Goldman Sachs Environmental Policy Framework

Table of Contents

Overview 1

Our Business 3

I. Environmental Market Opportunities 3

A. Advisory, Financing, Investing and Market Making 3

B. Goldman Sachs Asset Management 5

C. Global Investment Research 6

D. Center for Environmental Markets 7

II. Environmental and Social Risk Management 9

A. Process and Scope 9

B. Sector Guidelines 10

C. Cross-Sector Guidelines 13

D. Climate Change Guidelines 14

E. Training 14

Our Operations and Our People 16

I. Our Operations 16

A. Corporate Services and Real Estate 16

B. Technology 17

II. Our People 19

Implementation and Governance 20

The Environmental Policy Framework was revised in December 2019 for (i) updates to section II. Environmental and Social Risk Management – B. sector guidelines and (ii) to reflect organizational changes relating to the Sustainable Finance Group. The rest of the framework was updated in 2015 and should be viewed in conjunction with our Sustainable Finance site, which has the latest sustainable finance and operational targets.

Overview

In November 2005, Goldman Sachs established our Environmental Policy Framework, which articulated our belief in the importance of a healthy environment and our commitment to addressing critical environmental issues. At that time, we were one of the first financial institutions to acknowledge the scale and urgency of challenges posed by climate change. In the years since, we have continued to build upon our commitment to the environment across each of our businesses. See our Sustainable Finance site for highlights of our progress.

Our ten-year juncture offers an opportunity to review progress both within Goldman Sachs and broadly across the market, and identify opportunities for us to do more. Our commitment to helping address critical environmental challenges and promoting sustainable economic growth remains unchanged, while our initiatives and progress will continue to advance. This updated document serves as a roadmap for us in that journey and a foundation on which we will continue to build as we look to the future.

Key Tenets: We believe that a healthy environment is necessary for the well-being of society, our people and our business, and is the foundation for a sustainable and strong economy. We recognize that diverse, healthy natural resources – fresh water, oceans, air, forests, grasslands and agro-systems – are a critical component of our society and economy.

We believe that technological and market innovation, driven in large part by the private sector working in concert with the public sector, is central to positive economic growth and environmental progress. Innovation will continue to play a critical role in solving societal challenges, including those relating to the environment. From advancements in clean technology to resource efficiency and the shared, connected economy, innovation can accelerate the transition to a low-carbon economy and sustainable future while creating new jobs and greater economic prosperity.

We take seriously our responsibility for environmental stewardship and believe that as a leading global financial institution we must play a constructive role in helping to address environmental challenges. To that end, we will work to ensure that our people, capital and ideas are used to help find innovative and effective market-based solutions to address climate change, ecosystem degradation and other critical environmental issues, and we will seek to create new business opportunities that benefit the environment. In pursuing these objectives, we will not stray from our central business objective of creating long-term value for our shareholders and serving the long-term interests of our clients.

Climate Change: Goldman Sachs acknowledges the scientific consensus, led by the Intergovernmental Panel on Climate Change, that climate change is a reality and that human activities are responsible for increasing concentrations of greenhouse gases in the earth's atmosphere. We believe that climate change is one of the most significant environmental challenges of the 21st century and is linked to other important issues, including economic growth and development, poverty alleviation, access to clean water, food security and adequate energy supplies.

Delaying action on climate change will be costly for our natural environment, to humans and to the economy, and we believe that urgent action by government, business, consumers and civil society is necessary to curb greenhouse gas emissions. How governments and societies choose to address climate change will fundamentally affect the way present and future generations live their lives.

Markets are particularly efficient at allocating capital and determining appropriate prices for goods and services. Governments can help the markets in this regard by establishing a clear policy framework that, among other things, provides transparency around the costs of greenhouse gas (GHG) emissions and creates long-term value for GHG emissions reductions and investments in new technologies that lead to a less carbon-intensive economy. In addition to mitigation, which is a critical component of any strategy, governments and societies need to improve adaptability and strengthen resiliency as part of a comprehensive solution.

We recognize that we have an impact on the environment through our operations, our investments, and the production and services we finance on behalf of our clients. As an institution that brings providers and users of capital together, we believe that capital markets can and should play an important role in addressing environmental challenges including climate change.

To that end, we are committed to catalyzing innovative financial solutions and market opportunities to help address climate change. The Environmental Policy Framework articulates our initiatives across each of our business areas. The following are key highlights:

- Climate Mitigation: We will expand our clean energy target to $150 billion in financings and investments by 2025 to facilitate the transition to a low-carbon economy.[i] To increase access to climate solutions, we will launch a Clean Energy Access Initiative that will target the deployment of clean energy solutions, such as distributed solar and clean cookstoves, to underserved markets. We will look to facilitate the efficient development of carbon markets and other climate-related market mechanisms as opportunities emerge.

- Climate Adaptation: We will help our clients more effectively manage exposure to climate impacts through capital market mechanisms, including weather-related catastrophe bonds, and identify opportunities to facilitate investment in infrastructure resiliency. We will also seek opportunities to promote financings and investments to address growing water and wastewater infrastructure needs. Where feasible, we will look to harness green infrastructure solutions such as forests as a complement to traditional infrastructure.

- Climate Risk Management: We will conduct a carbon footprint analysis across our Fundamental Equity business in Goldman Sachs Asset Management and work with our clients to analyze and understand the impacts of their portfolios. Across relevant advisory, financing and investing transactions, we will continue to apply a high standard of care in our Environmental and Social Risk Management, which includes guidelines and enhanced review of carbon intensive sectors (e.g., coal power generation, coal mining, oil & gas, forestry and palm oil) as well as climate change-related risk factors.

- Climate Approach in Our Operations: We will minimize our operational impact on climate change, strengthen our operational resiliency, and seek smart, sustainable solutions. We will achieve carbon neutrality across our own operations from 2015 onwards and target 100 percent renewable power to meet our global electricity needs by 2020. We will also target $2 billion in green operational investments by 2020.

Our Business

Each of our business areas has an important role to play in implementing our policy and helping our clients navigate and better manage evolving environmental risks and opportunities. By doing so, we can contribute to sustainable economic development and environmental progress. The following highlights key initiatives that we are undertaking and will continue to build on across our businesses.

I. Environmental Market Opportunities

A. Advisory, Financing, Investing and Market Making

Clean Energy: One of the critical roles we play in the transition to a low-carbon future is to help deploy capital to scale up clean energy technologies. We have established a Clean Technology and Renewables team in our Investment Banking Division to focus on this mission and have become the leading financier for clean energy companies. Through our investing teams, we are also one of the largest investors in alternative energy.

As an example of our ongoing commitment, in 2012 when there was significant volatility in the clean energy markets, we established a target to finance and invest $40 billion in capital for clean energy globally over the following decade. Less than four years into this effort, we are close to achieving our target with $37 billion already mobilized.[ii] As we consider the global energy and sustainability requirements of the future, our role in bringing greater capital access and efficiency to the clean energy market remains critical. As such, we expanded our target to $150 billion in capital deployment for the clean energy sector by 2025.[i]

In working to meet this target, we will play a catalytic role and facilitate financial innovations in clean energy:

- We will seek to devise investment structures that bring greater investor capital to underserved markets in order to facilitate more equitable and affordable access to clean energy. To that end, we will launch a Clean Energy Access Initiative that will target the deployment of clean energy solutions, such as distributed solar and clean cookstoves, in underserved markets.
- We will look for opportunities to expand the investor base and bring greater capital efficiency to clean energy projects, such as through securitization mechanisms and yield-oriented vehicles. For example, we are targeting $1 billion in solar and other renewable energy project securitizations in Japan to facilitate clean energy financing through the capital markets.
- We will look for opportunities to finance and co-invest in innovative technologies that provide grid resiliency and facilitate increasing levels of reliable clean energy deployment, as well as platforms that promote smarter, more efficient energy management and consumption. For example, we are targeting $500 million in financing and co-investments in advanced technologies to modernize the grid.

Water: Water scarcity and lack of access to clean water pose significant challenges around the world. These challenges are exacerbated by climate change, urbanization and population growth. In many markets, aging or inadequate water and wastewater infrastructure are potential risks to sustainable growth efforts, but there is a compelling opportunity to harness markets to address these challenges. We serve clients in this

area through our Public Sector and Infrastructure team within the Investment Banking Division, and also co-invest alongside clients through our investing teams. For example, we have worked with municipal water utilities to devise innovative financial structures to fund projects to address water pollution and combined sewer overflow challenges, including with DC Water on the world's first century green bond.

Through our financial advisory, financing and investments, we will continue to facilitate capital to meet water and wastewater infrastructure needs and look for financial solutions to address access to clean water:

- We will seek to facilitate private capital for much-needed water infrastructure investments, including through well-designed Public-Private-Partnerships (P3s). When appropriately structured, these partnerships bring the benefits of operational efficiency and economies of scale, facilitating rate stability and high-quality, long-term public water access.
- We will look for opportunities to finance and co-invest in technologies that improve the efficiency of delivering and consuming water, as well as technologies that enhance wastewater management and enable water reuse and recycling.
- We will look for opportunities to devise investment structures that can harness green infrastructure solutions as a complement to traditional infrastructure in meeting our water needs. For example, restoring forests, installing green roofs and increasing green space can help alleviate stormwater runoff while improving the health and resiliency of cities.

Green Bonds and Impact Investing: Green bonds are a fixed income instrument where the capital raised is used for environmentally beneficial purposes. Goldman Sachs was part of the initial group of banks to provide input to and support the Green Bond Principles, which are a voluntary set of guidelines. In addition to acting as an underwriter for green bonds, we are committed to developing innovative applications for green bonds. For example, we will seek to leverage green bonds to catalyze greater investments that help address climate change in emerging economies and underserved markets. A key goal is to facilitate the growth of this market by enabling an expanded investor base to allocate capital to additional environmentally beneficial projects, while ensuring transparency, integrity and environmental impact.

Goldman Sachs has also been a pioneer in the deployment of "social impact bonds," an innovative and emerging financial instrument that leverages private investment to support high-impact social programs, where repayment is tied to specific performance outcomes. There is potential to harness some of the same principles to address green opportunities, where the private and public sectors can partner to bring much-needed capital to high-impact, underserved environmental opportunities.

More broadly, we will continue to look for ways to integrate environmental co-benefits across our impact investing initiatives. For example, Goldman Sachs has had a long-standing commitment to investing in underserved communities with more than $4 billion deployed in the U.S. since 2001. Given energy expenditures account for a significant portion of low-moderate income families' budgets, integrating energy efficiency, renewables and other green measures as well as access to healthy foods and public transit are an important component of revitalizing communities.

Climate and Weather Risk Solutions: Effective management of catastrophic risk relating to weather extremes has become increasingly important for our clients. We have been a leader in structuring and underwriting catastrophe bonds, which help diversify and transfer catastrophic risks – including from weather-related events such as hurricanes – through the capital markets. We have structured over $14 billion

of weather-related catastrophe bonds since 2006. Our breadth of financial and market making capacity enables us to be innovative in helping our clients more effectively manage their risk.

Given the increasing focus on resiliency measures by policymakers and the need for greater investment in this field, we will also establish partnerships to develop new models for catastrophe bonds that can better evaluate the benefits of increased investments. For example, enhanced physical resiliency, including flood barriers and stormwater detention structures, can improve the ability to withstand extreme weather events, which in turn could potentially be factored into the pricing and financial return models for catastrophe bonds. To that end, we are partnering with financial institutions, foundations, reinsurers and other stakeholders to explore innovative risk management structures related to infrastructure resiliency.

Market Making in Environmental Commodities: As market mechanisms emerge to help address carbon and other climate-related commodities, we will look for ways to play a constructive role in facilitating the efficient development of these markets. For example, we have been a market maker in carbon credits, including the EU Emissions Trading Scheme from its inception, as well as certain weather derivatives, renewable energy credits and other climate-related commodities.

We will also continue to evaluate opportunities and, where appropriate, inform the development of and participate in markets for water, biodiversity and other ecosystem services. For example, we are a member of the Advisory Board of the Natural Capital Project, a non-governmental organization that uses a science-based approach and software tools to quantify and value services provided by natural systems for key decision makers.

B. Goldman Sachs Asset Management

Goldman Sachs Asset Management (GSAM), which provides institutional and individual investors with investment and advisory solutions, is committed to partnering with our clients to help them navigate today's dynamic markets while seeking to deliver strong long-term and sustainable investment performance to help them achieve their investment objectives.

Building on our long history of incorporating environmental, social and governance (ESG) risk factors as a part of the traditional investment approach, we have made a significant commitment to further expand our ESG and impact investing capabilities.

The foundation of our approach to ESG and impact investing is built on our core philosophy of serving our clients' investment goals and adhering to our fiduciary responsibility as an asset manager. We partner with our clients to provide a broad spectrum of customized solutions, ranging from engineered portfolios that optimize for specific impact factors to custom portfolios of private impact investments. Given the breadth and diversity of both our clients' objectives and our investment capabilities across our global platform, implementation by GSAM teams varies across asset classes and investment styles.

See **GSAM ESG and Impact Investing** for further information on our commitment. The following provides examples of key initiatives:

ESG Integration: We have integrated the analysis of ESG factors into our investment and company engagement processes across our Fixed Income and Fundamental Equity strategies, as well as within the

external manager due diligence process of Alternative Investments and Manager Selection (AIMS). We will utilize this analysis to engage with companies on ESG topics, and, as appropriate, integrate environmental considerations into GSAM's proxy voting policies. We will seek to communicate on our progress and contribute to the development of best practices within the investment community.

Portfolio Diagnostics: In addition to traditional screening capabilities, we can work with clients to analyze and understand the impacts of their portfolios. Certain GSAM investment products conduct a carbon footprint analysis – at the portfolio and individual holdings level – to quantify the absolute and intensity of greenhouse gas emissions embedded in the portfolio. We will expand this analysis across our Fundamental Equity business and product offerings to help inform our investment decisions more broadly.

Proprietary In-House Solutions: We will continue to innovate in developing products and solutions to help our institutional and high net worth clients better implement ESG integration and optimize portfolios to better align with values. For example, we are working with clients to develop methodologies by which the carbon intensity of their equity portfolios can be reduced by over 70 percent while applying market-leading risk management techniques. The Fundamental Equity group has actively managed strategies which apply an in-house ESG methodology and the Quantitative Investment Strategy (QIS) group offers equity strategies that exclude fossil fuel heavy sub-industries and emphasize investments that score highly on a range of environmental and social metrics while seeking to minimize tracking error.

Open-Architecture Solutions: AIMS provides a variety of ESG and impact investing strategies on its open-architecture platform. Additionally, GSAM has acquired the business of Imprint Capital Advisors, an asset management firm that advises clients on investing based on their ESG and impact investing views. With the integration of Imprint's team, AIMS will continue to work with clients to develop and manage ESG and impact investment programs and portfolios across investment areas and asset classes, including a focus on custom portfolios of private impact investments.

AIMS also applies its ESG and impact lens to specific asset classes. For example, within our AIMS Real Estate Investment team, we have a heightened awareness of the impact that the built environment has on greenhouse gas emissions and are actively seeking ways to reduce the footprint of the properties in the portfolio. To that end, we have launched a strategic energy efficiency initiative across our current portfolio of real estate holdings, which comprise approximately 5.5 million square feet, to maximize operating efficiencies and minimize environmental impact. For buildings that we acquire in the future, we will look to implement similar energy efficiency measures where appropriate. We will commit to report on the environmental impacts of the initiative through our annual **Environmental, Social and Governance Impact Report** and other channels.

C. Global Investment Research

Goldman Sachs is increasing our commitment to systematically incorporate ESG criteria into the fundamental analysis of companies across the Global Investment Research platform. We believe that companies' management of environmental and related social risks and opportunities may affect long-term corporate performance. We further believe that the effects of climate change and other environmental risks are increasingly significant issues for capital market participants globally. Credible investment research can

influence decisions made by investors, policymakers and regulators, which in turn may help to increase management teams' focus on the importance of environmental and social issues.

ESG Integration: We provide training on our approach to incorporating ESG factors as part of a long-term investment strategy for all new equity analysts. We offer access to ESG data to all research analysts in order to incorporate material ESG analysis across our sector investment research.

GS SUSTAIN: Launched in 2007 at the UN Global Compact Leaders Summit, GS SUSTAIN is a global, long-term investment research strategy designed to generate sustainable alpha by integrating analysis of global themes, company fundamentals, and governance and stakeholder factors, including environmental and social considerations. Through GS SUSTAIN, we have been at the forefront of integrating ESG criteria into the fundamental analysis of companies, and bringing greater investor attention to the importance of ESG factors in identifying companies that are best placed to manage 21st century business risks.

We are committed to expanding the scope of GS SUSTAIN coverage and now review more than 3,300 companies for governance factors and 2,200 for stakeholder factors. GS SUSTAIN also maintains a Global Focus List of high-quality companies that are well positioned to sustain industry-leading total shareholder returns. The GS SUSTAIN Global Focus List has outperformed its global benchmark by nearly 40 percent from inception in June 2007 through year end 2014.

Thematic Research: Through our Global Markets Institute and our equity research teams, we have produced thematic research on the risks and opportunities arising from climate change and water accessibility, as well as how environmental issues in countries such as China impact industry leaders and provide market opportunities. Our Global Clean Energy Research and other industry coverage teams follow clean energy companies and innovative technologies around the world, including solar, wind, biofuels/biochemicals, energy efficiency, storage and electric vehicles. We will continue to leverage our market insights and investment research to better inform investors on how climate change and other critical environmental issues impact capital flows and investment opportunities.

Convening: Based on our research, we will continue to actively meet with clients and investors, participate in and convene events, and provide technical input on strategic ESG initiatives, including on disclosure around ESG data and performance where appropriate.

D. Center for Environmental Markets

We recognize that many critical environmental issues cannot be solved through voluntary action alone and that establishing partnerships and ecosystems that bring together key stakeholders across public and private sectors is important. To that end, in 2006, we launched the Goldman Sachs Center for Environmental Markets to undertake partnerships with corporations, academic institutions and non-governmental organizations. Since then, we have established numerous partnerships that have facilitated independent research, the development of new environmental tools, and high-level convenings that have informed climate policy, valuation of forest ecosystems, energy and resource efficiency, renewables in underserved markets, and water risk.

As we look forward, the Center will continue to advance partnerships that synergistically bring together the core competencies of the public and private sectors to help catalyze much-needed capital flows towards

environmentally beneficial solutions. To that end, the Center will invest $10 million of grant funding in pilot projects that can demonstrate the viability of financial mechanisms that could unlock larger-scale capital for environmental solutions.

Through these partnerships, we will also facilitate case studies and independent research that inform public policy options. We will share our findings through publications, research papers and convenings, as well as through targeted outreach.

See **Center for Environmental Markets** for more information on partnerships.

II. Environmental and Social Risk Management[iii]

Our **Business Principles and Standards** guide our overall approach to environmental and social risk management – we apply a high standard of care to serving our clients, consider reputational sensitivity and excellence in everything we do, and have a deep commitment to individual and collective accountability. We approach the management of environmental and social risks with the same care and discipline as any other business risk, and undertake a robust review process to take the environmental and social impacts and practices of our clients and potential clients into consideration in our business selection decisions.

We recognize that risk management and business selection decisions are complex and often have to balance potential trade-offs. When we identify potentially significant environmental and social issues, we prefer to address the issue by working with the client on appropriate safeguards and more sustainable practices. By facilitating the adoption of more sustainable practices, we are able to better serve the long-term interests of our clients, the communities and the environment in which they operate, while ensuring prudent risk management for the firm. Where such engagement is not feasible and the transaction involves potentially material environmental impact, significant social issues or unacceptable risks that directly conflict with the firm's policy, we will forgo the assignment.

We also believe that it is in the interest of our issuer clients to make appropriate disclosure with respect to the material environmental and social impacts of their businesses, including greenhouse gas emissions, and the potential consequences to their businesses from changes in relevant regulation and policy. To that end, we will encourage and work with our clients to further develop appropriate disclosure.

We actively monitor emerging issues, regulatory developments, concerns of key stakeholders, as well as best practices relating to environmental and social risk management. As part of this undertaking, we frequently engage with non-governmental organizations and periodically review and update our guidelines for emerging issues and evolving environmental and social concerns. We also apply general guidelines and best practices from external sources for relevant transactions we undertake on behalf of our clients.

A. Process and Scope

Advisory, financing and direct investing teams integrate environmental and social due diligence as part of their normal course due diligence requirement where relevant. Transactions which may have significant environmental or social risks, including reputational risks, are elevated for enhanced review and business selection discussion. Our Business Intelligence Group (BIG) assists business teams by providing guidance on environmental and social-related reputational risk matters, doing independent reviews and identifying mitigants and positive engagement opportunities with the client to reduce material risk. BIG also takes a broad view of risk that includes legal, regulatory, and governance matters, and works closely with the Sustainable Finance Group, which reports to the Office of the Chairman, on emerging climate change related risk trends and the firm's environmental and social risk guidelines. In certain cases, Operational Risk Management & Analysis, which includes an in-house team of environmental consultants with strong technical expertise, will also conduct in-depth due diligence on environmental, health, safety (EHS) and social issues to identify and mitigate transactional risk for business teams.

We have various committees that oversee our business selection decisions and risk management. Our committees coordinate and apply consistent business standards, practices, policies and procedures across the firm, and are integral to the management of environmental, social and reputational risks. For example, our

Physical Commodities Review Committee, which is a cross-divisional firmwide governance committee, ensures that we have a consistent approach to evaluating and managing EHS risks associated with engaging in, investing in, or the financing of physical commodity-related activities. See the **Report of the Business Standards Committee** for further details on committee governance structure.

Transactions that have significant environmental and social issues are elevated for discussion and a final business selection decision involving key committees, business leaders and/or the Chairman's office.

B. Sector Guidelines

In addition to the firmwide review process, we equip teams in sensitive sectors with due diligence guidelines and training to evaluate new business opportunities more effectively. This includes background on current environmental and social issues and sensitivities in the sector, as well as potential due diligence questions to discuss with a company. The guidelines are reviewed periodically and updated based on emerging best practices, regulatory changes and engagement with stakeholders. We have fourteen guidelines across key sectors. Below is the list of sectors and summaries are available on our **website**.

Biofuels	Chemicals	Coal Power Generation	Forestry	Gas Power Generation	Hydro. Power Generation	Metals & Mining
Nuclear Generation	Oil & Gas	Oil Sands	Palm Oil	Transportation	Unconventional Oil & Gas	Water

The following highlights our guidelines in sectors of particular environmental sensitivity:

Power Generation – Coal: Coal fired power generation is one of the largest sources of air pollutants, including greenhouse gas (GHG) emissions, and has other significant environmental, health and safety impacts on local communities. However, coal fired power is still a significant source of electricity generation and a contributor to reliable and diverse energy supply, particularly in developing economies.

- For transactions involving power generation globally, we apply enhanced due diligence, including consideration of the following factors: companies' EHS track records; regulatory compliance, litigation, violations and citations; remediation methods; impact on water quality; types of technology and emissions controls; companies' efforts to measure, report and reduce GHG emissions and other pollutants; and local community and human rights issues.
- We will decline any financings that directly[iv] support the development of new coal fired power generation unless it has carbon capture and storage or equivalent carbon emissions reduction technology ("CCS"). This applies globally in both developed and developing economies.
- For financings involving any power sector companies that derive a significant portion of their generation from coal,[v] we will engage with the companies to understand their strategy to diversify away from coal and reduce overall carbon emissions, with the goal of supporting their low carbon transition in line with the Paris Climate Agreement.

Metals & Mining – Coal Mining & Mountaintop Removal: Coal mining involves a number of extraction methods, at both the surface and underground level. Mountaintop removal (MTR), a form of surface mining

used in the Appalachian region of the United States, has particularly significant impacts on ecosystems, water quality and local communities.

- For transactions involving coal mining globally, we apply enhanced due diligence, including consideration of the following factors: companies' EHS track records; siting and ecological impacts; regulatory compliance and ability to meet international practices where local regulation is lagging; litigation, violations and citations; remediation methods; impact on water quality; and local community and human rights issues.
- For transactions directly financing new thermal coal mine development or any mountaintop removal mining, we will decline the opportunity.
- 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 strategy to diversify away from thermal coal mining and reduce overall carbon emissions from their operations and products. Companies' diversification strategy and carbon emissions reduction initiatives will be a key consideration in our evaluation of future financings with the goal of helping their transition strategy. We will phase out our financing of thermal coal mining companies that do not have a diversification strategy within a reasonable timeframe.

We have leveraged our *10,000 Small Businesses* program to help entrepreneurs in the Appalachian region create jobs and economic opportunity, especially given that coal mining has been declining and jobs are being lost in the region. Goldman Sachs *10,000 Small Businesses* has deployed over $9 million through the Kentucky Highlands Investment Corporation and Virginia Community Capital, two local Community Development Financial Institutions (CDFIs), for small business loans. We have also worked with the region through our national business education program. See **10,000 Small Businesses** for more information.

Oil & Gas – Hydraulic Fracturing: The rapid expansion of hydraulic fracturing has contributed to the expansion of energy resources, particularly in the U.S., along with greater affordability of energy for consumers and industry, job creation and economic growth. But it has also come with increasing concerns related to water consumption, impact on water quality, wastewater disposal methods, potential seismic impacts, air emissions (including methane) and local community impacts.

- For transactions involving new unconventional oil & gas and hydraulic fracturing, we apply enhanced due diligence, including understanding companies' strategy and commitment to reducing overall GHG emissions. Key issues to be addressed 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; and engagement with and mitigation of impacts on the local community.

Oil & Gas – Oil Sands: Oil sands, also known as tar sands or bituminous sands, are sandstone or carbonate formations containing a naturally occurring viscous form of petroleum (bitumen) with large deposits found in Canada's Province of Alberta. In many cases, significant amounts of energy and water are necessary to extract and upgrade bitumen, and there is a potential for impacts on boreal forests and local communities.

- For transactions relating to oil sands, we apply enhanced due diligence, including understanding companies' strategy and commitment to reducing overall GHG emissions. Among factors, we consider: energy use and GHG emissions; environmental impacts related to integrated water and waste

management; forest and biodiversity preservation; and any local community impacts, including those relating to Canada's First Nations people.

Oil & Gas – Arctic Oil: Oil development in the Arctic Circle is prone to harsh operating conditions, sea ice, permafrost coverage, and potential impacts to critical natural habitats for endangered species. The unique and fragile ecosystems of the Arctic region also support the subsistence livelihoods of indigenous peoples groups that have populated certain areas in the region for centuries.

- For transactions relating to Arctic oil, we apply enhanced due diligence including understanding companies' strategy and commitment to reducing overall GHG emissions. Among factors, we consider: energy use and GHG emissions; environmental impacts; emergency management plans; forest and biodiversity preservation; endangered species protection and management plans; and any local community impacts, including those relating to indigenous peoples and subsistence resources.
- We will decline any financing transaction that directly supports new upstream Arctic oil exploration or development. This includes but is not limited to the Arctic National Wildlife Refuge.

Forestry: Forests are critical for the environment and biodiversity and provide livelihoods for many. Deforestation and degradation of forests remains a significant challenge in many regions, and is a major contributor to greenhouse gas emissions.

- For forestry transactions (including logging and primary processing of forest products), we will not knowingly finance companies or projects that collude with or are engaged in illegal logging or utilize illegal or uncontrolled fire.
- As part of our enhanced due diligence, we examine whether clients that process, purchase or trade wood products from particularly high-risk countries have certifiable systems in place to ensure that 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 in order to ensure that crucial forest ecosystems are preserved appropriately. For operations that are not already certified, we will introduce or refer our clients to credible experts who can help establish a rigorous, time-bound, step-wise commitment to achieve certification within three years.

Palm Oil: Palm oil has become the largest source of edible oil globally and is the base for a vast number of household products. At the same time, growing demand for palm oil has placed pressure on crucial ecosystems.

- We apply enhanced due diligence to transactions relating to palm oil companies.
- We will not knowingly finance companies or projects that collude with or are engaged in illegal logging or utilize illegal or uncontrolled fire.
- 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 or refer our clients to credible experts who can help establish a rigorous, time-bound, step-wise commitment to achieve certification within three years.

- 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 or refer clients to credible experts who can help establish such a commitment. Clients should have a plan in place to demonstrate compliance with this commitment.

C. Cross-Sector Guidelines

Protected Areas and World Heritage Sites: Goldman Sachs recognizes the importance of critical natural habitats, which have high biodiversity value and include legally protected areas both existing and officially proposed by governments.

- We will not finance any projects or initiate loans where the specified use of proceeds would significantly convert or degrade a critical natural habitat.

- We also recognize the significance of cultural and natural heritage and will not knowingly finance extractive projects, commercial logging or other environmentally sensitive projects in prescribed UNESCO World Heritage sites.

- Furthermore, we will not finance 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.

Human Rights: Goldman Sachs recognizes that environmental and social issues are often linked. We have a responsibility to help protect, preserve and promote human rights around the world. Examples of such rights are articulated in the United Nations Universal Declaration of Human Rights. While national governments bear the primary responsibility for ensuring human rights, we believe that the private sector can and should play a role in championing these fundamental rights. Our respect for human rights is fundamental to and informs our business; it guides us in how we treat and train our people, and how we work with our clients and our vendors. Our **Business Principles** and our **Code of Business Conduct and Ethics** also play an important role in determining our responsibilities as corporate citizens, and help to inform our business selection process and guide our business decisions and judgments. See the **Goldman Sachs Statement on Human Rights**.

- Indigenous People: Goldman Sachs recognizes that the identities and cultures of indigenous peoples are inextricably linked to the lands on which they live and the natural resources on which they depend. We recognize the rights of these communities regarding issues affecting their lands and territories, traditionally owned or otherwise occupied and used. 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.[vi]

- Stakeholder engagement and resettlement: 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.

- Child Labor, Forced Labor and Human Trafficking: We will not knowingly finance any potential transactions where there is credible evidence of child labor, forced labor or human trafficking.

D. Climate Change Guidelines

As a global financial institution, we serve clients in all industries, including those in carbon intensive sectors of the global economy. For the foreseeable future, carbon-intense energy sources will continue to be part of the global energy mix but will face increasing policy and regulatory constraints. Our enhanced due diligence guidelines for carbon intensive sectors incorporate climate change-related questions, including the disclosure and management of greenhouse gas emissions. More broadly, even in less carbon-exposed sectors, as part of our due diligence where material and relevant, we will consider how clients manage climate change-related risk factors such as those relating to supply chain risk from weather extremes. Such enhanced due diligence enables us to better manage the associated long-term risks and more responsibly serve the needs of our clients.

In financings, we primarily act as an underwriter in the capital markets, matching investors with the capital needs of issuers. Lending to carbon intensive sectors is a relatively small part of our overall activities. Even though it is a small share, as part of our prudent risk management, we monitor how carbon-related regulation among other material macro-factors may impact the creditworthiness of these loans to carbon intensive sectors. Our **public reporting** includes disclosure of our credit exposure to the Natural Resources and Utilities sector.

For energy investments in our Merchant Banking Division, in addition to enhanced EHS due diligence, we undertake an assessment of pending policy and regulation relating to climate change as well as the economics of various technologies. When relevant, we also conduct assessments of different carbon pricing and energy demand scenarios to inform our investment decisions. Based on such analysis, our energy investment portfolio has made a number of renewable energy investments globally.

More broadly, we monitor policy and regulatory developments relating to climate change and where appropriate, engage in discussions regarding financing for climate mitigation and adaptation. We also engage in efforts to understand and inform the measurement and reporting of greenhouse gas emissions, as well as initiatives that seek to develop pragmatic and meaningful ways of understanding carbon risk exposure in financing and investment activities.

E. Training

We train our people and provide necessary resources to ensure that environmental, social and governance objectives are met and policies, procedures and standards are appropriately implemented. Training on ESG issues is provided globally to relevant employees, while additional specialized training is tailored by region and industry to select employees as appropriate.

In addition, the Sustainable Finance Group convenes thought leaders to speak to our people globally on topical sustainability-related issues.

Our Operations and Our People

I. Our Operations

Minimizing our operational impact is a prerequisite of sound environmental policy and a necessary complement to our core business activities. In all that we do, we strive to find smart, sustainable solutions that make business sense and are environmentally responsible. In addition, through our operational resiliency management we assess and plan for climate-related risks. Our Corporate Services and Real Estate (CSRE) and Technology teams work in close collaboration with the Sustainable Finance Group on our key operational priorities.

A. Corporate Services and Real Estate

As part of our commitment to advancing the environmental stewardship of corporate operations, we will use our operational facilities and partnerships to pilot and help scale up innovative clean energy and energy efficiency solutions. For example, at our headquarters in New York we have deployed an innovative HVAC system that shifts electrical loads to off-peak hours.

As part of our carbon reduction framework, we factor an internal price on carbon into energy efficiency, renewable energy and other emission reduction activities through the use of a return on investment model. This return on investment prioritizes internal reduction measures across both our offices and data centers. We also have a dedicated green operational investment budget, which brings greater focus to initiatives that reduce our environmental impacts and enables us to invest in green buildings and innovative green technologies. We are targeting $2 billion in green operational investments by 2020.

In support of our commitment to transparency regarding our environmental performance, Goldman Sachs has been a signatory to the CDP climate change survey since 2006. We make public our Carbon Accounting Methodology, and ensure the accuracy of our environmental metrics and data collection process through robust internal inventory management planning and a commitment to third party verification of our most important performance metrics including our Scope 1, 2 and 3 (business travel) emissions as well as our water use.

We are committed to minimizing the impact of our operations on the environment with our key goals as follows:

Carbon Neutrality: We will accelerate our previous carbon neutrality commitment by five years to be carbon neutral by 2015. We will also expand the scope from global Scope 1 and 2 emissions to include our Scope 3 business travel as part of our commitment.

Renewable Energy: We will aim to use 100 percent renewable power to meet our global electricity needs by 2020. As part of our commitment to increasing awareness and in support of global best practices, we have joined the RE100 initiative.

Energy Efficiency: We will aim to reduce our absolute energy use across our operationally controlled facilities by 10 percent from 2013 to 2020.

Universal Green Building Standards: We are committed to achieving LEED Gold or equivalent for new buildings or major renovation projects. We will target green building certification across 70 percent of our portfolio by 2020.

Responsible Resource Consumption: We are committed to responsible resource consumption and waste reduction. We have established a goal to achieve 100 percent business waste diversion from landfill by 2020 and a 20 percent reduction of paper per-capita from 2013 to 2020. We are also targeting a 5 percent reduction in water use in operationally controlled facilities from 2013 to 2020.

Responsible Supply Chain Management: We continue to advance our commitments to sustainable supply chain management through the development and deployment of a sustainable procurement framework that is integrated across our whole procurement lifecycle, prioritizing our material risks and promoting innovative collaboration with our vendors.

Operational Resiliency Management: We are committed to assessing and planning for climate-related risks across our operations through infrastructure, business continuity and resiliency reviews of our office space and data centers. Our assessment monitors the hazards posed by climate-related risks, including temperature changes, rising sea levels and severe weather conditions, and we utilize predictive weather modeling to inform our short-term preparedness and long-term resiliency planning.

Certified Management Systems: We have developed an Environmental Management System (EMS) that complies with the ISO 14001 standard and are committed to having the ISO 14001 EMS certified by a third party verification company. We will seek to expand our implementation of the ISO 14001 EMS to all operationally controlled facilities by 2020. In addition, we are committed to aligning our on-site corporate events to the ISO 20121 standard for sustainable events through a sustainable events management system. Through active implementation and continual review and improvement of our management systems, we commit to the following:

- We will comply with applicable legal and regulatory requirements and adhere to other objectives as defined in the Environmental Policy Framework that relate to environmental, social and economic aspects resulting from our operations.
- In association with the Environmental Policy Framework, the management systems will provide a basis for setting and reviewing environmental, social and economic objectives and targets for our operations on a continuous basis.
- We commit to continual improvement in environmental, social and economic performance and pollution prevention for our operations through ongoing review and modification of the management systems in response to emerging environmental, social and economic issues and changing regulations and business activities, as appropriate.

See **Our Operational Impact** for further details of our operational commitments.

B. Technology

Sustaining the growth of our business, while minimizing the environmental impact of our technology, is a constant balancing act. As a financial services firm, computing represents the largest portion of the

environmental impact from our technology. Through a combination of market-based and in-house developed products, our engineers seek the best technology solutions with the lowest power consumption to meet the requirements of our business, working alongside the CSRE team to achieve the firm's operational goals. Key initiatives are as follows:

Efficiency: Given our strategic focus on computing efficiency, we will continue to pursue integrated solutions that minimize environmental impact across the technology lifecycle, from the initial purchase of a product to its disposal. We will also continuously optimize for efficiency across our hardware fleet by closely monitoring and striving for higher efficiency per unit of computing capacity.

Shared Solutions: We will seek additional efficiency in our computing solutions through shared computing and virtualization. For example, while we utilize private cloud solutions that right-size our computing resources for applications, we will also leverage public cloud technology as secure solutions become available, including using on-demand computing capacity as needed to reduce our permanent computing footprint.

Innovation and Collaboration: We will look to adopt innovative solutions across our technology platforms and share best practices across the industry. For example, we are adopting modular data centers and collaborating through the Open Compute Project (OCP), which promotes the development of higher-efficiency server hardware.

II. Our People

Environmental stewardship is not only about how we operate our business, but also about how we engage our people. Through programs sponsored across our global businesses, environmental issues are discussed and environmental initiatives are acted upon. We will continue to look for opportunities to further engage our people on environmental opportunities.

Examples of our employee engagement programs, which we will seek to build on, are as follows:

Thought Leadership: Throughout the year, we offer a speaker series that brings thought leaders to the firm to share innovative ideas and thinking on a variety of themes, including environmental topics ranging from renewable energy and conservation to water issues. We also publish timely and topic-specific content on both our internal and external communications portals, including videos, infographics and podcasts, to educate both our people and our clients on the evolving environmental landscape. Additionally, we host conferences on environment and energy issues, with a focus on the intersection of markets and how innovative financial mechanisms can be leveraged. We convene policymakers, NGOs and academic institutions alongside our clients, investors and employees to advance dialogue and collaboration that can facilitate capital flows that benefit the environment.

Communications: We regularly communicate with our people through multiple channels. We publish environmental newsletters offering updates on notable transactions related to the environment and the firm's progress on minimizing our environmental footprint, among other topics. We also publish articles on our intranet to focus on environmental issues and communicate our environmental progress.

Environmental Networks: Employee-led environmental networks in cities around the world raise awareness and engage local employees on initiatives ranging from recycling and composting to reduction of disposable cups and bottles.

Community Team Works: Each year, our *Community Team Works* program allows for employees to participate in volunteer projects in their local communities that have a direct impact on the environment. These projects range from aiding in park clean-ups to installing solar panels on housing for low-income residents.

Goldman Sachs Gives: Through *Goldman Sachs Gives*, the firm's donor-advised fund, current and retired senior employees can recommend grants to qualifying nonprofit organizations globally. Since 2010, *Goldman Sachs Gives* has provided more than $36 million of grants across 10 countries towards critical societal, conservation and environmental-related programs.

Implementation and Governance

Our environmental policy, which applies to The Goldman Sachs Group, Inc. and its majority-owned subsidiaries, is coordinated by the Sustainable Finance Group (SFG), reporting directly to the Office of the Chairman. SFG provides guidance to our various businesses, develops training and engages with a variety of stakeholders to help Goldman Sachs better manage and understand evolving environmental issues. Implementation of the policies and initiatives is the direct responsibility of each of our applicable businesses. We report on our progress annually through our **Sustainability Report** and the **Environmental Stewardship** section of our website.

The policy and its implementation are reviewed with the Board of Directors' **Public Responsibilities Committee**, which has oversight of the implementation of the Environmental Policy Framework and any environmental, social and governance issues affecting the firm.

We have consulted many stakeholders and experts in updating this policy framework. We will continue to build upon these relationships and regularly consult our stakeholders to help us stay abreast of evolving environmental risks and opportunities and help us continue our progress towards environmental stewardship.

[i] This target extends our existing goal of $40 billion and includes an additional $110 billion in capital deployment by 2025. Our target is focused on the clean technology and renewable energy sector, and on commercial transactions. It includes financing and co-investments for solar, wind, sustainable hydro, biomass, geothermal, advanced biofuels, energy efficiency and advanced materials, energy storage, LED lighting, electric vehicles, and renewable energy transmission, among other clean technologies. It does not include financial advisory, market making activities, or grant-related funding for the sector.

[ii] Progress towards target as of Q3 2015.

[iii] Updated in December 2019 to reflect revisions to II. B Sector Guidelines as well as organizational changes relating to the Sustainable Finance Group.

[iv] "Directly" 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 (i.e., new coal-fired power plant development without CCS, new thermal coal mine development or MTR mining, new upstream Arctic oil exploration or development).

[v] Coal power that has CCS or equivalent carbon reduction technology is excluded.

[vi] Additional details of the factors assessed for alignment are available in the Human Rights and Indigenous Peoples due diligence guidelines.