

# Climate risk and the transition to a low-carbon economy

Investment Stewardship

BlackRock®

**BlackRock believes that sustainability risk, particularly climate risk, is investment risk. Accordingly, sustainability is a key component of our investment approach.**

**BlackRock Investment Stewardship (BIS) expects companies to have clear policies and action plans to manage climate risks and to realize opportunities presented by the global energy transition. Investors and other stakeholders will look at companies' disclosures to analyze how climate risk is integrated into their long-term strategies and evaluate their preparedness for a transition to a low-carbon economy.**

As we set out in our [Global Principles](#), we expect companies to articulate how they are aligned to a scenario in which global warming is limited to well below 2° C, consistent with a global aspiration<sup>1</sup> to reach net zero greenhouse gas (GHG) emissions by 2050.

The following provides more detail on our approach to engagement on climate risks and opportunities and the transition to a low-carbon economy.

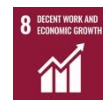
## Climate Risk and the Energy Transition as an Investment Issue

Climate risk presents significant investment risk—it carries financial impacts that will reverberate across all industries and global markets, affecting long-term shareholder returns, as well as economic stability.<sup>2</sup> As BlackRock's Chairman and CEO, Larry Fink, wrote in his [2021 letter to CEOs](#), "there is no company whose business model won't be profoundly affected by the transition to a net zero economy..." and we have already "begun to see the direct financial impact [of climate change] as energy companies take billions in climate-related write-downs on stranded assets and regulators focus on climate risk in the global financial system."

In the [2015 Paris Agreement](#) on climate change, countries around the world agreed to keep global warming "well below 2° C above pre-industrial levels [while] pursuing efforts to limit the temperature increase to 1.5° C." However, a recent report<sup>3</sup> by the Intergovernmental Panel on Climate Change (IPCC) shows that steep GHG reduction efforts are urgently needed. Countries and companies should strive to limit warming to 1.5° C to achieve an ultimate goal of net zero GHG emissions by mid-century in order to mitigate the worst effects of climate change. The pathway to net zero begins with a decreased reliance on fossil fuels, reducing, and ultimately eliminating, carbon from the burning and production of these energy sources.<sup>4</sup> Our reference to a transition to a low-carbon economy hinges on these first steps. As technology continues to evolve, we expect a revision of GHG reduction targets to stabilize a global economy working towards net zero GHG emissions by 2050.

## Climate Transition and the Role of Private and Public Sectors

Climate risk is global, requiring the adaptation and resilience of companies world-wide. As the global economy transitions to a low-carbon future,<sup>5</sup> it is in the best interests of companies and markets that the transition is orderly and just. Both the private and public sectors have important roles to play in aligning GHG reduction efforts with targets based on science.



## UN SDGs alignment

*We believe that there is significant intersection between many of the topics that we discuss with companies and aspects of these five [Sustainable Development Goals \(SDGs\)](#).*

Equally, we acknowledge that there are varying levels of dependence on carbon in different economies. In order to implement a just and equitable transition to a low-carbon economy, countries around the world will need to re-allocate labor resources from carbon-intensive industries to cleaner alternatives in order to preserve economic opportunities and mitigate downstream community impacts. However, the loss of fossil fuel intensive jobs does not necessarily equate to absolute economic loss. Rather, the transition to renewable energy is likely to result in a net economic gain for our global economy.<sup>6</sup> Careful consideration of human capital in this transition, including training and re-tooling, will allow for a more just and equitable shift.

Companies will need to assess their operations and vulnerabilities, craft scalable solutions, and consider low-carbon investments, among other initiatives. These changes will require balancing urgency with available technology and low-carbon alternatives. Companies need to adequately address near-term climate risks and opportunities, while simultaneously making the necessary internal process, policy, and capital allocation adjustments to allow for long-term financial viability in a low-carbon economy.

In addition, companies should articulate how transition risks are managed, particularly in markets with Nationally Determined Contributions (NDCs)<sup>7</sup> to the Paris Agreement and with regard to the risk of stranded assets and impacts on total reserves.<sup>8</sup> Countries around the world have made commitments to reduce carbon emissions. While some countries have not yet reached their peak emissions, reducing GHG emissions is an articulated priority. As of January 2021, there are 127 governments responsible for over 60% of global emissions that are considering or have implemented net zero targets.<sup>9</sup>

## Limiting Emissions

Without limiting global warming to well below 2° C above pre-industrial levels, the most destructive<sup>10</sup> impacts of climate change will be largely unavoidable. Studies suggest that we will see extreme outcomes even if global warming is limited to closer to the 1.5° C threshold.<sup>11</sup>

In order to limit global warming, GHG emissions from a variety of sources, such as transportation, energy production, and industrial processes, need to be dramatically reduced. The bulk of GHGs consist of carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>).<sup>12</sup> Carbon dioxide enters the atmosphere through the burning of fossil fuels and natural materials. Methane is predominantly emitted during the production of natural gas and oil and is also a by-product of livestock and organic waste. The shift to renewables in place of oil and gas in the context of the low-carbon transition will dramatically decrease carbon dioxide emissions and eliminate methane by-products that are flared and leaked across the value chain.

Importantly, progress over the next decade will play a critical role in determining the success of net zero GHG emissions by 2050. On this pathway, the International Energy Agency (IEA) estimates that total CO<sub>2</sub> emissions need to fall by approximately 45% from 2010 levels by 2030.<sup>13</sup> In order to meet these goals, we expect developed markets to be actively shifting away from reliance on coal as a fuel source. The IEA estimates that the demand for coal will need to fall by 60% by 2030. Companies that rely on fossil fuel intensive operations, including coal, oil, and natural gas, should likely be exploring strategic alternatives and making investments (such as those outlined below) to ensure the viability of their business operations and to avoid stranded assets.

Flaring, a process used to burn off unwanted or uncaptured gas in the production of natural gas, is also a key contributor to global warming through the release of methane into the atmosphere. Five countries<sup>14</sup> are responsible for more than 50% of the world's flaring. In order to track a net zero goal by 2050, a near elimination of flaring, with government policies and industry commitment, must occur by 2025.<sup>15</sup> Accordingly, governments and the oil and gas industry will need to work together to support the development and deployment of existing and emerging flaring reduction technologies.

Achieving net zero GHG emissions varies across industries, but in the simplest terms, this goal means balancing the emissions produced with the emissions removed from the atmosphere. Companies might achieve this goal by eliminating GHG emissions via renewable (solar, wind, hydro, etc.) energy in place of carbon-intensive fossil fuels. Companies might also augment their existing processes and retrofit equipment with carbon capture and storage capabilities,<sup>16</sup> sometimes using industrial off-gasses to fuel additional energy needs.

The value chain is also extremely important—in order to create a sustainable net zero economy, companies should analyze the GHG emissions impact of their product offerings and consider solutions for reduction efforts.

We recognize that companies may use carbon offsets in the near- and medium-term as they innovate to develop the technology that will support further reductions in their overall GHG emissions. We see carbon offsets as an interim complement, though not a replacement for, substantive and sustained long-term emissions reductions plans aligned with

science. We welcome recent work to develop<sup>17</sup> a standardized, transparent, and verifiable approach to purchasing and utilizing carbon credits. This standardization also aims to help direct private financing to climate-action projects and support investment in the innovation required to lower the cost of emerging climate technologies.

## **Rigorous Targets**

The path towards net zero may not be linear or streamlined; however, companies should provide adequate disclosure and articulate strategic changes that may impact progress, either negatively or positively. Short-, medium-, and long-term targets allow investors and other stakeholders to track progress and identify innovative leaders.

Specifically, we expect companies to disclose scope 1 and scope 2 emissions and accompanying GHG reduction targets. Companies in carbon-intensive industries should also disclose scope 3 emissions. A significant portion of the transition to a low-carbon economy hinges on the eventual retirement of fossil fuels, and it is particularly important for investors to understand the scope 3 emissions profile of oil, gas, and coal companies as the primary source of fuel transitions from carbon-intensive solutions to cleaner alternatives. The viability of these fuel sources will also become diminished as companies within the transportation and energy value chain, such as original equipment manufacturers, auto-makers, and utilities, accelerate the design of battery, electric, and hydrogen powertrains to further mitigate emissions and prioritize clean energy use.

Industry bodies, such as the Science Based Targets Initiative<sup>18</sup> provide guidance and assurance processes for companies to set targets aligned with less than 2° C of warming and to track milestones. While concrete transition pathways are still under development for some sectors, BIS compares companies across peer sets to identify best in class operators and contributors to low-carbon solutions. Increasingly, companies' transition readiness and strategy play into the view of credit and environmental, social, and governance (ESG) ratings agencies. These third parties are important drivers of the re-allocation of capital towards sustainable companies.

We recognize that some countries in developing markets and Asia have not yet reached peak emissions, as outlined by their NDCs. In these countries, the corporate dialogue around curbing GHG emissions is earlier and engagement on climate risk and the energy transition is more nascent. As such, our expectations for these countries are proportionate. We ask that companies in developing markets and Asia begin to disclose GHG reduction targets and consider physical and transition risks, such as stranded assets, in their long-term capital expenditures and planning. While NDCs in these countries may be low for now, companies need to anticipate and prepare for policy changes that could, and will likely, be accelerated, such as the recent net zero commitments made by China, South Korea, and Japan.

We believe that the companies that critically evaluate their current baseline, set rigorous GHG emissions reduction targets, and act on an accelerated timeline are those most likely to avoid operational disruption in the future. For some companies, a careful consideration of the evolving market and changing global economy may dictate the need for a shift in business plan and strategic direction.

## **Alternative Energy Sources and Investment in Technology for the Future**

The transition to a low-carbon economy is a multi-faceted process, particularly when considered in the context of the energy needed for corporate, industrial, and manufacturing operations.

While fossil fuels have historically dominated the global energy mix, innovation and cost reduction in renewable technologies has led to profound changes in the production and consumption of energy.<sup>19</sup> The IEA estimates that renewable capacity additions will expand at a record rate of about 10% in 2021, and that by 2025, renewables will overtake coal as the largest source of global power generation, providing one-third of global electricity.<sup>20</sup> In turn, this growth is generating economic expansion in the form of lower cost energy sources and new job opportunities, while also helping to mitigate the effects of climate change by tapping into energy sources with reduced emissions.<sup>21</sup>

## Our Expectations of Boards and Management Teams

BIS expects companies to disclose a plan for how their business model will be compatible with a low-carbon economy, i.e. where global warming is limited to well below 2° C. The plan should be integrated into company strategy and include short-, medium-, and long-term targets and goals. We expect directors to have sufficient fluency in climate risk and the energy transition to enable the whole board – rather than a single director who is a ‘climate expert’ – to provide appropriate oversight of the company’s plan and targets. Members of the board and management team should have climate expertise appropriate to the company’s business model to ensure adequate consideration of these risks and opportunities in strategy and operations. Such expertise in management and the board should enable the company to provide disclosure that informs investors and other stakeholders of the company’s approach and progress in the following areas:

### 1 Mitigating risk:

Increased emissions globally are intensifying the impacts of climate change, including sea level rise and extreme weather events, which in turn impact every aspect of the economy—logistics, travel, food production, health, infrastructure, finance, housing, etc.<sup>22</sup> Additionally, global regulators are aligning on how to achieve a low-carbon transition, via country-specific net zero emissions goals, carbon taxes, regulations, investment in alternative energy, etc. Companies should consider how they will manage the impacts that these risks have on their business and demonstrate preparedness to operate in a low-carbon economy.

### 2 Capitalizing on efficiencies:

Careful consideration and evaluation of a company’s GHG footprint may lead to operational efficiencies—such as decreased energy use, streamlined manufacturing processes, and technology enhancements to reduce waste—each of which can ultimately increase long-term shareholder value.

### 3 Innovation and opportunity:

Innovation and opportunity are inherently linked. Companies that produce viable solutions to address changing market demands are best poised to capture additional market share as consumer preferences, regulation, and global demand shift. Companies also have an opportunity to utilize, and contribute to, the development of current and future low-carbon transition technologies, which are important components for the rate at which emissions can be reduced.

## In our assessment of a company’s approach to the transition to a low-carbon economy, BIS may consider:

- ✓ How the board and management are considering the physical and transition risks of climate change on the company, alongside opportunities for energy efficiencies and use of renewable resources
- ✓ How the company is adjusting its strategy and/ or capital allocation plans to address the risks and opportunities identified
- ✓ How the company is assessing the potential for changes in demand for goods or services due to climate change (including consumer preferences)
- ✓ How the company has assessed its current emissions baseline, set rigorous targets, and evaluated whether it is aligned with net zero GHG emissions by 2050
- ✓ Whether the company is stress-testing its assets and assessing the resilience of its strategy under a less than 2° C scenario; including the impacts of policies, such as a carbon tax, fuel selections, and/ or efficiency standards, on profitability
- ✓ How the company may be harnessing sustainable solutions to take advantage of new investment opportunities, business lines, or products and access to capital
- ✓ How the company is monitoring the regulatory landscape and whether it is participating in relevant policy discussions, including international, national, and local requirements and trends

## Consistent Reporting and Disclosure is Critical

Investors need comparable, consistent, and comprehensive information in order to assess companies’ long-term transition plans and near-term actions. Effective disclosure of climate-related risks and GHG emissions data enables investors to make more informed asset allocation decisions. It also allows markets to correctly price the financial impact of climate change, which in turn ensures the reallocation of capital necessary to transition to a low-carbon economy.

On behalf of our clients, as long-term investors, we advocate for disclosures aligned with the reporting frameworks developed by the Task Force on Climate related Financial Disclosures (TCFD) and the Sustainability Accounting Standards

Board (SASB). These frameworks cover the physical, liability, and transition risks associated with climate change. They guide companies in providing financially material and decision-useful information that is comparable within each industry. The four pillars of the TCFD—governance, strategy, risk management, and metrics and targets—provide an opportunity for companies to disclose standardized information, in both data and narrative form.

We believe that the TCFD framework and SASB metrics are highly complementary; companies are well-served to consider them in tandem. We are aware of, and actively advocate for, accelerated efforts to establish global sustainability reporting standards, such as that underway by the International Financial Reporting Standards (IFRS) Foundation.<sup>23</sup> As efforts advance on converging standards, we will continue to advocate for TCFD and SASB-aligned reporting, so investors have information from companies relevant to assessing plans, actions, and outcomes. Importantly, guidance from each of the International Accounting Standards Board (IASB) and the International Audit and Assurance Standards Board (IAASB) indicate that under existing standards, companies may need to take climate risk, including the impact of the transition to a low-carbon economy, into consideration in the materiality judgments underpinning their financial statements.<sup>24,25</sup> We anticipate that climate risk will become a key financial reporting matter at companies with carbon-intensive business models or that otherwise have a material exposure to climate risk.

### **Holding Boards Accountable**

As explained in BIS' market-specific voting guidelines, where corporate disclosures are insufficient to make a thorough assessment, or a company has not provided a credible plan to transition its business model to a low-carbon economy, including short- medium- and long-term targets, we may vote against the directors we consider responsible for climate risk oversight. We may also support shareholder proposals that we believe address gaps in a company's approach to climate risk and the energy transition. We view this as the appropriate escalation where we see a lack of urgency and progress in a company's actions around climate risk. In some instances, we may also support shareholder proposals where a company is moving in the right direction, but we feel attention to the issue could be accelerated.

While we recognize the different context for companies in developing markets and Asia, we expect them to be taking action to reduce their carbon emissions and have credible strategies to address transition risks, in anticipation of regulatory commitments to reach peak emissions and move towards net zero.

### **Conclusion**

Underlying our desire for greater disclosure on emissions baselines, GHG reduction targets, and transition plans, is our conviction that climate risk is investment risk. Solutions to climate change and the transition to a low-carbon economy require concerted effort on the part of companies, including assessing their operations and adapting their businesses to remain resilient.

Through our engagement and voting, we aim to continue to advance the management and reporting of climate-related risks, and to encourage companies to harness opportunities presented by the transition to a low-carbon economy. We believe that these efforts are a crucial component of our fiduciary duty to our clients to deliver sustainable long-term financial returns.

## Endnotes

1. The global aspiration is reflective of aggregated efforts; companies in developed and emerging markets are not equally equipped to transition their business and reduce emissions at the same rate. Those in developed markets with the largest market capitalization are better positioned to adapt their business models at an accelerated pace. Government policy and regional targets may be reflective of these realities.
2. McKinsey Global Institute. "[Climate Risk and Response: Physical Hazards and Socioeconomic Impacts](#)." 16 January 2020.
3. Intergovernmental Panel on Climate Change (IPCC). 2018. "[Global Warming of 1.5°C](#). An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty."
4. Intergovernmental Panel on Climate Change (IPCC). 2018. "[Summary for Policymakers](#)." In: "Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty" [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. World Meteorological Organization, Geneva, Switzerland, 32 pp.
5. The Intergovernmental Panel on Climate Change (IPCC) set forth how 1.5°C and 2°C of warming are likely to affect human populations and natural systems – with a notable escalation of economic and ecosystem impacts between these two temperatures. The IPCC report found that achieving the 1.5°C target would require emissions to decrease to net zero by 2050, necessitating far-reaching transitions across the global economy in energy, land, urban, infrastructure, and industrial systems. Learn more at "[Financing the Low-Carbon Future, Climate Finance Leadership Initiative](#)." September 2019.
6. Marcacci, S. "[Renewable Energy Job Boom Creates Economic Opportunity as Coal Industry Slumps](#)." Forbes. 22 April 2019.
7. [Nationally Determined Contributions \(NDCs\)](#) refer to the self-determined climate plans by each country to reduce national emissions and adapt to the impacts of climate change in the context of their national priorities, circumstances, and capabilities. NDCs must be submitted every five years.
8. Stranded assets are those that at some time prior to their anticipated useful life are no longer able to earn an economic return as a result of changes associated with the transition to a low-carbon economy. These assets are worth less than expected as result of changes associated with the energy transition. Stranded assets can include construction costs that may not be recouped; capital that has to be retired before being amortized; loss of premiums or loss of insurance coverage; unanticipated or premature write-downs; and, oil and gas resources that are owned but are no longer profitable to extract.
9. Climate Action Tracker. "[Paris Agreement turning point](#). Wave of net zero targets reduces warming estimate to 2.1°C in 2100. All eyes on 2030 targets." December 2020.
10. Pomeroy, R. "[5 things we learned about climate change at Davos 2020](#)." WEF. 24 January 2020.
11. See endnote #3.
12. United States Environmental Protection Agency (EPA). "[Overview of Greenhouse Gases](#)."
13. International Energy Agency (IEA). "[World Energy Outlook 2020](#)."
14. Russia, Iraq, Iran, Algeria and the United States were responsible for more than half of global flaring. See IEA's "[Flaring Emissions Tracking Report](#)" for June 2020.
15. See endnote #14.
16. In order to fully decarbonize the power sector, in addition to switching to renewable energy, the final 20% towards a goal of net zero will require investment in more expensive technologies such as bioenergy, hydrogen and carbon capture, utilization and storage.
17. Taskforce on Scaling Voluntary Carbon Markets. "[Summary Pack](#)." 25 January 2021.
18. Science Based Targets. "[Ambitious Corporate Climate Action](#)."
19. The expansion of the renewable energy sector including solar, wind, hydro, tidal, geothermal, bioenergy, nuclear, hydrogen, and fuel cells is driven by advances in technology, falling costs, public policy, and regulatory support.
20. International Energy Agency (IEA). "[Renewables 2020](#)."
21. International Renewable Energy Agency (IRENA). "[Renewable Energy: Measuring the Economics](#)." 2016.
22. Blohmke, J., Coppola, M., and Krick, T. "[Feeling the heat? Companies are under pressure on climate change and need to do more](#)." Deloitte Insights. 12 December 2019.
23. The [International Financial Reporting Standards \(IFRS\)](#) was established to develop a single set of globally accepted accounting standards and to promote and facilitate their adoption. BlackRock strongly agrees that there is a need for a global set of internationally recognized sustainability reporting standards. We believe the IFRS Foundation has a central role to play in setting such standards, given its domain expertise and the relationships it has with public policy makers and market regulators, which are essential to establishing a credible reporting system that achieves global recognition and adoption. We suggest that a Sustainability Standards Board would be most effective if it were to build on the work of the private sector initiatives that have made considerable progress to date on sustainability reporting. Learn more at "[Sustainability Reporting: Convergence to Accelerate Progress](#)"
24. Anderson, N. "[IFRS Standards and climate-related disclosures](#)." IFRS. November 2019.
25. International Auditing and Assurance Standards Board (IAASB). "[IAASB issues staff audit practice alert on climate-related risks](#)." 1 October 2020.

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