

Goldman Sachs Sustainability Report

# Delivering Market-Based Solutions for Our Clients



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**David Solomon**  
Chairman and Chief  
Executive Officer

## Letter From Our Chairman and CEO

Since the publication of our last sustainability report, geopolitical developments, surging AI-driven power demand, and the onshoring of domestic manufacturing have underscored the critical importance of energy reliability, security, and affordability. In the US alone, Goldman Sachs Research projects US power demand will grow by 2.6% annually through 2030, a significant increase after a decade of limited growth.<sup>1</sup> Meeting this demand will require an abundance of energy sources, including traditional energy as well as new and innovative technologies.

Governments are grappling with how to address the implications of these accelerating trends. We urge policymakers and regulators globally to support the innovation and investment needed to both meet soaring energy demand and adapt their economies to the realities of the changing climate.

This includes reducing regulatory sustainability reporting burdens and harmonizing any regulatory requirements that significantly diverge across different markets to reduce unnecessary burdens and obstacles to progress. These reforms will enable private sector participants to more effectively deploy capital and resources toward advancing solutions that contribute to sustainable economic growth and bolster resilience.

Our clients have a wide range of preferences and commercial interests on this topic. At Goldman Sachs, our priority is meeting our clients where they are and having the commercial capabilities and insights to help them deliver on their distinct strategic priorities. This means we will continue financing and advising our clients in carbon-intensive industries, which economies are still dependent on, and investing in the innovative energy technologies and solutions critical to decarbonization.

In this year's report, we highlight the progress we are making on behalf of our clients, including mobilizing approximately \$675 billion of sustainable financing, investing, and advisory activities,<sup>2</sup> putting us on track to meet our 10-year, \$750 billion sustainable finance goal several years early. We also share examples of how we continue to support our clients and partners across key areas of focus, including advising and financing innovative energy technologies like nuclear and geothermal, facilitating grid resiliency with optimization technologies and various energy storage solutions, and supporting growth in the supply of critical minerals, which are crucial inputs for many low-carbon energy sources and new digital technologies.

In addition, we highlight our investments in affordable housing. We also provide an update on our strategic philanthropic programs designed to support entrepreneurs and small businesses, which include the expansion of *10,000 Small Businesses Investment in Rural Communities* into 13 predominantly rural US states and the decade of impact by the Women Entrepreneurs Opportunity Facility, a first-of-a-kind facility launched in partnership by Goldman Sachs *10,000 Women* and the International Finance Corporation.

While the path to overcoming global sustainability challenges may not be linear, we remain steadfast in our focus on doing what we do best — serving our clients with integrity and excellence, managing risk, and delivering market-based solutions for our clients to address the challenges of today and tomorrow.

**David Solomon**  
Chairman and Chief Executive Officer

<sup>1</sup> Goldman Sachs Research: [AI/Data Center Power Demand: The 6 Ps driving growth and constraints](#), October 2025.

<sup>2</sup> Cumulative progress from January 1, 2020, through June 30, 2025.

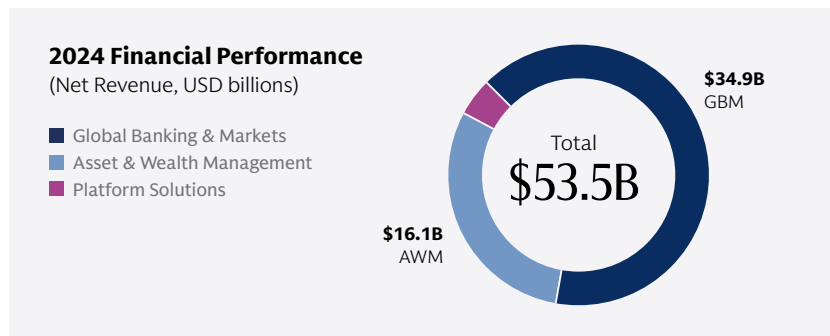
# About Goldman Sachs

Goldman Sachs is a leading global financial institution that delivers a broad range of financial services to a large and diversified client base that includes corporations, financial institutions, governments, and individuals.

We seek to advance long-term economic growth and financial opportunity. Our goal, reflected in our *One Goldman Sachs* initiative, is to deliver the full range of our services and expertise to support our clients in a more accessible, comprehensive, and efficient manner, across businesses and product areas. We operate two primary businesses: Global Banking & Markets and Asset & Wealth Management.

Global Banking & Markets (GBM) provides financing, advisory services, risk distribution, and hedging for institutional and corporate clients. GBM includes our Investment Banking, Fixed Income, Currency and Commodities (FICC), and Equities activities.

Asset & Wealth Management (AWM) provides investment services to help clients preserve and grow financial assets and achieve their financial goals. AWM manages assets across a broad range of investment strategies and asset classes, including equity, fixed income, and alternatives. Our Goldman Sachs Alternatives activities, which are typically longer-term, include investments in private equity, private credit, real estate, and infrastructure assets.



We aspire to be the world's most exceptional financial institution, united by our shared values of partnership, client service, integrity, and excellence.

# About This Report

This report<sup>1</sup> provides an overview of the firm's approach to sustainable finance, including illustrative examples<sup>2</sup> of how we help our clients capture sustainability-related opportunities and manage sustainability-related risks.

When we use the terms "Goldman Sachs," "GS," "we," "us," "our," and "the firm," we mean The Goldman Sachs Group, Inc. (Group Inc. or parent company), a Delaware corporation, and its consolidated subsidiaries. When we use the term "our subsidiaries," we mean the consolidated subsidiaries of Group Inc.

Goldman Sachs makes business decisions in accordance with the laws and regulations in the jurisdictions where it operates. The firm does not boycott or discriminate against any client or prospective clients based on industry or religious or political beliefs.

This document contains forward-looking statements about our business, including discussion of Goldman Sachs' plans, objectives, strategies, goals, targets, and expectations for our operations and business related to various sustainability-related matters. For additional information, including about factors that could cause actual results to differ materially from our expectations, refer to the **Disclaimer** section of this document. Additionally, this document uses terms "sustainable," "green," "ESG," and other related terms, while acknowledging that there is no single globally recognized or accepted set of definitions of such terms.

<sup>1</sup> All data is through December 31, 2024, unless otherwise specified.

<sup>2</sup> Case studies in this report are for illustrative purposes only and in limited instances do not fall within scope of Goldman Sachs' \$750 billion sustainable finance goal.



# Historical Sustainability Timeline<sup>1</sup>

We have helped our clients advance their sustainability priorities for more than two decades. Since launching our Urban Investment Group (UIG) in 2001 and our partnership with the Wildlife Conservation Society to form Karukinka Natural Park in 2004, we have grown the sustainability-related expertise within our businesses and scaled our suite of sustainable finance capabilities and market-based solutions to meet the evolving demand from our clients.

<b>2001</b> Launched Urban Investment Group, which has committed over \$22 billion to finance over 200,000 majority affordable housing units built or preserved to date	<b>2004</b> Announced partnership with Wildlife Conservation Society to form Karukinka Natural Park to preserve in perpetuity more than 735,000 acres of land in Chile's Tierra del Fuego at the southern tip of South America <sup>2</sup>	<b>2005</b> One of the first US banks to publish an environmental policy  Developed over 1 gigawatt (GW) of wind capacity in North America during a two-year period with Horizon Wind	<b>2007</b> Launched GS SUSTAIN, which provides research and data tools to clients exploring how innovation, regulation, and implementation of sustainability topics can impact investing and broader capital flows	<b>2008</b> Launched <i>10,000 Women</i> , reaching over 320,000 women across 150 countries since inception
<b>2009</b> Announced <i>10,000 Small Businesses</i> (10KSB) which has served over 20,000 entrepreneurs globally to date, representing more than 380,000 employees, and \$37 billion in total revenue	<b>2012</b> Set inaugural clean energy financing and investment target  Established Japan Renewable Energy Corporation	<b>2014</b> Launched the Women Entrepreneurs Opportunity Facility in partnership with International Finance Corporation through <i>10,000 Women</i> , reaching more than 267,000 women entrepreneurs and helping unlock approximately \$3.1 billion in loans to financial institutions for women-owned businesses since inception	<b>2015</b> Firm's first complete offset of unabated emissions from operations and business travel <sup>3</sup>  Acquired impact investing firm Imprint Capital Advisors  Developed Risk-Aware Low Emissions Index	<b>2019</b> Established the Sustainable Finance Group to advance Goldman Sachs' sustainability strategy across the firm and announced our \$750 billion sustainable finance goal by 2030  Launched <i>Carbonomics</i> , our flagship research series on the economics of decarbonization
<b>2020</b> Created AWM's Sustainable Investing Group and GBM's Commodities Sustainable Solutions	<b>2021</b> Launched <i>One Million Black Women</i> to invest \$10 billion in investment capital and \$100 million in philanthropic capital to drive economic growth and opportunity  Announced our intention to align our financing activities with a net zero by 2050 pathway  Issued \$800 million inaugural Goldman Sachs benchmark Sustainability Bond  Announced Goldman Sachs–Bloomberg Climate Finance Partnership, including the Climate Innovation and Development Fund, alongside the Asian Development Bank  Launched ESG Beacon to source, model, and deliver sustainability data to our business	<b>2022</b> Created GBM's Sustainable Banking Group  Acquired NN Investment Partners to benefit from combining its sustainability-related expertise and capabilities with ours  Closed our first private equity strategy focused on investing in innovative environmental and climate transition solutions	<b>2023</b> Launched the Global Social Impact Equity strategy  Unlocked approximately \$500 million of blended private and public sector finance through the Climate Innovation and Development Fund across seven projects in India and Vietnam  Launched <i>10,000 Small Businesses Investment in Rural Communities</i> , a \$100 million commitment to expand business education and access to capital to 20 predominantly rural US states, reaching 13 states to date, starting in North Dakota and Arkansas <sup>4</sup>	<b>2024</b> Raised approximately \$2.7 billion for climate transition-related Horizon strategies <sup>5</sup>  Announced support for tripling of global nuclear energy capacity by 2050 <sup>6</sup>  Joined MIT-IBM Watson AI Lab to help advance biodiversity measurement  <b>2025</b> Launched biodiversity bond strategy  Launched green and social bond strategy for emerging markets  Launched and raised \$1 billion for climate credit strategy  Hosted the third <b><i>10,000 Small Businesses Summit</i></b> , a gathering of small businesses from across the United States, bringing together 10KSB alumni in Washington, D.C.

<sup>1</sup> All to-date figures are through September 2025, unless otherwise specified.

<sup>2</sup> In 2007, the Karukinka Natural Park expanded from its original 680,000 acres to more than 735,000 acres.

<sup>3</sup> Goldman Sachs minimizes our operations and business travel impact through a mixture of reduction efforts, purchase of energy attribute certificates, and carbon credits for the associated unabated emissions. Please visit [Our Operational Impact](#) page for more information, including third-party verification statements.

<sup>4</sup> The 13 states include: Alabama, Arkansas, Indiana, Minnesota, Mississippi, Missouri, Montana, North Carolina, North Dakota, South Dakota, Utah, West Virginia, Wyoming.

<sup>5</sup> Includes all dollars legally closed on under the Horizon strategies as of December 31, 2024.

<sup>6</sup> World Nuclear Association (WNA): [14 major global banks and financial institutions express support to triple nuclear energy by 2050](#), September 2024.

# Our Approach to Sustainable Finance

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Our approach to sustainable finance centers on helping our clients capture sustainability-related opportunities and manage sustainability-related risks, both of which continue to evolve across sectors and geographies.

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Our Approach to Sustainable Finance

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Our Sustainable Finance Activity

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Delivering Market-Based Solutions for Our Clients



# Our Approach to Sustainable Finance

As an investment bank, asset manager, corporate issuer, and risk manager, we focus on helping our clients and firm capture sustainability-related opportunities and manage sustainability-related risks.

We execute our strategic approach by working with clients, managing our firm, and addressing market gaps.

## 1. Working With Clients

Our approach to sustainable finance centers on our clients. We facilitate our clients' sustainability objectives by providing them with our advice; market-based solutions across public and private markets, including innovative structuring and financing solutions; and dedicated risk management capabilities

## 2. Managing Our Firm

Through our internal governance and controls, we strive to preserve long-term value for our shareholders by managing climate-related risk, environmental and social risks, and divergent regulatory expectations across jurisdictions where we operate. We also manage our global footprint across our operations and supply chain

## 3. Addressing Market Gaps

Our firm identifies unmet market needs and develops solutions that can be scaled over the long term by leveraging our existing capabilities and those of our strategic partners. Collaborating with these partners, and often complementing these efforts with strategic philanthropic capital, we are focused on creating innovative, market-based solutions for our clients

## Examples of Our Approach to Sustainable Finance

- Published thought leadership on the solutions required across capital, energy, and infrastructure, including ***Powering the AI Era***, ***Reliability: Demand growth, physical risk, infrastructure modernization in focus***, and ***The GS net zero carbon scenarios — a reality check***
- Enhanced our proprietary digital assets platform (GS DAP®) to support the creation of sustainable debt instruments with tracking of key performance indicators (KPIs) embedded for real-time access to ongoing monitoring of the proceeds' impact
- Launched various sustainability-related strategies and solutions, including a biodiversity bond strategy, emerging markets green and social bond strategy, climate private credit strategy, and a quantitative equity 2-step strategy<sup>1</sup>

- Developed a standardized climate-related catastrophe monitoring process to identify and escalate select events, including hurricanes, floods, wildfires, and earthquakes
- Advanced our goal of sourcing 80% of our electricity from long-term renewable agreements by commissioning a virtual power purchase agreement, introducing additional renewable energy capacity to the Mid-Atlantic power grid
- Established an operating model for mandatory sustainability reporting, including enhancing our sustainability data sourcing, strengthening data controls, and preparing for compliance with the myriad forthcoming sustainability reporting requirements across jurisdictions globally

- Announced collaboration with MIT-IBM Watson AI Lab to help advance the application of artificial intelligence to biodiversity measurement
- Exceeded 200,000 majority affordable housing units built or preserved via the Urban Investment Group
- Hosted *Scaling FOAKs*, a workshop on building first-of-a-kind (FOAK) facilities that seek to decarbonize the hardest-to-abate sectors, including steel, cement, industrial heat, aviation, and maritime shipping. Alongside CREO and Builders Vision, Goldman Sachs convened stakeholders across the capital stack to help accelerate the financing and scaling of FOAK climate technology projects

<sup>1</sup> A risk-adjusted quantitative-optimization investing strategy. For more information, please see [Areas of Opportunity for Our Clients and Firm](#).

# Our Sustainable Finance Activity

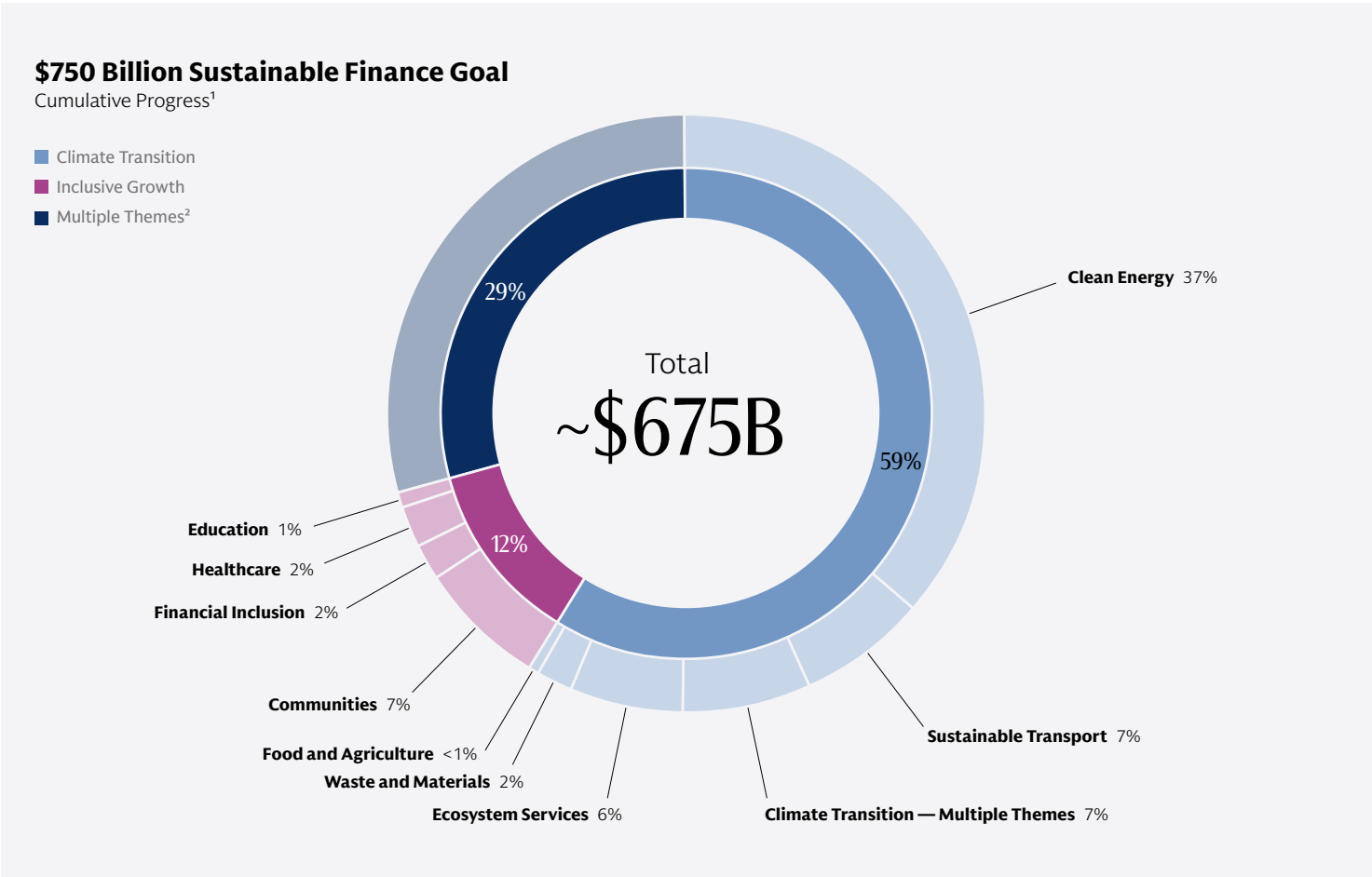
As a financial institution, we facilitate our clients’ sustainability priorities, which contribute to a more resilient and sustainable economy.

In 2019, we launched the Sustainable Finance Framework (see next page) and announced a firmwide 10-year, \$750 billion sustainable finance goal to track our support of our clients’ sustainability priorities across our financing, investing, and advisory activities.

- **Finance:** Originate, structure, and execute transactions and risk management solutions to facilitate access to capital
- **Invest:** Allocate Goldman Sachs capital or client capital into public and private investments
- **Advise:** Provide expertise and strategic recommendations to clients on mergers and acquisitions, divestitures, and spin-offs

Since 2020, we have mobilized approximately \$675 billion<sup>1</sup> of commercial activity, including \$401 billion in Climate Transition, \$82 billion in Inclusive Growth, and the remainder in multiple themes.<sup>2</sup> The most significant sub-theme contributor to Climate Transition is from Clean Energy, followed by Sustainable Transport, which together drive the majority of the Climate Transition contribution.

Reaching approximately 90% of our sustainable finance goal in just over five years reflects our ability to meet our clients’ needs across a wide range of sustainable finance capabilities.




1 Cumulative progress from January 1, 2020, through June 30, 2025.  
2 Includes activity relating to both Climate Transition and Inclusive Growth.





# Our Sustainable Finance Framework


Serving as the foundation for our 10-year, \$750 billion sustainable finance goal, the Sustainable Finance Framework (“Framework”) includes two broad themes we have observed in many of our clients’ sustainability priorities — Climate Transition and Inclusive Growth. The Framework helps us track our sustainable financing, investing, and advisory activities, including advising clients capitalizing on short- and long-term trends; structuring innovative capital, financing, and risk management solutions; and delivering market-based products and services.


**Climate Transition**

**Clean Energy**  
Enable renewable energy generation, energy efficiency, and grid services


**Sustainable Transport**  
Shift modes of transit through electric vehicles, connected services, autonomous driving, and public transportation development

**Sustainable Food and Agriculture**  
Enable green agricultural production, storage, processing, and distribution to feed the world


**Waste and Materials**  
Promote sustainable production and consumption, along with responsible waste management


**Ecosystem Services**  
Contribute to the sustainable management of natural resources and monetize the value of forests, water, and biodiversity

**Inclusive Growth**

**Accessible and Innovative Healthcare**  
Enable the use of digital technology, advanced devices, and diagnostics for better outcomes

**Financial Inclusion**  
Advance financial inclusion for all, including underserved populations, by promoting access to capital, financial technology, and products that increase access, support financial health, and drive more equitable economic growth

**Accessible and Affordable Education**  
Enable greater access to education, improve learning outcomes, and help close opportunity gaps for learners of all ages

**Communities**  
Enable infrastructure development, affordable housing, and livelihood advancement

## Examples of Our Sustainable Finance Activities

**Global Banking & Markets**

1

**Clean Energy:** Goldman Sachs advised global energy company Iberdrola on its acquisition of the remaining 18.4% of its US subsidiary, Avangrid. Completing this merger in December of 2024, Iberdrola expects to invest in the United States more efficiently both in new energy infrastructure projects in its grid and renewable businesses to help meet the growing demand from utilities and data centers and generate hundreds of direct and indirect jobs.

2

**Multiple Sub-Themes:** Goldman Sachs helped the African Development Bank raise capital through its first sustainable hybrid capital issuance. This marks the first sustainable hybrid capital issuance by a multilateral development bank. Bond proceeds financed select environmental- and social-aligned projects.

**Asset & Wealth Management**

1

**Clean Energy and Communities:** UIG provided a \$30 million construction loan facility to Sunwealth to finance the installation of community-based solar arrays, primarily for the benefit of low- to moderate-income (LMI) neighborhoods across various states. This project aims to reduce electricity costs for LMI families, small businesses, and community organizations while increasing access to clean, renewable energy. The loan proceeds will be used to deploy solar solutions in LMI communities across the US.

2

**Multiple Sub-Themes:** XIG Imprint partnered with the Unilever Pension Funds (Univest Company) in 2018 to launch the Univest Sustainable Funds (USFs), on track to have allocated over \$1 billion to impact opportunities by the end of 2025. USFs allocate to private equity, real asset, and private credit strategies, investing across climate transition and inclusive growth themes in line with Univest’s integrated sustainability goals.

## Delivering Market-Based Solutions for Our Clients

We continue to grow our suite of sustainable finance capabilities across the firm to facilitate our clients' strategic priorities. Global Banking & Markets, Asset & Wealth Management, and Global Investment Research (GIR) deliver our market-based solutions through our *One Goldman Sachs* commercial model. Below is an overview of GBM, AWM, and GIR and their specialized sustainable finance teams and commercial capabilities that support our clients across both public and private markets.

### Global Banking & Markets

GBM serves public and private sector clients, developing and maintaining long-term relationships with a diverse group of corporations, financial institutions, investment funds, and governments.

Partnering with our clients in support of their innovation, transformation, and aim for enduring success transcends individual transactions. Specialized GBM groups with sustainable finance and market capabilities collaborate with our banking and other teams, while adhering to the firm's information barriers, to help our clients navigate strategic decisions and the complexities of global capital markets.

The Sustainable Banking Group specializes in delivering bespoke analytics, advice, commercialization, and capital solutions to clients focused on energy transition, advancing their decarbonization, circularity, and biodiversity goals and sustainability profiles. These capabilities include traditional debt and equity finance, blended finance, structured finance, and M&A advisory. The Commodities Sustainable Solutions group helps facilitate our clients' sustainability objectives across commodities markets, providing commodity risk management, route-to-market solutions, and principal financing in areas such as renewable power, energy storage, and environmental products to help our clients achieve their energy transition objectives.

GBM has achieved meaningful milestones across private and public markets:<sup>1</sup>

~\$3.9B

capital facilitated through private placement transactions for clean and climate technology companies

~\$177B

notional value of primary market sustainability-related debt issuances<sup>2</sup> in which Goldman Sachs participated

#### Sustainable Finance Capabilities

**Sustainability Advisory:** Advisory, M&A, IPO, and transition-related strategies

**Sustainable-Themed Products, Transition Capital, and Financing:** Early-stage growth equity, financing for legacy asset conversion, project financing for green capex initiatives, tax equity, sustainable urban development, and sustainable-themed products such as structured notes, custom baskets, and portfolio transition trades

**Sustainable Financing and Investor Connectivity:** Traditional and innovative debt and equity financing products, sustainable and impact investor connectivity

**Sponsor/Client Coverage and Analytics:** Coverage resources for sustainability content and support for sustainability-oriented investors and emerging energy transition companies, and bespoke investor analytics, including carbon, climate transition, and portfolio analytics

**Renewable and Energy Storage Markets:** Commodity risk management, supply, off-take, and route-to-market solutions for renewable energy and energy storage. Principal financing for renewables, energy storage, and other energy transition projects

**Environmental Products and Critical Raw Material Markets:** Commodity risk management, supply, and off-take for carbon certificates, renewable certificates, and other environmental products; principal financing across environmental markets and financing of critical minerals and other raw materials, including battery metals and recycled metal, among others

<sup>1</sup> January 1, 2024, through September 30, 2025.

<sup>2</sup> Total notional value of issuances greater than \$200 million on which Goldman Sachs had a role. Climate-related debt includes green, sustainability, and transition bonds as well as sustainability-linked bonds per Bloomberg from January 1, 2024, through September 30, 2025.



## Asset & Wealth Management

AWM is a leading global active asset manager with a global alternatives business and a premier wealth management franchise with more than \$3 trillion in assets under supervision (AUS) globally.

Leveraging the firm's more than 20 years of sustainable finance markets expertise, AWM delivers an array of innovative products, services, and solutions to its diverse and global client base through both its direct investing and open architecture platform. Coupling its depth across asset classes, regions, direct investing, and third-party investing with its broad and extensive reach that enables us to both develop research-driven market insights and source differentiated investment opportunities, AWM offers a curated set of sustainable investing strategies, tailored to clients' sustainable investing objectives and preferences. For more information on AWM's climate strategy, please see the Asset & Wealth Management TCFD Report 2024.

AWM has achieved meaningful milestones across private and public markets:

\$9.2B+

private markets impact capital, ranking Goldman Sachs as one of the world's largest private markets impact managers<sup>1</sup>

\$394B+

sustainability-related assets  
under supervision<sup>2</sup>

## Sustainable Finance Capabilities

**Sustainability Advisory:** Organizational strategy, investment strategy, and implementation

**Differentiated Insights:** Leverage insights across the breadth and depth of the Goldman Sachs Asset Management (GSAM) platform across geographies, investment verticals, and asset classes

**Distinct Capabilities:** Research, data, and analytics to deliver analyses and tools to help clients evaluate their portfolios, climate intelligence to support investment decision-making, and dedicated transition-focused resources for portfolio companies

**Drivers of Value:** Integration of financially material sustainability factors within select products and strategies to identify and drive value across risk, efficiency, and growth

**Emerging Growth Themes:** Incorporation of sustainability-related considerations across certain strategies, as well as offering products with a dedicated focus on investing in high-conviction, emerging growth thematic

**Customized Solutions:** Mobilization of organizational resources, partnering with clients to deliver investment solutions beyond product offering

## Depth and Breadth of Our Direct Investing and Open Architecture Platform

**Breadth** across asset classes, regions, direct investing, and open architecture

## Public Markets

\$2.8 trillion+ platform managing assets across liquidity, equities, and fixed income<sup>3</sup>

## Alternatives

\$517 billion Alternatives platform<sup>4</sup> managing assets across private equity, growth, credit, real assets, secondaries, and liquid alternatives strategies<sup>5</sup>

### External Investing

\$420 billion+ External Manager platform with expertise and global scale across the risk-return spectrum<sup>3</sup>

## Central Platform + Sustainable Product Specialists

## Horizon (Direct Investing) + Sustainable Product Specialists

### Imprint (Manager Selection & Co-Investments)

**Sustainable Client Solutions Team (Dedicated Global Cross-Platform Client Strategy Team)**

### Broader Goldman Sachs Resources<sup>6</sup>

- Executive Office (Sustainable Finance Group)
- Investment Banking (Renewables & Clean Tech Financing)
- Global Investment Research (*Carbonomics* & GS SUSTAIN)
- Global Commodities (Off-takes for Renewables Projects)

Note: As of December 2024.

1 PEI Media ranks GSAM as the world's fifth-largest manager of private markets impact capital in the [New Private Markets](#) Impact 50, July 2025. PEI Group's GP lists and rankings are based on the amount of capital raised for private markets funds that held final close between January 1, 2020, and December 31, 2024, as well as capital raised for funds that were actively fundraising at the end of the counting period. Impact capital is defined here according to the Global Impact Investing Network: Impact investments are investments made with the intention to generate positive, measurable social and environmental impact alongside a financial return in private markets.

2 As of December 31, 2024, AUS figures are for explicit ESG investment strategies only where ESG or sustainability factors are an important component. This figure includes assets from our Public Markets Investing business as well as our External Investing Group (XIG). AUS includes assets under management and other client assets for which Goldman Sachs does not have full discretion.

3 AUS numbers are not mutually exclusive across these categories, as XIG allocates across public and private assets. These are broad AUS numbers that capture AUS across our entire platform and include assets that do not consider ESG factors.

4 GS total Alternatives investments included Alternatives AUS of \$336 billion and non-fee-earning Alternatives assets of \$181 billion as of December 31, 2024.

5 Total alternative investments includes AUS and non-fee-earning alternative assets. These are broad AUS numbers that capture AUS across our entire platform and include assets that do not consider ESG factors.

6 GSAM leverages the resources of Goldman Sachs & Co. LLC subject to legal, internal, and regulatory restrictions.

## Global Investment Research

GIR provides original, fundamental insights and analysis for clients across equity, fixed income, currency, and commodities markets.

Through GIR's data-driven insights and convening power, GIR provides valuable perspective on the ever-evolving sustainability landscape to inform our clients' decisions. GS SUSTAIN and *Carbonomics* offer an on-the-ground, real-time view of the sustainability landscape and its real-world applicability for investment decision-making. GS SUSTAIN and *Carbonomics* have published more than 100 sustainability-related research reports with approximately 100,000 unique reads.<sup>1</sup>

GS SUSTAIN, established in 2007, covers more than 7,000 companies and leverages inputs from sector analysts to provide data and research utilized by clients to help better explore how innovation, regulation, and implementation of sustainability topics will impact investing and broader capital flows.

*Carbonomics*, launched in 2019, is GIR's flagship series dedicated to examining the economics of decarbonization and sustainable growth, providing in-depth analysis of costs, incentives, and financing options for key technologies underpinning the pathways to a lower-carbon economy.

### Research and Data-Driven Insights

**GS SUSTAIN** provides research and thought leadership in the following areas:

- Data tools analyzing corporate ESG performance, revenue exposures to the Sustainable Development Goals (SDGs) and European Union (EU) taxonomies, forward-looking estimates on green capex, sustainable fund holdings, and fundamental analysis
- Investment themes such as green capex, aging populations, adaptation, AI/data center sustainability implications, the circular economy, and "Greenablers,"<sup>2</sup> among others
- Industry trends such as ESG integration and links to stock performance, sustainability regulation, sustainability improvers, and sustainability capital flows

***Carbonomics*** provides research and thought leadership in the following areas:

- Renewable and low-carbon energy sources and technologies, including a modeling of the global decarbonization cost curve
- Global energy policies and carbon markets, including a modeling of the European Union Emissions Trading System
- Future of energy and the infrastructure and supply chain needed to supply affordable energy to a growing world population

### Spotlight: Convening Power

#### Goldman Sachs Global Sustainability Forum

During New York Climate Week, the Goldman Sachs 2025 Global Sustainability Forum convened corporate managers, investor clients, and other attendees for a full day of programming focused on turning sustainability strategies into value and performance. Goldman Sachs Research analysts drew six thematic takeaways from the event:

1. **Accelerating power demand growth and product availability driving "all-of-the-above" energy sourcing**, with long-term nuclear optimism
2. **Labor and reskilling** acting as increasingly potential constraints and differentiators
3. **AI as a disruptor** of labor markets and power markets as investors/corporates seek confidence in the extent of AI's sustainability benefits
4. **Adaptation** focus increasing — both physical risk and investable opportunities
5. Increased confidence in the **reliability (of power and water) theme**, with reliability prioritized over affordability and both reliability/affordability prioritized over decarbonization
6. **US renewables outlook** bullish through 2028, more in debate afterwards



#### *Carbonomics* Conference

GIR hosted the sixth annual *Carbonomics* conference in November 2025, convening over 600 investors, company management, and industry experts, including 30 CEOs of leading corporates and policymakers. Strong attendance shows that inclusive growth and decarbonization remain key themes for investors, but with a more pragmatic focus on transition, affordability, and technological innovation. There was a broader realization that AI-driven accelerating power demand and a growing world population are likely to fuel growth in hydrocarbon demand well beyond the end of this decade, with natural gas emerging as a key transition fuel and nuclear seeing a strong revival. Most companies highlighted the need for higher investments in energy infrastructure, with some concerns over policy changes, overdependence on China for clean-tech supply chains, an aging grid infrastructure, and permitting delays.

<sup>1</sup> January 1, 2024, through September 30, 2025.

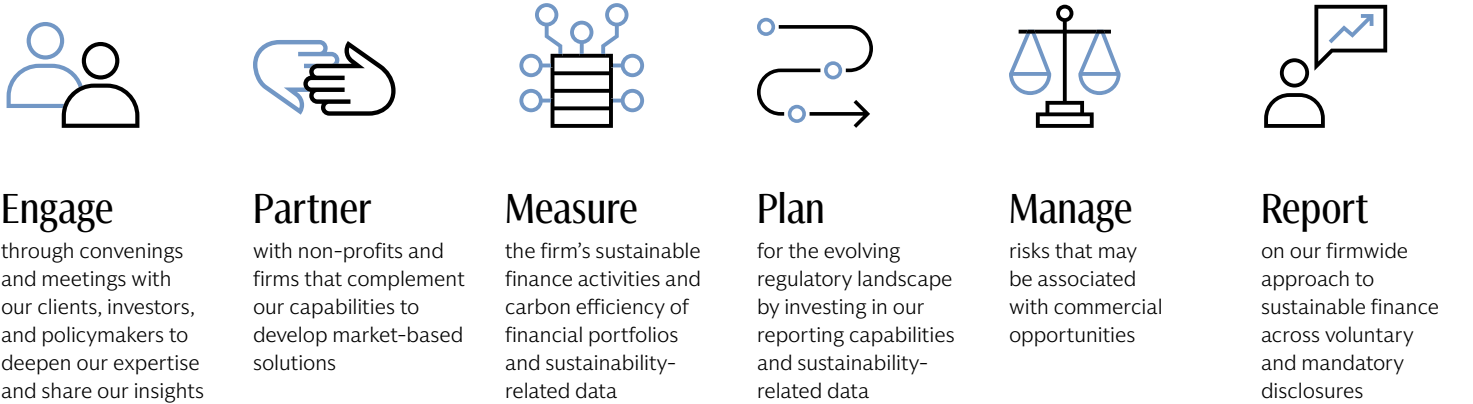
<sup>2</sup> Goldman Sachs Research: *The \$6 Trillion Plan: Unleashing New Waves of Green Investment*, May 2022.



## Advancing Our Firmwide Approach to Sustainable Finance

The Sustainable Finance Group (SFG) centrally coordinates our integrated approach to sustainable finance and related efforts across Goldman Sachs.

In partnership with other internal functions and teams, SFG advances the firm’s approach by **engaging** externally on sustainability-related topics in convenings with clients, investors, and policymakers, **partnering** with non-profits and firms that complement our capabilities to develop market-based solutions, **measuring** our sustainable finance activities and carbon efficiency of our financial portfolios, **planning** for the evolving regulatory landscape, **managing** risks that may be associated with commercial opportunities, and **reporting** both voluntary and mandatory disclosures.



For information on our governance structures and groups supporting our sustainable finance and related efforts, please see the **Managing Our Firm** section of this report.

# Areas of Opportunity for Our Clients and Firm

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Our clients are at the center of what we do. They continue to turn to Goldman Sachs for our deep market insights, access to capital, and innovative sustainable finance solutions designed to enable their sustainable growth strategies. Across all sectors of the real economy, we have continued to support clients across public and private markets. In this section, we highlight three thematic opportunities where we see increasing demand for advice, investment, and market-based solutions.

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# Advancing Innovative Technologies and Solutions

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Meeting the rapid rise in energy demand will require innovations in climate and energy technologies. From policymakers to capital allocators, market participants contribute to the solutions that seek to support a sustainable and energy-secure economy. At Goldman Sachs, we are focused on using our world-class capabilities to provide the capital, advice, and expertise that help enable our clients' innovations, from developing new technologies to support the surge in power demand to pioneering decarbonization in hard-to-abate sectors with first-of-a-kind technologies and solutions.

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## Financing the Emergence of New Energy Technologies

Global energy demand grew at a significant annual rate of 2.2% in 2024.<sup>1</sup> As global demand for energy continues to rise, the global economy will require new and innovative energy technologies to ensure a secure, reliable, and affordable energy mix over the coming decades. We continue to support our clients at the forefront of expanding these new and innovative energy resources, including developments in geothermal and nuclear.

### Geothermal Energy

Geothermal energy can provide a constant and reliable source of cleaner energy, offering constant baseload power generation.

Geothermal electricity generation, a technology leveraging geothermal reservoirs located beneath the Earth's surface, has the potential to be an important source of power globally. However, it makes up only a small fraction of all generation in the United States.<sup>2</sup> A recent report sees geothermal energy meeting as much as 15% of global electricity demand growth between now and 2050, contingent on project costs continuing to decline.<sup>3</sup> Additionally, the investment opportunity is substantial, with the growth of the technology potentially generating \$1 trillion worth of investment by 2035.<sup>4</sup>

\$1T

potential investment in  
geothermal energy by 2035

### Case Study: Fervo Energy

Goldman Sachs served as the exclusive financing partner on a \$244 million capital raise for Fervo Energy in February 2024 to deploy next-generation geothermal technology adapted from the oil and gas industry. Fervo is currently developing the Cape Station project in Beaver County, Utah, which is the world's largest enhanced geothermal systems (EGS) development. The project includes Cape Station Phase I, which is poised to deliver 100 megawatts (MW) of baseload clean power to the grid beginning in 2026, as well as Cape Station Phase II, which is projected to generate an additional 400 MW and come online by 2028. The full Cape Station development has received permitting approval for up to 2 GW of reliable and renewable energy. With funding in place, contracted power off-take for 500 MW, key permits secured, and construction well underway, Cape Station Phase I is currently on track for its expected 2026 commercial operation date. Fervo's ability to deliver fully contracted, firm renewable power positions it as a key generation player in the evolving American energy landscape.

\$244M

private capital raised in  
February 2024

~2 GW

permitting approval for full  
Cape Station development

### Nuclear Energy

Nuclear power traces its viability back to the mid-20th century.<sup>5</sup> Despite this longevity, nuclear power has faced significant safety, funding, and construction headwinds to its development over the past few decades. In recent years, however, the surge in power demand from AI has reopened the discussion on the feasibility of nuclear as an energy solution that is affordable, reliable, and low-carbon. The development of new technologies and improved safety practices in the nuclear industry, from the emergence of Small Modular Reactors (SMRs) to uranium enrichment and AI monitoring, have made nuclear energy a more compelling technology solution. Globally, governments and financial organizations are beginning to invest more in new nuclear projects, with Germany and the World Bank in particular changing their stances on the use of nuclear and the US Administration's four executive orders to accelerate nuclear permitting and access to

1 International Energy Agency (IEA): [Growth in global energy demand surged in 2024 to almost twice its recent average](#), March 2025.

2 U.S. Energy Information Administration: [Geothermal explained](#), April 2024.

3 IEA: [Technology breakthroughs are unlocking geothermal energy's vast potential in countries across the globe](#), December 2024.

4 Ibid.

5 World Nuclear Association: [Outline History of Nuclear Energy](#), July 2025.

fuel, alongside their recent activity investing in SMRs. Many of our clients see nuclear as a viable solution to meeting energy demand growth, and we have been on the ground supporting them on their strategic initiatives as the industry reemerges.

Case Study: Oklo

Since June 2025, Goldman Sachs has helped raise approximately \$1 billion in public markets for Oklo, a nuclear power company developing next-generation fission powerhouses with the goal of producing abundant, affordable, clean energy at a global scale. Oklo’s reactor technology includes the ability to use recycled nuclear fuel, which is designed to convert spent fuel into new fuel and is expected to improve the powerhouse economics. In August 2025, the United States Department of Energy (DOE) announced its initial selections for its New Reactor Pilot Program, where multiple Oklo projects were selected as part of the DOE’s goal to construct, operate, and achieve criticality of at least three test reactors using the DOE authorization process by mid-2026.

~\$1B

capital Goldman Sachs helped raise in public markets for Oklo since June 2025



Courtesy of Oklo

Biomethane

Biomethane, made from anaerobic digestion of organic waste, can be a direct substitute for natural gas and is able to be fed into the existing gas infrastructure. While the demand for biomethane is currently a fraction of overall energy demand, the fuel has seen its usage increase by approximately 20% annually over the past five years.<sup>1</sup> Additionally, policy momentum for biogases has grown significantly, with over 50 new policies supportive of biogas and biomethane being implemented over that same time period.<sup>2</sup> Responsibly managed biomethane presents a renewable alternative to high-emitting natural gas that can serve multiple objectives including energy security, energy access, support of agriculture, waste management, and sustainability.

Case Study: Verdalia

In February 2023, Goldman Sachs Alternatives established Verdalia Bioenergy in an effort to create a leading energy transition player focused on developing, acquiring, and operating biomethane plants across Europe. In October 2025, Verdalia closed on a €671 million debt financing to further accelerate its biomethane portfolio across Spain and Italy. Backed by numerous banks and institutional investors, the transaction is one of the largest financings in the European biomethane sector to date and first corporate infrastructure financing transaction for a largely greenfield company. This transaction supports Verdalia’s plan to develop aggregate production capacity in excess of 3 TWh per year — equivalent to the annual energy consumption of nearly one million households. The total capital to be deployed in the portfolio is expected to exceed €1 billion, eclipsing Verdalia’s initial investment goal. As of October 2025, the portfolio already includes seven plants in operation and six under construction in Italy, which are expected to start injecting biomethane into the grid in early 2026. In Spain, Verdalia is currently building its first plant and will commence construction of two additional facilities before the end of this year.

€671M

debt capital raised to accelerate Verdalia’s biomethane portfolio across Spain and Italy

3TWh+/year

expected production capacity supported by this transaction

1 IEA: Outlook for Biogas and Biomethane, May 2025.  
2 Ibid.

## Enabling Responsible Supply Chains for Critical Minerals

Critical minerals are a key resource to enable new energy technologies, electrification, and the transition to a lower-carbon economy. Regional sourcing has implications for the energy system's security and independence. While the US has been heavily reliant on imports for many critical minerals, with emerging markets as the primary import source, governments are prioritizing more domestic supply chains for these raw materials to help address geopolitical risks. At the same time, increased demand for these crucial resources underscores the delicate balance between enabling the energy transition and preserving natural ecosystems. With these considerations in mind, we have been supporting our clients that are leading the development of domestic supply chains for critical minerals, including lithium and uranium.

### Lithium

Lithium, an important input for many products, including electric vehicles, renewable energy storage systems, electronics, and more, has become a widely recognized critical mineral for the green economy. Demand for this metal is expected to grow 3 times by 2030 and 4.2 times by 2035.<sup>1</sup> As the US continues to prioritize the onshoring of mining operations for critical minerals, we are playing a key role in advising and financing our clients as they endeavor to secure a reliable domestic supply of lithium.

#### Case Study: Lithium Americas

Goldman Sachs supported Lithium Americas across four related transactions over the course of 2024 and early 2025, advising and financing the domestic supplier of lithium as it develops its Thacker Pass lithium project in Nevada. The project is believed to be the largest known measured and indicated lithium resource in North America. Production volumes from Phase I could support batteries for up to 800,000 electric vehicles annually. Additionally, Phase I is expected to create approximately 1,800 jobs during its three-year construction period and approximately 360 jobs in operations for the mine's 40-year lifespan.

~800K

electric vehicle batteries annually that could be supported by the lithium extracted and processed from Phase 1 of Thacker Pass

~1,800

expected jobs created during the three-year construction period of Thacker Pass

### Uranium

As the demand for clean power continues to grow, so too does the demand for the critical minerals needed for that power. Uranium, the primary fuel capable of sustaining nuclear power, is projected to see a 28% increase in demand from 2023 to 2030.<sup>2</sup> In the US, supply of uranium is just a fraction of total global supply. According to the World Nuclear Association, uranium is primarily exported from Kazakhstan, Canada, Namibia, and Australia.<sup>3</sup> As the US continues to prioritize nuclear energy and domestic production, many of our clients are investing in their domestic supply chains.

#### Case Study: Uranium Energy Corp



Courtesy of UEC

Goldman Sachs has advised and financed Uranium Energy Corp (UEC), who through multiple transactions, has solidified its position as the largest American uranium company by estimated resources and licensed production capacity. In 2024, we helped facilitate the growth of UEC's existing uranium base, advising the company on the acquisition of Rio Tinto's Wyoming Assets, comprised of the wholly owned and fully licensed Sweetwater Plant and a portfolio of uranium properties, including its Red Desert and Green Mountain Projects. More recently, we served as the sole bank supporting UEC's \$200 million+ public financing to continue to accelerate the proposed development of a new, state-of-the-art American uranium refining and conversion facility as UEC looks to advance the next generation of uranium projects in the United States.

<sup>1</sup> Lithium Harvest: *The Future of Lithium — Trends and Forecast*, October 2025.

<sup>2</sup> World Nuclear Association: *Uranium Markets*, August 2024.

<sup>3</sup> World Nuclear Association: *World Uranium Mining Production*, September 2025.



## Empowering First-of-a-Kind Technology Solutions

Enabling the transition to a lower-carbon economy requires more than breakthrough technologies — it also demands scalable solutions that can be deployed across industries, particularly those that are hardest to decarbonize. Innovative financing models, new business approaches, and system-wide solutions are critical to bridging the financing gap between technological potential and scaling real-world solutions. However, the scale of investment needed remains significant. According to Goldman Sachs Research, total investment needed to align with a 2°C warming scenario is nearly \$75 trillion, with electrification making up a significant portion of that required investment.<sup>1</sup>

### Case Study: Catalytic Climate Mandate

The Catalytic Climate Mandate (“Mandate”), managed by our External Investing Group’s Imprint Team (“XIG Imprint”), focuses on investment opportunities that seek to provide new and fundamental solutions for hard-to-decarbonize sources of emissions. XIG Imprint collaborated with a large family office in the development of this customized investment program to support and scale impactful climate innovations. The core focus of the Mandate aims to pursue opportunities with more risk that may generate high impact, such as through the development of new climate technologies, the scale-up of established climate solutions in emerging markets, and support for first-of-a-kind projects. The strategy identifies key decarbonization pathways aligned with the firm’s Sustainable Finance Framework and sources solutions accordingly. The Mandate targets novel technologies, projects, and deployments that XIG Imprint believes have sufficient potential scale to help reduce 1% of global emissions by 2050. Examples of investments made by the Mandate include scaling solutions for direct air capture, electrifying industrial heating, decarbonizing steel production, and creating sustainable fuels such as with AIRCO, a technology provider and manufacturer of sustainable aviation fuel.<sup>2</sup>

### Case Study: BETA Technologies



Courtesy of Beta Technologies

Goldman Sachs has supported BETA Technologies (“BETA”), a leader in the nascent electric aviation industry, helping raise approximately \$2 billion of equity across both private and public capital markets. In October 2024, we helped BETA raise \$318 million in its Series C raise, marking our third private markets transaction for BETA to help support the continued certification, production, and commercialization of its all-electric conventional take off and landing (eCTOL) and vertical take off and landing (eVTOL) aircraft and other core technologies. BETA estimates approximately 42% lower operational costs from their aircraft versus new traditional conventional aircraft. The Vermont-based company has the capacity to produce over 300 aircraft per year at its Burlington facility, and also just became the first company to fly passengers in an all-electric aircraft landing at JFK Airport in New York. Most recently, we helped take BETA public through its \$1 billion+ initial public offering (IPO) in November 2025.

~\$2B

Goldman Sachs-led equity financing from Series A to IPO

~42%

lower operational costs versus new traditional conventional aircraft

<sup>1</sup> Goldman Sachs Research: [Reaching net zero is forecast to require nearly \\$75 trillion of investment](#), October 2024.

<sup>2</sup> The Mandate co-invested in AIRCO alongside a general partner.

## Spotlight: Developing Innovative, Market-Based Solutions for Clients

As many of our clients focus on scaling up emerging climate and energy technologies, Goldman Sachs is developing and delivering innovative, market-based solutions to facilitate these clients' objectives.

### Developing a quantitative investing optimization strategy

Our AWM business is supporting public markets investing clients seeking to account for the impact of sustainability characteristics on portfolio risk profiles. Developing a robust, risk-managed strategy for these clients, the Quantitative Investment Strategies (QIS) Equity Alpha team has developed a two-step optimization approach, which focuses on transparency and active risk efficiency and seeks to provide a systematic and holistic balance between risk, return, and sustainability characteristics of a public equities portfolio. The first step involves creating a reference portfolio that incorporates clients' sustainability objectives. The second step uses a proprietary bottom-up stock selection process that seeks to maximize risk-adjusted outperformance, ensuring consistent sustainability characteristics while remaining flexible to changes in active risk, ultimately maintaining a low-tracking error portfolio. The result is a transparent, alpha-seeking portfolio seeking to adhere to sustainability objectives.

### Raising capital through tokenized green notes

Our GBM business is advancing tokenized green debt instruments for our clients. The Government of the Hong Kong Special Administrative Region (HKSAR) of the People's Republic of China's inaugural tokenized green bond issuance in February 2023 leveraged GS DAP®. In February 2024, Goldman Sachs also helped the HKSAR raise approximately HKD6 billion-equivalent four-tranche digitally native<sup>1</sup> green notes under the Government Green Bond Programme.<sup>2</sup> These 2024 notes were issued in the Hong Kong Monetary Authority (HKMA)'s Central Moneymarkets Unit. Representing the world's first multi-currency digital bond, first sovereign digitally native green bond, and HKSAR's first digitally native bond issuances, this transaction helped HKSAR broaden investor participation via existing market infrastructure to promote sustainable and responsible development of the virtual assets sector, and it paves the way for future issuances of digitally native, tokenized bonds in the region.



## Multiple first-of-their-kind

- First multi-currency digital bond
- First sovereign digitally native green bond
- First digitally native bond issuance by HKSAR

<sup>1</sup> In the context of this issuance, "digitally native" describes the design features that: (i) the Digital Bond is issued in consequence of the crediting of digital bond tokens to the Billing and Delivery Bank Direct Participant's Digital Token Account on Platform (in addition to the off-chain execution of deed of covenant); and (ii) the definitive records of legal title to the digital bond will be "digitally" maintained using distributed ledger technology.

<sup>2</sup> The proceeds of the 2024 notes issued under the Programme will be used exclusively to finance and/or refinance projects that fall under one or more of the "Eligible Categories" under the Issuer's Green Bond Framework, as amended from time to time. Such projects are defined as "Eligible Projects" under the Green Bond Framework and will provide environmental benefits and support the sustainable development of Hong Kong.

# Supporting Resilient Infrastructure and Ecosystems

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As energy systems transform, maintaining resilient infrastructure and ecosystems will be critical to supporting stability and limiting economic losses. These issues are complex and interconnected. For example, approximately 36% of global power generation capacity is projected to be located in high- or extremely high-water-stressed areas by 2030.<sup>1</sup> In this section, we address the imperative of strengthening energy systems and grid reliability, enhancing the resilience of the built environment, and facilitating our clients' focus on circularity, supporting their efforts to manage resources more efficiently and reduce waste.

## In This Section

- 22 Facilitating Grid Optimization and Energy Storage
- 23 Adapting the Built Environment
- 24 Safeguarding Stability Through Water Infrastructure
- 25 Building Resilience Through Circularity

<sup>1</sup> Bloomberg Intelligence, 2025.



## Facilitating Grid Optimization and Energy Storage

Power demand from data centers is expected to outpace existing grid capacity, while growing electrification across several sectors (e.g., transportation, technology, healthcare) places substantial strain on power grids.<sup>1</sup> Resilient infrastructure is critical for reducing this strain by increasing efficiency in power usage, optimizing transmission, and intelligently balancing demand and supply. Strategic investments in smart grid technologies, energy storage, and distributed power generation are essential to help bridge surging energy demand and resilient power transmission infrastructure.

### Grid Optimization

While facility management and automation are not new initiatives, advances in AI and greater data center capacity have highlighted the importance of leveraging these processes to address growing power demand, as components of the grid are over 40 years old on average.<sup>2</sup> Further, the use of emerging artificial intelligence and machine learning technologies to enable predictive insights can contribute to more durable facilities that run more efficiently. Supporting the development of grid optimization technologies, we are helping our clients address a crucial element of the power demand challenge.

### Case Study: Divcon

Goldman Sachs Alternatives invested \$71 million in Divcon Controls (“Divcon”), a company specializing in facility and electrical power management automation and monitoring for data centers. Divcon’s integrated control systems provide real-time insights to data center operators on optimizing energy use and reliability, enhancing the uptime of the facilities it serves and improving the efficiency of cooling systems with real-time data. With more than 3 GW of mission-critical load under management, Divcon is one

\$71M

Goldman Sachs Alternatives  
commitment size

3 GW+

mission-critical load under  
management

of the largest independent control systems contractors globally. Given data centers are anticipated to contribute between 30% and 40% of all net new demand domestically through 2030,<sup>3</sup> strategic investments in real-time data efficiency are essential for sustainable growth, grid stability, and continued digital innovation. Divcon is working to expand its presence in the mission-critical data center market.

### Energy Storage

Energy storage is a critical technology to balance the intermittency of renewables and secure energy production. While it remains an emerging technology, storage presents a strong opportunity to harness excess energy generated by renewables. Goldman Sachs Research estimates a cumulative \$5 trillion investment is required in battery energy storage over the long term.<sup>4</sup> Energy storage capacity is projected to grow annually at a low-to-mid-teens rate over the next 10 years.

Since the establishment of our Commodities Sustainable Solutions group within our Global Banking & Markets business in 2020, we have broadened our offering in power markets and energy transition. Through our hands-on operational experience, we have witnessed firsthand the importance of storage to the power market and have positioned ourselves to help our clients achieve their strategic objectives in the space.

### Case Study: Cellarhead

Goldman Sachs provided advisory, project financing, and power trading services to the 624 MWh Battery Energy Storage System (BESS) Cellarhead project, one of the largest fully merchant projects in the European market. By combining services across financing and trading, Goldman Sachs is supporting developer Atlantic Green’s ambition to address intermittency issues associated with renewable power use in the United Kingdom (UK). Grid-scale battery storage projects, such as Cellarhead, play a vital role in enhancing grid stability and reliability, balance renewable energy, and contribute to reducing the risk of blackouts. The UK government estimates energy storage and related technologies could save the UK energy system up to £40 billion by 2050 from increased efficiency.<sup>5</sup> Cellarhead’s deployment represents a significant boost to the UK’s renewable energy storage pipeline, helping to strengthen grid resilience and supporting the advancement of the transition to a carbon-neutral energy system in line with the UK’s clean power goals, including a net-zero objective by 2050.

1 Bloom Energy: [Data Centers Are Turning to Onsite Power Sources to Address 35 GW Energy Gap by 2030](#), January 2025.

2 Goldman Sachs: [AI Exchanges: Where Will the Power Come From?](#), July 2025.

3 BNEF: [Global Energy Storage Growth Upheld by New Markets](#), June 2025.

4 Goldman Sachs Research: [Reaching net zero is forecast to require nearly \\$75 trillion of investment](#), October 2024.

5 GOV.UK: [Battery storage boost to power greener electricity grid](#), July 2020.

Goldman Sachs has engaged with and supported our energy storage clients across a variety of capital and technological solutions. From providing an approximately £140 million project financing private credit facility to Elements Green's Staythorpe BESS facility, one of the largest facilities in the UK, to facilitating hybrid tax equity project financing through a preferred equity investment in Nexus Renewable Power's MRG Goody Solar and Storage project in Texas, we recognize the multifaceted nature of the storage landscape and the unique capital solutions across equity and debt needed to meet the global energy storage market's continued increase in size and capacity.

As energy storage technology improves, the emergence and necessity of long-duration energy storage (LDES) has become more apparent. Defined by the US Department of Energy as a storage system capable of delivering electricity for 10 or more hours, these facilities have the potential to provide critical backup power, support more renewable energy coming online, and help increase grid resiliency beyond short-duration energy storage. Goldman Sachs is supporting LDES around the globe with investment such as the financing of Highview Power, a leading LDES developer in Europe whose power systems analytics capabilities support the delivery of secure, cost-effective clean energy, and North America-based Hydrostor.

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### Case Study: Hydrostor

In February 2025, leveraging our *One Goldman Sachs* capabilities across Goldman Sachs Investment Banking and Goldman Sachs Alternatives, we advised and invested in a \$200 million financing for Hydrostor — a leading LDES developer and operator — to support its continued investment in Advanced Compressed Air Energy Storage (A-CAES) projects in Canada, the United States, and around the world. A-CAES technology is a promising LDES solution with the potential to be a critical component underpinning the future reliability of energy systems globally and has the capability of enabling utilities to replace end-of-life fossil generation with zero-emission storage and accelerate the integration of intermittent renewables. Hydrostor has a 7 GW+ pipeline of projects across North America, Europe, and Australia. This marks the second investment Goldman Sachs Alternatives has made in the company, following our \$250 million investment in 2022. Hydrostor's late-stage projects in New South Wales, Australia, and California, USA, are expected to break ground soon.



Courtesy of Hydrostor

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## Adapting the Built Environment

Infrastructure resilience is increasingly critical in safeguarding long-term value and operational continuity, particularly amidst the escalating impacts of climate change. Extreme weather events, such as floods, continue to pose significant threats to the built environment. These events can lead to substantial financial and operational disruptions, including direct property damage, increased maintenance and insurance costs, reduced property valuations, and business interruptions. Supporting proactive investments not just in property resilience measures but also in the integration of physical risk considerations into select real estate portfolio monitoring are two avenues by which the firm contributes to a growing understanding of these financial and nonfinancial risks.

## Climate-Related Risks in Goldman Sachs Alternatives Portfolios

In our Asset & Wealth Management business, climate-related risks may be assessed alongside other financial and nonfinancial risks when evaluating the viability and risk-return profile of investments, as applicable. More broadly, the firm considers climate-related risks as part of the broader portfolio of risks that we need to manage on an ongoing basis. For more information on how the firm manages climate-related risk, please see the [Managing Our Firm](#) section of the report.

### Case Study: Physical Risk Assessment in Real Estate

Goldman Sachs Alternatives' Real Estate team in Asset & Wealth Management assesses the impact of physical climate-related risks on potential assets across new investments. During the initial underwriting process, the Real Estate team works with third-party vendors to assess physical risks at an asset level using a high greenhouse gas (GHG) emissions scenario across multiple time horizons, which can trigger additional due diligence on higher-risk investments. The firm also utilizes an internal assessment for Real Estate investments that provides risk scores for wildfires, hurricanes, water stress, sea level rise, and flooding at present day and in 2050 according to a moderate and high GHG emissions scenario. This process informs resiliency adaptations that can protect asset values as physical climate events become more frequent and costly.

## Safeguarding Stability Through Water Infrastructure

Investing in critical water-related infrastructure is paramount for economic stability, public safety, and long-term societal resilience, particularly in the face of escalating climate-related challenges such as flooding. While there have been examples of significant regional investments in flood infrastructure, such as the \$1.2 billion allocated by various New York City authorities to enhance infrastructure capacity and create flood mitigation zones, the funding gap remains substantial. In the United States alone, the federal government estimates more than \$744 billion will be needed over the next two decades to modernize water systems.<sup>1</sup>

# \$744B

estimated capital needed in the US alone over the next two decades to modernize water systems

### Case Study: Treysta

In September 2024, Goldman Sachs Alternatives invested in Treysta, a German civil engineering and planning firm focused on infrastructure projects that seek to enable the energy transition and promote sustainability within the built environment. Serving both public and private clients, Treysta supports key sectors including power, utilities, transportation, water, and infrastructure development. Providing early-stage design and planning services, Treysta seeks to embed resiliency throughout the project lifecycle. In the clean energy sector, Treysta focuses on the modernization of critical infrastructure, including transmission and distribution systems, and substations, as well as the integration of renewable energy sources to support decarbonization across energy networks. In the ecosystem services and water sector, Treysta designs water procurement, purification, and distribution systems to help improve accessibility and quality as well as wastewater and stormwater management systems. In the clean transportation sector, Treysta focuses on developing resilient railway infrastructure, including tracks, tunnels, and stations, supporting adaptation transportation networks.

### Spotlight: First-of-a-Kind Sovereign Water Agreement

In August 2025, Goldman Sachs entered into a first-of-its-kind agreement with Abu Dhabi Department of Energy to explore opportunities relating to Abu Dhabi's pursuit of long-term water security and sustainability, transforming the Emirate's water system through innovation. This includes opportunities relating to attracting foreign direct investment, investment vehicles and public-private partnerships for advanced water infrastructure and treatment, water resilience projects, and asset monetization strategies to enable private capital investments in vital projects.



<sup>1</sup> Congress.gov: [Infrastructure Investment and Jobs Act \(IIJA\): Drinking Water and Wastewater Infrastructure](#), January 2022.



## Building Resilience Through Circularity

Circularity plays a vital role in climate adaptation by strengthening the resilience of systems and communities, adapting from a traditional “take-make-dispose” model to more intentional use of resources. In the face of depletion of natural resources, such as water, circularity helps reduce exposure to volatile market prices, fortifies supply chains against disruptions, and enables ecosystems to better withstand extreme weather events through practices like regenerative agriculture, which improves soil health and moisture retention. Ultimately, by fostering resource efficiency, extending product lifecycles, and promoting regenerative practices, the circular economy builds systemic resilience, allowing economies and societies to adapt to and recover from climate-related shocks while fostering long-term sustainable development.

### Circularity of Critical Infrastructure

The production of essential materials like steel is a highly emissions-intensive process; the steel industry makes up roughly 11% of global GHG emissions.<sup>1</sup> Traditional steelmaking, particularly through the blast furnace–basic oxygen furnace (BF-BOF) route, relies heavily on fossil fuels, especially coal, as both an energy source and a reducing agent, leading to substantial CO<sub>2</sub> release for every ton produced. In this context, circularity keeps products and materials in use for as long as possible through strategies like remanufacturing, reuse, and recycling, to help reduce the demand for virgin materials and minimize waste. By extending the lifecycle of materials and components, circular approaches can significantly lower the environmental footprint associated with new production, conserve natural resources, and contribute to broader systemic resilience against climate-related impacts.

#### Case Study: Goldman Sachs Alternatives Investment in Atlas-SSI

In March 2025, Goldman Sachs Alternatives invested in Atlas-SSI, positioning the company to scale its solutions amid growing demand for resilient water infrastructure. As a provider of water intake screening and water management equipment and services for the protection of mission-critical assets and water ecosystems, Atlas’ products not only filter plastics and pollution — better protecting critical infrastructure and aquatic ecosystems — but also reduce

carbon emissions and material waste through remanufacturing and reuse of steel equipment. Atlas-SSI plans to leverage its global network to expand into new markets, enhance its technological leadership, and elevate service offerings — supporting both infrastructure upgrades needed across municipalities and new facility build-outs driven by trends such as manufacturing onshoring, data center expansion, and electrification against the broader market push to harness natural capital via water resilience and infrastructure modernization.

### Water as a Critical Economic Resource

Water underpins all facets of the global economy, serving as the lifeblood of agriculture, industry, energy generation, and human health. In 2023, the World Wildlife Foundation estimated the global economic use-value of water at \$58 trillion, equivalent to 60% of global GDP.<sup>2</sup> But demand for water continues to surge across sectors, with global use projected to increase by 20–50% above recent levels by 2050, driven by growing populations, industrial expansion, and rising domestic consumption.<sup>3</sup> Moreover, droughts are already inflicting economic damage in developed economies. The European Central Bank warns that water scarcity could reduce Eurozone output by nearly 15%, particularly affecting sectors such as agriculture, manufacturing, mining, construction, shipping, and hydropower.

#### Case Study: Goldman Sachs Alternatives Climate Credit Strategy Investment in Regenergy Frövi

Goldman Sachs Alternatives has established a team dedicated to investing in private credit across key climate and environmental transition sectors. The maturation of the climate transition sector, coupled with macro tailwinds, creates a significant role for debt capital. We see a compelling opportunity to provide tailored financing solutions in climate transition. The Climate Credit Strategy invests in advanced technology companies such as Regenergy Frövi, which utilizes industrial waste heat to facilitate greenhouse-grown tomato production in Sweden outside the traditional growing season and then sells locally. Compared with growing tomatoes in the field, water usage per tomato grown is up to 90% lower in a hydroponic greenhouse. The new investment will fund the construction of a second greenhouse. Regenergy Frövi is an example of the firm’s *One Goldman Sachs* operating approach, as this investment was originated by Global Banking & Markets, which introduced Regenergy Frövi to the Goldman Sachs Alternatives Private Credit platform.

1 RMI: *Steel: A Critical Piece of a Near Zero Emissions Future*, November 2025.

2 Circle of Blue: *The \$58 Trillion Value of Water: A Conversation with WWF*, October 2023.

3 Office of the Director of National Intelligence: *The Future of Water: Water Insecurity Threatening Global Economic Growth, Political Stability*, March 2021.



Spotlight: Natural Capital

Private finance for nature has surged elevenfold between 2020 and 2024, from \$9.4 billion to over \$102 billion.<sup>1</sup> Nature-based solutions (NbS) have emerged as one mechanism to help restore, protect, and manage landscapes such as forests, grasslands, wetlands, peatlands, and mangroves with an aim to sequester carbon, improve biodiversity, and generate economic benefits for local communities. While NbS remain a nascent asset class across the private sector, which accounts for only 17% of all NbS investments,<sup>2</sup> we believe they can support decarbonization efforts, particularly as technology-based solutions continue to scale in parallel.

17%

of total NbS investments  
come from private finance

11x

growth in private finance  
from 2020 to 2024

Investing in biodiversity bonds and NbS

Earlier this year, our AWM business launched a biodiversity bond strategy for public markets investors that focuses on bonds with low biodiversity risk and positive contribution to reducing biodiversity loss. For private markets investors, AWM’s nature-based opportunities strategy continues to make investments in reforestation, improved forest management, and other nature-based solutions that seek to remove and sequester carbon, while restoring or preserving biodiverse natural systems and generating a financial return through the sustainable production of timber or agricultural products. The investments are also diversified across geographies, such as Latin America, Southeast Asia, Sub-Saharan Africa, North America, and Europe.

Raising capital for water-related projects through blue bonds

In October 2025, our GBM business helped Italian multi-utility A2A raise €155 million as part of both the company’s and Italy’s first explicit blue bond issuance. Proceeds funded projects used for sustainable infrastructure for clean and potable water, wastewater treatment, and sustainable urban drainage systems, including purification plants, networks and appliances, and reduction of water loss projects.

€155M

capital raised by A2A’s first  
blue bond issuance

1st

explicit blue bond  
issuance in Italy

Leveraging AI to enhance measurement of nature data

As financial risks from climate change and nature loss accelerate, the opportunity for innovation is clear: accurate measurement is the foundation for effective risk management, regulatory compliance, and capital mobilization. Recognizing this gap, Goldman Sachs joined with the MIT-IBM Watson AI Lab to explore how AI can improve biodiversity measurement — a core challenge to scaling nature-based finance. By fusing a combination of data from satellites and ground sensors, and expert knowledge, the collaboration seeks to generate richer, more accurate insights into how ecosystems change over time. Thus far, while these AI models remain in research stage, they demonstrate promising proofs of concept: better biodiversity data can enhance business, financial, and regulatory decision-making, which can expand risk management capabilities, new business opportunities, and innovative nature-based financial solutions.

1 United Nations Environment Programme (UNEP) Finance Initiative: *Private finance for nature in 2024: Scaling, moving up the capital continuum and connecting to impact*, June 2024.  
2 UNEP: *Nature-based Solutions*, November 2025.

# Unlocking Economic Opportunities in Our Communities

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Goldman Sachs positively impacts communities by mobilizing capital and partnering with clients to advance community development, empower entrepreneurs, and foster durable, economic growth.

In addition to strategic philanthropic programs like *10,000 Small Businesses* and *10,000 Women*, the firm deploys capital to help strengthen communities and promote long-term economic growth through investments in affordable housing, commercial and community facility spaces, and Community Development Financial Institutions that serve small businesses. We have committed over \$22 billion<sup>1</sup> in investment capital and \$4 billion<sup>2</sup> in philanthropic capital in communities worldwide.

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<sup>1</sup> Since the establishment of the Urban Investment Group in 2001.

<sup>2</sup> Since 2008.



## Signature Goldman Sachs Programs

### 10,000 Small Businesses:

\$750 million invested in helping support small businesses and catalyze their growth. Since 2010, 10KSB has served over 20,000 small businesses, helping them to create jobs and economic opportunity across the United States, United Kingdom, and France by providing access to education, capital, and support services<sup>1</sup>



### 10,000 Women:

\$150 million invested in providing women entrepreneurs in over 150 countries with business and management education, mentoring and networking, and access to capital<sup>1</sup>



### One Million Black Women:

\$10 billion investment commitment with \$100 million in philanthropic capital to help drive economic growth and opportunity. A comprehensive investment strategy focused on key moments from early childhood through retirement, increasing opportunity where investment could make all the difference



## Supporting Small Businesses in Our Communities

Goldman Sachs’ global signature initiatives — *10,000 Small Businesses* (10KSB), *10,000 Women*, and *One Million Black Women* — are central to the firm’s commitment to support economic growth. Through these initiatives, the Office of Corporate Engagement and the Goldman Sachs Foundation deploy philanthropic capital to expand opportunity in communities worldwide, including in the local communities where we operate.

Small businesses are critical engines of job creation and economic vitality, yet many face persistent barriers to scaling, talent retention, and access to capital. For more than 15 years, 10KSB has addressed these challenges in the United States by delivering practical business education, facilitating access to capital, and providing wraparound support. The program has helped thousands of entrepreneurs grow their companies and create jobs, helping strengthen local economies in the process.

In the UK, Goldman Sachs *10,000 Small Businesses* launched the *Generation Growth* campaign, to ensure the perspectives of small business owners are at the heart of the policy conversation. The campaign reinforced 10KSB UK’s position as one of the leading voices of high-growth entrepreneurs, championing their critical needs, highlighting the specific challenges they face, and putting forward a number of potential solutions to unlock their growth.

### About the 10KSB US Program

\$29B+

total annual revenue of program graduate businesses

327K+

employees represented by 10KSB alumni network

### Our Graduates’ Achievements

66%

of graduates reported increasing revenues six months after graduation

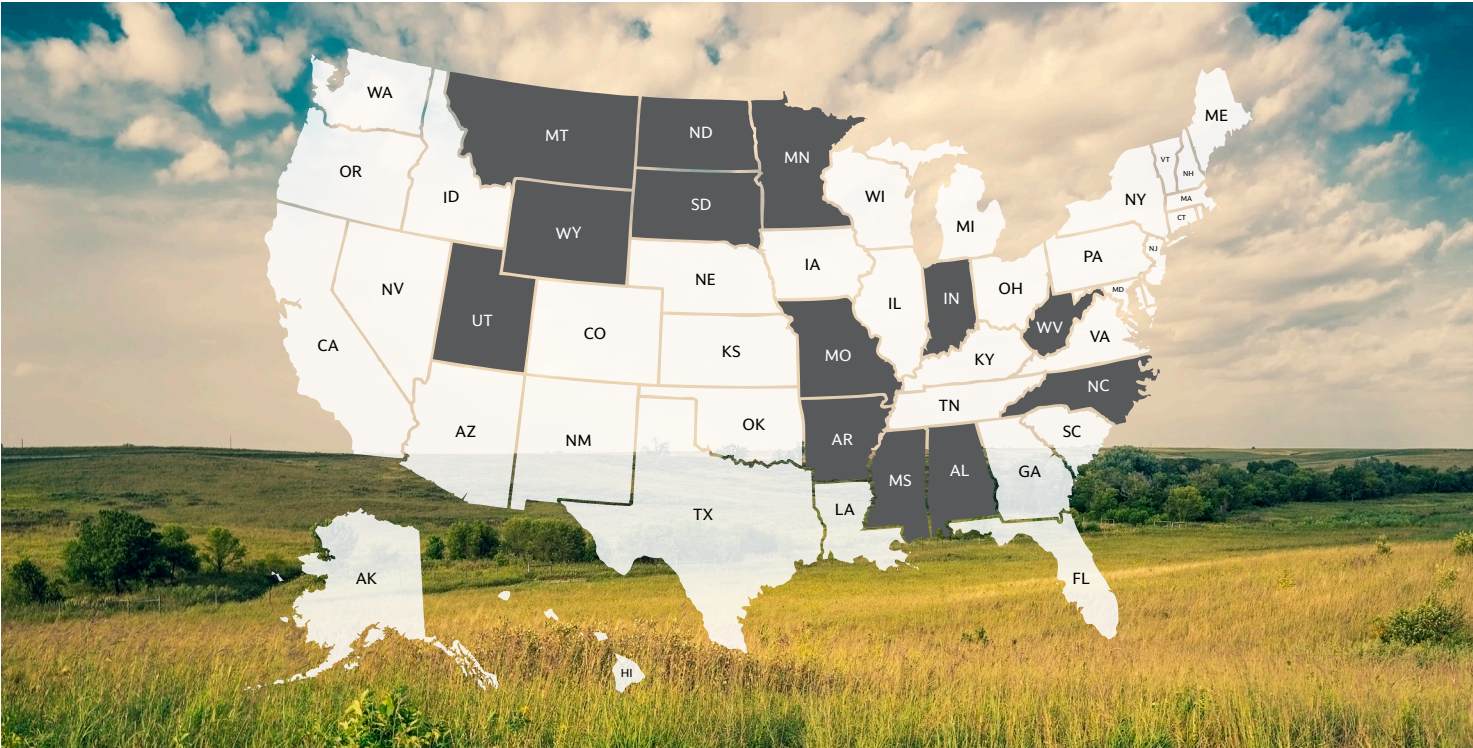
4x

faster job growth rate than similarly sized US businesses over the last 10 years



Bob McClure, Owner of McClure's Pickles, Goldman Sachs 10,000 Small Businesses Graduate

<sup>1</sup> Through September 30, 2025.



Since the launch of the *Investment in Rural Communities*, *10,000 Small Businesses* has expanded into 13 predominantly rural states.<sup>1</sup>

Case Study: Investing in Rural Communities

In 2023, Goldman Sachs announced the *10,000 Small Businesses Investment in Rural Communities*, a \$100 million commitment to reach more rural communities in 20 predominantly rural states through 2028. Since its launch, we have reached 13 predominantly rural states,<sup>1</sup> enabling more rural small business owners to take part in the results-oriented business education program. In order to meet businesses where they are, and overcome the unique challenges faced by rural businesses, *10,000 Small Businesses* partners with community colleges in each state to deliver the education program. This is complemented by capital commitments to rural Community Development Finance Institutions (CDFIs) that provide accessible capital to small businesses, such as Oweesta, the longest-standing Native CDFI intermediary, and Appalachian Community Capital, a CDFI intermediary that serves the 13-state Appalachian Region.

74%

of rural business owners have increased their revenue since completing the *10,000 Small Businesses* program

89%

of rural businesses support organizations and causes in their local community

Spotlight: IFC & Goldman Sachs *10,000 Women*: A Decade of Innovation, Investment, and Impact

In 2014, International Finance Corporation (IFC), a member of the World Bank Group, partnered with Goldman Sachs *10,000 Women* initiative and the Goldman Sachs Foundation to launch a first-of-a-kind facility, designed to unlock finance for women-owned small and medium enterprises (WSMEs) in developing and emerging markets, and help close the significant financing gap they face. The Women Entrepreneurs Opportunity Facility (WEOF) set an ambitious goal: to support 100,000 WSMEs with \$600 million.

In the 10 years since its launch, WEOF has surpassed expectations, serving over 267,000 women entrepreneurs and unlocking more than \$3.1 billion in financing to IFC client financial institutions for these entrepreneurs across 59 countries — exceeding its target fivefold and delivering transformative impact that helps lift local economies and communities.

267K+

women entrepreneurs

\$3.1B+

in investment unlocked for women entrepreneurs

<sup>1</sup> Through September 30, 2025.



## Investing in Affordable Housing in the US

In 2001, Goldman Sachs created the Urban Investment Group (UIG) to develop innovative capital solutions to help strengthen communities and promote long-term economic growth. UIG makes investments to support the fundamental building blocks of opportunity — including affordable housing, commercial and community facility space, quality education and healthcare, and growth capital for social enterprises and small businesses.

### Case Study: Sam City

In New York, we provided approximately \$160 million to help finance the rehabilitation of the Frederick Samuel Apartments (“Sam City”), upgrading 664 units across 40 buildings in Harlem, formerly managed by the New York City Housing Authority. The development includes a full replacement of the heating system, renovated kitchens and bathrooms, facade improvements, and refreshed common areas, with input from residents and community engagement efforts. Resilient infrastructure has proven to be a key theme across the climate transition thus far, and this is one of many projects completed by UIG to help build resilient communities by providing the much-needed infrastructure to enable people to thrive.



Courtesy of Genesis Companies

# 664

units upgraded across 40-building  
affordable housing complex in Harlem

### Case Study: 515 Tower

UIG financed the renovation and conversion of a portion of an office building into an affordable housing property located in Salt Lake City. The project includes 96 affordable units and contains a Tenant Wealth Initiative (TWI), an inventive program developed by non-profit partner Perpetual Housing Fund. The TWI is designed to help low- to moderate-income renters at the property build wealth, addressing the growing wealth disparities between renters and homeowners across the country, and particularly in the State of Utah. Through the TWI, tenants will be eligible for specific benefits, including access to an emergency grant fund established to help tenants pay for qualifying short-term life events, and potential eligibility for a home buyer program that would allow residents to credit their accrued benefits from the TWI against a down payment on a future home.

## Upskilling the Trade Workforce

Through our work with clients, we are also investing in companies that have positive impacts on communities. In today’s rapidly evolving global economy, the relationship between education, workforce development, and sustainable economic growth has never been more crucial. As the US seeks to adapt to technological advancements, shifting industry demands, and demographic changes, investing in education and training becomes a cornerstone for building a resilient economy. According to the National Skills Coalition, 52% of all US jobs require postsecondary education or training, yet only 43% of US adults have the necessary education and skills for these roles.<sup>1</sup> By investing in companies developing solutions addressing accessibility, affordability, education, and workforce development, we are facilitating capital in these areas to support our clients with their desired investment outcomes.

### Case Study: Interplay Learning

Goldman Sachs Alternatives invested in Interplay Learning (“Interplay”), a global leader in skilled trades training, offering cutting-edge, always-on immersive learning solutions that streamline the upskilling of job-ready professionals. Interplay’s innovative approach makes it faster and easier to equip workers with essential skills for today’s workforce. Interplay reports it has trained nearly 600,000 people, and their customers report the ability to train technicians faster, grow their businesses, and eliminate costs because of using Interplay.

<sup>1</sup> National Skills Coalition: [The Skills Mismatch](#), November 2025.



# Managing Our Firm

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Goldman Sachs employs a comprehensive approach to safeguarding the value of our firm, integrating governance, managing risk, strengthening our operations and supply chain, and planning for an increasingly complex global regulatory landscape.

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Managing a  
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## Governance

Goldman Sachs employs a comprehensive approach to safeguarding the value of our firm by integrating governance, risk management, and regulatory preparedness. From board-level oversight to our internal governance, we manage a broad spectrum of financial and nonfinancial risks across our businesses. This includes the identification and management of climate and other sustainability-related risks and opportunities.

Our governance includes board-level oversight at the firmwide and legal entity levels as well as internal governance structures and responsibilities across our management teams and specific functional groups. Our governance and oversight continue to evolve as we manage a complex regulatory landscape.

### Board Oversight

#### Board of Directors

The Goldman Sachs Group, Inc. Board of Directors and its committees are responsible for overseeing the business and affairs of our firm, including oversight of the management of the firm's most significant risks.

Given the interdisciplinary nature of the oversight of sustainability, including priorities of climate transition and inclusive growth, and the financial and nonfinancial risks related to these activities, the Board may carry out its oversight of these matters directly, at the full Board level, as well as through its committees. This may include: periodic updates on the firm's sustainability strategy and related initiatives, including the firm's approach, objectives, and progress; and periodic updates on our climate risk management program, including the firm's approach to managing physical and transition risks; periodic reviews of our voluntary and regulatory-required sustainability- and climate-related reporting; and periodic presentations on Office of Corporate Engagement and other inclusive growth-related initiatives. More information on the Board can be found on our [website](#).

#### Subsidiary Boards

As applicable, boards of our subsidiary entities around the globe may provide additional oversight of sustainability matters as may be required from time to time.

### Internal Governance

#### Senior Management Committees

Various senior management committees and groups oversee our transaction selection decisions and risk management processes, including the **Firmwide Enterprise Risk Committee** (ERC) and the **Firmwide Reputational Risk Committee**, which directly reports to the ERC.

The ERC is responsible for overseeing all financial and nonfinancial risks, including climate and other sustainability-related risks. The ERC, through its oversight of the Enterprise Risk Management Framework, monitors the firm's risk profile on both an aggregate and divisional level, inclusive of key trends, topical and emerging risks, and significant events that potentially affect the firm's risk profile. The ERC is co-chaired by the firm's Chief Risk Officer and the firm's President and Chief Operating Officer, and the vice-chair is the firm's Chief Financial Officer. The ERC also includes senior firm leaders, many of whom are also members of other firmwide risk committees.

To ensure that the ERC has transparency and insight into the range of risks faced by the firm, management-level committees exist that directly report to the ERC, including the Firmwide Reputational Risk Committee.

The Firmwide Reputational Risk Committee is responsible for assessing reputational risks arising from opportunities that have been identified as having potential heightened reputational risk, including those driven by environmental and social due diligence as part of normal-course, risk-based due diligence, pursuant to the criteria established by the Firmwide Reputational Risk Committee and as determined by committee leadership.

## Senior Forums

In addition to our internal governance structure, the **Firmwide Sustainability Steering Group** is a forum convening key cross-functional senior stakeholders to provide guidance on key sustainability risk and opportunity decisions. Co-chaired by the head of SFG and chairman of the Risk division, the group reviews progress and provides feedback on sustainability strategy, risk management, integration, and sustainability-related capabilities more broadly. In addition to continued review of the firm's approach to climate risk and strategy, the group oversees firmwide regulatory sustainability implementation, including oversight of sustainability reporting requirements.

The **Sustainable Asset Working Group** (SAWG) is a cross-divisional body that guides and oversees sustainable client offerings and attributions at the transaction and product level, as well as applying our allocation methodology for transactions that contribute toward our firmwide \$750 billion sustainable finance goal. This goal is built on commercial activity that is aligned with our firm's Sustainable Finance Framework. SAWG also governs the firm's Sustainability Issuance Framework and sustainability issuances.

## Internal Functional Groups

The firm embeds sustainability-related responsibilities within various firmwide functional groups that support our businesses.

### Executive Office

The Executive Office (EO) plays an integral role in setting and advancing Goldman Sachs' corporate strategy and in preserving the firm's distinctive culture. Responsible for safeguarding the firm's relationship with alumni, clients, shareholders, policymakers, and the broader public, while ensuring our own people remain informed about the firm's priorities, including sustainability-related priorities, the EO also partners with the businesses to source high-impact opportunities in line with the firm's sustainability-related objectives.

Within the EO, SFG is responsible for advancing the firm's sustainability approach and related efforts across Goldman Sachs. In partnership with other EO teams, including the Office of

Government & Regulatory Affairs (OGRA), Investor Relations, and Corporate Communications, SFG advances the firm's integrated commercial approach to sustainability through central coordination of the firm's regulatory preparedness, commercial goals, reporting, strategic partnerships, environmental and social risk guidelines, and cross-segment commercial delivery strategy.

### Controllers

Controllers is responsible for the tracking and review of progress toward firmwide sustainability-related targets, including the firm's \$750 billion sustainable finance goal. This team also coordinates with SFG and various corporate functional teams to help ensure the consistency, accuracy, and completeness of reporting on sustainability-related disclosures.

### Risk

Risk is an independent risk oversight and control function of the firm and is responsible for the effective identification, monitoring, evaluation, and management of the firm's financial and nonfinancial risks. Within Risk, a team of climate risk specialists are responsible for the development of the firm's climate-related and environmental risk management program, including setting and evaluating risk appetite, quantifying climate-related risk, and integrating that risk into business and risk management practices. Additional teams within Risk also guide environmental, health, and safety standards for the firm's investing activities and perform due diligence on proposed investment transactions to help business teams identify and mitigate potential risks.

### Corporate Planning & Management

Corporate Planning & Management (CPM) unifies Finance & Planning, Global Procurement, Product & Reporting, and CPM Engineering teams to deliver business planning and analytics, expense management, third-party risk management, sustainability initiatives for our operations and supply chain, and governance strategies across the firm. As part of CPM, the Sustainable Operations team manages the sustainability strategy for the firm's operations and supply chain, partnering with Corporate & Workplace Solutions to deliver environmentally responsible workplace solutions.



## Managing Our Businesses

Goldman Sachs is exposed to climate and other environmental and social-related risks that manifest in different ways across our businesses. We manage these risks through our three lines of defense to facilitate robust oversight and monitoring across the organization.

From a risk perspective, extreme weather events and chronic changes in temperatures resulting from climate change may disrupt operations or affect the value of our clients' and the firm's portfolios. Further, changes in pertinent public policies or changes in the underlying economy due to decarbonization may impact asset values. To identify, mitigate and adapt to these climate and other environmental and social-related risks, we are focused on enhancing our risk management capabilities.

### Our Three Lines of Defense

Goldman Sachs' Enterprise Risk Management Framework consists of several key processes, including risk identification and assessment, risk appetite, limits and threshold setting, risk reporting and monitoring, and risk decision-making. Our risk management framework is based on a "three lines of defense" structure, which covers financial and nonfinancial risks, including climate and other environmental and social-related risks.

Our first line of defense consists of our revenue-producing units, Conflicts Resolution, Controllers, Engineering, Corporate Treasury, and certain other corporate functions. The first line of defense is responsible for its risk-generating activities, as well as for the design and execution of controls to mitigate such risks.

Our Risk and Compliance functions are considered our second line of defense and provide independent assessment and oversight and challenge risk management processes of our first line of defense, as well as lead and participate in firmwide risk committees.

Internal Audit, within the third line of defense, is responsible for independently assessing and validating the effectiveness of key controls, including those within the risk management framework, and providing timely reporting to the Audit Committee of the Board, senior management, and regulators.

### Climate-related and Environmental Risk Management

Risk identification serves as the foundation for our firm's risk processes, informing risk strategy, mitigants and controls. Our risk identification process is supported by quantification methods, data infrastructure and analytics, culminating in our comprehensive Risk Inventory, which encompasses financial and nonfinancial risks, including climate-related and environmental risks.

We categorize climate-related and environmental risks into physical risk and transition risk. Physical risk is the risk that asset values may decline or operations may be disrupted as a result of changes in the climate, while transition risk is the risk that asset values may decline because of changes in climate policies or changes in the underlying economy due to decarbonization.

This identification of climate-related risks precedes a materiality assessment of risks that may manifest across the firm's businesses. The risk taxonomy is the classification structure by which the firm organizes potential risks and risk events, providing common terms for risk identification, assessment, monitoring, and reporting processes. Within this taxonomy, climate-related risks are categorized within the broader Strategic and Business Environment Risk category as distinct, stand-alone risks.

Additionally, we consider climate-related risks to be potential drivers across risk categories (Credit and Market Risk, Liquidity and Funding Risk, and Operational Risk). Therefore, to effectively manage climate-related risks, we have integrated climate risk considerations into existing risk disciplines and select business transactions. In describing physical and transition risks as risk drivers, we emphasize how they may materialize over a range of time horizons.

## Time Horizons

Goldman Sachs defines the following short-, medium-, and long-term horizons, which are relevant for the evaluation of climate-related risks. These time horizons were selected to reflect a combination of tenures over which transition and physical risks are generally relevant for scenario analysis, risk management, investment processes, and the positioning of relevant portfolios.

**Short-Term (0–5 years):** Aligns with the time horizon of how we manage potential market risks, instantaneous impacts from policy changes, investment due diligence, and asset selection processes.

**Medium-Term (5–10 years):** Aligns with the time horizon for managing risks related to our internal transition risk scenario analysis, policy and regulatory-related risks, our product development process, and the exit and liquidation of our investments.

**Long-Term (10+ years):** Aligns with the time horizon for managing risks related to our internal physical risk scenario analysis, strategic risk assessment horizon and quantification processes, and risks assessed as part of long-term product development.

The below table includes some of the following potential physical and transition risk drivers over the short-, medium-, and long-term time horizons.

### Drivers of Physical and Transition Risk Over Time Horizons

Drivers	Description	Examples	Time Horizon
Physical Risk			
Acute	Event-driven (e.g., damage to assets from extreme weather events, disruption to operations/supply chains)	Floods (Coastal and Noncoastal), Hurricanes/Typhoons, Wildfires	S, M, L
Chronic	Longer-term shifts impacting resource availability (e.g., sea level risk, chronic heat waves)	Heat Stress, Long-Term Sea Level Rise, Energy Demand for Cooling Purpose	M, L
Transition Risk			
Technology	Technology development and deployment can affect competitiveness and demand of certain sectors and goods	Technology Improvements or Innovations	S, M, L
Policy	Supply-side policies encourage substitution away from carbon-intensive technologies and products. Demand-side policies discourage consumption of carbon-intensive goods and services	Carbon Prices or Other Emissions Regulations, Global Trade Policies	S, M, L
Market	Shifts in consumer preferences, market signals, and rising input costs may lead to reduced demand for certain goods and services	Changing Consumer Sentiment, Market Value Volatility	S, M, L

## Climate Scenario Analysis

Based on the outcomes of our risk identification process, we have developed methodologies for assessing both physical and transition risks. These methodologies are foundational for integrating climate-related risks into broader risk management processes across the firm.

In both our proprietary physical and transition risk scenario analysis, we also leverage open-source data and models.

### Transition Risk

Due to varying decarbonization policies and pathways across different countries and industries, we assess transition risk by generating financial shocks (rapid changes in indicators like stock prices, credit conditions, and credit ratings) under different climate policy scenarios by country and industry. We use Network for Greening the Financial System (NGFS) Current Policies as the baseline transition risk scenario and both Net Zero 2050 and Below 2°C as the stressed scenarios focusing on a 2030 horizon.

Our transition risk model takes the emission pathways, sector-level and (where available) company-level carbon intensity data, carbon price, energy consumption, and macro variable pathways that reflect the NGFS scenarios, as well as the relevant historical risk factor data, as inputs. These inputs generate estimated risk factor shocks (e.g., equity shocks, credit spread shocks, and credit rating shocks) when moving from the base scenario to a stress scenario. Losses, under various climate transition scenarios, are then projected using these shocks.

Physical Risk

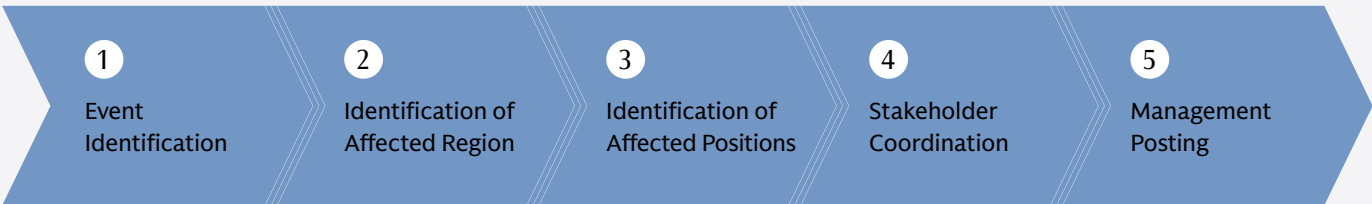
Open-source General Circulation Model climate projections for sea level rise, precipitation, and temperatures form the basis of our physical risk scenario analysis. We have developed relevant

physical climate risk factor calculation methodologies and calculate overall severity and associated damage for both acute and chronic hazards at the 2050 horizon under Representative Concentration Pathways (RCP) 4.5 — approximate alignment with Paris Accord — and RCP 8.5 — severe climate change. The global physical climate risk calculation allows for retrieval of the outcomes based on geocoordinates as inputs, and position-level risk classification based on those outcomes. With global physical climate risk maps, we are able to identify and assess physical risks at different geographical locations.

The outcomes of the climate scenario analysis are continuously assessed to inform our risk appetite and strategy. For example, physical risk assessments, supported by enhanced data capabilities, have enabled us to apply these tools to manage real-world events.

Spotlight: Climate Catastrophe Monitoring

There is an increasing severity and frequency of climate-related catastrophe events across many regions around the world. We established a new standardized monitoring process, in order to identify, assess, and escalate select events, such as hurricanes, floods, wildfires, and earthquakes. Timely identification of real estate properties in affected locations has supported first and second lines of defense in evaluating potential impacts of such events.



Guidelines and Policies

We proactively manage the impacts of sustainability-related risks to our firm, including climate-, environmental-, and social-related risks across our first- and second-line teams. Dedicated teams within Legal and Compliance examine and advise the firm on legal, regulatory, and reputational risks, which may include environmental or social considerations. Our perspectives on sustainability are informed, in part, by our stakeholders, including investors, nongovernmental organizations, and regulators. Examples of our firm's related guidelines include our Environmental & Social Due Diligence Guidelines, Code of Business Conduct and Ethics, the Statement on Human Rights, Statement on Modern Slavery and

Human Trafficking, and the Vendor Code of Conduct. Notably, our Environmental & Social Due Diligence Guidelines reflect our overall approach to sustainability issues — including management of environmental and social risk across a broad scope of sectors and products.

Our advisory, financing, and direct investing teams include environmental and social due diligence as part of the review process. Several teams are involved in helping businesses identify and mitigate potential environmental and social risks, including our Business Intelligence Group, SFG, and Operational Risk.



## Managing Our Operations and Supply Chain

For more than two decades, we have been designing, building, and operating sustainable workplaces, focusing on increasing efficiency and resiliency, and creating opportunities for small businesses in our supply chain.

Since 2009, we have reduced operational emissions<sup>1</sup> by 53%, despite a significant increase in employee headcount over the same timeframe, resulting in a 67% reduction per full-time employee (FTE). The primary factors driving these reductions were the consolidation of the physical footprint of our workplaces and enhanced optimization of building energy use. We have further minimized the operational impact for our global electricity consumption by procuring renewable electricity, leading to an additional 41% reduction using a market-based approach.<sup>2</sup> Beyond our own operational emissions reductions, we support our suppliers' sustainability efforts that impact our supply chain emissions. Additionally, to offset unabated emissions from our operations and business travel, we annually procure third party-verified carbon credits.

# 53%

operational emissions  
reduction since 2009

# 67%

operational emissions  
reduction per FTE since 2009

Across our workspaces, we leverage green building standards and ISO 14001 to help optimize our GHG, energy, water, and waste footprint. Seventy-seven percent of our workplace square footage is LEED-certified or equivalent.

In Birmingham, UK, our One Centenary Way workplace received a BREEAM Outstanding rating. Partnering with a range of suppliers, including more than 30 small businesses, of which some were *10,000 Small Businesses* program alumni, we leveraged embodied carbon principles<sup>3</sup> to help design the building with more sustainable materials, emphasizing reuse, recycling, and innovative options like low-carbon steel. Through the process, we optimized water consumption, minimized operational impact using air-source heat pumps and renewable energy, and fostered a native habitat in our outdoor space by leveraging algorithms to attract bees, butterflies, and other pollinators.

In Japan, we opened our new Tokyo office, which has achieved external certifications from LEED Platinum Interior Design & Construction and WELL Platinum Fit-out for the environmental and well-being considerations throughout the Goldman Sachs workspace. The new office space uses approximately 20% less

energy compared with our previous Tokyo office, driven by motion censored lighting and more efficient air conditioning. Supporting our people's well-being, the new office also features 100% height-adjustable desks and ergonomic chairs, wellness rooms, a fitness center, and a dedicated childcare center.

We also advanced our goal of sourcing 80% of our electricity from long-term renewable agreements by commissioning a virtual power purchase agreement with the Bluebird Solar Project to introduce additional renewable energy capacity to the PJM grid.<sup>4</sup> The 100 MW new solar farm, located in Harrison County, Kentucky, recently achieved commercial operation and is expected to match or exceed the firm's energy consumption across its New York and New Jersey locations. This effort supports both lower operational carbon emissions for the firm and clean energy growth.



Courtesy of MN8 Energy LLC

# 100 MW

of renewable energy capacity in  
Harrison County, Kentucky

There are various external factors that influence the trajectory of emissions reductions across our operations and supply chain, including the state of public policy, market dynamics, and technological innovation. We have reduced our operational emissions by 53% over the past 15 years. Given this progress, we are evolving our strategy and goals for emissions reductions in our operations and supply chain to efficiently allocate resources toward initiatives that drive the greatest value and impact. We continue to manage sustainability-related risks and business priorities in our supply chain. Please see [Appendix I](#) for our latest progress in our Operational and Supply Chain Metrics.

<sup>1</sup> Total emissions here include the firm's Scope 1 and Scope 2 (location-based).

<sup>2</sup> Market-based Scope 2 emission calculation method reflects the GHG emissions associated with the electricity that a company has specifically chosen to purchase, typically through contracts or instruments like Environmental Attribute Certificates, whereas the location-based Scope 2 emission calculation method uses the average emissions intensity of the power grid where the company's facilities are located.

<sup>3</sup> Embodied carbon principles are guidelines and strategies focused on minimizing the greenhouse gas emissions generated across the entire lifecycle of materials and products, especially within the built environment.

<sup>4</sup> PJM is an Independent System Operator (ISO) that serves over 65 million people across 13 states and Washington, D.C.

## Managing a Complex Regulatory Landscape

The global regulatory landscape for sustainability and climate reporting is becoming increasingly diffuse and sometimes conflicting, with significant jurisdictional divergence in scope, timing, and methodology. These dynamics create complexity for multinational institutions, including many of our clients and our firm.

We have been closely monitoring regulatory developments across jurisdictions globally to ensure we are prepared to provide timely and accurate reporting in accordance with pertinent requirements. Existing and potential forthcoming regulatory requirements range from climate risk disclosures to guidance and rulemaking from certain central banks in jurisdictions where we operate, e.g., European Central Bank, to public climate and other sustainability-related disclosures in certain US states, Europe, and Asia. While the timing of some mandatory reporting requirements across jurisdictions continues to take shape, we plan to comply with existing and forthcoming sustainability-related regulatory requirements, including the EU Corporate Sustainability Reporting Directive, once it has been transposed into law in the relevant jurisdiction(s) applicable to Goldman Sachs.

As part of the firm's regulatory preparedness efforts, the firm established a process for mandatory sustainability reporting, with SFG and OGRA coordinating with stakeholders across the firm, including GBM, AWM, Risk, Controllers, and Corporate Planning and Management divisions. These efforts aim to enhance our sustainability data sourcing, strengthen data controls, and prepare for new assurance requirements. While regulatory uncertainty persists, centrally coordinated firmwide efforts have helped the firm begin to prepare for compliance with the myriad forthcoming regulatory sustainability-related requirements across jurisdictions globally.

# Appendix

40	43	44	49	52	53
Operational and Supply Chain Metrics	Tracking Our Sectoral Portfolios	Sustainability Accounting Standards Board Index	Sustainability Issuance Reporting	Report of Independent Accountants	Environmental & Social Due Diligence Guidelines



# Appendix I: Operational and Supply Chain Metrics

Please see below for Goldman Sachs' operational and supply chain metrics, including the firm's progress on its 2025 Operational Goals. For more information, please see the firm's [website](#).

## Environmental Indicators

	2023–24 Trend	2024	2023	2022	2017 Base Year
<b>Organization</b>					
Global facilities reported <sup>1</sup>	↓	225	308	292	286
Revenues (\$M)	↑	\$53,512	\$46,254	\$47,365	\$32,730
Operational rentable square feet (million sq ft) <sup>1</sup>	↑	10.8	10.6	10.7	10.0
Employees	↑	46,500	45,300	48,500	33,600
Occupied seats <sup>1,2</sup>	↑	55,000	53,000	52,800	40,600
<b>Certification</b>					
◇ LEED Certified Buildings (% of sq ft) <sup>3</sup>	↑	77%	70%	71%	–
◇ ISO 14001 Certified Operations (% of sq ft) <sup>3</sup>		100%	100%	100%	–
◇ ISO 20121 Certified Events (% onsite events) <sup>3</sup>		100%	100%	100%	–
<b>Energy</b>					
Global direct energy consumption (MWh) <sup>4</sup>	↓	38,976	41,701	39,819	42,103
Natural gas <sup>5</sup>		48%	42%	62%	88%
Other fuels <sup>6</sup>		52%	58%	38%	12%
Global intermediate energy consumption (MWh) <sup>4</sup>	↑	455,710	451,817	466,608	504,826
Purchased electricity		97%	97%	96%	97%
Purchased steam & chilled water		3%	3%	4%	3%
Global direct and intermediate energy consumption (MWh) <sup>4</sup>	↑	494,686	493,518	506,427	546,929
Reduction in global energy consumption from baseline (%)		-10%	-10%	-7%	n/a
Energy use intensity for offices (kWh/sq ft)	↓	18.5	18.9	21.5	32.7
◇ Reduction in energy use intensity for offices from baseline (%) <sup>3</sup>		-44%	-42%	-34%	n/a
Global renewable energy consumption (MWh)	↑	441,570	436,210	448,939	453,518
◇ Percent renewable energy <sup>3,7</sup>		100%	100%	100%	94%

1 This metric includes data which was normalized for sites that closed during the reporting year by multiplying the site value by the percentage of time Goldman Sachs operated the facility.

2 Occupied seats represents the number of people expected in the office, including both contingent workers and employees.

3 This symbol ◇ before an indicator denotes a commitment through Goldman Sachs' 2025 Operational Goals. Net Emissions represent achievement of our annual total offset of unabated operations and business travel emissions. Reductions are from a 2017 baseline, except plastics, which are from a 2021 baseline or where otherwise noted.

4 Historical energy, water, and greenhouse gas metrics were updated to reflect a new methodology in 2023. For originally reported values, please refer to our [2022 Sustainability Report](#). The methodology for estimating water consumption was further updated in 2024 to better align with current water practices. Global renewable energy consumption and verified carbon credits reflect the totals at the time of original reporting (excluding the methodology impact).

5 Historical data points may be adjusted to reflect new information and/or changes to calculation methodologies.

6 Other fuels include fuel oil, vehicle fuel, and jet fuel.

7 The firm sourced renewable electricity equivalent to 100% of global electricity consumption. Ninety-six percent of this is in line with RE100 market boundary criteria and requirements for firms joining prior to 2021.



## Environmental Indicators (continued)

	2023–24 Trend	2024	2023	2022	2017 Base Year
<b>Greenhouse Gas (GHG) Emissions</b>					
<b>Scope 1 — Direct (metric tons CO<sub>2</sub> equivalent [tCO<sub>2</sub>e])<sup>4</sup></b>	↑	<b>14,447</b>	<b>13,842</b>	<b>12,595</b>	<b>11,102</b>
Natural gas <sup>5</sup>		24%	23%	35%	61%
Other fuels <sup>6</sup>		34%	34%	30%	11%
HFC refrigerants		42%	43%	35%	28%
<b>Scope 2 (location) — Indirect (tCO<sub>2</sub>e)<sup>4</sup></b>	↑	<b>157,037</b>	<b>155,105</b>	<b>156,468</b>	<b>190,782</b>
Purchased electricity		98%	98%	98%	99%
Purchased steam & chilled water		2%	2%	2%	1%
<b>Scope 2 (market) — Indirect (tCO<sub>2</sub>e)<sup>4</sup></b>	↓	<b>8,784</b>	<b>9,252</b>	<b>9,821</b>	<b>18,192</b>
Purchased electricity		70%	68%	67%	85%
Purchased steam & chilled water		30%	32%	33%	15%
<b>Scope 3: Category 6 — Business Travel (tCO<sub>2</sub>e)<sup>4</sup></b>	↑	<b>89,681</b>	<b>79,915</b>	<b>61,517</b>	<b>120,335</b>
Commercial air <sup>8</sup>		93%	90%	84%	81%
Other travel <sup>9</sup>		7%	10%	16%	19%
<b>Total Emissions: Scope 1 &amp; 2 (location) (tCO<sub>2</sub>e)</b>	↑	<b>171,484</b>	<b>168,947</b>	<b>169,063</b>	<b>201,884</b>
<b>Total Emissions: Scope 1 &amp; 2 (market) (tCO<sub>2</sub>e)</b>	↑	<b>23,231</b>	<b>23,094</b>	<b>22,416</b>	<b>29,294</b>
<b>Total Emissions: Scope 1, 2 (market), and 3 Category 6 (tCO<sub>2</sub>e)</b>	↑	<b>112,911</b>	<b>103,009</b>	<b>83,933</b>	<b>149,629</b>
<b>◊ Net Emissions: Scope 1, 2 (market), and 3 Category 6 (tCO<sub>2</sub>e)<sup>3</sup></b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Verified carbon avoidance credits (tCO <sub>2</sub> e) <sup>4,10</sup>		89,681	79,915	57,233	146,950
Verified carbon removals (tCO <sub>2</sub> e) <sup>4,10</sup>		23,231	23,094	21,820	0
<b>Water</b>					
<b>Global water withdrawal (m<sup>3</sup>)<sup>4</sup></b>	↑	<b>929,721</b>	<b>918,515</b>	<b>930,682</b>	<b>1,026,286</b>
Reduction in global water withdrawal from baseline (%)		-9%	-11%	-9%	n/a
<b>Water use intensity for offices (m<sup>3</sup>/occupied seat)</b>	↓	<b>12.9</b>	<b>13.0</b>	<b>12.7</b>	<b>19.0</b>
◊ Reduction in water use intensity for offices from baseline (%) <sup>3</sup>		-32%	-32%	-33%	n/a

3 This symbol ◊ before an indicator denotes a commitment through Goldman Sachs' 2025 Operational Goals. Net Emissions represent achievement of our annual total offset of unabated operations and business travel emissions. Reductions are from a 2017 baseline, except plastics, which are from a 2021 baseline or where otherwise noted.

4 Historical energy, water, and greenhouse gas metrics were updated to reflect a new methodology in 2023. For originally reported values, please refer to our [2022 Sustainability Report](#). The methodology for estimating water consumption was further updated in 2024 to better align with current water practices. Global renewable energy consumption and verified carbon credits reflect the totals at the time of original reporting (excluding the methodology impact).

5 Historical data points may be adjusted to reflect new information and/or changes to calculation methodologies.

6 Other fuels include fuel oil, vehicle fuel, and jet fuel.

8 Air travel emissions in 2023 include the impact of change in travel emission factors.

9 This includes charter air, rail/bus, ferry, car, and hotels.

10 The firm purchases third-party-verified carbon credits (avoidance and/or removal credits) that are applied to net emissions: Scope 1, 2 (market), and Scope 3 Category 6.

## Environmental Indicators (continued)

	2023–24 Trend	2024	2023	2022	2017 Base Year
<b>Waste</b>					
<b>Global business waste (metric tons)</b>	↑	<b>3,550</b>	<b>2,744</b>	<b>3,676</b>	<b>5,979</b>
Recycled/Composted material		48%	68%	55%	57%
◊ Landfilled material <sup>3,11</sup>		6%	4%	3%	7%
Waste to energy		46%	28%	42%	36%
<b>Global e-waste (metric tons)</b>	↓	<b>303</b>	<b>380</b>	<b>193</b>	<b>265</b>
Recycled material		100%	100%	100%	100%
<b>Global construction waste (metric tons)</b>	↑	<b>1,044</b>	<b>723</b>	<b>676</b>	<b>4,171</b>
Recycled/Composted material		59%	90%	61%	99%
Landfilled material		40%	10%	25%	1%
Waste to energy		1%	0%	14%	0%
<b>Responsible Sourcing</b>					
<b>Paper consumption (million sheets)</b>	↑	<b>62</b>	<b>57</b>	<b>51</b>	<b>168</b>
Certified new fibers (FSC/SFI)		96%	95%	94%	69%
Post-consumer recycled		3%	3%	3%	22%
New fibers		1%	2%	3%	9%
<b>Paper consumption/employee (sheets)</b>	↑	<b>1,325</b>	<b>1,253</b>	<b>1,051</b>	<b>4,583</b>
◊ Reduction in paper consumptions/employee from baseline (%) <sup>3</sup>		-71%	-73%	-77%	n/a
◊ Green cleaning products (%) <sup>3,5</sup>	↓	<b>61%</b>	<b>67%</b>	<b>58%</b>	–
◊ Sustainably sourced foods (%) <sup>3,5</sup>	↑	<b>45%</b>	<b>21%</b>	<b>11%</b>	–
<b>Single-use plastics (metric tons)<sup>3,5,12</sup></b>	↓	<b>17</b>	<b>22</b>	<b>29</b>	–
◊ Plastic beverage bottles and disposable plastics (%) <sup>3</sup>		64%	75%	84%	–
Office supplies (%)		36%	25%	16%	–

<sup>3</sup> This symbol ◊ before an indicator denotes a commitment through Goldman Sachs' 2025 Operational Goals. Net Emissions represent achievement of our annual total offset of unabated operations and business travel emissions. Reductions are from a 2017 baseline, except plastics, which are from a 2021 baseline or where otherwise noted.

<sup>5</sup> Historical data points may be adjusted to reflect new information and/or changes to calculation methodologies.

<sup>11</sup> The firm has diverted 100% business waste from landfill where alternative disposal methods exist. Currently, no alternatives exist in Hong Kong, Australia, New Zealand, and a few locations in the United States and Canada.

<sup>12</sup> 2021 is the new baseline year for single-use plastic since data boundary has been increased and data collection has been improved.

## Appendix II: Tracking Our Sectoral Portfolios

In December 2021, we published physical emissions intensity-based sectoral targets related to our financing activities in Energy, Power, and Auto Manufacturing. These targets were designed and are used to measure and track our clients' progress in these sectors. They were not developed to restrict our financing activities, and we are committed to supporting all our clients by providing them with financial solutions to help them accomplish their strategic priorities. The table below provides an update on our 2022 and 2023 financial portfolios.<sup>1</sup>

We measure the carbon efficiency of our financial portfolios,<sup>2</sup> which consist of corporate lending commitments, capital markets financing, and select on-balance-sheet investments (including tax-equity investments), using a weighted physical

emissions intensity metric, i.e., the quantity of emissions per unit for production.<sup>3</sup>

Our sectoral targets reflect our clients' ability to improve the emissions profile of their activities over time, which is heavily dependent on a variety of factors in the real economy, including, but not limited to, public policy, the pace of technological innovation, and market demand. The path of decarbonization for these sectors will not be linear, and financial portfolio physical emissions intensity is also subject to a range of additional market factors.

Since our previous disclosure, we have enhanced our data and methodology to improve our measurement capabilities and better capture activities with the greatest impact on carbon efficiency in the scope of our sectoral targets.<sup>4</sup>

Sector	Activity Scope	Emissions Scope	Physical Emissions Intensity Metric	2019 (Baseline Intensity)	2021 Intensity	2022 Intensity	2023 Intensity	2030 Sectoral Targets <sup>5</sup>
Energy	Upstream and downstream liquid and gaseous fuel producers	Scopes 1–3	gCO <sub>2</sub> e/MJ	72	72	67	67	56–60
Power	Electricity producers	Scope 1	kgCO <sub>2</sub> e/MWH	417	296	259	265	147–219
Auto Manufacturing	Light-duty vehicle manufacturers and electric vehicle battery manufacturers <sup>6</sup>	Scopes 1–2 Scope 3 tank-to-wheel (TTW)	gCO <sub>2</sub> e/km	152	119	112	149	70–77

### Energy

We continued supporting our Energy clients as they navigated a challenging macroeconomic environment, where geopolitical conflicts disrupted global commodity markets and created headwinds to decarbonization. In 2023, the Energy portfolio's physical emissions intensity remained largely consistent with 2022 levels. For both years, we enhanced our measurement approach by updating our data inputs to prioritize client-specific, field-level emissions and production data. This enhancement also enabled us to include methane emissions in our intensity measurement for a portion of our portfolio, using satellite data to capture flaring activity. Over half of our 2023 portfolio by exposure is currently participating in *The Oil & Gas Methane Partnership 2.0*, demonstrating our clients' continued focus on methane emissions transparency and reporting.<sup>7</sup>

### Power

The Power portfolio's physical emissions intensity remained relatively stable between 2022 and 2023, with both years significantly below baseline levels. This reduction reflects increased

low-carbon financing activity compared with the baseline. Across our portfolio, we have continued to provide financing to Power clients developing innovative new generation technologies, including advanced nuclear and geothermal power.

### Auto Manufacturing

Since our previous disclosure, we have expanded our Auto Manufacturing target scope to include electric vehicle battery manufacturers, acknowledging the role of these companies and technologies in enabling low-carbon vehicle transport. We have also enhanced our measurements by prioritizing data vendors that provide client-specific, vehicle model-level emissions and production data, and by refining our vehicle lifetime mileage assumption to reflect the latest best practice. The Auto Manufacturing portfolio's physical emissions intensity increased in 2023 from 2022 levels. This was primarily driven by a decrease in underwriting activity with electric vehicle battery manufacturers in 2023, following significantly higher activity in 2022.

<sup>1</sup> Due to the time lag that exists for company-reported intensities and vendor ingestion of company emissions and production data, 2023 is the most current year where data exists across all inputs for our physical emissions intensity calculation.

<sup>2</sup> Financial portfolio carbon efficiency =  $\sum (\text{Client Emissions} / \text{Client Production}) \times (\text{Client Financing} / \text{Sector Portfolio Financing})$ .

<sup>3</sup> Unit of production is specific to each sector.

<sup>4</sup> Data and methodology enhancements are applied to 2022 and 2023 values. We continually evaluate enhancements in data quality, methodologies, and controls. We have not adjusted prior published intensities to reflect current period enhancements.

<sup>5</sup> The upper bound of each target does not exceed the expectations set by the below 2°C scenario, whereas the lower limit aligns with the 1.5°C pathways. The referenced 2°C and 1.5°C pathways are based on Goldman Sachs' *Carbonomics* research, which starts with the same science-based carbon budgets from the Intergovernmental Panel on Climate Change as other research scenarios and builds out pathways based on the costs of different technologies and approaches to decarbonization.

<sup>6</sup> We use an average electric vehicle manufacturing intensity to approximate the impact of electric vehicle batteries in enabling low-carbon vehicle transport.

<sup>7</sup> As of October 16, 2025.

## Appendix III: Sustainability Accounting Standards Board Index

We leverage the Sustainability Accounting Standards Board (SASB) standards to provide disclosure for metrics related to the three sectors that most closely align to the firm's mix of businesses: Asset Management & Custody Activities, Investment Banking & Brokerage, and Commercial Banks. Disclosures that appear in more than one of these sector standards are included in a separate section at the top of the firm's SASB Index below.

Unless otherwise noted, all data and descriptions apply to our entire firm, not just the businesses relevant to that sector. We do not currently disclose all metrics included in the standards for these three sectors. All data is as of or for the year ended December 31, 2024, unless otherwise noted.

Topic	SASB Metric	Code	Response
<b>Disclosures Included in Multiple Sectors' Standards</b>			
<b>Diversity &amp; Inclusion</b>	Percentage of (1) gender and (2) diversity group representation for (a) executive management, (b) non-executive management, (c) professionals, and (d) all other employees	FN-IB-330a.1. FN-AC-330a.1	For information on Human Capital Management, see page 6 of the firm's <a href="#">2024 Form 10-K</a> and the firm's <a href="#">website</a> .
<b>Business Ethics</b>	Description of whistleblower policies and procedures	FN-IB-510a.2 FN-AC-510a.2 FN-CB-510a.2	<a href="#"><u><b>Policy on Reporting of Concerns Regarding Accounting and Other Matters</b></u></a> <a href="#"><u><b>Code of Business Conduct and Ethics</b></u></a>
	Total amount of monetary losses as a result of legal proceedings associated with: <ul style="list-style-type: none"> <li>• Marketing and communication of financial product-related information to new and returning customers;</li> <li>• Fraud, insider trading, anti-trust, anti-competitive behavior, market manipulation, malpractice, or other related financial industry laws or regulations; and</li> <li>• Professional integrity, including duty of care</li> </ul>	FN-AC-270a.2 FN-AC-510a.1 FN-IB-510a.1 FN-IB-510b.3 FN-CB-510a.1	Total net provisions for litigation and regulatory proceedings were \$166 million for 2024 compared with \$115 million for 2023. See page 70 of the firm's <a href="#">2024 Form 10-K</a> .



Topic	SASB Metric	Code	Response
<b>Disclosures Included in Multiple Sectors' Standards (continued)</b>			
<b>Systemic Risk Management</b>	Global Systemically Important Bank (G-SIB) score, by category	FN-IB-550a.1 FN-CB-550a.1	<p>The G-SIB surcharge is updated annually based on financial data from the prior year and is generally applicable for the following year. The G-SIB surcharge is calculated using two methodologies, the higher of which is reflected in the firm's risk-based capital requirements. The first calculation (Method 1) is based on the Basel Committee's methodology, which, among other factors, relies upon measures of the size, interconnectedness, substitutability, complexity and cross-jurisdictional activities of each G-SIB. The second calculation (Method 2) uses similar inputs but includes a measure of reliance on short-term wholesale funding instead of substitutability.</p> <p>We are bound by Method 2 and our applicable G-SIB buffer is 3.0% for 2025 and will be 3.5% beginning in 2026. Based on financial data for the nine months ended September 2025, we are in the 4.0% G-SIB surcharge threshold range. The earliest this surcharge could be effective is January 2028. Please see pages 12, 90–91, and 205–206 of the firm's <b>2024 Form 10-K</b> &amp; pages 76 and 130 of the firm's <b>2025 Third Quarter 10-Q</b> for further information. Further information about the indicators that factor into the calculation can be found in the firm's FR Y-15 filing, which can be accessed <a href="#">here</a>.</p>
	Description of approach to integrate results of mandatory and voluntary stress tests into capital adequacy planning, long-term corporate strategy, and other business activities	FN-IB-550a.2 FN-CB-550a.2	<p>We conduct various scenario analyses, including as part of the Comprehensive Capital Analysis and Review and US Dodd-Frank Act Stress Tests, as well as the firm's resolution and recovery planning. Please see pages 14–17, 84, and 88–90 of the firm's <b>2024 Form 10-K</b>.</p>
<b>Asset Management &amp; Custody Activities</b>			
<b>Transparent Information &amp; Fair Advice for Customers</b>	Description of approach to informing customers about products and services	FN-AC-270a.3	<p>We believe our clients are best served by having a clear understanding of how we work together, the capacities in which we act, and the fees we charge. In addition to contracts for products and services, as well as regulatory disclosures, we provide Wealth Management clients a comprehensive brochure outlining the services we provide and the related fee structures, including how their advisor is compensated for each type of service and fee.</p> <p>Please also refer to the <b>Business Standards Committee Impact Report</b>, <b>Code of Business Conduct and Ethics</b>, and Risk Factors detailed on pages 31–59 of the firm's <b>2024 Form 10-K</b> for additional firmwide information.</p>
<b>Incorporation of ESG Factors in Investment Management and Advisory</b>	Amount of assets under management, by asset class, that employ (1) integration of environmental, social, and governance (ESG) issues, (2) sustainability themed investing, and (3) screening	FN-AC-410a.1	<p>As of December 2024, Goldman Sachs Asset Management manages \$394 billion in sustainability-related assets under supervision (AUS). AUS figures are for explicit ESG investment strategies only where ESG or sustainability factors are an important component. This figure includes assets from the firm's Public Markets Investing business as well as the firm's External Investing Group.</p>
	Description of approach to incorporation of environmental, social and governance (ESG) factors in investment or wealth management processes and strategies	FN-AC-410a.2	<p>At Goldman Sachs Asset Management, we believe ESG factors can be important tools for identifying investment risk and capturing opportunities on behalf of our clients. Our approaches to ESG integration will vary by investment strategy, investment team, and asset class and <b>Goldman Sachs Asset Management's Statement on Sustainable Investing — Public Investing</b> sets out a summary of some of the elements of our approach to sustainable investing in our public markets investment businesses.</p>

Topic	SASB Metric	Code	Response								
Asset Management & Custody Activities (continued)											
Incorporation of ESG Factors in Investment Management and Advisory (continued)	Description of proxy voting and investee engagement policies and procedures	FN-AC-410a.3	Please see GSAM's <a href="#">website</a> .								
n/a	Total assets under management	FN-AC-000.A	See page 78 of the firm's <a href="#">2024 Form 10-K</a> .								
n/a	Total assets under custody and supervision	FN-AC-000.B	See page 78 of the firm's <a href="#">2024 Form 10-K</a> .								
Investment Banking & Brokerage											
Incorporation of ESG Factors in Investment Banking & Brokerage Activities	Description of approach to incorporation of environmental, social and governance (ESG) factors in investment banking and brokerage activities	FN-IB-410a.3	Please see the firm's <a href="#">Environmental &amp; Social Due Diligence Guidelines</a> .								
Professional Integrity	Description of approach to ensuring professional integrity, including duty of care	FN-IB-510b.4	The firm maintains a <a href="#">Code of Business Conduct and Ethics</a> and requires employees to annually certify they have reviewed and will comply with the code.								
Employee Incentives and Risk Taking	Percentage of total remuneration that is variable for Material Risk Takers (MRTs)	FN-IB-550b.1	MRT is a regulatory term applied in the UK and Germany, but not a concept we apply to our global workforce. Within our UK entity workforce only, approximately 43% of total remuneration awarded to MRTs for 2023 performance was variable. Within our German entity workforce only, approximately 37% of total remuneration awarded to MRTs for 2023 performance was variable.  Note that we apply a pay-for-performance philosophy across our organization. Please see the firm's <a href="#">Compensation Principles</a> for further information.								
	Percentage of variable remuneration of MRTs to which malus or clawback provisions were applied	FN-IB-550b.2	All equity-based awards granted to employees are subject to robust forfeiture and clawback provisions. Please see page 52 of the firm's <a href="#">2024 Proxy Statement</a> .								
	Discussion of policies around supervision, control, and validation of traders' pricing of Level 3 assets and liabilities	FN-IB-550b.3	Please see pages 64–65 of the firm's <a href="#">2024 Form 10-K</a> .								
n/a	(1) Number and (2) value of (a) underwriting, (b) advisory, and (c) securitization transactions	FN-IB-000.A	<div>Per Dealogic, the firm's transaction volumes for 2024 were</div> <table><tr><td>Announced mergers and acquisitions</td><td>\$1,037B</td></tr><tr><td>Completed mergers and acquisitions</td><td>\$901B</td></tr><tr><td>Equity and equity-related offerings</td><td>\$57B</td></tr><tr><td>Debt offerings</td><td>\$295B</td></tr></table> <div>Please see page 74 of the firm's <a href="#">2024 Form 10-K</a> for further information.</div>	Announced mergers and acquisitions	\$1,037B	Completed mergers and acquisitions	\$901B	Equity and equity-related offerings	\$57B	Debt offerings	\$295B
Announced mergers and acquisitions	\$1,037B										
Completed mergers and acquisitions	\$901B										
Equity and equity-related offerings	\$57B										
Debt offerings	\$295B										



Topic	SASB Metric	Code	Response																						
Investment Banking & Brokerage (continued)																									
n/a	(1) Number and (2) value of proprietary investments and loans by sector	FN-IB-000.B	<div>The table below presents the concentration of the firm's \$30.0 billion of firmwide gross corporate loans by industry:</div> <table><tr><td>Consumer &amp; Retail</td><td>9%</td></tr><tr><td>Diversified Industrials</td><td>16%</td></tr><tr><td>Financial Institutions</td><td>9%</td></tr><tr><td>Funds</td><td>5%</td></tr><tr><td>Healthcare</td><td>9%</td></tr><tr><td>Natural Resources &amp; Utilities</td><td>9%</td></tr><tr><td>Real Estate</td><td>14%</td></tr><tr><td>Technology, Media, &amp; Telecommunications</td><td>24%</td></tr><tr><td>Other (including Special Purpose Vehicles)</td><td>5%</td></tr></table> <div>The table below presents the asset class breakdown of the firm's \$13.8 billion of equity securities at fair value (reported within the firm's Asset &amp; Wealth Management and Global Banking &amp; Markets segments):</div> <table><tr><td>Corporate</td><td>75%</td></tr><tr><td>Real Estate</td><td>25%</td></tr></table> <div>For further information, please see pages 115 and 170 of the firm's <b><u>2024 Form 10-K</u></b>.</div>	Consumer & Retail	9%	Diversified Industrials	16%	Financial Institutions	9%	Funds	5%	Healthcare	9%	Natural Resources & Utilities	9%	Real Estate	14%	Technology, Media, & Telecommunications	24%	Other (including Special Purpose Vehicles)	5%	Corporate	75%	Real Estate	25%
Consumer & Retail	9%																								
Diversified Industrials	16%																								
Financial Institutions	9%																								
Funds	5%																								
Healthcare	9%																								
Natural Resources & Utilities	9%																								
Real Estate	14%																								
Technology, Media, & Telecommunications	24%																								
Other (including Special Purpose Vehicles)	5%																								
Corporate	75%																								
Real Estate	25%																								

Topic	SASB Metric	Code	Response															
Commercial Banks																		
Data Security	Description of approach to identifying and addressing data security risks	FN-CB-230a.2	Please refer to the firm’s Client Security Statement, which provides an overview of the firm’s approach to information security and its practices to secure data, systems, and services, similarly aligned around the six functions of the National Institute of Standards and Technology Cybersecurity Framework.															
Financial Inclusion & Capacity Building	(1) Number and (2) amount of loans outstanding that qualify for program designed to promote small business and community development	FN-CB-240a.1	As of December 2024, the firm’s Urban Investment Group had \$1.3 billion of debt assets outstanding from 112 transactions and \$3.8 billion of equity assets outstanding from 252 transactions. See the firm’s Urban Investment Group’s website for further information.  Please also refer to the firm’s programs <i>10,000 Small Businesses</i> , which provides entrepreneurs in the US, UK, and France with access to education, capital, and business support services, and <i>10,000 Women</i> , a global initiative providing women entrepreneurs with a business and management education, mentoring and networking, and access to capital.															
	Number of participants in financial literacy initiatives for unbanked, underbanked, or underserved customers	FN-CB-240a.4	Please refer to the firm’s <i>One Million Black Women: Black in Business</i> program, which is dedicated to equipping sole proprietors with the tools to help turn their business potential into business growth.															
Incorporation of ESG Factors in Credit Analysis	Description of approach to incorporation of environmental, social and governance (ESG) factors in credit analysis	FN-CB-410a.2	Please see the firm’s <u><i>Environmental &amp; Social Due Diligence Guidelines</i></u> . Please see the <u><i>Managing Our Businesses</i></u> section of this report, which outlines the integration of climate risk into the firm’s risk program.															
	(1) Number and (2) value of loans by segment: (a) personal, (b) small business, and (c) corporate	FN-CB-000.B	<div>The table below presents firmwide information by loan type:</div> <table><tr><td>Corporate</td><td>\$30.0B</td></tr><tr><td>Commercial Real Estate</td><td>\$29.8B</td></tr><tr><td>Residential Real Estate</td><td>\$26.0B</td></tr><tr><td>Securities-Based</td><td>\$16.5B</td></tr><tr><td>Other Collateralized</td><td>\$75.1B</td></tr><tr><td>Installment</td><td>\$0.1B</td></tr><tr><td>Credit Cards</td><td>\$21.4B</td></tr><tr><td>Other</td><td>\$2.1B</td></tr></table> <div>Please see page 172 of the firm’s <u><i>2024 Form 10-K</i></u> for further information.</div>	Corporate	\$30.0B	Commercial Real Estate	\$29.8B	Residential Real Estate	\$26.0B	Securities-Based	\$16.5B	Other Collateralized	\$75.1B	Installment	\$0.1B	Credit Cards	\$21.4B	Other
Corporate	\$30.0B																	
Commercial Real Estate	\$29.8B																	
Residential Real Estate	\$26.0B																	
Securities-Based	\$16.5B																	
Other Collateralized	\$75.1B																	
Installment	\$0.1B																	
Credit Cards	\$21.4B																	
Other	\$2.1B																	



# Appendix IV: Sustainability Issuance Reporting

## Governance

The firm’s Sustainable Asset Working Group (SAWG), which consists of senior cross-divisional stakeholders,<sup>1</sup> has oversight of the eligibility of projects and assets to be funded with proceeds from green, social, or sustainability issuances.<sup>2</sup>

Proceeds from the firm’s green, social, or sustainability issuances are used to finance new projects or assets that meet the criteria of the respective type of issuance, and the firm aims to allocate all proceeds within two years following the issuance. Additionally, loans and investments made up to one year prior to the issuance that qualify under the relevant criteria are also eligible for refinancing with its proceeds.

For further information on eligibility and exclusion criteria for the firm’s green, social, and sustainability issuances, please refer to the Goldman Sachs Sustainability Issuance Framework.

## Reporting

Updates on the allocation of the proceeds under the Goldman Sachs Sustainability Issuance Framework include details on the expected and realized qualitative and, where possible, quantitative environmental and social impacts.

## External Assurance

Goldman Sachs engaged an independent accountant to provide external assurance on the total net proceeds of \$725,948,850,<sup>3</sup> the total gross issuance amount of \$727,500,000, and the total allocated funds of \$754,800,000.<sup>4</sup> The Report of Independent Accountants is included herein.

## Sustainability Issuances<sup>5</sup>

Throughout 2024, Goldman Sachs issued the equivalent of approximately \$728 million of sustainability issuances, with proceeds fully allocated to new investments and loans.

Eligible categories are based on the firm’s nine key impact themes that also serve as the foundation to the firm’s overarching 10-year, \$750 billion sustainable finance goal.

### Total Breakdown

Over the course of 2024, and as of December 31, 2024, Goldman Sachs issued the equivalent of \$727,500,000 in sustainability issuances (\$725,948,850 net of underwriting fees).

### Funding Allocation

Issuance Date	Currency	Issuance Size Local Currency	Issuance Size USD Equivalent <sup>6</sup>	Maturity Date	ISIN
Jan 5, 2024	EUR	€270,000,000	\$294,300,000	Apr 17, 2029	FR1459AB1751
Feb 16, 2024	EUR	€20,000,000	\$21,600,000	Mar 23, 2032	XS2612155197
Aug 30, 2024	EUR	€160,000,000	\$177,600,000	Dec 20, 2030	FR1459AB3971
Dec 27, 2024	EUR	€225,000,000	\$234,000,000	Apr 27, 2033	FR1459AB5026
Total Gross Issuance			\$727,500,000		
Total Net Proceeds			\$725,948,850		

1 Stakeholders include members of the Sustainable Finance Group, Investor Relations, Corporate Treasury, Legal, Controllers, Compliance, and relevant business teams.  
2 SAWG also serves as an internal group to oversee accuracy and accountability for the firm’s \$750 billion sustainable finance goal.  
3 Total net proceeds (USD), defined as total gross issuance amount net of underwriting fees.  
4 The total allocated funds of \$754,800,000 exceed both the total gross issuance amount of \$727,500,000 and the total net proceeds of \$725,948,850 to ensure issuance proceeds are fully allocated.  
5 Proceeds have been allocated by the firm to investments and loans based on gross issuance amount.  
6 USD equivalent amount uses spot foreign exchange rate on issuance date.



First Sustainability Issuance

On January 5, 2024, Goldman Sachs issued €270 million (\$294.3 million) 5Y3M fixed rate notes. Funding has been allocated to \$296.1 million of eligible investments and loans.<sup>7</sup>

Impact Theme	
Communities	\$296.1M
Related to:	
• Affordable housing, which includes multifamily, single-family, and mixed-use housing development <sup>8</sup>	
Total	\$296.1M

Second Sustainability Issuance

On February 16, 2024, Goldman Sachs issued €20 million (\$21.6 million) 8Y1M capped participation certificates. Funding has been allocated to \$25.8 million of eligible investments and loans.<sup>7</sup>

Impact Theme	
Communities	\$25.8M
Related to:	
• Affordable housing, which includes multifamily, single-family, and mixed-use housing development <sup>8</sup>	
Total	\$25.8M

Third Sustainability Issuance

On August 30, 2024, Goldman Sachs issued €160 million (\$177.6 million) 6Y4M digital notes. Funding has been allocated to \$183.6 million of eligible investments and loans.<sup>7</sup>

Impact Theme	
Clean Energy	\$183.6M
Related to:	
• Onshore wind	
Total	\$183.6M

Fourth Sustainability Issuance

On December 27, 2024, Goldman Sachs issued €225 million (\$234 million) 8Y4M autocallable notes. Funding has been allocated to \$249.3 million of eligible investments and loans.<sup>7</sup>

Impact Theme	
Communities	\$48.3M
Related to:	
• Affordable housing, which includes multifamily, single-family, and mixed-use housing development <sup>8</sup>	
Clean Energy	\$201.0M
Related to:	
• Solar solution providers	
Total	\$249.3M

<sup>7</sup> Eligible investments and loans came from the Americas region.  
<sup>8</sup> "Affordable housing" is defined in this context as housing that is affordable to tenants earning up to 80% of the area median income.

## By the Numbers

### 2024 Allocation of Funds by Impact Theme

Impact Theme	Amount <sup>9</sup> (\$M)	% of Total
Communities	370.2	49%
Clean Energy	384.6	51%
Total	754.8	100%

### Impact Reporting Metrics<sup>10</sup>

4

total issuances with proceeds allocated to 8 projects

~\$728M

of sustainability issuances<sup>11</sup>

#### Clean Energy

~2.5M MWh

of annual clean power generated

#### Communities

~66K

affordable housing units built or rehabilitated<sup>12,13</sup>

### Examples of the Investments

The following are examples of the eligible investments and loans that Goldman Sachs made with the net proceeds from the 2024 sustainability issuances.

**Orlando Affordable Housing Portfolio:** A 1,263-unit stabilized, Low-Income Housing Tax Credit (LIHTC)–financed affordable housing portfolio in the Orlando Metropolitan Statistical Area. Proceeds were used to monetize the remaining in-place LIHTC credits across the portfolio and preserve the affordable housing.

**Altus Power:** One of the largest commercial and industrial solar developers and asset owners in the US. Proceeds were used for a required equity investment in financing acquisitions of operating or development assets, and for general corporate and working capital purposes.

<sup>9</sup> Investments and loans fully or partially funded with proceeds from the firm's 2024 sustainability issuances.

<sup>10</sup> Impact Reporting Metrics, as provided directly by the relevant companies, represent aggregate metrics across the newly allocated investments and loans where data was available and singular metrics where aggregation was not possible or practicable. Impact Reporting Metrics are provided where possible based on information access, which is dependent on deal structure as well as confidentiality considerations.

<sup>11</sup> Represents gross issuance amount. Gross issuance amount net of underwriting fees results in net proceeds of \$725,948,850.

<sup>12</sup> "Affordable housing" is defined in this context as housing that is affordable to tenants earning up to 80% of the area median income.

<sup>13</sup> Represents the number of affordable housing units that Goldman Sachs provided financing for the construction and/or rehabilitation of and may still be under development.

Proceeds from the firm's green, social, or sustainability issuances are used to finance new projects or assets that meet the criteria of the respective type of issuance. For additional details on eligibility criteria associated with relevant green and social project categories, please refer to the firm's [Sustainability Issuance Framework](#). The distribution of impact themes, regional footprint, and supporting Impact Reporting Metrics is dependent on investment activity in the given year(s) from which on-balance-sheet investments are selected for allocation toward the issuance. Therefore, these attributes may change meaningfully from year to year.

# Report of Independent Accountants



## Report of Independent Accountants

To the Management of The Goldman Sachs Group, Inc.

We have examined the management assertion of The Goldman Sachs Group, Inc. that the total net proceeds of \$725,948,850, from the total gross issuance amount of \$727,500,000, consisting of the net proceeds from:

- (i) the January 2024 €270,000,000 (\$294,300,000) fixed rate notes due 2029;
- (ii) the February 2024 €20,000,000 (\$21,600,000) capped participation certificates due 2032;
- (iii) the August 2024 €160,000,000 (\$177,600,000) digital notes due 2030; and
- (iv) the December 2024 €225,000,000 (\$234,000,000) autocallable notes due 2033

were used to finance or refinance, in whole or in part, investments made and loans entered into in relation to eligible green and social project categories to which there were total allocated funds of \$754,800,000 during the period from within one year prior to each issuance through December 31, 2024, based on the assessment criteria described in the section entitled Sustainability Issuances within the Appendix entitled Sustainability Issuance Reporting in this Goldman Sachs Sustainability Report published in December 2025. The Goldman Sachs Group, Inc.'s management is responsible for its assertion. Our responsibility is to express an opinion on management's assertion based on our examination.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants (AICPA). Those standards require that we plan and perform the examination to obtain reasonable assurance about whether management's assertion is fairly stated, in all material respects. An examination involves performing procedures to obtain evidence about management's assertion. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risks of material misstatement of management's assertion, whether due to fraud or error. We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

We are required to be independent and to meet our other ethical responsibilities in accordance with relevant ethical requirements related to the engagement.

Only the total net proceeds of \$725,948,850, total gross issuance amount of \$727,500,000, total allocated funds of \$754,800,000 and the related criteria described in the section entitled Sustainability Issuances within the Appendix entitled Sustainability Issuance Reporting in this Goldman Sachs Sustainability Report published in December 2025 is part of the management assertion of The Goldman Sachs Group, Inc. and our examination engagement. The other information in the Appendix entitled Sustainability Issuance Reporting and the Goldman Sachs Sustainability Report published in December 2025 has not been subjected to the procedures applied in our examination engagement, and accordingly, we make no comment as to its completeness and accuracy and do not express an opinion or provide any assurance on such information.

In our opinion, management's assertion referred to above is fairly stated, in all material respects.

*PricewaterhouseCoopers LLP*

New York, New York

December 1, 2025

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## Appendix V: Environmental & Social Due Diligence Guidelines

Goldman Sachs seeks to integrate environmental and social related due diligence as part of its normal course, risk-based due diligence approach, where relevant. These Guidelines are applicable to the firm's advisory, financing, and direct investing activities.

The firm makes decisions based on tailored, risk-based assessments on a case-by-case basis considering, among other things, all applicable laws as well as credit, operational, regulatory, reputational, and other risks.

This information reflects the firm's approach as of December 2, 2025. As financial regulation and regional policies governing related activities are being reviewed, these Guidelines remain subject to change.

The firm will not knowingly participate in any potential transactions where it determines there is credible evidence of child labor, forced labor, or human trafficking and where the client does not have adequate practices and policies in place to mitigate these risks. In addition, as appropriate the firm will conduct enhanced due diligence and review of the following activities, in light of the heightened credit, operational, legal, regulatory, reputational, and other risks they may present.

- Financing of any projects or initiation of loans where the specified use of proceeds would significantly convert or degrade a critical natural habitat.
- Financing of extractive projects, commercial logging, or other environmentally sensitive projects in prescribed UNESCO World Heritage sites.
- Financing of projects that contravene any relevant international environmental agreement which has been enacted into the law of, or otherwise has the force of law in, the country in which the project is located.
- Financing of companies or projects that collude with, or are engaged in, illegal logging or utilize illegal or uncontrolled fire for palm oil or forestry (including logging and primary processing of forest products).
- Financing that directly<sup>1</sup> supports the development of new coal fired power generation unless it has carbon capture and storage or equivalent carbon emissions reduction technology ("CCS").
- Financing that directly supports new thermal coal mine development or any mountaintop removal mining.
- Financing that directly supports new upstream Arctic oil exploration or development.

<sup>1</sup> "Directly" is defined as project specific financings or general corporate financings where there is dedicated capital expenditure that is specified in the use of proceeds for the activity.

Additionally, in accordance with the firm's tailored, risk-based due diligence approach to transactions, the following guidelines inform our reviews for certain sectors.

## Chemicals

For transactions where the use of proceeds is related to new production, transport, or storage of chemicals, we will conduct a review of the type of chemical and potential risks and the company's environmental, health, and safety track record. In addition to standard due diligence items, we will examine whether the company's production process requires the use, handling, transport, storage, or disposal of hazardous chemical materials. We will also consider the company's policies and procedures in place to prevent exposure to hazardous chemicals in addition to emergency preparedness and response plans in the event of significant fire, explosion, or spills. We will review the company's impact on resources, including energy and water. In addition, we will consider whether the company's production process generates significant air emissions (e.g., sulfur dioxide, nitrogen oxide, PM10, volatile organic compounds, etc.) or emissions with significant cumulative impacts on local air quality.

## Infrastructure & Transportation

For transactions relating to transportation and infrastructure projects, including the development and expansion of roads and railways, ports, harbors, and airports, we consider the environmental and human rights related impacts.

For transactions where potentially significant effects on local communities are identified, we will examine our clients' engagement process. In cases where there is largescale resettlement, we will closely evaluate the stakeholder engagement process and, if appropriate, work with the client to improve aspects such as compensation measures and/or community engagement.

## Water

For new water and wastewater infrastructure projects, we expect companies to have conducted a comprehensive environmental and human rights impact assessment, addressed potential multinational concerns and conflicts on a regional or international level, and have a commitment to mitigate significant impacts to those who may be adversely affected. We will also consider companies' plans to mitigate ecological and human rights impacts if water and wastewater treatment projects potentially impact fisheries, water flow, and quality due to issues such as improper sewage discharge or reduced access to water resulting from diverted uses.

Additionally, for transactions where potentially significant effects on local communities are identified, we will examine our clients' stakeholder engagement process. In cases where there is large-scale resettlement, we will closely evaluate the stakeholder engagement process and, if appropriate, work with the client to improve aspects such as compensation measures and/or community engagement.

## Forestry

For transactions related to forestry, we examine whether clients that process, purchase, or trade wood products from particularly high-risk countries have systems in place to assess whether the wood they process, purchase, or trade comes from legal sources. This includes understanding clients' supply chain monitoring systems and chain of custody certification.

We require clients to obtain or be working towards Forest Stewardship Council or a comparable certification when we finance forestry projects that impact high conservation value forests to promote the preservation of crucial forest ecosystems. For operations that are not already certified, we will introduce our clients to, or suggest to them, experts who can help establish a rigorous, time-bound, step-wise commitment to achieve certification.

## Palm Oil

For transactions related to palm oil, we require clients' compliance with all legal requirements, including in the case of Indonesia, the Indonesian Sustainable Palm Oil (ISPO) system.

We also require clients to obtain Roundtable on Sustainable Palm Oil (RSPO) or a comparable certification. For operations that are not already certified, we will introduce our clients to, or suggest to them, experts who can help establish a rigorous, time-bound, step-wise commitment to achieve certification.

Furthermore, we require clients to have a commitment to no net deforestation, no peatland development, and no human rights violations. Where this is not in place, we will introduce our clients to, or suggest to them, experts who can help establish such a commitment. Clients should have a plan in place to demonstrate compliance with this commitment.

## Biofuels

For transactions related to biofuels, considerations include but are not limited to: type of feedstock; forest and natural habitat conversion and impacts to High Conservation Value Forests; illegal logging; illegal and uncontrolled fire; impacts to communities and indigenous peoples; unacceptable labor practices that disregard international regulations; and lifecycle greenhouse gas emissions of a biofuels project.

## Mining, Coal, & MTR

For transactions that directly pertain to the development of new mine resources, we will review the company's compliance with all local laws and permitting, environmental and human rights impact assessment and management plan, use of freshwater resources, and community impacts. Where appropriate, we will encourage our clients to follow best practice guidelines, such as the principles developed by the International Council on Mining and Metals (ICMM).

For transactions involving coal mining globally, we apply tailored due diligence, including consideration of the following factors: companies' environmental, health, and safety (EHS) track records; siting and ecological impacts; regulatory compliance and ability to meet risk-mitigating best practices where local regulation is lagging; litigation, violations, and citations; remediation methods; impact on water quality; and local community and human rights issues.

For financings involving any companies that derive a significant portion of their revenue from thermal coal mining production, we will engage with them to understand their diversification strategy.

### Conventional Oil & Gas

For transactions that can facilitate the development of new conventional oil & gas reserves or related infrastructure, considerations include but are not limited to: pollution (potential for releases of petroleum, wastewater, or hazardous substances); risks related to deep water drilling operations; EHS track record and experience of the operator; governance (including the ways in which beneficiary governments utilize oil revenues); ecological and human rights impacts; potential impacts on indigenous peoples; and companies' relevant strategies to manage overall greenhouse gas (GHG) emissions.

### Unconventional Oil & Gas

For transactions that can facilitate the development of new unconventional oil & gas and hydraulic fracturing, considerations include but are not limited to: companies' care taken on location and site selection; well construction method, including integrity of casing and cementing; management of ongoing operations, including well flow and pressure monitoring; integrated water management, including groundwater testing, water withdrawal, wastewater management; fracking fluid usage and disclosure; air emissions management, including fugitive methane emissions and use of flaring and venting; engagement with and mitigation of impacts on the local community; and companies' relevant strategies to manage overall GHG emissions.

### Oil Sands

For transactions relating to oil sands, considerations include but are not limited to: energy use and greenhouse gas emissions; environmental impacts related to integrated water and waste management; forest and biodiversity preservation; potential local community impacts, including in Canada those relating to Canada's First Nations people; and companies' relevant strategies to manage overall GHG emissions.

### Arctic Oil

For transactions relating to Arctic oil, considerations include but are not limited to: energy use and GHG emissions; environmental impacts; emergency management plans; forest and biodiversity preservation; endangered species protection and management plans; potential local community impacts, including those relating to Indigenous Peoples and subsistence resources; and companies' relevant strategies to manage overall GHG emissions.

### Coal Fired Power Generation

For transactions involving power sector companies that derive a significant portion of their generation from coal, we will engage with the companies to understand their diversification strategy.

### Gas Fired Power Generation

For transactions relating to new natural gas-fired power generation, considerations include but are not limited to: possible community health, safety, and environmental considerations that could result from combustion, ecological and human rights sensitivities pertaining to development; community impacts and siting; and water used for cooling and discharge associated with natural gas boilers and combined cycle systems.

### Hydroelectric Power

For transactions that pertain to new large-scale hydropower, we will review the project's environmental and human rights impact assessment to understand whether the new development occurs in a responsible and sustainable manner. If appropriate, we will also refer our clients to best practice guidelines such as the International Hydropower Association (IHA)'s Sustainability Assessment Protocol. For certain transactions where there could be material effects on local communities, we expect our clients to demonstrate an appropriate stakeholder engagement process. In cases where there is large-scale resettlement, we will closely evaluate the stakeholder engagement process and, if appropriate, work with the company to improve aspects such as compensation measures and/or community engagement.

### Nuclear

For transactions relating to new nuclear power, considerations include but are not limited to: EHS track record and governance; procedures around safe waste management practices; the secure transport, storage, and handling of nuclear material; the host country's legal, regulatory, and safety framework; risks around terrorism and proliferation of nuclear weapons; proximity to seismic zones; fuel supply and water usage; and any possible community impacts and opposition.

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## Cross-Sector Guidelines

### Human Rights and Indigenous Peoples

We recognize that environmental and social issues are often linked. We have a responsibility to help protect, preserve, and promote human rights around the world. Our **Business Principles** and our **Code of Business Conduct and Ethics** also play an important role in determining our responsibilities as corporate citizens, helping to inform our business selection process, and guiding our business decisions and judgments. See the **Goldman Sachs Statement on Human Rights** and the latest **Goldman Sachs Statement on Modern Slavery and Human Trafficking**.

As part of our tailored due diligence for transactions where the use of proceeds may have the potential to directly impact indigenous peoples, we expect our clients to demonstrate alignment with the objectives and requirements of IFC Performance Standard 7 on Indigenous Peoples, including free, prior, and informed consent. We also expect our clients to demonstrate an appropriate stakeholder

engagement process for certain transactions where potentially significant effects on local communities are identified. In cases where there is large-scale resettlement, we will closely evaluate the stakeholder engagement process and, if appropriate, work with the company to improve aspects such as compensation measures and/or community engagement. Considerations include but are not limited to: companies' human rights and indigenous peoples policies; avoidance of relocation or impacts on traditional lands, food security, water, and other essential resources, and/or sites with significant cultural or spiritual importance (in cases where avoidance is not feasible, mutually agreed remediation actions and compensation); stakeholder engagement processes and management plans (e.g., stakeholder mapping, consultation with sufficient time for decision making, communication in a culturally appropriate manner, adequate representation of vulnerable groups within impacted communities); and operational grievance and monitoring mechanisms.



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