

A photograph of a wind farm on a rolling green hill at sunset. Numerous white wind turbines are visible, with the sun low on the horizon, casting a warm orange glow. The text is overlaid on the lower left of the image.

# **CORPORATE CLIMATE ACTION PLANS**

A Brief Guide for Canadian Investors

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## A Brief Guide for Canadian Investors

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## Executive summary

A corporate climate action plan (CAP) is a company's road map to net-zero. CAPs, which may also be referred to as climate transition plans, are time-bound strategic plans outlining how a company will alter its current business model to achieve net-zero emissions. In line with the internationally binding Paris Agreement, achieving net-zero is the first step in keeping global warming below 1.5°C.

In this investor brief, SHARE breaks down how investors can hold publicly traded companies accountable for their environmental, social and governance commitments by monitoring their CAP. CAPs, if developed properly, will provide investors with decision-useful information that will allow them to understand:

1. Whether the company has set a 1.5°C-aligned emissions reduction target.
2. Whether the company's business model aligns with its emissions reduction targets.
3. The specific approach(es) that a company intends to take to address any misalignment.

As a starting point, investors should ensure that companies have applied the following principles to their climate planning and strategy:

1. **Targets:** Set comprehensive, science-based, quantitative interim and long-term targets across all material emission scopes aligned with a 1.5°C pathway and net-zero ambition.

2. **Strategy:** Outline a robust strategy to deliver emissions reductions targets in a time-bound manner, ensuring that quantifiable impacts are disclosed and investments are aligned.
3. **Actions:** Detail the planned activities that will achieve emissions reductions targets, prioritizing concrete and immediate actions that decrease absolute emissions within value chains.
4. **Reporting:** Provide annual transparent and independently verified disclosure on progress and impact.

While monitoring is important, a CAP alone will not be enough without proper governance and management structures in place. Therefore, investors should expect companies to disclose a host of information on other climate-related topics, including governance, transition-related company policies and political lobbying alignment.

This report brings together international reporting and other related standards, providing important Canadian context for investors, including background information on the *Canadian Net-Zero Emissions Accountability Act*.





# 01

## Introduction

### Purpose

This brief is intended to provide investors with practical information regarding what they can and should expect of climate action plans (CAPs), also referred to as climate transition plans, as produced by publicly traded companies in Canada. The brief outlines details surrounding specific principles investors should expect of Canadian companies as they develop plans to navigate the economic transition toward a low-carbon and net-zero economy.

### Background

In December 2015, 196 countries signed the Paris Agreement – a landmark treaty aimed at limiting global temperature rise to below 2°C, and progressing efforts to limit the rise to 1.5°C compared with pre-industrial levels.

To achieve this goal, countries needed to peak global greenhouse gas (GHG) emissions as soon as possible, eventually halving emissions by 2030<sup>1</sup> and reaching net-zero emissions by 2050. As part of the treaty, countries

are required to submit Nationally Determined Contribution (NDC) targets to the United Nations Framework Convention on Climate Change every five years.

As more corporations set 2050 net-zero goals, investors must ensure that Canadian companies deliver on their climate commitments, in line with the Paris Agreement. Regulators like the Canadian Securities Administrators and the Office of the Superintendent of Financial Institutions are looking to adopt mandatory climate-related disclosure regulations in the near future, including specific requirements for publicly disclosed climate transition plans. Therefore, it will become

<sup>1</sup> According to the IPCC, we will need to reduce emissions by 43% by 2030 across all sectors, which for many high-carbon sectors will mean even more significant reductions. IPCC, *The Evidence Is Clear: The Time for Action Is Now. We Can Halve Emissions by 2030*, April 4, 2022.

increasingly important for companies to be transparent about their approach to managing the risks and opportunities associated with climate change in the face of a growing scientific consensus on the need for a rapid transition to a low-carbon economy.

## Upping the Ambition

Limiting global warming to 1.5°C above pre-industrial levels will be impossible without significant system transformations, including profound transitions in the global energy, industry, urban and land systems that involve:<sup>2</sup>

- Full or near-full decarbonization of energy and industrial CO<sub>2</sub> emissions, and a zero-emissions energy supply system, by 2050 at the latest.









- Eliminating CO<sub>2</sub> emissions associated with agriculture, forestry and land use.
- Deep reductions in non-CO<sub>2</sub> GHG emissions from all sectors.
- Removing CO<sub>2</sub> from the atmosphere to neutralize residual emissions and, potentially, sustains net-negative emissions that reduce cumulative CO<sub>2</sub> in the atmosphere over time.

In April 2022, the Intergovernmental Panel on Climate Change (IPCC) released the third part of its Sixth Assessment Report, *Climate Change 2022: Mitigation of Climate Change*. According to the report, overshooting the 1.5°C target set under the Paris Agreement is “almost inevitable,” as current policies would lead to 3.2°C of warming by 2100. That said, the overshoot could be temporary, and temperatures could return to 1.5°C by the end of the century if countries seek to reduce GHG emissions drastically this decade.<sup>3</sup>

Figure 1 – The Significance of a 1.5°C Trajectory

In 2018, two years after the Paris Agreement was signed, the IPCC released a special report titled *Global Warming of 1.5°C*. In the report, the IPCC highlights that countries must limit warming to below 1.5°C, as a 2°C global temperature increase would have catastrophic climate impacts (Figure 1). Despite the most recent science outlining the need for countries and companies to strengthen their climate ambitions to align with a 1.5°C scenario, this change has been slow to receive public attention and support.

### Human health, safety, and food security impacts

1.5° C		2° C Impact comparison	
	Global population exposed to severe heat at least once every five years <b>14%</b>		<b>37%</b> <b>2.6x</b> worse
	Reduction in maize harvest in tropics <b>3%</b>		<b>7%</b> <b>2.3x</b> worse
	Amount of sea-level rise by 2100 <b>50 cm</b>		<b>60 cm</b> Risk to <b>10M</b> more people
	Decline in marine fisheries <b>1.5M tonnes</b>		<b>3M tonnes</b> <b>1.86x</b> worse

Source: Intergovernmental Panel on Climate Change

Figure 1 – Human health and safety impacts from a 1.5°C increase (CBC, *How shaving half a degree off global warming targets could lessen the effects of climate change*, October 2018)

2 Science Based Targets initiative (SBTi), *SBTi Corporate Net-Zero Standard*, October 2021

3 According to the IPCC, the carbon budget allocated would provide an 83% probability of limiting global warming to 1.5°C beyond pre-industrial levels. The SBTi's 1.5°C-aligned carbon budget assumes that, in aggregate, global 2050 emissions stay within a 500 GT carbon budget under the assumption of about 20–40 GT of cumulative CO<sub>2</sub> removal by 2050. IPCC, *Climate Change 2022: Mitigation of Climate Change*, November 2021.



The International Energy Agency's (IEA's) net-zero 2050 scenario forecasts that global oil demand will decline from 100 million barrels per day in 2020 to 24 million barrels per day by 2050. For Canada, a country where upstream and midstream oil and gas comprises a significant portion<sup>4</sup> of its overall GDP<sup>5</sup> and GHG emissions profile, that change in demand will have significant impacts on the shape of the country's economy.

According to the IPCC, meeting climate change goals will require "rapid and far-reaching transitions in energy, land, urban and infrastructure (including transport and buildings), and industrial systems." These system transitions are unprecedented in terms of scale, but not necessarily in terms of speed, and imply deep emissions reductions in all sectors.<sup>6</sup>

It is clear that there can no longer be any allowance for companies seeking to maintain a "business as usual" course or to "greenwash" the impact of their activities, leaving other economic actors to bear the direct and indirect costs of the low-carbon transition.

## The Canadian Context

In June 2021, the Government of Canada enacted the *Canadian Net-Zero Emissions Accountability Act* to enshrine Canada's net-zero by 2050 commitment into Canadian legislation.

Aligned with the Paris Agreement, the Act establishes a legally binding process requiring the country to set five-year emissions reduction targets with credible, science-based plans to achieve each target.<sup>7</sup>

Pursuant to the Act, the Government of Canada launched its *2030 Emissions Reduction Plan* with an enhanced NDC target to reduce emissions to 40% below 2005 levels by 2030. While achieving these reductions poses a monumental challenge for Canada, it is arguably not enough. Current evaluations of Canada's approach to climate action have deemed it "highly insufficient," consistent with up to a 4°C warming.<sup>8</sup>

4 Statistics Canada, *Gross Domestic Product (GDP) at Basic Prices, by Industry, Monthly (x 1,000,000) (Table 36-10-0434-01)*.

5 Including associated activities such as oil and gas engineering and construction, refineries and pipeline transportation, the sectors account for approximately 12% of Canada's overall GDP. Statistics Canada, *Gross Domestic Product (GDP) at Basic Prices, by Industry, Monthly (x 1,000,000) (Table 36-10-0434-01)*.

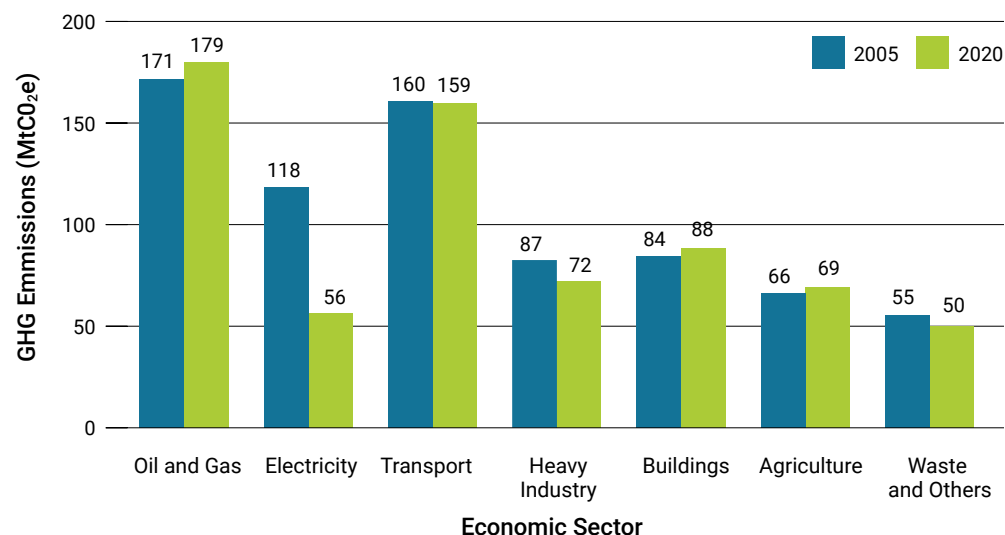
6 IPCC, *Summary for Policymakers*, in: *Special Report: Global Warming of 1.5°C*, October 2018.

7 Government of Canada, *Canadian Net-Zero Emissions Accountability Act*, March 2022.

8 Climate Action Tracker, *Canada*, last updated September 15, 2021.

Figure 2 – Canada's GHG Emissions by Economic Sector

Canada's GHG emissions by economic sector in 2005 vs. 2020 (Source: Environment and Climate Change Canada, *Greenhouse gas sources and sinks in Canada: executive summary 2022*, July 2022)



Canada has consistently failed to achieve its existing targets over the last three decades and is not forecasted to meet its 2030 target.<sup>9</sup> As can be seen in Figure 2, Canada's GHG emissions have remained relatively consistent across most of its economic sectors, apart from electricity, which has decreased significantly since its baseline year of 2005.

When examining Canada's role in carbon reductions from an equity-based (or "fair share") approach, the picture only gets worse. Canada is among the largest "climate debtors" to other nations on a per capita basis, and additional emissions only exacerbate

that debt. Canada has yet to set territorial emissions targets aligned with a 1.5°C pathway, much less do its fair share in the collective global effort. It is critical to understand that reversing these trends will not happen unless the companies operating within Canada's borders (and contributing to the country's national emissions inventory) take drastic actions to, at a minimum, align their decarbonization efforts with Canada's current territorial emissions targets. In many cases, companies will have to go beyond Canada's targets and reduce emissions further to align with a net-zero 1.5°C pathway.

<sup>9</sup> Karine Péloffy and Nick Zrinyi, *Canada's Fair Share of Emissions Reductions under the Paris Agreement*, April 2021.





# 02

## CAPs

### What Are CAPs?

A corporate CAP, which may also be referred to as a climate transition plan, is a time-bound strategic plan outlining how a company will alter its current business model, strategy and actions to align with a pathway for achieving net-zero emissions from economic activity consistent with keeping global warming to below 1.5°C. Put another way, a CAP can be seen as a company's road map for how it will get to net-zero.

To address the systemic and unhedgeable risk of climate change, investors must ensure that the companies they invest in are able to adjust their business models to adapt to new opportunities and constraints imposed by a net-zero economy. Therefore, companies seeking to attract and retain the long-term capital required to finance their net-zero transition are increasingly being asked by investors to provide credible, decision-useful information on their ability to

manage climate risks and take advantage of climate-related opportunities as they arise.<sup>10</sup>

CAPs can, if developed properly, provide investors with decision-useful information to help guide their capital allocation and investment decisions, optimize engagement strategies, inform annual general meeting voting decisions and feed into an investor's own low-carbon portfolio alignment efforts.

<sup>10</sup> Investor Group on [Climate Change, Corporate Climate Transition Plans: A Guide to Investor Expectations](#), March 2022, p. 3.

Table 1 – Examples of climate-related topics that companies should disclose alongside their climate action plans

TOPIC	EXAMPLES
<b>Governance</b>	<ul style="list-style-type: none"> <li>Structures, roles and responsibilities for climate oversight</li> <li>Climate-specific competency and expertise at the highest levels of the organization</li> <li>Executive remuneration aligned with the company's CAP</li> </ul>
<b>Transition-related company policies</b>	<ul style="list-style-type: none"> <li>Just transition (e.g., policies for engaging workers and communities impacted by the phase-out of fossil fuels)</li> <li>Fossil fuel finance exclusion (i.e., no new exploration projects for fossil fuels beyond those already sanctioned by the end of 2022)</li> <li>Indigenous rights (i.e., assessment and mitigation of specific impacts on Indigenous communities and businesses)</li> </ul>
<b>Political lobbying alignment</b>	<ul style="list-style-type: none"> <li>Lobbying policies aligned with a company's decarbonization efforts</li> <li>Full disclosure regarding direct and indirect lobbying efforts on climate-related regulations and policy</li> </ul>

## Summary of Investor Expectations

Though the form and structure of a CAP may vary, to be considered decision-useful it should provide investors with a view to the following aspects of a company's approach to managing climate risks and opportunities:

1. Whether the company has set an emissions reduction target, and if so, whether that target is aligned with the most ambitious 1.5°C-aligned decarbonization pathway available to the company.
2. Whether the company's current business model (including products and services, target market and anticipated costs) is aligned with its emissions reduction target(s).
3. The specific approach(es) that a company intends to take to address either target or business model misalignment.

## Guiding Principles

As a starting point toward effectively analyzing and evaluating a company's CAP, investors expect the following baseline requirements in relation to a company's approach to addressing climate risks and opportunities:

1. A comprehensive, science-based, quantitative interim (before 2030) and long-term (by or before 2050) **net-zero targets** across all material emissions scopes, aligned with a 1.5°C decarbonization pathway.
2. A **robust strategy** to deliver emissions reductions targets in a time-bound manner, ensuring that quantifiable impacts are disclosed and investment commitments (capital expenditures) are aligned.
3. A detailed breakdown of **planned activities** to achieve its targets, with an emissions mitigation hierarchy focused on concrete and immediate actions that decrease absolute emissions throughout its value chain.
4. An annual **transparent disclosure** on progress and impact, independently reviewed and verified by an external party.

While this brief focuses on the emissions reduction aspects of corporate CAPs, it is important to note that a robust decarbonization plan will not be enough without proper governance and management structures in place. Therefore, investors should expect companies to disclose a host of information on climate-related topics, such as governance, transition-related company policies and political lobbying alignment (Table 1).



# 03

## Key Elements

### Summary of Investor Expectations in Credible Climate Action Plans

1 – TARGETS	
1.1 Net-Zero Ambition	<ul style="list-style-type: none"><li>• The company has set a target to achieve net-zero GHG emissions with an ambition date set relative to a science-based and sector-specific 1.5°C decarbonization pathway.</li></ul>
1.2 Interim Targets	<ul style="list-style-type: none"><li>• The company has set interim science-based 1.5°C-aligned GHG emissions reduction targets on or before 2030.</li></ul>
1.3 Target Methodology	<ul style="list-style-type: none"><li>• The company has set absolute or intensity science-based emissions reductions targets.</li></ul>
	<ul style="list-style-type: none"><li>• The company has set targets on an organizational level, including all scope 1 and 2 emissions as well as all relevant scope 3 emissions.</li></ul>
	<ul style="list-style-type: none"><li>• The company's baseline year, emissions and emissions methodology used to set targets are most reflective of the company's typical GHG emissions profile.</li></ul>
1.4 Target Alignment and Verification	<ul style="list-style-type: none"><li>• The company has received third-party verification that their interim and long-term emissions reduction targets are aligned with relevant sectoral or global 1.5°C decarbonization pathways.</li></ul>

## 2 – STRATEGY

<b>2.1 Climate Scenario Analysis</b>	<ul style="list-style-type: none"> <li>The company has conducted a climate scenario analysis, including a 1.5°C scenario that identifies key climate risks and opportunities and discloses assumptions and estimates used.</li> </ul>
<b>2.2 Financial Plan</b>	<ul style="list-style-type: none"> <li>The company outlines a time-bound (three to five years) financial plan describing how future capital expenditure aligns with supporting a 1.5°C decarbonization pathway.</li> </ul>
<b>2.3 Business Plan</b>	<ul style="list-style-type: none"> <li>The company outlines how its business strategy will evolve and adapt to align with a 1.5°C scenario.</li> </ul>
	<ul style="list-style-type: none"> <li>The company has developed a timeline or roadmap describing how it plans to achieve its net-zero ambition, including estimated emissions impact associated with each step or activity and how its business model needs to evolve to achieve its targets.</li> </ul>

## 3 – ACTIONS

<b>3.1 Operations and Production</b>	<ul style="list-style-type: none"> <li>The company's current and planned initiatives undertaken to decarbonise direct operations and production, including an estimate of total emissions reduction from each initiative.</li> </ul>
<b>3.2 Green Products and Services</b>	<ul style="list-style-type: none"> <li>The company's current and planned products and services that support or de-risk the net-zero transition, including an estimate of total emissions reduction through planned changes.</li> </ul>
<b>3.3 Value Chain</b>	<ul style="list-style-type: none"> <li>The company's current and planned engagement activities with stakeholders across the value chain to support the development and implementation of transition plans, including an estimate of total emissions reduction expected from these activities.</li> </ul>
<b>3.4 Offsets, Credits and Other Technologies</b>	<ul style="list-style-type: none"> <li>The company describes their emissions mitigation hierarchy and reliance on carbon offsets, credits and unproven or commercially unavailable technologies.</li> </ul>

## 4 – REPORTING

<b>4.1 Greenhouse Gas Key Performance Indicators</b>	<ul style="list-style-type: none"> <li>The company defines and annually reports on its gross greenhouse gas emissions (scopes 1, 2 and 3) and other key climate-related indicators to compare year-on-year performance and progress against baseline.</li> </ul>
<b>4.2 Third-Party Emissions Verification</b>	<ul style="list-style-type: none"> <li>The company has received third-party assurance for its GHG emissions inventory.</li> </ul>



# 1 – Targets

1 – TARGETS	
1.1 Net-Zero Ambition	<ul style="list-style-type: none"> <li>The company has set a target to achieve net-zero GHG emissions with an ambition date set relative to a science-based and sector-specific 1.5°C decarbonization pathway.</li> </ul>
1.2 Interim Targets	<ul style="list-style-type: none"> <li>The company has set interim science-based 1.5°C-aligned GHG emissions reduction targets on or before 2030.</li> </ul>
1.3 Target Methodology	<ul style="list-style-type: none"> <li>The company has set absolute or intensity science-based emissions reductions targets.</li> </ul>
	<ul style="list-style-type: none"> <li>The company has set targets on an organizational level, including all scope 1 and 2 emissions, as well as all relevant scope 3 emissions.</li> </ul>
	<ul style="list-style-type: none"> <li>The company's baseline year, emissions and emissions methodology, used to set targets, are most reflective of the company's typical GHG emissions profile.</li> </ul>
1.4 Target Alignment and Verification	<ul style="list-style-type: none"> <li>The company has received third-party verification that their interim and long-term emissions reduction targets are aligned with relevant sectoral or global 1.5°C decarbonization pathways.</li> </ul>

## 1.1 Net-Zero Ambition

As a starting point, **companies should adopt a target to achieve net-zero emissions across their entire value chain (scopes 1–3), with an ambition date set relative to a science-based and sector-specific 1.5°C decarbonization pathway.** Most commonly, this will involve a declared ambition to achieve net-zero GHG emissions by 2050 at the latest.<sup>11</sup>

### Net-Zero vs. Carbon-Neutral Ambitions

Although often used interchangeably, the terms “net-zero” and “carbon neutral” have very different meanings and implications. While “net-zero” describes a state where **anthropogenic GHG emissions are balanced by anthropogenic removals**, “carbon neutral” describes a state **where only CO<sub>2</sub> emissions are balanced by corresponding CO<sub>2</sub> removals**.<sup>12</sup> Table 2 highlights the key differences between the two terms. As companies continue to set climate-related targets and commitments, it is important that investors seek clarification on how individual companies define their net-zero or carbon-neutral commitments, along with which scopes of emissions are covered in their commitments.

Table 2 – Key differences between net-zero vs. carbon-neutral claims

NET-ZERO	CARBON NEUTRAL
<ul style="list-style-type: none"> <li>Includes all GHG emissions covered under the Paris Agreement</li> <li>Prioritizes activities according to an emissions mitigation hierarchy to reduce emissions in line with what science requires to limit warming to 1.5°C</li> </ul>	<ul style="list-style-type: none"> <li>Covers CO<sub>2</sub> emissions but may not cover other GHG emissions</li> <li>Can be achieved by purchasing carbon offsets<sup>13</sup> without substantial reduction of absolute emissions first</li> <li>Does not align with limiting warming to 1.5°C since deep emissions reductions are not achieved</li> </ul>

11 According to the IEA's [Net-zero by 2050](#) report (May 2021), while 2050 is considered the natural trajectory for achieving net-zero emissions across most sectors, it is widely accepted that certain sectors may be able to achieve net-zero emissions earlier. For example, companies in the utilities sector are expected to be net-zero by 2035 (p. 117).

12 IPCC, [Annex I: Glossary](#), in: [Special Report: Global Warming of 1.5°C](#), October 2018.

13 See Appendix B for further details.

## 1.2 Interim Targets

While an ambition to be net-zero by 2050 – at the latest – demonstrates that companies are committed to reducing emissions to limit global temperature rise to under 1.5°C, at society's current pace of GHG emissions, the global carbon budget required for a chance of limiting planetary warming to below 1.5°C will be exhausted by 2030. The trajectory of decarbonization is as important as the destination, which means that **a net-zero ambition is credible only if it is paired with interim targets for significant decarbonization on or before 2030.**

## 1.3 Target Methodology

### Intensity vs. Absolute

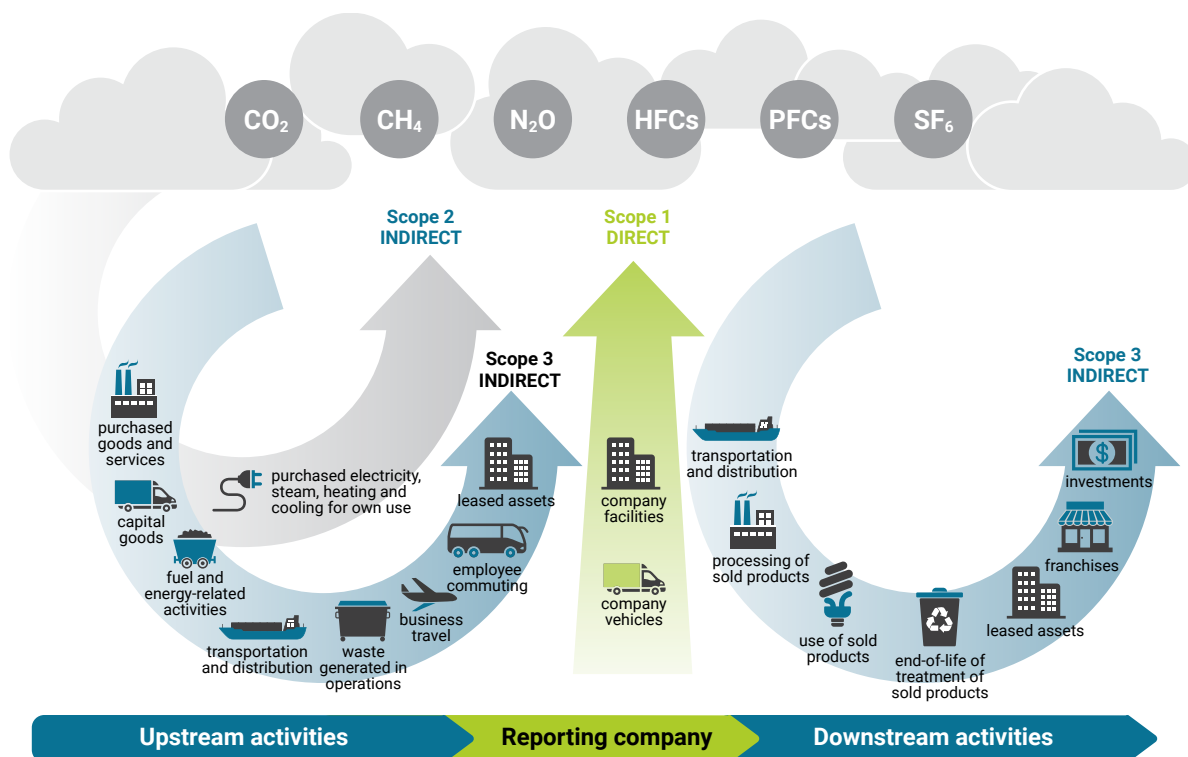
Ultimately, it will be the absolute emissions emitted from human activity that will exhaust the planet's carbon budget, which is why absolute GHG emissions are often considered “the most relevant measure of

emissions performance for assessing a company's contribution to global warming.”<sup>14</sup> Any reduction targets expressed in terms of emissions intensity that do not also result in a reduction in absolute emissions will be considered incompatible with a 1.5°C pathway. Put differently, emissions intensity targets are acceptable only if the company also discloses the expected impact their intensity target will have in absolute terms.<sup>15</sup>

### Scopes and Boundaries

**Companies will be expected to set emissions reduction targets on an organizational level, including (to the extent possible) all scope 1 and 2 emissions, as well as all relevant scope 3 emissions.** Scope 3 category relevance should be determined in accordance with standards set by the Greenhouse Gas Protocol (GHG Protocol), which has outlined 15 general categories of emission types that may be generated by a company but that do not fall within the company's direct or indirect emissions profile (Figure 3).

Figure 3 – Overview of Scopes and Emissions Across the Value Chain

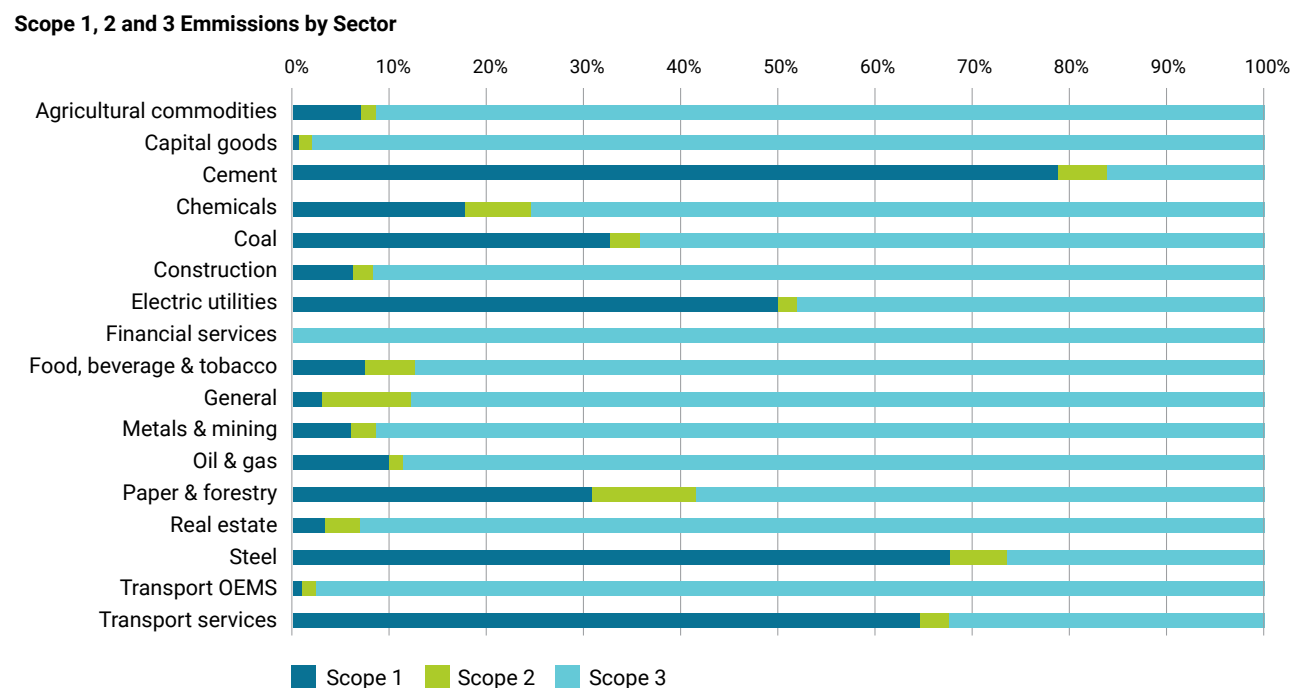


(Source: GHG Protocol, [Corporate Value Chain \(Scope 3\) Standard](#), September 2011)

14 Assessing low-Carbon Transition, [Sector Methodology: Oil & Gas](#), February 2021, p. 46.

15 Investor Group on Climate Change, [Corporate Climate Transition Plans: A Guide to Investor Expectations](#), March 2022, p. 7.

Figure 4 – Proportion of Scope 3 Emissions by Sector



(Source: CDP, [CDP Technical Note: Relevance of Scope 3 Categories by Sector](#), April 2022)

For some companies, the materiality of a particular scope 3 emissions category will be abundantly clear, such as the use of sold products (category 11) for the oil and gas sector, which comprise roughly 81% of that sector's total emissions,<sup>16</sup> while others may be less so. The Science Based Targets initiative (SBTi) requires that where a company's scope 3 emissions (across all categories) are 40% or more of the company's total emissions profile (scopes 1, 2 and 3), the company should set a scope 3 target.<sup>17</sup> Figure 4 provides a summary prepared by CDP Worldwide based, in part, on response data of the proportion of scope 3 emissions by sector.

### Target Baseline

While it is not the role of investors to prescribe the methodological decisions with respect to target baselines, not all years can be considered "typical,"

from an economic or emissions standpoint, as the COVID-19 pandemic demonstrated. **Companies should ensure that the baseline year selected for their targets remains consistent and is representative of the company's typical GHG emissions profile.**<sup>18</sup> For example, companies should avoid using years that are too far in the past to be considered relevant, or anomalous reporting years where emissions were disproportionately high or low based on extraneous factors, as was the case in 2020 for many organizations as a result of COVID-19.

### 1.4 Target Alignment and Verification

To increase credibility of corporate climate emissions reduction targets, **companies should ensure that their targets align with relevant sectoral or global 1.5°C decarbonization pathways and apply for third-party verification** (e.g., SBTi).

<sup>16</sup> CDP Worldwide, [CDP Technical Note: Relevance of Scope 3 Categories by Sector](#), April 2022, p. 37.

<sup>17</sup> SBTi, [SBTi Criteria and Recommendations](#), October 2021.

<sup>18</sup> See Chapter 5 of the GHG Protocol's [Corporate Accounting and Reporting Standard \(2015\)](#) for more information on how companies should set their base year.

## 2 – Strategy

2 – STRATEGY	
2.1 Climate Scenario Analysis	<ul style="list-style-type: none"> <li>The company has conducted a climate scenario analysis, including a 1.5°C scenario that identifies key climate risks and opportunities, and discloses assumptions and estimates used.</li> </ul>
2.2 Financial Plan	<ul style="list-style-type: none"> <li>The company outlines a time-bound (three to five years) financial plan describing how future capital expenditure aligns with supporting a 1.5°C decarbonization pathway.</li> </ul>
2.3 Business Plan	<ul style="list-style-type: none"> <li>The company outlines how its business strategy will evolve and adapt to align with a 1.5°C scenario.</li> </ul>
	<ul style="list-style-type: none"> <li>The company has developed a timeline or roadmap describing how it plans to achieve its net-zero ambition, including estimated emissions impact associated with each step or activity, and how its business model needs to evolve to achieve its targets.</li> </ul>

A comprehensive and credible CAP requires that companies have a firm grasp on the climate-related risks and opportunities posed by certain transition pathways, as well as the associated financial and strategic implications on their operations. Investors need to know the effects that significant climate-related risks and opportunities are having on a company's strategy and decision-making. This means being able to understand the resilience of a company's strategy (including its planned capital expenditures and business model) to significant climate-related risks, opportunities and related uncertainties that the company has identified.<sup>19</sup>

### 2.1 Climate Scenario Analysis

Climate scenario analysis is a vital tool that allows companies to properly evaluate and test their business models against the wide-ranging impacts of climate change. It supports decision-making under complex and changing conditions and helps guide companies through a structured exploration of different climate-related opportunities and possible alternative futures.<sup>20</sup>

As part of conducting a scenario analysis, **companies should disclose the scenarios analyzed, the parameters tested and the underlying assumptions for each scenario regarding how a particular pathway might develop.** While the scenarios selected may vary,

investors should expect a credible analysis to contain at least three publicly available scenarios (1.5°C, current policies and >2°C) relevant to the company's business model.<sup>21</sup> Scenario narratives that focus on shorter time horizons and incorporate disruptive political, weather-related and behavioural changes provide insights into key drivers of real-world uncertainty. Assumptions include the emergence and deployment of key technologies, anticipated policy developments, and changes to key variables such as the price of carbon, energy mix and commodity prices.<sup>22</sup>

Transitioning to a low-carbon world will require transformative sector-level changes in the methods of producing, selling, transporting and using goods and services that will involve interactions between and within several actors, including companies, consumers, policymakers, innovators and civil society groups.<sup>23</sup> As the low-carbon transition accelerates, the strategies, motivations and resources of these actors will change and evolve unpredictably. Ultimately, the true value in conducting a climate scenario analysis is not to arrive at a fully fleshed out vision of the future, but rather to develop the capacity and analytical tool kit needed to expand an organization's internal capacity to manage the specific uncertainties brought about by climate change (Figure 5).<sup>24</sup>

19 International Financial Reporting Standards Foundation, *Exposure Draft: Climate-Related Disclosures*, International Sustainability Standards Board, March 2022.

20 Alliance Manchester Business School and Financial Reporting Council, *Climate Scenario Analysis: Current Practice and Disclosure Trends*, October 2021.

21 Credible scenarios include those mentioned in the following documents: World Business Council for Sustainable Development, *Technical Documentation: Climate Scenario Catalogue*, March 2022, pp. 9–14; Task Force on Climate-related Financial Disclosures, *Technical Supplement: The Use of Scenario Analysis in Disclosure of Climate-Related Risks and Opportunities*, June 2017, pp. 17–19 and 21–23.

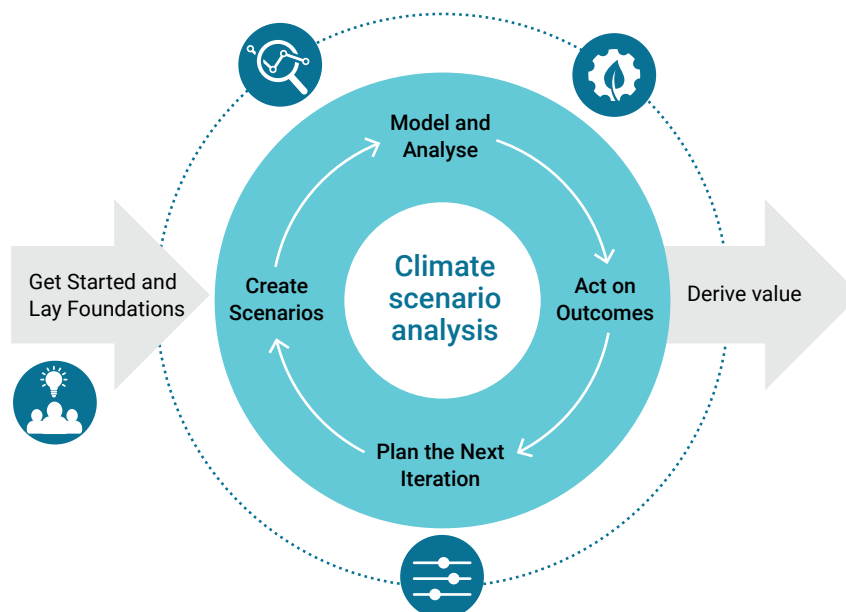
22 Task Force on Climate-related Financial Disclosures, *The Use of Scenario Analysis in Disclosure of Climate-Related Risks and Opportunities*.

23 David G. Victor, Frank W. Geels and Simon Sharpe, *Accelerating the Low Carbon Transition: The Case for Stronger, More Targeted and Coordinated International Action*, November 2019.

24 Alliance Manchester Business School and Financial Reporting Council, *Climate Scenario Analysis: Current Practice and Disclosure Trends*, October 2021, p. 36.



Figure 5 – Common Phases of Scenario Analysis



(Source: FRC, *Climate Scenario Analysis: Current Practice and Disclosure Trends*, 2021)

## 2.2 Financial Plan

To ensure that companies can decarbonize in line with a 1.5°C pathway, they need to quantify the financial impacts that addressing climate risks will have on their business. **This means ensuring that planned capital expenditures earmarked for decarbonization efforts are sufficient to support evolving business plans (Section 2.3) and carry out planned activities (Section 3).**

As an example from the **energy sector**, in a net-zero scenario, oil and gas producers will require a diversification strategy toward zero-emissions technologies<sup>25</sup> and thus should be committing to the research and development (R&D) necessary for future technologies, while ensuring that no future investment in capital assets will be stranded subsequently.<sup>26</sup> The Institutional Investors Group on Climate Change provides the following “indicators” regarding a company’s planned R&D spending for the oil and gas sector:<sup>27</sup>

- Diversifying into new areas of business and renewables.
- Working through value chains with customers to reshape demand for oil and gas.
- Offering solutions to reduce emissions.
- Ceasing exploration and running existing assets down to return cash to investors.



25 See: Jan Vandermosten, *WWF Resource Guide for Asset Owners: Selecting, Appointing and Monitoring Your Investment Manager*, June 2021; Investor Group on Climate Change, *Corporate Climate Transition Plans: A Guide to Investor Expectations*, March 2022, principle 2.6.

26 Children’s Investment Fund Foundation, *Essential Components of a Corporate Climate Action Plan*, July 2021, p. 13.

27 Institutional Investors Group on Climate Change, *Net-zero Standard for Oil and Gas*, September 2021.

For the **utilities sector**, the World Benchmarking Alliance has estimated that utility companies must be spending over 78% of their generation capital expenditure on low-carbon power generation to be fully aligned with a 1.5°C pathway.<sup>28</sup> In addition, at least 5% of overall capital expenditures should be invested in low-carbon innovation. To demonstrate that alignment, companies should also be disclosing a three- to five-year capital expenditures budget for renewable deployments.<sup>29</sup> The Investor Group on Climate Change provides the following hallmarks of a “1.5°C aligned” capital expenditures plan for the utilities sector:

- Utility companies should not invest in any new coal generation.
- Companies should ensure that any new natural gas generation will be net-zero by either 2035 or 2040.
- Companies should provide details regarding planned and actual investments in carbon capture and storage/carbon capture utilization and storage (CCS/CCUS) and commit to deploying CCS/CCUS to abate emissions from any residual fossil fuel generation still running beyond 2040 (2035 in advanced economies).
- Companies should disclose a five-year capital expenditures budget for renewable deployments.
- Where relevant, companies should disclose a five-year network infrastructure budget.



## 2.3 Business Plan

As the physical and transition risks of climate change create changes in market demand and the need for new business lines, companies will need to alter their capital expenditures, anticipate new or increasing operational expenses and develop plans for ramping up low-carbon research and development.<sup>30</sup> While a climate scenario analysis identifies what risks and opportunities the company should anticipate, the business plan describes how the company plans to integrate and act in alignment with outcomes of its analysis.

Though not exhaustive, **company business plans should describe, at a minimum, the following elements:**

1. **How the company’s business strategy will evolve and adapt to a climate-changed future.** As part of a credible CAP, companies should describe

how they plan on integrating outcomes of their scenario analysis into their core business strategy. This includes indicating how the company will tolerate disruptions, adapt to changes and grow under different climate scenarios.<sup>31</sup> For example, companies in high-emitting sectors may describe their plan for handling legacy assets, or how their business strategy will shift from carbon-intensive activities toward those that support a low-carbon economy instead.

2. **A timeline or road map of how the company plans to decrease emissions in line with a 1.5°C pathway, including estimated absolute emissions impact and defined time horizons associated with each current or planned initiative.**<sup>32</sup> Refer to Section 3 for further details.

<sup>28</sup> The Investor Group on Climate Change has suggested a three-year minimum forward-looking capital expenditures budget. Investor Group on Climate Change, *Corporate Climate Transition Plans: A Guide to Investor Expectations*, March 2022, principle 4.3.

<sup>29</sup> The Investor Group on Climate Change has suggested a three-year minimum forward-looking capital expenditures budget. Investor Group on Climate Change, *Corporate Climate Transition Plans: A Guide to Investor Expectations*, March 2022, principle 4.3.

<sup>30</sup> International Financial Reporting Standards Foundation, *Exposure Draft: Climate-Related Disclosures*, International Sustainability Standards Board, March 2022, p. 36.

<sup>31</sup> Task Force on Climate-related Financial Disclosures, *Guidance on Scenario Analysis for Non-Financial Companies*, October 2020, p. 58.

<sup>32</sup> Task Force on Climate-related Financial Disclosures, *Guidance on Scenario Analysis for Non-Financial Companies*, October 2020, p. 47.

## 3 – Actions

3 – ACTIONS	
<b>3.1 Operations and Production</b>	<ul style="list-style-type: none"> <li>The company's current and planned initiatives undertaken to decarbonise direct operations and production, including an estimate of total emissions reduction from each initiative.</li> </ul>
<b>3.2 Green Products and Services</b>	<ul style="list-style-type: none"> <li>The company's current and planned products and services that support or de-risk the net-zero transition, including an estimate of total emissions reduction through planned changes.</li> </ul>
<b>3.3 Value Chain</b>	<ul style="list-style-type: none"> <li>The company's current and planned engagement activities with stakeholders across the value chain to support the development and implementation of transition plans, including an estimate of total emissions reduction expected from these activities.</li> </ul>
<b>3.4 Offsets, Credits and Other Technologies</b>	<ul style="list-style-type: none"> <li>The company describes their emissions mitigation hierarchy and reliance on carbon offsets, credits and unproven or commercially unavailable technologies.</li> </ul>

As part of their business plan, companies should outline opportunities to decrease their most material GHG emissions sources through a well-structured approach that **prioritizes decreasing absolute emissions throughout the company's value chain by eliminating, reducing and substituting material GHG emissions sources**. This can be achieved by reducing direct emissions from the company's operations and production (Section 3.1), increasing the company's portfolio of green products and services (Section 3.2) and engaging with stakeholders in its value chain (Section 3.3).

For emissions that cannot be eliminated, reduced or substituted, companies may need to use all or a combination of the following actions to achieve net-zero GHG emissions: carbon offsets, carbon credits and unproven or commercially unavailable technologies (Section 3.4). While these tools play a role in the transition toward a low-carbon economy, it is **important to note that companies must avoid relying on them as a primary driver of decarbonization, and any reduced emissions from these actions should be excluded from the company's GHG accounting to avoid double counting**.<sup>33</sup> Ultimately, these actions are meant to address only companies with "hard to abate" emissions, meaning emissions that are currently either

cost-prohibitive or impossible to reduce with existing abatement technology.<sup>34</sup>

### 3.1 Operations and Production

**Companies should describe the measures they are taking and planning to take to reduce scope 1 and 2 emissions from their direct operations and production, including concrete numbers reflecting the emissions impact these measures have on reducing the company's overall GHG emissions.**<sup>35</sup> Put differently, companies should outline, with as much clarity as possible, the actions they will take to manage their carbon-, energy- and water-intensive operations. Examples include introducing energy-efficient management systems into the company's factories and buildings, sourcing low-carbon energy through renewable generation or power purchase agreements and decarbonizing transport fleets.<sup>36</sup>

### 3.2 Green Products and Services

**Companies should outline plans to increase their portfolio of low-carbon products and services, as well as the associated emissions impacts of such a transition.** Companies should not only discuss the planned products or services that they consider "green,"

<sup>33</sup> See Appendix B for additional information. Thierry Philipponnat, *The Problem Lies in the Net: How Finance Can Contribute to Making the World Reach Its Greenhouse Gas Net-Zero Target*, Finance Watch, June 2022; SBTi, *Getting Started Guide for the SBTi Net-Zero Standard*, April 2022; Compensate, *What Is Double Counting and Why Is It Such a Big Deal?*, April 29, 2021.

<sup>34</sup> Examples include the heavy industries (e.g., cement, steel, chemicals) and heavy-duty transport (e.g., trucking, shipping, aviation). See: Energy Transitions Commission, *Mission Possible: Reaching Net-Zero Carbon Emissions from Harder-to-Abate Sectors*, November 2018.

<sup>35</sup> Task Force on Climate-related Financial Disclosures, *Guidance on Metrics, Targets, and Transition Plans*, October 2021, p. 42.

<sup>36</sup> Children's Investment Fund Foundation, *Essential Components of a Corporate Climate Action Plan*, July 2021, p. 12.

but also provide details on how much of their product mix these products or services are intended to represent and the associated emissions reductions achieved.

A tool that has emerged in multiple jurisdictions around the world to help investors identify sustainable activities is the sustainable finance taxonomy, broadly defined as a “set of criteria which can form the basis for an evaluation of whether and to what extent a financial asset can support given sustainability goals.”<sup>37</sup> These kinds of tools can serve as useful guides for companies looking to identify the activities and products within their portfolio that can help achieve broader decarbonization goals.

While regulatory consistency will remain elusive in the absence of a unified global taxonomy, there is still value for companies in adopting the language and principles of taxonomies most relevant to their operations when developing their green product mix. For example, both the Investor Group on Climate Change and the Institutional Investors Group on Climate Change have suggested that companies use a regionally relevant green taxonomy to determine the number of green products and activities within their business mix.

### A CAUTIONARY TALE — NATURAL GAS AS A “GREEN” PRODUCT

In defining what should and should not be considered a “green” product for the energy sector, the inclusion of natural gas infrastructure within certain taxonomies and frameworks around the world has created significant controversy, and for good reason.

Natural gas is often described as a more climate-friendly alternative to coal with a lower negative climate impact than other fossil fuels, however, the GHG emissions advantage of natural gas over coal becomes marginal if approximately 3.2% to 3.4% of the gas produced – mainly consisting of methane, which is estimated to have a global warming potential 28–36 times higher than that of CO<sub>2</sub> – escapes into the atmosphere before being burned. While the total global average leakage rate is estimated to be around 2.2%, that estimate is based on incomplete and likely inaccurate research and information. Numerous studies that have investigated leakage rates at gas fields have found fugitive emissions rates of up to 6% of the total amount of natural gas produced, while other measurements have shown leakage rates of up to 17% for certain regions and circumstances.<sup>38</sup>

While enhanced regulatory and monitoring approaches to reducing fugitive and flared emissions might help address these issues in the future, given the limited GHG budget remaining, such regulations – as well as leakage control – do not change the fact that natural gas is still a fossil fuel that emits large amounts of CO<sub>2</sub> during combustion, and as such, its “green” label merits heavy scrutiny.

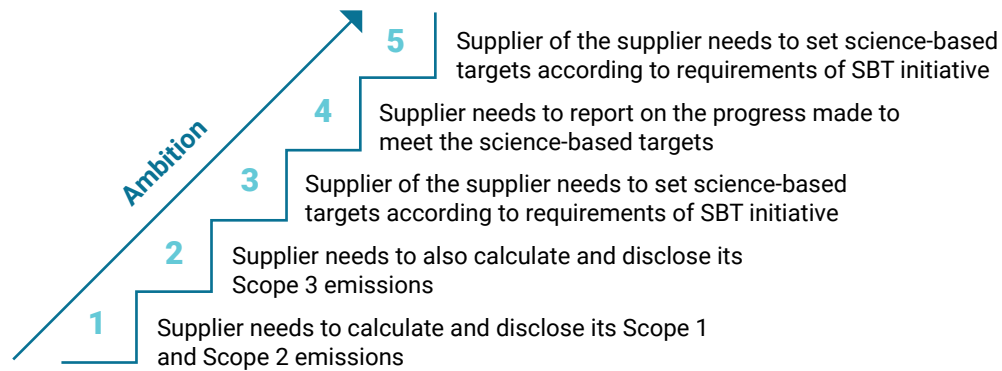


<sup>37</sup> Bank for International Settlements, *A Taxonomy of Sustainable Finance Taxonomies* (BIS Papers No. 118), October 2021.

<sup>38</sup> Claudia Kemfert, Fabian Präger, Isabell Braunger, Franziska M. Hoffart and Hanna Brauers, *The Expansion of Natural Gas Infrastructure Puts Energy Transitions at Risk*, *Nature Energy* 7(2022): 582–587, July 2022.



Figure 6 – The Ladder Approach to Supplier Emissions Reduction Targets



(Source: SBTi)

### 3.3 Value Chain

**Companies should provide an overview of engagement activities with stakeholders across the value chain to support the development and implementation of transition plans, including quantitative numbers reflecting the impact these initiatives have on reducing the company's overall GHG emissions.** For companies adopting a supply chain engagement strategy to reduce value chain emissions, the company should describe how it is identifying key suppliers to engage with, how it is integrating emissions considerations into its supply

chain decisions and how it plans to implement its strategy.<sup>39</sup> Figure 6 illustrates the approach companies can take in supporting their suppliers to set science-based emissions reduction targets.<sup>40</sup>

Alternatively, another strategy companies can take to address emissions in their value chain is customer engagement. According to the SBTi,<sup>41</sup> this strategy consists of engaging customers directly through education, collaboration or compensation, or indirectly through company regulation or customer motivation via marketing and choice architecture.

#### EXAMPLE: FOOD SECTOR

Companies in the food sector should disclose how they are supporting sustainable commodity production and the type of support the company provides (e.g., financial incentives, sustainable procurement policies, inputs and other investments).<sup>42</sup> The disclosure should include how the company is supporting producers in covering additional costs associated with shifting practices in line with new regulations and corporate commitments.<sup>43</sup>



39 SBTi, *Value Change in the Value Chain: Best Practices in Scope 3 Greenhouse Gas Management*, November 2018.

40 Companies can become members of the [CDP Supply Chain](#) to assist with streamlining, standardizing and measuring supplier progress in setting and achieving science-based 1.5°C-aligned emissions reductions targets.

41 SBTi, *Value Change in the Value Chain: Best Practices in Scope 3 Greenhouse Gas Management*, November 2018.

42 Climate Action 100+, *Global Sector Strategies: Recommended Investor Expectations for Food and Beverage*, August 2021, p. 29.

43 HSBC, *Sustainable Supply Chain Financing*.

### 3.4 Offsets, Credits and Other Technologies

As previously mentioned, **companies should not rely on carbon offsets, credits or other unproven technologies as the primary drivers of their emissions reduction strategy.** Companies should clearly disclose the share of emissions to be mitigated using offsets, reduce their reliance on offsets over time and offset only the hardest-to-abate emissions. When describing approaches to carbon neutralization such as using offsets and carbon credits, companies should provide information on whether the offsets used are subject to third-party verification or a certification scheme, the type of offset used (e.g., nature-based vs. technological, carbon removal vs. emissions avoidance) and the significant factors required to assess the credibility and integrity of offsets used (e.g., permanence).<sup>44</sup>

The IPCC notes that carbon dioxide removal is thus far unproven at scale, so reliance on it poses “a major

risk in the ability to limit warming to 1.5°C,” owing to “multiple feasibility and sustainability concerns.”<sup>45</sup> When accounting for emissions and developing strategies, companies should consider only existing (not hypothetical) carbon dioxide removal and permanent sequestration techniques, at the scale required and reported, to counterbalance their direct GHG emissions. They should clearly disclose the share of emissions to be mitigated using offsets, reduce their reliance on offsets over time and offset only the hardest-to-abate emissions.<sup>46</sup>

According to international standards such as ISO 14064-1, ISO 14067, the EU Product Environmental Footprint, and Organisation Environmental Footprint and the World Resources Institute/World Business Council for Sustainable Development GHG Protocol, carbon offsets should not be included in any GHG quantification study but may be reported separately as “Additional Environmental Information.”<sup>48</sup>

#### BLUE AND GREEN HYDROGEN – A PANACEA?

Some technologies will require incredible efforts and costs to scale up, to the point that investments might be better spent elsewhere. In the case of hydrogen, there is potential for technologies that produce no direct carbon emissions to play a role in a diversified, low-carbon economy, but there are also questions about their feasibility.

One question is about scalability. Developing the infrastructure to utilize green energy at scale will also involve incredible efforts. Of the 120 million tons of hydrogen used annually today, only a fraction (less than 0.1%) can be considered green hydrogen, which is hydrogen that is intentionally cracked from water using renewably generated electricity.<sup>47</sup>

In addition to the scalability of blue and green hydrogen are questions regarding prioritization. It is critical to remember that all hydrogen currently available is tightly chemically coupled with other substances, either fossil fuels or water. Therefore, breaking those bonds for use in any application (green, blue or grey hydrogen) naturally requires a tremendous amount of energy. In the case of both blue and green hydrogen, the technologies will require significantly cheaper and more accessible renewable electricity to become economically viable, and so will require massive amounts of public and private investment in renewables infrastructure to become a reality.



44 Oil Change International, *Canada's Big Oil Reality Check: Assessing the Climate Plans of Canadian Oil and Gas Producers*, November 2021, p. 23.

45 Joeri Rogelj, Drew Shindell, Kejun Jiang, et al., *Chapter 2: Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development*, in: *Special Report: Global Warming of 1.5°C*, IPCC, October 2018, p. 96.

46 Climate Policy Initiative, *What Makes a Transition Plan Credible? Considerations for Financial Institutions*, March 2022.

47 IEA, *The Future of Hydrogen*, June 2019.

48 Assessing low-Carbon Transition and World Benchmarking Alliance, *Oil and Gas: Questions on the Methodology*, in: *ACT & WBA – Technical FAQs*, November 2021.

## 4 – Reporting

4 – REPORTING	
<b>4.1 Greenhouse Gas Key Performance Indicators</b>	<ul style="list-style-type: none"> <li>The company defines and annually reports on its gross greenhouse gas emissions (scopes 1, 2 and 3) and other key climate-related indicators to compare year-on-year performance and progress against baseline.</li> </ul>
<b>4.2 Third-Party Emissions Verification</b>	<ul style="list-style-type: none"> <li>The company has received third-party assurance for its GHG emissions inventory.</li> </ul>

### 4.1 Greenhouse Gas Key Performance Indicators

**Companies should define and annually report on their gross GHG emissions (scopes 1, 2 and 3) and other key climate-related performance indicators.**

These disclosures, alongside annual updates to a company's progress on its CAP, are essential to compare performance against baseline and to inform investors on progress in a decision-useful manner. For each scope of emissions, companies should describe the rationale for why their emissions have increased or decreased

compared with the prior year. While regulators are in the process of finalizing climate-related disclosure regulations, companies should continue to disclose GHG key performance indicators in a transparent and accessible format for investors. Examples of acceptable formats include management discussion and analysis, the Task Force on Climate-related Financial Disclosures framework and other climate-related or sustainability disclosure frameworks.<sup>49</sup> Once regulation has been implemented, companies should follow guidance described by their respective regulator(s).

Table 3 – Examples of key climate-related indicators in select sectors

<b>Automotive<sup>50</sup></b>	<ul style="list-style-type: none"> <li>Average fuel economy of passenger and light-duty vehicle fleet, weighted by footprint of vehicles sold, by geographic region</li> <li>Total percentage of low-carbon vehicle and zero-emission vehicle sales</li> <li>Total percentage of emissions associated with the company's fleet (in use)</li> <li>Total percentage of emissions associated with the company's manufacturing</li> </ul>
<b>Electric utilities</b>	<ul style="list-style-type: none"> <li>Total percentage of electricity generated, by major energy source</li> </ul>
<b>Food retailers and distributors</b>	<ul style="list-style-type: none"> <li>Total percentage of gross global scope 1 GHG emissions from refrigerants</li> <li>Total percentage of refrigerants consumed with zero ozone-depleting potential</li> <li>Total percentage of energy consumed (excluding fleet vehicles) that is renewable energy<sup>51</sup></li> </ul>
<b>Mining and materials</b>	<ul style="list-style-type: none"> <li>Total percentage of energy consumed that is renewable energy</li> </ul>
<b>Oil and gas</b>	<ul style="list-style-type: none"> <li>Total percentage of gross global scope 1 GHG emissions from methane emissions</li> </ul>

49 Task Force on Climate-related Financial Disclosures, *Guidance on Metrics, Targets, and Transition Plans*, October 2021; CDP Worldwide, *CDP Technical Note: Reporting on Transition Plans*, February 2022; Climate Policy Initiative, *What Makes a Transition Plan Credible? Considerations for Financial Institutions*, March 2022.

50 World Benchmarking Alliance, *Automotive Benchmark Insights Report*, November 2021.

51 Renewable energy as defined by the International Financial Reporting Standards Foundation refers to energy from sources that are replenished at a rate greater than or equal to their rate of depletion, such as geothermal, wind, solar, hydro and biomass. Technical Readiness Working Group, *Climate-Related Disclosures Prototype. Supplement: Technical Protocols for Disclosure Requirements*, November 2021, p. 183.

## 4.2 Third-Party Emissions Verification

**Companies should disclose the reporting standard used to develop their GHG emissions inventory and seek out third-party assurance and verification.** In alignment with emerging climate-disclosure regulations from the Canadian Securities Administrators and the Office of the Superintendent of Financial Institutions, companies should disclose emissions in line with the GHG Protocol. If a different reporting standard is used, the company should disclose how the standard it uses compares to that of the GHG Protocol.

With respect to the approach used in setting the organizational boundaries that define both the company's emissions profile and its reduction targets, The SBTi recommends that a company's organizational boundary be consistent with the organizational boundary used in the company's financial accounting and reporting procedures.<sup>52</sup>

Some sustainability reporting standards currently under development have adopted provisions requiring mandatory third-party verification of sustainability information.<sup>53</sup> Under the U.S. Securities and Exchange Commission's proposed climate-disclosure standards, accelerated and large accelerated<sup>54</sup> filers would be required to obtain assurance over their scope 1 and scope 2 emissions data. Assurance providers would need to be independent and would need to have significant experience measuring, analyzing, reporting and attesting to GHG emissions. While gaps still exist with respect to emissions data quality and availability (particularly around scope 3 emissions) that create challenges for both companies and auditors, external assurance still serves the crucial role of providing investors with confidence in the methodological and scoping choices that companies make in their emissions calculations and disclosures.

<sup>52</sup> SBTi, *SBTi Criteria and Recommendations*, October 2021.

<sup>53</sup> For example, see: [EFRAG, Sustainability Reporting Standards Interim Draft](#).

<sup>54</sup> As defined by the U.S. Securities and Exchange Commission, accelerated filers are issuers with a public float of \$75 million or more but less than \$700 million, and large accelerated filers are issuers with a public float of \$700 million or more. U.S. Securities and Exchange Commission, [Accelerated Filer and Large Accelerated Filer Definitions](#), last updated April 23, 2020.





# 04

## Conclusion

**Addressing the climate crisis will require companies to adopt more ambitious transition strategies on accelerated timelines and translate those strategies into commensurate actions.**

CAPs are an invaluable resource for investors to ensure this is happening. Drawing from an ever-evolving list of frameworks, guidelines and standards, this brief has outlined several key principles and elements that can allow investors to take a structured approach to evaluating and identifying credible corporate climate commitments and actions.

As important as it is to identify credible climate commitments and actions, what investors do with the information is also a critical component of accelerating the transition. Investor action, whether via direct engagement with companies or as support for enhanced regulatory and policy clarity, can help galvanize ambitious climate action.





## Appendix A

# Additional Guidance and List of Frameworks and Initiatives

Climate Action 100+ [Net-Zero Company Benchmark](#)

Children's Investment Fund Foundation Say on Climate [Climate Action Plans](#)

Worldwide CDP [CDP Technical Note: Reporting on Transition Plans](#)

International Financial Reporting Standards Foundation [Exposure Draft: Climate-Related Disclosures](#)

Investor Group on Climate Change [Corporate Climate Transition Plans: A Guide to Investor Expectations](#)

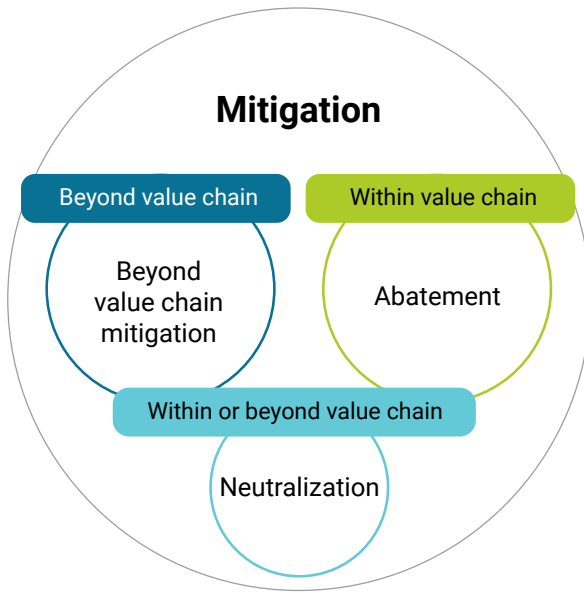
Science Based Targets initiative [SBTi Corporate Net-Zero Standard](#)

Task Force on Climate-related Financial Disclosures [Guidance on Metrics, Targets, and Transition Plans](#)

Transition Pathway Initiative [TPI Sectoral Decarbonisation Pathways](#)

## Appendix B

# The Corporate Emissions Mitigation Hierarchy



**Beyond value chain mitigation:** Mitigation action or investments that fall outside a company's value chain. This includes activities that avoid or reduce greenhouse gas emissions or that permanently remove and store greenhouse gases from the atmosphere.

**Neutralization:** Measures that companies take to remove carbon from the atmosphere and permanently store it in order to counterbalance the impact of emissions that remain unabated.

	Company with no residual emissions	Company with residual emissions	Company with FLAG emissions/removals
Expected mitigation to support <b>Societal Net-Zero</b>	<div>Abatement</div> <div>Removals</div>	<div>Abatement</div> <div>Removals</div>	<div>Abatement</div> <div>Removals</div>
Required mitigation to support <b>Corporate Net-Zero</b>	<div>Abatement</div>	<div>Neutralisation</div> <div>Abatement</div>	<div>Neutralisation</div> <div>Removals</div> <div>Abatement</div>
	Beyond the value chain	Within OR beyond the value chain	Within the value chain

# Definitions

## Carbon Capture and Storage – Natural Solutions

### **Afforestation, reforestation, land management, etc.**

Ultimately, carbon capture and storage can be considered the most effective and straightforward way to remove and sequester (neutralize) CO<sub>2</sub> from the atmosphere; however, the capacity of these approaches to keep carbon *permanently* sequestered from the atmosphere (due to fires, land-use changes, etc.) remains a significant outstanding question.

## Carbon Capture and Storage – Technological Solutions

### **Carbon capture and storage (CCS), carbon capture utilization and storage (CCUS), and the variations of each (e.g., bioenergy with CCS, direct-air CCS).**

Currently unscalable technologies that aim to remove carbon dioxide from the atmosphere will need to increase 40-fold from current levels by 2030, according to the IEA's net-zero scenario. Therefore, it is hard to fathom a realistic or science-based corporate emissions reduction plan that will rely on these technologies in any significant way.<sup>55</sup>

Yet it is also important to keep in mind that, despite the many outstanding challenges and problems associated with both natural and technological carbon sequestration, it is generally accepted that a net-zero economy will not be achievable without them.<sup>56</sup>

## Carbon Offsets and Credits

Carbon offsets can best be understood as a means for companies to conduct carbon dioxide removal and sequestration outside of their own value chain as a means to “compensate” for unabated emissions emanating from their own activities.

When describing approaches to neutralization such as using offsets and carbon credits, companies should provide information on whether the offsets used are subject to third-party verification or a certification scheme, the type of offset used (e.g., nature-based vs. technological, carbon removal vs. emissions avoidance) and the significant factors required to assess the credibility and integrity of offsets used (e.g., permanence).

## Avoided Emissions

Avoided emissions can be described as emissions saved by replacing high-emissions activities with lower-emitting ones. They fall within the same category as offset emissions in that, while welcome (for example, when describing the emissions saved by switching energy sources within your operations from fossil fuels to renewables), they must not be featured in a company's net-zero accounting.<sup>57</sup> Similar to the use of emissions intensity targets, though potentially useful for framing a company's decarbonization efforts, avoided emissions should not be factored into an assessment of whether a company is “net-zero” or “carbon neutral.”

<sup>55</sup> Climate Action Tracker, [Canada](#), last updated September 15, 2021.

<sup>56</sup> Thierry Philipponnat, [The Problem Lies in the Net: How Finance Can Contribute to Making the World Reach Its Greenhouse Gas Net-Zero Target](#), Finance Watch, June 2022.

<sup>57</sup> Thierry Philipponnat, [The Problem Lies in the Net: How Finance Can Contribute to Making the World Reach Its Greenhouse Gas Net-Zero Target](#), Finance Watch, June 2022; SBTi, [Getting Started Guide for the SBTi Net-Zero Standard](#), April 2022.