilience.

² Greenwashing is the making of false or misleading claims about sustainability benefits (environmental or social) of a product or service.

Strategy

Resilience to physical climate-related risks

To identify relevant risk scenarios, Vanguard U.K. utilizes economic and econometric models provided by Vanguard's Investment Strategy Group on topics such as sustainability- and climate-related risk.

Analysis is performed across four NGFS-aligned scenarios and considers impacts over 5-, 10-, and 30-year time horizons. The outcome of this analysis indicates that physical climate risks are not expected to have a material impact on Vanguard's business strategy or resilience over the short and medium terms. While internal research suggests that physical climate risks are likely to affect global markets over longer time horizons, long-term scenario analysis is currently not embedded within Vanguard's financial planning or forecasting processes. This reflects the inherent uncertainty associated with long-term projections and the likelihood that assumptions, market conditions, and regulatory expectations will continue to evolve.

Limitations of physical climate-related scenario analysis

Climate scenario analysis has inherent limitations. The analysis is based on macroeconomic modeling and is intended to provide insight into how climate-related risks could affect the wider economic environment, rather than detailed impacts at an entity or operational level. The focus on 5- and 10-year time horizons reflects where assumptions are considered most meaningful for financial planning, with the understanding that uncertainty increases significantly over longer periods. As a result, scenario analysis necessarily involves judgement and simplification and does not capture all potential climate-related risks or future outcomes.

Ongoing development

Vanguard U.K. continues to develop its approach to climate scenario analysis. Work is underway to strengthen entity-level analysis through enhanced data and reporting capabilities, which will support more tailored assessments over time. These developments are expected to enable broader consideration of climate-related risks, including transition and physical risks, as approaches and data continue to mature.

Risk management

In this section, we discuss how Vanguard identifies, evaluates, and manages climate-related risks and opportunities on behalf of our investors.

Vanguard has a long history of thoughtfully managing risk in support of its long-term, client-focused mission.

Identifying and assessing climate-related risks

Principal steps in our risk management process:

- **Identify risks:** Identify potential harms arising from ongoing business operations.
- **Assess risk exposure:** Evaluate key risks across business operations, clients, and financial markets, across various time horizons.
- **Analyze impact and likelihood:** Assess the potential severity and probability of identified risks, including the use of stress testing and scenario analysis where appropriate, to inform strategic and financial planning.
- **Manage and mitigate risks:** Define and implement management actions, remediation plans, and internal controls to mitigate risks to acceptable levels.
- **Provide assurance and oversight:** Monitor risk outcomes and the effectiveness of management actions to provide confidence to stakeholders regarding the level and nature of risks faced.

As a matter of course, we seek to identify, assess, and manage risks from both a corporate and an investment product management perspective, taking impact, likelihood, and urgency into account. In our experience, it is critical to continually evolve and refine the way each risk is considered.

Vanguard embeds relevant material climate-related risk considerations into existing corporate functions to ensure that these factors are considered alongside, not separately from, other matters important to serving our clients. Within our investment processes, we integrate broader governance considerations where appropriate.

Our overall corporate risk-management approach is founded on three core lines of defense:

- **Vanguard's business units**, which include areas ranging from client-facing teams to shared service functions, such as technology and finance. We assess risks within the respective purview of each area and develop processes and control frameworks to mitigate potential impacts on our clients.

- **Vanguard's corporate risk functions**, which include Global Risk and Security and the Office of the General Counsel (which includes Legal and Compliance functions). We incorporate risk prevention across areas of our operations and businesses to match risk mitigation efforts with areas of expertise, including for climate-related risks.
- **Vanguard Internal Audit**, an independent and objective team directly accountable to the VGI board, assesses the adequacy of internal controls to enhance the governance and oversight of enterprise risks and risk management.

Risk management

Business continuity

As a company dedicated to helping clients build and preserve wealth, Vanguard plans carefully and methodically to ensure a quick and smooth recovery from a potential emergency or disruptive event, including climate-related events.

Vanguard's Enterprise Resiliency and Business Continuity Management group, within Global Risk and Security, oversees enterprise resilience and partners with business continuity teams in every division at Vanguard sites globally. The group independently assesses and monitors business continuity to ensure that we can continue operations and serve our clients during natural disasters, weather-related events, and other potential disruptions.

Our integrated business continuity program oversees enterprise resilience and provides crisis management, governance, and oversight to ensure employee, supplier, technology, and workspace resilience. The process has three major components:

- Identifying and mitigating risks
- Documenting detailed business contingency plans
- Executing comprehensive contingency tests

In addition to regular planning, maintenance, and testing, we use several routine business strategies to ensure flexibility and resilience in our operations. For example, Vanguard runs key business functions from multiple geographic locations, which in turn reduces the risk of disruption due to climate-related events or other external factors.

Our portfolio managers and investment analysts in each region work as one team. This approach enables us to collaborate across multiple time zones to extend the number of hours in a trading day and ensure business continuity. We have trading desks in two of our U.S. locations (Pennsylvania and Arizona) and in the U.K. and Australia.

Investment Stewardship

Vanguard offers more than 400 products, each of which is managed and stewarded by one or more of over two dozen highly respected investment managers with their own approaches to proxy voting and engagement. This section details the work carried out by Vanguard's Investment Stewardship team on behalf of Vanguard-advised funds and their investors for the 12-month period ended December 31, 2025.³ The Investment Stewardship team's activities were conducted pursuant to the Vanguard-advised Funds Policy. The team's proxy voting and engagement activities on behalf of the Vanguard-advised funds were focused on safeguarding and promoting long-term shareholder returns at the companies held by these funds.

Vanguard-advised funds provide broadly diversified access to the global markets at a very low cost. Broad market diversification can include exposure to material risks, including material climate-related risks.

Vanguard's Investment Stewardship team monitored and promoted disclosure of material risks consistent with regulations, including material climate-related risks, at portfolio

companies. The team did not seek to influence portfolio companies' strategy or management decisions, and the team expected portfolio companies to follow the regulations of their respective jurisdictions.

The Investment Stewardship team engaged with portfolio company directors and executives to learn about each company's corporate governance practices and to better inform their proxy voting. In 2025, the Investment Stewardship team engaged with 1,336 companies representing 66% of the Vanguard-advised funds' total assets under management.

Each fund's proxy voting policies and procedures were designed to promote long-term shareholder returns by supporting effective corporate governance practices. The proxy voting policies for each of the Vanguard-advised funds outlined the general positions of the funds on proxy proposals that appeared frequently at public company shareholder meetings. The funds had country- or region-specific proxy voting policies for markets where the funds had significant portfolio company holdings. These regional policies reflected local market regulatory requirements and nuances related to governance

practices. When a ballot item for which specific policies were not defined in the funds' proxy voting policies arose, the vote was determined on a case-by-case basis consistent with the principles articulated in the funds' proxy voting policies and each fund's investment objective.

On behalf of the Vanguard-advised funds, the Investment Stewardship team looked for portfolio company boards to effectively oversee any material climate-related risks that existed for that company and disclose those risks using widely recognized investor-oriented reporting frameworks. Where climate change was a material risk for a company, the team looked for a company's board to disclose the specific risks and strategies in place to oversee and mitigate those risks. Vanguard viewed such disclosure as central to the healthy and efficient functioning of capital markets. For companies that have set and disclosed climate-related goals, the team also evaluated the company's reporting on those goals. Investment Stewardship did not seek to dictate strategy or operations at portfolio companies.

³ Vanguard's Investment Stewardship program was responsible for administering proxy voting and engagement activities pursuant to the Vanguard-advised Funds Policy ("the policy") for the quantitative and index equity portfolios advised by Vanguard (together, "Vanguard-advised funds"). This report describes the proxy voting and engagement activities conducted by Vanguard's Investment Stewardship program from January 1, 2025, through December 31, 2025 ("the reporting period") pursuant to the policy; it does not include proxy voting and engagement activity conducted subsequent to the reporting period when Vanguard's Investment Stewardship activity was bifurcated into Vanguard Capital Management Investment Stewardship (VCMIS) and Vanguard Portfolio Management Investment Stewardship (VPMIS). It also does not describe (a) votes cast on behalf of investors who, through Vanguard's Investor Choice program, chose to have their proportionate portfolio holdings in select Vanguard funds voted in accordance with another proxy voting policy, or (b) proxy voting and engagement activities conducted by third-party investment advisors that manage certain Vanguard funds. Proxy voting decisions in both cases may differ from voting decisions made pursuant to the policy. Throughout this report, "the funds" refers to Vanguard-advised fund shares voted pursuant to the policy.

Risk management

The funds generally supported management or shareholder proposals whose provisions, in the team's assessment, served the long-term financial interests of the Vanguard-advised funds and their investors. The Vanguard-advised funds did not support proposals that included elements the team viewed as dictating company strategy or operating decisions, which, in the team's view, were the purview of the company's board of directors and management teams.

Vanguard Investor Choice

Launched in 2023, Vanguard's U.S. Investor Choice program enables equity index fund investors to express their perspectives on proxy voting by selecting from a balanced menu of proxy voting policy options. In 2026, the program scaled significantly and now spans 32 U.S. equity index funds, including Vanguard 500 Index Fund, extending proxy voting choice to approximately 22 million eligible investors.

With the addition of 17 new funds, Investor Choice now represents over \$3.6 trillion in eligible assets, accounting for more than 55% of Vanguard's total U.S.-based equity index fund assets.⁴ Through a simple policy election, investors can direct how their proportionate share of fund holdings is voted at shareholder meetings, giving investors a clearer way to reflect their views in the voting process.

Building on the momentum of the U.S. program and in response to client interest, Vanguard launched its U.K. Investor Choice pilot in 2026 to offer eligible U.K. professional intermediaries access to a focused set of differentiated proxy voting policy options. The pilot applies to a small group of U.K.-domiciled equity index mutual funds with exposure to both U.S. and U.K. issuers. This initial, limited-in-scope pilot allows Vanguard to ensure operational feasibility in a new market and validate that the approach aligns with investor needs before considering broader market access.

⁴ As of December 31, 2025.

CASE STUDY

Say on Climate proposal at Aviva plc

At the 2025 annual meeting of Aviva plc (**Aviva**), a U.K.-listed diversified insurer, the company sought shareholder approval of its Climate-related Financial Disclosure for 2024 as outlined in Aviva's annual report.

Outcome

In the absence of a clear regulatory framework governing votes on climate-related financial disclosures and in line with the funds' relevant regional proxy voting policies, the funds abstained from voting on the company's Climate-related Financial Disclosure for 2024. The abstention reflected the funds' orientation as passive investors that do not opine on company strategy or operations, inclusive of climate-related strategies.

Risk management

CASE STUDY

Say on Climate proposal at Rio Tinto plc and Rio Tinto Ltd.

Rio Tinto plc, or **Rio Tinto Ltd. (Rio Tinto)**, is a leading global mining company listed in both the U.K. and Australia. As a result of its dual listing, the company holds two annual meetings, one for each of the listed entities. As shareholders of both entities, the funds submit votes at both meetings aligned with the relevant regional proxy voting policies. At each of its 2025 annual meetings, Rio Tinto put forward a nonbinding resolution seeking approval of the company's 2025 Climate Action Plan (the Plan), commonly referred to as a "Say on Climate" proposal.

In reviewing the company's public disclosures, we identified that the company had clearly disclosed the Plan and details regarding the board's process for overseeing it. Our engagement with members of Rio Tinto's board ahead of the 2025 annual meetings gave us confidence that

the board had sufficient expertise in place at the board level and a robust process to oversee the Plan, which included annual progress reporting aligned with TCFD standards supplemented by briefing papers and a quarterly operations review.

Outcome

In reviewing the specific language of the proposal, we noted that the proposal appeared to request that shareholders approve the Plan, which included certain operational and capital allocation matters. Ultimately, after our analysis of the specific facts and circumstances at Rio Tinto and in line with the funds' relevant regional proxy voting policies, the funds abstained from voting on the proposals at each of Rio Tinto's annual meetings. The abstentions reflected the funds' orientation as passive investors that do not opine on company strategy or operations, inclusive of climate-related strategies.

2025 Investment Stewardship activity at a glance



1,542 total engagements with or related to portfolio companies



1,336 companies engaged



66% equity AUM engaged



190,710 proposals voted on



13,432 companies where a proposal was voted on

Additional resources on investment stewardship at Vanguard

- [Investment Stewardship 2025 Annual Report](#)
- [Proxy voting disclosures for Vanguard funds](#)

Investment management

Integration of climate risks and opportunities by our external advisors

The majority of Vanguard's active equity funds and active multi-asset funds are managed by external firms. In fact, 24 external asset management firms serve as investment managers and investment stewards for Vanguard's active funds. Vanguard recognizes that each firm brings a different perspective to the way it assesses and oversees climate risk, including in funds that do not pursue explicit climate objectives.

We work closely with each of our active managers to understand how they integrate risk management considerations, including climate change, into their investment processes. This approach has enabled us to observe how the landscape related to these issues has changed over time and how much the reliability of climate-related data has improved.

More broadly, we are responsible for assessing how each manager's approach aligns with its investment process, which is designed to deliver strong investment outcomes for our clients. Our approach to fund manager selection centers on what we believe to be the key drivers of investment success: firm, people, philosophy, and process. This approach provides our investors

with diversity of thought and broader access to top investment talent. It also provides us with a unique perspective on the ways in which different active managers approach the investment process.

A team from Vanguard tasked with manager oversight regularly engages with current and prospective external fund managers. As part of these engagements, the team examines how managers incorporate material financial considerations, including material climate change-related risks, into their security selection processes. The team considers how managers gather information, how their research efforts are structured to account for climate considerations, the extent to which they consider both quantitative and qualitative factors in their analysis, and how they engage with portfolio companies. The team regularly reports on its overall findings and discussions to Vanguard's Manager Oversight Committee and the fund boards.

Vanguard holds these external investment managers to the highest standards to ensure that they remain focused on maximizing long-term investment performance for our investors. Included in our ongoing assessment is the appropriate consideration and management of material financial risks, such as those posed by climate change.

Integration of climate risks in fixed income

All of Vanguard's fixed income index funds and the majority of its actively managed fixed income funds are managed by Vanguard Fixed Income Group (FIG).

Where appropriate, and in accordance with a fund's mandate, FIG assesses the financial materiality of climate-related risk factors along with other investment risks to complement standard credit assessments. FIG tailors its approach within applicable sub-asset classes to address nuances in material climate-related risk factors across fixed income.

This assessment applies to most fixed income mandates, excluding money market mutual funds. FIG regularly refines its process to consider financial markets' adaptation to societal and environmental risk factors, regulatory requirements, and the availability of ESG data.

Engagements with issuers are among the many informational inputs that FIG may use to integrate risk considerations into its investment process. FIG credit research analysts regularly meet with issuers to discuss a range of topics that may pose a financial or reputational risk to an issuer, including material climate risk.

Risk management

CASE STUDY

Wellington Management Company: Anglo American plc

Driver type: Transition risk and physical risk

In 2025, Wellington Management Company engaged with Anglo American plc (**Anglo American**), a British multinational mining company, to discuss the financial implications of climate-related risks and opportunities amid a period of significant portfolio change. Following the announced divestment of its platinum and steelmaking coal assets, Anglo American is repositioning toward a more focused portfolio centered on copper, high quality iron ore, and crop nutrients. These materials are expected to play a critical role in the global energy transition.

During discussions with Anglo American's Head of Climate, the company outlined plans to reset its climate targets to reflect this reshaped portfolio. Management expects Scopes 1 and 2 emissions to decline materially, approximately 14 million tons to 2 million tons, primarily as a result of asset divestitures. Wellington focused its engagement on how revised targets, capital allocation, and operational decisions could support long-term competitiveness while managing transition risk.

A key area of engagement was the decarbonization of Anglo American's mobile mining fleet, which was a material source of

operating emissions and cost exposure. Management described ongoing evaluation of multiple technologies, including battery-electric, hybrid, biofuel, and trolley-assisted haul trucks. While Anglo American views full electrification as the most effective long-term solution, management emphasized that near-term challenges relate to technology maturity, supplier readiness, and cost curves rather than power availability. The comments on technology readiness ahead of a 2030 roll-out were consistent with conversations across industry peers, which included diesel replacement in rail and yellow-goods industries. Wellington discussed how disciplined deployment timelines and vendor diversification could mitigate execution risk and safeguard margins.

The discussion also addressed Scope 3 emissions, particularly the commercial opportunity associated with higher-grade iron ore, which can enable lower-emission steelmaking for customers facing tightening climate regulation. Management noted that premium products may command pricing advantages over time as steel producers seek to reduce carbon intensity, supporting revenue resilience even as policy and customer preferences evolve.

Another focus of the engagement was whether physical climate risks could pose financial risks to Anglo American. The company shared that its internal assessments have not identified new

acute portfolio-wide risks, but those assessments continue to emphasize water variability and wildfire risk at specific assets. Management stressed the importance of integrating physical climate risk analysis with social planning, noting that operational resilience depends on the resilience of surrounding communities. Wellington discussed how avoiding maladaptive investments, such as water-intensive community initiatives in water-stressed regions, can reduce long-term operational disruption and social license risk.

Anglo American also reiterated its intention to maintain a net positive biodiversity ambition across its operations. Wellington encouraged the company to disclose its updated approach to biodiversity once finalized, given its relevance to permitting timelines and stakeholder relations and engagement.

Outcome

Through Wellington's engagement with Anglo American's management, Wellington gained confidence that the company's climate strategy is aligned with capital discipline and commercial priorities, with decarbonization efforts focused on cost, asset quality, and shifting customer demand. Wellington will monitor the publication of updated climate targets, progress on haul-truck electrification, and management of water-related physical risks and indicators of execution against stated plans.

Risk management

CASE STUDY

Company: Saudi Electric Company

Saudi Electric Company (**SECO**) is the leading vertically integrated utility in Saudi Arabia. The government owns 81.2% of the company through the Public Investment Fund and Saudi Aramco. SECO is strategically important, providing most of the country's electricity generation and owning the transmission and distribution networks.

Saudi Arabia targets net zero emissions by 2060 (SECO by 2050) and aims to transition away from significant oil-fired generation. As part of "Vision 2030," the Kingdom plans for a 50/50 renewables-and-gas generation mix. SECO is the primary enabler of this transition and has committed to these targets. Investment will focus on replacing oil-fired capacity with renewable and gas generation, alongside grid upgrades to support higher renewable penetration and international interconnectors.

While the goals are ambitious, we consider the company's strategic alignment with the government supports its credit profile, given its central role in "Vision 2030" and in enabling areas such as AI data centers and cross-border interconnectors. Vanguard's Active Taxable Team has engaged with SECO management, shareholders, and the government to understand progress, and we will continue to monitor the associated risks.

IN FOCUS

Sustainability-related risk integration in Europe

Vanguard, in compliance with regulatory obligations, continued to develop our investment risk management and monitoring processes for sustainability-related risks (including climate-related risks) across our internally managed European funds.

Using exceptions analysis, the Investment Management and Finance Risk team (IMFR) utilizes a climate risk dashboard to conduct monthly identification, assessment, and monitoring of various climate risk metrics and principal adverse impacts against predetermined tolerances for each fund domiciled in a European country and its respective benchmark.⁵ Climate VaR is further used as a form of scenario analysis and to assess the European funds against various NGFS-defined scenarios.

Periodic reporting of these sustainability-related metrics is presented to the Investment Management Group by IMFR as part of the regular cadence of risk management meetings and reported to the European boards and senior managers on a quarterly basis through the European Risk and Compliance Council (ERCC).

⁵ These metrics are Scopes 1, 2, and 3 GHG emissions: total carbon emissions, implied temperature rise (ITR), Climate Value-at-Risk (Climate VaR), total carbon footprint, and weighted average carbon intensity (WACI).

Metrics and targets

In this section, we discuss the metrics and targets we use to assess climate-related risks and opportunities.

Metrics and targets

One of our most important responsibilities to our clients is clear, accurate, and useful disclosure about risks in Vanguard funds.

Measuring climate-related risks and opportunities

Climate data and metrics remain an evolving area. We continually explore the benefits and limitations of various climate metrics for our investors. We also acknowledge the maturing regulatory landscape for climate-related disclosures as well as the demand for sustainability-related data among a subset of our clients. Vanguard continues to build out its data and reporting capabilities to meet regulatory reporting obligations and evolving client preferences.

The investment processes and stewardship activities for Vanguard funds are divided among more than two dozen investment managers, each with their own policies on and approaches to material risks, including climate-related risks, as they relate to the overall risk exposure of the underlying portfolio companies held in the funds they manage. Each investment advisor of the Vanguard funds also maintain their own view on corporate disclosures, including disclosures pertaining to climate matters, and materiality to a firm's long-term value. We focus on the risks that are most relevant to specific companies while acknowledging that those risks might evolve over time. Disclosure and assessment of material risks, including material climate-related risks, are important for price discovery and returns. As disclosure of material climate-

related risks improves, we believe that security prices will more accurately reflect these risks and that all investors will benefit.

On behalf of Vanguard's internally managed equity index funds, our investment stewardship professionals engage with companies held by Vanguard funds to understand how boards of directors oversee and disclose material risks, including material climate-related risks.

Some fund investors also wish to make their voices heard directly through proxy voting associated with their equity index investments. Vanguard's Investor Choice provides investors in certain Vanguard-advised mutual funds and ETFs the opportunity to participate more directly in the proxy voting process.

For our actively managed funds, corporate disclosures about climate risks and opportunities can inform the investment decisions of portfolio managers. The managers incorporate such disclosures into their investment processes and engagement strategies. Based on the nature of the funds managed by an active manager, Vanguard conducts corresponding oversight of the manager's use of climate metrics.

Metrics and targets

IN FOCUS

In response to the evolving regulatory environment in Europe, we continue to consider how to integrate sustainability-related risk data into our enterprise and investment risk-management frameworks. Since 2021, we have been performing scenario analysis, which is designed to help us obtain a deeper understanding of climate impacts. This analysis drives our climate-related research and the ESG stress testing of our U.K. business, which is required by regulation (and highlighted on page 17 of this report). These use cases are sharpening our understanding of the various tools and methodologies available and will inform our future approach to scenario analysis. Additionally, climate metrics are disclosed in our TCFD 2025 U.K. Supplemental entity-level and product disclosures report (starting on page 44).

Figure 3 illustrates the climate-related metrics that are used in our U.K. TCFD supplement or are being considered for integration into sustainability-related risk disclosures in Europe.

FIGURE 3

Summary of climate-related metrics reported in European disclosures

Metric	Helps to answer the question	Definition
Total carbon emissions	How many metric tons of carbon dioxide equivalent (tCO ₂ e) emissions is the portfolio responsible for?	GHG emissions (Scopes 1, 2, and 3) multiplied by the current value of investment divided by the issuer's enterprise value including cash (EVIC). The resulting figure reflects the portfolio's financed share of GHG emissions, expressed in tCO ₂ e.
Total carbon footprint	How much tCO ₂ e in emissions is the portfolio responsible for per \$1 million invested?	Total carbon emissions for a portfolio normalized by the market value of the portfolio, expressed in tCO ₂ e per \$1 million invested.
Weighted average carbon intensity (WACI)	What is the portfolio's exposure to carbon-intensive companies?	A portfolio's exposure to carbon-intensive companies, expressed in tCO ₂ e per \$1 million in revenue; reflects the carbon intensity of a portfolio.
Implied Temperature Rise (ITR)	How well do public companies align with global temperature goals?	The ITR estimates the global implied temperature rise (in the year 2100 or later) if the entire economy had the same carbon budget overshoot or undershoot as the portfolio in question. The portfolio-level ITR compares the sum of "owned" projected GHG emissions, including Scope 3, against the sum of "owned" carbon budgets for the underlying portfolio holdings.
Climate Value-at-Risk (Climate VaR)	What percentage of the portfolio is impacted by climate-related risks and opportunities in different climate transition scenarios?	Climate VaR is a forward-looking metric that quantifies the potential monetary losses or gains (in percentages) to a portfolio from climate change impacts, integrating both physical risks and transition risks/opportunities (policy risks, technology opportunities). The Climate VaR supports the ability to stress test portfolios and understand strategic resilience in different climate transition scenarios.

Notes: For U.K. product-level disclosures, as mandated by the FCA effective in 2022, we use the ITR metric given its wide adoption within the financial sector and its utility as a high-level indicator of portfolio alignment. We recognize that ITR is subject to limitations, including its static nature and reliance on multiple assumptions. However, in the absence of an established alternative that would materially improve comparability or decision usefulness, it represents the most practical option currently available. We continue to monitor methodological developments and assess potential enhancements or alternative metrics to improve decision usefulness each year.

Metrics and targets

ESG products and net zero objectives

Vanguard has been thoughtful and deliberate in our approach to our ESG product lineup by ensuring that each fund can address enduring needs for investors' portfolios and preferences. Our product development approach relies on a rigorous set of design principles. These principles require assessment of each product proposal based on investment merit and client needs, among other considerations. Only after a multi-tier approval process, as outlined in "Management's role regarding climate-related risks and opportunities" on page 9, do we proceed with the introduction of a new fund for investors.

Vanguard ESG funds include some actively managed equity products that are designed to meet net zero objectives. The external managers of these active funds each determine their own interim targets and methodology for alignment, consistent with the fund's strategy. Their approach is disclosed in each fund's prospectus, and targets are monitored by both the manager and Vanguard.

IN FOCUS

Information on Vanguard ESG index funds

Vanguard reports information on certain Vanguard ESG index funds' asset-weighted average of holdings utilizing underlying asset-level Scopes 1 and 2 GHG emissions data from MSCI ESG Research LLC (MSCI), which is internally aggregated at a portfolio level by Vanguard. Vanguard also reports information on certain ESG index funds' total carbon footprint and weighted average carbon intensity from MSCI via the funds' factsheets on Vanguard's Institutional and Financial Advisor websites.

MSCI collects publicly available emissions and intensity data from company-reported sources, government agencies, nongovernmental organizations, and media sources. When information is not publicly available, MSCI may make estimates. To Vanguard's knowledge, MSCI does not receive third-party assurances regarding the accuracy of the underlying information. Vanguard relies on the accuracy of the data provided by MSCI. Vanguard does not independently review the accuracy of MSCI's data and does not retain independent third-party verification services to review that data.

Vanguard as a company

In this section, we discuss our goals and progress regarding corporate sustainability in our business operations.

With more than 20,000 crew members around the world, Vanguard is committed to reducing our global carbon footprint and managing climate-related risks in our business operations.

Measuring progress on operational climate risks

Vanguard's corporate climate strategy seeks to reduce our firm's own climate impact, pursue sustainable business operations, and engage our crew. We are committed to effective corporate sustainability practices that can drive operating costs lower and mitigate the physical risks climate-related events can have on our operations and our ability to serve clients. We also invest time and resources to support the communities where we live and work.

In 2025, we continued to use 100% renewable electricity globally in owned and leased properties where Vanguard has operational control, an outcome we first achieved in 2021.

Where possible, our buildings are powered by on-site renewable electricity or direct renewable electricity from the utility supplier. We also purchase Green-e certified renewable energy certificates from a third-party provider.

Additionally, we achieved carbon neutrality for Scopes 1, 2, and 3.3–3.8 by offsetting them with high-impact carbon offset projects that increase economic development. In 2025, Vanguard adopted a new set of emissions reduction targets and sustainability goals for 2035.

Climate-related goals for our global operations

2035 goals:

- Reduce Scopes 1 and 2 GHG emissions by 40%
- Reduce Scopes 3.1 and 3.2 GHG emissions by 35%*
- Reduce Scopes 3.3–3.8 GHG emissions by 15%*
- Divert 60% of waste from landfills
- Reduce potable water usage by 30%
- Produce 25% of total consumed electricity from on-site renewable energy sources

* Separate goals have been established for Scopes 3.1, 3.2, and 3.3–3.8, reflecting the use of different emissions intensity metrics for measurement and tracking.

2035 targets and metrics

Goals	2025 result	2035 target
Scopes 1 and 2 emissions*	1.3	0.9
Scopes 3.1 and 3.2 emissions**	31.4	29.0
Scopes 3.3–3.8 emissions*	1.8	2.0
Waste diversion†	51%	60%
Water use**	12.6	8.7
On-site renewable energy	3%	25%

* Measured in tCO₂e per FTE.

** Measured in tCO₂e per million dollars

† Does not include waste-to-energy as a form of diversion

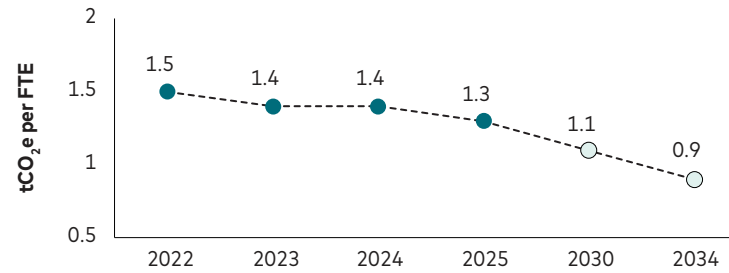
** Measured in gallons per square foot of space under operational control.

Notes: All targets reference a 2022 baseline year, except for Scopes 3.3–3.8 emissions to 2.0 tCO₂e per FTE, which uses 2024. Vanguard’s reported Scopes 1, 2, and 3 GHG emissions for 2022–2025 have been assured by a third-party provider. This limited assurance is based on the International Standard on Assurance Engagements ISAE 3000 (revised).

Vanguard’s Scopes 3.1 and 3.2 emissions for 2022 have not been assured.

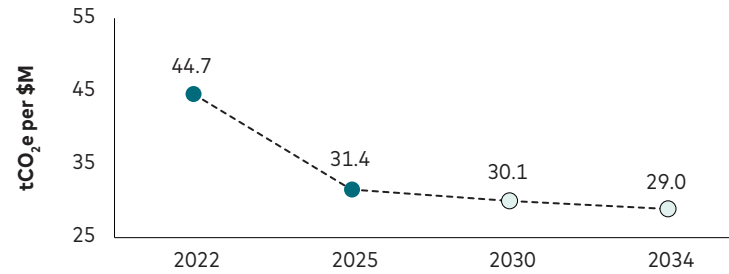
Scopes 1 and 2 emissions reduction

40% reduction per FTE to 0.9 tCO₂e



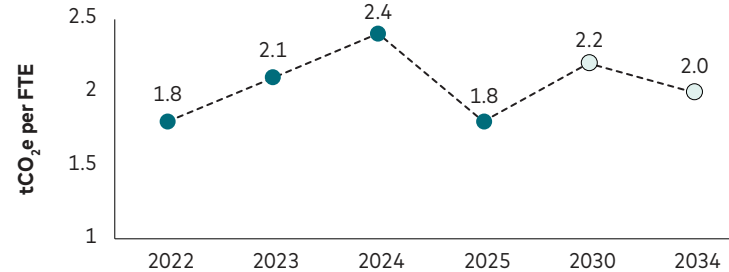
Scopes 3.1 and 3.2 emissions reduction

35% reduction to 29 tCO₂e per million dollars



Scopes 3.3–3.8 emissions reduction

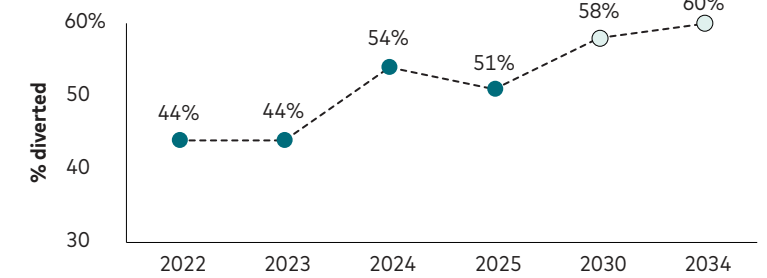
15% reduction to 2.0 tCO₂e per FTE



● Actual result ○ Target

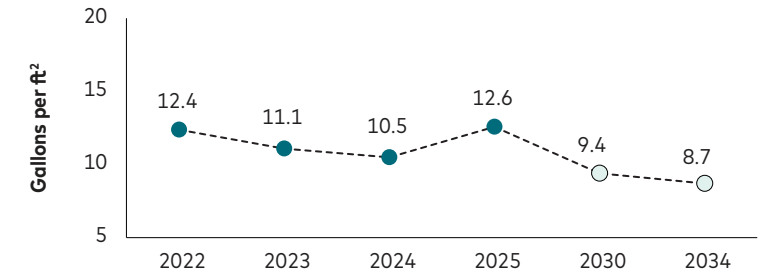
Waste diversion

60% diversion rate



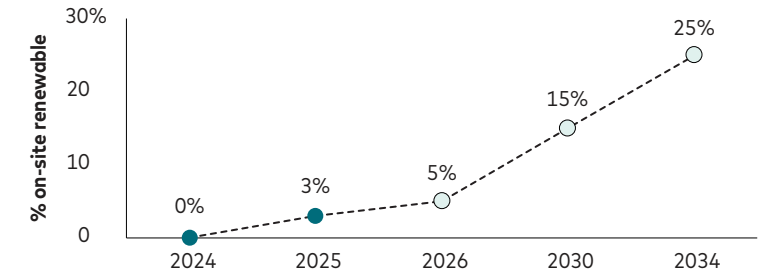
Water use reduction

30% reduction to 8.7 gallons per ft²



On-site renewable energy

25% on-site renewable electricity production



Vanguard as a company

Sustainable business operations

Green building criteria and certifications are integral to our corporate building design standards. Twenty-seven locations (or 38%) of Vanguard's total square footage across our global portfolio were either LEED, BREEAM, WELL, or IGBC certified.⁶ Of the 27 buildings, four were new certifications for Vanguard in 2025. These four new certifications include our Audacious building in Malvern, Pennsylvania, and our office spaces in Miami, Florida, Manchester, U.K., and Hyderabad, India.

Organic waste program

Vanguard has a comprehensive organic waste program across all primary U.S. campuses, successfully diverting over 80 tons of organic waste from landfills through the implementation of food composting systems in campus cafeterias and paper towel composting in restrooms.

Bees and biodiversity

Vanguard installed a honeybee hive and two native pollinator beehomes near our Malvern community gardens to enhance local biodiversity, advance our environmental stewardship initiatives, and foster meaningful community engagement with nature. In addition to supporting pollination, these installations serve as natural environmental monitors, collecting valuable data on ecosystem health and biodiversity trends across our campus, enabling us to make informed, sustainability-focused decisions that strengthen our local ecosystem.

Engaging our crew

We offer programs for our U.S. crew that enable their use of low-carbon transportation, including 333 free electric vehicle charging ports adjacent to our U.S. buildings, shuttles between campuses and to and from public transit, and pre-tax deductions for public transit costs. Additionally, our U.S. maintenance fleet is now 50% electric vehicles.

In 2022, we introduced a program offering U.S. crew an incentive toward the lease or purchase of a hybrid or electric vehicle. As of December 31, 2025, more than 2,569 crew had taken advantage of this incentive.

As a result of the adoption of electric vehicles, Vanguard reduced or offset approximately 1,333 tCO₂e from commuting emissions and contributed to saving approximately 221,324 gallons of gasoline, as estimated using data provided by ChargePoint, a third-party electric vehicle charging provider.

Our U.S. dining services focus on sustainable food purchasing practices and diverting waste from landfills. We implement waste and recycling programs, as well as cooking demonstrations for crew by Vanguard's Community Garden team. Additionally, Vanguard's Malvern, Pennsylvania, Charlotte, North Carolina, and Scottsdale, Arizona, campus community gardens are maintained and harvested by crew volunteers. The Community Garden donated 2,892 pounds of produce to local food banks, pantries, and centers in 2025.

Globally, crew participate in various educational events such as Earth Day activities, e-waste recycling, and crew-led Green Teams throughout the year.

IN FOCUS

AZ Solar

Vanguard recently completed the installation of a new solar power system at its Arizona campus, marking an important step toward reducing the company's carbon footprint and advancing its sustainability goals.

With over 4,000 solar panels installed across building rooftops and parking areas, the system is designed to supply about half of the campus's electricity needs, producing approximately 4.2 million kilowatt-hours of renewable energy each year. Beyond lowering emissions and decreasing reliance on local utilities, the project will help reduce long-term operating costs and provide shaded parking areas for employees and visitors. This initiative reflects Vanguard's continued commitment to climate-conscious operations and to creating resilient, efficient workplaces aligned with our broader sustainability strategy.

⁶ LEED (Leadership in Energy and Environmental Design) is administered by the U.S. Green Building Council. BREEAM (Building Research Establishment Environmental Assessment Methodology) is administered by BRE Global, a subsidiary of the U.K.-based BRE Group. WELL is administered by the International Well Building Institute (IWBI). IGBC (Indian Green Building Council) is administered by the Confederation of Indian Industry (CII).

Vanguard as a company

Renewable energy and carbon offsets

In 2025, Vanguard purchased over 108,000 megawatt-hours (MWh) of renewable energy, which resulted in a reduction of more than 30,000 tCO₂e.

As a company, we supported three cost-efficient and diversified carbon-offset projects in 2025 that offset 48,258 tCO₂e. These projects represent both U.S. and global efforts with multiple benefits. While carbon offsets can contribute meaningful environmental and social value, they also come with inherent limitations related to measurement, verification, and long-term durability. As such, we view them as a complement to—but not a substitute for—our continued efforts to reduce emissions within our own operations.

UNITED STATES

Winchester Landfill Gas Project

Registry: Verra Verified Carbon Standard

Project type: Landfill gas

The project supports a landfill gas collection and destruction system at the Winchester Regional Landfill in Frederick County, Virginia. The project captures potent methane gas from decomposing waste and destroys it using a high-efficiency flare. As a direct result, the surrounding community benefits from improved local air quality and reduced odors from the landfill.

LAOS

Nam Hinboun Hydropower Project

Registry: Verra Verified Carbon Standard

Project type: Small-scale hydropower

The project displaces fossil-fuel-based power generation by replacing it with run-of-river (ROR) hydroelectricity. ROR electricity is a type of renewable power that provides little or no water storage, ideal for rivers or streams that can sustain a minimum flow. This 15 megawatt (MW) project consists of two bulb turbines of 7.5 MW each and generates an annual supply of approximately 79,000 MWh of clean electricity to the Laos power grid.

KENYA

BioLite Improved Cookstoves Programme

Registry: Gold Standard

Project type: Improved cookstoves

The project distributes fuel-efficient cookstoves to replace wood and charcoal stoves, which will cut toxic pollution emissions by up to 90%, reduce fuel use by 50%, and generate electricity for mobile phone charging and home lighting. Other benefits include protecting forests, reducing indoor air pollutants, and improving home safety.

Vanguard's carbon offset projects, 2025

These carbon offset projects were part of Vanguard's total carbon emissions reduction for 2025.

We purchased carbon offsets exclusively from providers that require independent third-party verification of projects and corresponding emission reductions or removals achieved.

Inventory year	Name of project	Project ID number	Seller	Verification program*	Protocol	Type	Country	State
2025	BioLite Improved Cookstoves Programme	GS11236	3Degrees Group, Inc.	Gold Standard	AMS-II.G., "Energy efficiency measures in thermal applications of non-renewable biomass," version 3.0	Energy efficiency, avoided emissions	Uganda	N/A
2025	Winchester Landfill Gas Project	VCS833	3Degrees Group, Inc.	Verra Verified Carbon Standard	ACM0001, "Flaring or use of landfill gas," version 19.0	Avoided emissions—landfill gas	United States	VA
2025	15 MW Nam Hinboun Downstream Hydropower Project	VCS3662	3Degrees Group, Inc.	Verra Verified Carbon Standard	AMS-I.D.: "Grid connected renewable electricity generation," version 18.0	Small-scale hydropower, avoided emissions	Laos	N/A

* Vanguard does not have separate and additional third-party assurance for its carbon offset purchases for its 2025 carbon neutrality goal.

Disclosure of Scopes 1, 2, and 3 GHG emissions

	GHG emissions (tCO ₂ e)	2023	2024	2025
Scope 1	Total emissions	2,699	4,001	3,140
Refrigerants		798	1,995	1,245
Natural gas		1,634	1,525	1,767
Diesel fuel		117	381	33
Fleet vehicles		150	100	95
Scope 2	Total electricity emissions—location-based*	30,047	31,457	30,369
	Total electricity emissions—market-based**	0	0	0
Scope 3	Total emissions	52,683	58,343	169,253
Category 1	Purchased goods and services***	—	—	71,490
Category 2	Capital goods***	—	—	52,645
Category 3	Fuel and energy-related services	3,960	9,399	8,059
Category 4	Upstream transportation and distribution	34	33	274
Category 5	Waste	762	651	846
Category 6	Business travel	6,017	8,556	6,377
Category 7	Employee commuting	32,663	33,605	25,970
Category 8	Upstream leased assets	9,247	6,099	3,592
Total gross carbon emissions*	Scopes 1, 2, and 3	85,429	93,801	202,762
Total gross emissions excluding Scopes 3.1 and 3.2*	Scopes 1, 2, and 3.3–3.8	85,429	93,801	78,627
Renewable energy certificates		-30,047	-31,457	-30,369
Carbon offsets		-41,472	-62,344	-48,258
Total net emissions excluding Scopes 3.1 and 3.2	Scopes 1, 2, and 3.3–3.8	13,910	0	0

* Emissions from electricity before we purchased renewable energy certificates.

** Emissions from electricity after we purchased renewable energy certificates.

*** Carbon emissions were not calculated in 2024 and 2023.

† Total emissions before any purchased renewable energy certificates and carbon offsets.

Assurance

Vanguard's Scopes 1, 2, and 3 GHG emissions for 2025 have been assured by a third-party provider. This assurance is based on the International Standard on Assurance Engagements ISAE 3000 (revised).

Scopes 1, 2, and 3 GHG emissions are defined in accordance with the Greenhouse Gas Protocol. Scope 1 refers to all direct GHG emissions from sources that are owned or controlled by the company. Scope 2 refers to indirect GHG emissions associated with the generation of purchased or acquired electricity, steam, heating, or cooling consumed by the company. Scope 3 includes all other indirect GHG emissions not included in Scope 2 that occur across the company's value chain, encompassing both upstream and downstream impacts.

2025 TCFD disclosure status

2025 TCFD disclosure status

The TCFD recommends disclosure in four primary areas: governance, strategy, risk management, and metrics and targets. This table is a summary of our plans and progress in each of the relevant areas.

	Pillar/recommendation	Summary
Governance: Disclose the organization's governance around climate-related risks and opportunities.	(a) Describe the board's oversight of climate-related risks and opportunities.	The Vanguard Group, Inc., board of directors is responsible for, among other matters, setting broad policies for the company and overseeing risk management relating to Vanguard's corporate operations. Where applicable, the execution of these responsibilities includes consideration of material risks, such as sustainability- and climate-related risks and opportunities, as relevant to Vanguard's corporate operations. Outside the U.S., the boards of our international businesses exercise similar oversight responsibilities in their respective regions. See "Board oversight of climate-related risks and opportunities" on page 7. Our global governance structure includes an integrated network of committees and functions that oversee material climate-related risks and opportunities. See "Management's role regarding climate-related risks and opportunities" on page 9.
	(b) Describe management's role in assessing and managing the climate-related risks and opportunities.	The Sustainability Risk and Strategy Oversight Committee facilitated oversight of global sustainability-related matters. See "Management's role regarding climate-related risks and opportunities" on page 9. In Europe, Vanguard's ESG Steer-Co provided oversight of regulatory change and other strategic initiatives related to environmental, social and governance topics in 2025. See "In focus: European ESG governance framework" on page 11.
Strategy: Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	(a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	In the near term, Vanguard expects transition risks to outweigh physical risks related to Vanguard's operations as a driver of risk both for our organization and the companies held in our product portfolios. With climate-related regulations and reporting requirements evolving at varying paces around the world, there is greater potential for impacts from transition risks driven by the emergence of disorderly transition scenarios. We anticipate that physical risks will either be event-driven or generally acting as a driver of longer-term risk. See "Climate-related risks and opportunities" on page 13.
	(b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	The potential impacts of climate-related risks include higher operational costs related to complying with complex global regulatory requirements. Potential opportunities include the development of climate-related products to meet client demand that we believe will drive enduring value for clients. See "Summary of climate-related risks" on page 14 and "Summary of climate-related opportunities" on page 15.
	* For asset managers: Describe how climate-related risks and opportunities are factored into relevant products or investment strategies.	Material climate-related impacts are considered in the management of our funds through engagement with portfolio companies and integration of risks as appropriate. See "Meeting investment needs of clients" on page 16.
	* For asset managers: Describe how each product or investment strategy might be affected by the transition to a low-carbon economy.	We consider transition risks to be a greater driver of enterprise risk than physical risks related to Vanguard's operations in the near term, as climate-related regulations and reporting requirements are evolving at different paces and with varying degrees of complexity around the world. We also consider transition risks to be a more pressing driver of risk in the short-term and medium-term for companies held in our product portfolios, with physical risks either event-driven or generally acting as a driver of longer-term risk. See "Transition-related corporate and investment risks" on page 15.
	(c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	We manage our funds and business in the interests of our clients and with a long-term perspective. See "Resilience of our strategy" on page 16. In the U.K., we have conducted climate-related stress testing to assess our ability to remain financially viable throughout the economic cycle. See "Vanguard U.K. stress and scenario testing" on page 17.

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2025 TCFD disclosure status

	Pillar/recommendation	Summary
<p>Risk management: Disclose how the organization identifies, assesses, and manages climate-related risks.</p>	<p>(a) Describe the organization's processes for identifying and assessing climate-related risks.</p>	<p>As a matter of course, we seek to identify, assess, and manage risks from both a corporate and investment product management perspective, taking impact, likelihood, and urgency into account. Vanguard's principal steps in our risk management process are to identify risks, assess risk exposure, analyze impact and likelihood, manage and mitigate risks, and provide assurance and oversight. We see risk management as an ongoing process and mindset moving continuously through each stage. See "Identifying and assessing climate-related risks" on page 20.</p>
	<p>* For asset managers: Describe, where appropriate, engagement activity with investee companies to encourage better disclosure and practices related to climate-related risks in order to improve data availability and asset managers' ability to assess climate-related risks.</p>	<p>On behalf of the Vanguard-advised funds, the Investment Stewardship team engages with companies held by Vanguard funds to understand how boards of directors oversee and disclose material risks, including any material climate-related risks that exist for that company. The Investment Stewardship team does not seek to dictate portfolio company operations or strategy. Vanguard's Investor Choice program enables certain equity index fund investors in participating funds to choose a proxy voting policy option that is aligned with their personal preferences regarding proxy voting matters. For Vanguard's externally managed funds, investment stewardship activities are carried out by the funds' respective managers. See "Investment Stewardship" on page 22.</p>
	<p>* For asset managers: Describe how material climate-related risks are identified and assessed for each product or investment strategy. This might include a description of the resources and tools used in the process.</p>	<p>Vanguard offers more than 400 products, each of which is managed by one or more of over two dozen highly respected investment managers with their own approaches to proxy voting and engagement. We also offer Investor Choice, which provides certain investors the opportunity to participate more directly in the proxy voting process. Our external advisors serve as investment managers and investment stewards for the majority of our actively managed equity funds, including in funds that do not pursue explicit sustainability objectives. See "Integration of climate risks and opportunities by our external advisors" on page 25. Vanguard Fixed Income Group (FIG), which manages most of our fixed income funds, assesses the financial materiality of climate risk factors alongside, and in the context of, other investment risks to complement standard credit assessment. See "Integration of climate risks in fixed income" on page 25.</p>
	<p>(b) Describe the organization's processes for managing climate-related risks.</p>	<p>Vanguard embeds relevant material sustainability-related risk considerations into existing corporate functions to ensure that these factors are considered alongside, not separately from, other matters important to serving our clients. Across our funds, relevant teams monitor material climate-related risks, including the Vanguard-advised active strategies, through oversight of our external managers' practices and through investment stewardship activities conducted on behalf of the Vanguard-advised funds.</p>
	<p>* For asset managers: Describe how the organization manages climate-related risks for each product or investment strategy.</p>	<p>The majority of Vanguard's active equity funds and active multi-asset funds are managed by 24 external asset management firms. We hold these managers to the highest standards to ensure that they remain focused on maximizing investment performance for our investors. The appropriate consideration and management of material financial risks, such as those posed by climate change, are part of our ongoing assessment of these firms. See "Identifying and assessing climate-related risks" on page 20.</p>
	<p>(c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.</p>	<p>Vanguard's overall approach to risk management is founded on three core lines of defense: our business units, our corporate risk functions, and our independent Internal Audit team. See "Identifying and assessing climate-related risks" on page 20.</p>

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2025 TCFD disclosure status

	Pillar/recommendation	Summary
<p>Metrics and targets: Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.</p>	<p>(a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk-management process.</p>	<p>On behalf of Vanguard's internally managed equity index funds, the Investment Stewardship team engages with companies held by Vanguard funds to understand how boards of directors oversee and disclose material risks, including any climate-related risks that exist for that company. Vanguard's Investor Choice program enables individual investors in certain equity index funds to express their perspectives on shareholder proxy voting matters at the companies held in their funds.</p> <p>For the Vanguard-advised actively managed funds, corporate disclosures about climate risks and opportunities can inform the investment decisions of portfolio managers. The managers incorporate such disclosures into their investment processes and engagement strategies. See "Measuring climate-related risks and opportunities" on page 29.</p>
	<p>* For asset managers: Describe metrics used to assess climate-related risks and opportunities in each product or investment strategy. Where relevant, also describe how these metrics have changed over time. Where appropriate, provide metrics considered in investment decisions and monitoring.</p>	<p>In Europe, we've employed scenario analysis in U.K. stress testing as required by regulation. These use cases are sharpening our understanding of various tools and methodologies and will inform our future approach. Additionally, climate metrics are disclosed in our U.K. supplementary entity-level and product disclosures. See "Summary of climate-related metrics reported in European disclosures" on page 30.</p>
	<p>* For asset managers: Where appropriate, provide metrics considered in investment decisions and monitoring.</p>	<p>Climate data and metrics remain a rapidly evolving area. We are exploring the benefits and limitations of various climate metrics for our investors. We also acknowledge the maturing regulatory landscape for climate-related disclosures as well as the increasing demand for sustainability-related data among a subset of our clients. Vanguard continues to build out its data and reporting capabilities to meet regulatory reporting obligations and evolving client preferences. See "Measuring climate-related risks and opportunities" on page 29.</p>
	<p>* For asset managers: Describe the extent to which the organization's assets under management and products and investment strategies, where relevant, are aligned with a well-below 2°C scenario. Also indicate which asset classes are included.</p>	<p>Vanguard has been thoughtful and deliberate in our approach to our ESG product lineup by ensuring that each fund can address enduring needs for investors' portfolios and preferences. This includes actively managed equity ESG products that are designed to meet net zero objectives. The external managers of these active funds each determine their own interim targets and methodology for alignment, consistent with the fund's strategy. Their approach is disclosed in each fund's prospectus, and the targets are monitored by both the manager and Vanguard. See "ESG products and net zero objectives" on page 31.</p>
	<p>(b) Disclose Scopes 1 and 2, and, if appropriate, Scope 3 GHG emissions, and the related risks.</p>	<p>As a company, we disclose Scopes 1 and 2 GHG emissions and several Scope 3 GHG emissions. Our operational carbon footprint in 2025 was 202,762 metric tons of carbon dioxide equivalent (tCO₂e). We offset Scopes 1, 2, and 3.3–3.8 through the purchase of renewable energy and carbon offsets. See "Disclosure of Scopes 1, 2, and 3 GHG emissions" on page 38.</p>
	<p>* For asset managers: Disclose GHG emissions for assets under management and the WACI for each product or investment strategy, where data and methodologies allow. Also consider providing other carbon footprinting metrics the organization believes are useful for decision-making.</p>	<p>Vanguard continues to build out its data and reporting capabilities to meet regulatory reporting obligations and evolving client requirements. In the U.K., we are disclosing GHG emissions and WACI for funds meeting specified data coverage thresholds, as mandated by the FCA. See "Measuring climate-related risks and opportunities" on page 29.</p>

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2025 TCFD disclosure status

	Pillar/recommendation	Summary
<p>Metrics and targets: Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.</p>	<p>(c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.</p>	<p>Vanguard's 2035 reduction targets</p> <p>With the successful completion of Vanguard's corporate 2025 goals and targets, six new reduction targets for Vanguard's own operations have been established for 2035:**</p> <ul style="list-style-type: none"> • Reduce Scopes 1 and 2 GHG emissions by 40% • Reduce Scopes 3.1 and 3.2 GHG emissions by 35% • Reduce Scopes 3.3–3.8 GHG emissions by 15% • Divert 60% of waste from landfills*** • Reduce potable water usage by 30% • Produce 25% of total consumed electricity from on-site renewable energy sources <p>See "2035 targets and metrics" on page 34. We also have a number of actively managed funds constructed to meet net zero targets. See "ESG products and net zero objectives" on page 31.</p>

* Supplemental guidance for asset managers, from the TCFD's *Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures*, published in October 2021.

** Targets set with a 2022 baseline year, except for 15% reduction in Scopes 3.3–3.8, which uses 2024.

*** Vanguard's existing operational target for waste diversion (2025 goal) includes waste-to-energy as a diverted material. The 2035 reduction target does not include waste-to-energy as a diverted material. As such, the goals are not directly comparable.

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Important information

For more information about Vanguard funds and ETFs, visit [vanguard.com](https://www.vanguard.com) to obtain a prospectus or, if available, a summary prospectus. Investment objectives, risks, charges, expenses, and other important information about a fund are contained in the prospectus; read and consider it carefully before investing.

Vanguard ETF shares are not redeemable with the issuing fund other than in very large aggregations worth millions of dollars. Instead, investors must buy and sell Vanguard ETF shares in the secondary market and hold those shares in a brokerage account. In doing so, the investor may incur brokerage commissions and may pay more than net asset value when buying and receive less than net asset value when selling.

All investing is subject to risk, including the possible loss of the money you invest. Diversification does not ensure a profit or protect against a loss.

Be aware that fluctuations in the financial markets and other factors may cause declines in the value of your account. There is no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income.

Investments in bonds are subject to interest rate, credit, and inflation risk.

ESG portfolios are subject to ESG investment risk, which is the chance that the stocks or bonds screened by the index provider or advisor, as applicable, for ESG criteria generally will underperform the market as a whole or, in the aggregate, will trail returns of other portfolios screened for ESG criteria. The index provider or advisor assessment of a company, based on the company's level of involvement in a particular industry or their own ESG criteria, may differ from that of other portfolios or an investor's assessment of such company. As a result, the companies deemed eligible by the index provider or advisor may not reflect the beliefs and values of any particular investor and certain screens may not exhibit positive or favorable ESG characteristics. The evaluation of companies for ESG screening or integration is dependent on the timely and accurate reporting of ESG data by the companies. The advisor may not be successful in assessing and identifying companies that have or will have a positive impact or support a given position. In some circumstances, companies could ultimately have a negative or no impact or support of a given position. The weight given to ESG factors for active non-ESG funds may vary across types of investments, industries, regions and issuers; may change over time; and not every ESG factor may be identified or evaluated. Where ESG risk factor analysis is used as one part of an overall investment process (as is the case for actively managed equity and fixed income non-ESG Funds), such Funds may still invest in securities of issuers that all market participants may not view as ESG-focused or that may be viewed as having a high ESG risk profile.

Vanguard is owned by its funds, which are owned by Vanguard's fund shareholders.

To learn more about Vanguard, visit [vanguard.com](https://www.vanguard.com).

The Vanguard logo, featuring the word "Vanguard" in a bold, red, serif font with a registered trademark symbol.

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