## Reducing Emissions Through Sustainable Finance

A Guide for Companies in Carbon Intensive Industries





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# **The Practical** Challenges of Lowering **Emissions**

As the world acknowledges the importance of transitioning to a low-carbon economy, this paradigm shift is changing the way we do business. Regulators in the U.K.<sup>1</sup> EU,<sup>2</sup> and Canada,<sup>3</sup> among others, have already announced mandatory greenhouse gas (GHG) emissions disclosures for financial institutions, and a similar development is imminent in the United States.<sup>4</sup>

As part of these regulations, financial institutions are under pressure to reduce emissions in their lending and investment portfolios. All of this is in an effort to meet the targets of the Paris Agreement and reduce the effects of global warming.

In theory, it's a reasonable plan. In practice, it's complicated. Carbon-intensive industries cannot simply be eliminated. They are vital to society and their services are critical to develop the infrastructure and capacity of a low-carbon economy. According to the International Energy Agency (IEA), fossil fuels provide around 80% of the world's energy needs,<sup>5</sup> and the sector directly employs around 32 million people.<sup>6</sup>

However, the continued and unaltered status quo of carbon-intensive industries is not compatible with the legally binding emissions reductions laid out in the Paris Agreement. Carbon-intensive industries like fossil fuel energy production, mining, shipping, and other heavy industry account for 85% of global carbon emissions, a figure that needs to be drastically reduced if we are to meet climate targets.<sup>7</sup>

High-emitting sectors face significant challenges in reducing their emissions. Reduction efforts often call for complex, operation-specific transformations with high costs and slow, incremental steps to implementation.<sup>8</sup> The difficulties of achieving significant, economically viable reductions in these sectors have earned them the name hard-to-abate sectors.

It presents a predicament. High emitters need capital to lower their emissions, but banks are restricted because financing high-emitting companies raises their own emissions. According to a McKinsey report, to facilitate the transition to net zero by 2050,

capital expenditure on physical assets for energy and land-use systems will need to increase by US\$3.5 trillion above current annual spending.<sup>9</sup>

The solution to this dilemma is sustainable finance. Sustainable finance provides capital earmarked for specific sustainability projects, and sustainability-linked finance provides capital that can be used for all aspects of a company's operations, with an aim to hit pre-determined targets as a condition of the loan or bond purchasing agreement.

One of the major challenges for businesses when securing sustainability-linked finance is the setting of sustainability performance targets (SPTs) and selecting key performance indicators (KPIs) to assure financiers that their funds are indeed contributing to the reduction of carbon emissions, or another material KPI. Making sustainability performance a condition of the loan or bond, the borrowers are on the hook to hit those targets or face financial penalties.

In this ebook, we explore the different types of sustainable finance, identify some of the challenges in selecting KPIs and setting SPTs, discuss the difficulties with measuring and reducing emissions in hard-to-abate sectors, and provide key takeaways so that companies can take advantage of the opportunities that sustainable finance offers.

## Understanding Scope 1, 2, and 3 Emissions

The key to staying in line with the targets of the Paris Agreement is to reduce global GHG emissions. To limit global warming to 1.5 degrees Celsius above pre-industrial levels, global emissions need to peak by 2025, and decline by 43% by 2030.<sup>10</sup> Regulatory developments are requiring businesses to meet these demands as the global community strives for net zero by 2050. In order to track their progress, businesses need reliable emissions data.

The standard global methodology for measuring emissions involves three different categories, or scopes, of emissions as provided by the GHG Protocol.



## The Three Scopes of Emissions Explained

The three scopes of emissions include direct emissions (scope 1) and indirect emissions (scope 2 and 3). Together they combine to form the total GHG inventory of a company. Its reduction efforts should focus on all three areas.

#### **SCOPE 1 EMISSIONS**



Scope 1 emissions count a company's direct GHG emissions. According to the GHG Protocol, "direct GHG emissions occur from sources that are owned or controlled by the company."<sup>11</sup> Emissions from fuel combustion on site, physical or chemical processing, company facilities, and transportation of materials and waste are all scope 1 emissions.

#### **SCOPE 2 EMISSIONS**



Scope 2 emissions are indirect emissions, "from the generation of acquired and consumed electricity, steam, heat, or cooling (collectively referred to as "electricity")."<sup>12</sup> The emissions occur offsite, but the electricity is consumed by the reporting company. Therefore, the associated emissions must be reported.

#### **SCOPE 3 EMISSIONS**



Scope 3 emissions are the emissions that result as, "a consequence of the activities of the company, but occur from sources not owned or controlled by the company."13

Scope 3 emissions encompass the scope 1 and scope 2 emissions of the materials and products supplied to a company, all throughout the supply chain. As well, scope 3 accounts for downstream activity as the company's product transfers to the end user, and includes the emissions produced by its end use. Scope 3 generally makes up the bulk of a company's GHG inventory.

There are 15 categories of scope 3 emissions, as can be found in the GHG Protocol's scope 3 calculation guide.<sup>14</sup> Of particular importance to financial institutions are category 15 investments. As banks have relatively low scope 1 and 2 emissions, most of their emissions fall under the category of scope 3 financed emissions. A report from the Carbon Disclosure Project (CDP) found that financial institutions' financed emissions account for more than 700 times their directly generated emissions.<sup>15</sup>

Financed emissions include equity investments, debt investments, project finance, and managed investments and client services.<sup>16</sup> Financial institutions need to account for the emissions from every dollar that they invest or lend to each company in their portfolio.

## Why Scope 3 Emissions Are Important

Scope 3 emissions reporting brings the emissions of hundreds or even thousands of companies into focus, depending on the size of the reporting company. This added scrutiny of the supply chain can encourage suppliers to assess and reduce their own emissions profile.

Strategies focused on reducing scope 3 emissions have the most pronounced effect on reducing emissions globally, advancing the objectives of the Paris Agreement and helping to defend, mend, and restore the natural environment. While these are all noble reasons to reduce scope 3 emissions, altruism only goes so far in influencing boardroom decisions.

There is, however, a strong business case to be made for taking scope 3 emissions into account. Sustainability-minded consumers and investors are increasingly on the lookout for responsible businesses. Morningstar Research identified

US\$415 billion in global climate fund assets in 2022.<sup>17</sup> McKinsey research also found that consumers are searching for more sustainable products – with 60% of consumers willing to pay more for them.18

As well, regulations are moving fast and companies that are not yet required to report scope 3 emissions likely will be soon. In the U.S., the Securities and Exchange Commission (SEC) has proposed its climate disclosure rules.<sup>19</sup>

In Europe, the Corporate Sustainability Reporting Directive (CSRD) came into effect in 2023.<sup>20</sup> New Zealand enacted mandatory climate disclosures beginning in 2023, and the U.K. also brought in mandatory disclosures.<sup>21</sup> Each of these regulations require scope 3 emissions reporting. Many other jurisdictions have enacted similar laws.

Scope 3 emissions reporting also requires an intimate evaluation of a business' value chain. This review can help businesses reveal risks associated with suppliers, identify inefficiencies, enhance supplier relationships, and facilitate innovation.<sup>22</sup>

Finally, businesses that want to secure any level of sustainable finance need to track their scope 3 emissions. Financial institutions that provide sustainable capital through loans or purchasing bonds need assurance that the issuer is committed to their sustainability targets. They need to see net-zero commitments, intermediary targets, and decarbonization strategies – all of which rely on scope 3 emissions tracking, measuring, and reporting.



## **Setting KPIs** for Scope 3: Challenges and Strategies

To secure sustainable finance through sustainability-linked instruments, borrowers need to set key performance indicators (KPIs) and sustainability performance targets (SPTs). There are hundreds of different KPIs that businesses could use to measure their sustainability performance. But the most important factor in determining KPIs is that they are material to the business. For companies in hard-to-abate sectors, one of the most material indicators is GHG emissions.

SPTs that aim for a reduction in GHG emissions need to include in their measurement the most material emissions to that company, which often includes scope 3 emissions. Setting KPIs for scope 3 emissions is more complex than for the direct emissions of scope 1 or the purchased electricity emissions of scope 2. Measuring scope 3 emissions is difficult. Developing a

### The Different Types of Sustainable Finance

It's important to take a brief look at the different types of sustainable finance instruments. All principles, definitions, and guidance on sustainable finance are provided by the International Capital Market Association (ICMA).

#### **Green Loans and Green Bonds**

Green loans<sup>23</sup> and green bonds,<sup>24</sup> also called use of proceeds loans and bonds, are ways that companies can raise capital for specific environmentally friendly projects, called green projects. This funding is restricted to projects that demonstrate a clear environmental benefit and the borrowed amount must go wholly to the earmarked green project.

KPIs and SPTs are not mandatory, but clear activities and descriptions of expected environmental impacts are necessary and that may include identifying relevant KPIs and SPTs.

#### Sustainability-Linked Loans and Sustainability-Linked Bonds

Sustainability-linked lending allows for more freedom of the use of funds, but is stricter in the outcomes that it must produce. The financing can be used to fund any part of a company's operations, but is contingent on the fact that the borrower achieves the SPTs that it identified prior to issuing the bond or securing the loan. KPIs and SPTs are mandatory for sustainability-linked finance.<sup>25</sup>

strategy that guarantees reductions while also facing potential penalties for failure is a challenge we'll explore in this section.



## The Difficulties in Measuring Scope 3 Emissions

Choosing emissions KPIs and setting SPTs begins with an accurate and auditable measurement of scope 3 emissions. Measuring scope 3 emissions, however, can be very challenging.

#### **GATHERING PRIMARY DATA**

When examining the supply chain to gather emissions data, there are two different categories of data: primary data and secondary data. Primary data is the emissions data that is provided directly from the supplier to the reporting company and is the most reliable and accurate way to gather emissions data.

Secondary data is an estimation of supplier emissions data using various emissions factor databases and industry average datasets. Secondary data is permissible, but it is less accurate than primary emissions data.

The more precise a company's scope 3 emissions data are, the more detailed its decarbonization strategy and SPTs can be, creating a higher likelihood that its

targets will be approved by the Science Based Target initiative (SBTi) or other external reviewers.

Identifying all suppliers, communicating with them, retrieving the required data, and formatting the data are all significant obstacles that companies encounter when trying to gather primary data.

#### **ESTIMATING MISSING DATA**

In many instances, a supplier may not have emissions data on-hand or the supplier is inaccessible. In these cases, companies must estimate their missing scope 3 data. Companies can find industry average emissions factors from various providers like the IPCC's Emission Factor Database, the EPA's Compilation of Air Emissions Factors, or tools available from the GHG Protocol. Using these resources

and accounting for differences based on supplier activity, geolocation, and known energy sources, companies can develop a strong estimate of missing scope 3 emissions data.

#### **SETTING BOUNDARIES**

Understanding which emissions to include, how much overlap there is, and avoiding double counting - while ensuring to still account for all material emissions is challenging. Which supplier emissions are material to the reporting company? Have these emissions been counted already for another service they provided or by a different company?

Setting operational boundaries provides a clear, defined path for a company to measure its scope 3 emissions.



#### **ORGANIZATIONAL AND GOVERNANCE CHALLENGES**

Calculating scope 3 emissions and setting science-based targets requires a large investment of time and resources. Having buy-in from corporate governance ensures that businesses have the support they need to fulfill the requirements of scope 3 emissions reporting and science-based target setting.

## How to Determine KPIs and SPTs

There is no one-size-fits-all approach to setting KPIs and SPTs. Metrics and targets vary depending on the industry and between companies. The key is that the most material portion of a company's total emissions is covered.

KPIs and SPTs used to secure sustainable finance are often the intermediate targets of a company's overall net-zero strategy. Companies that have already had their net-zero strategies and targets audited and adjudicated will enjoy relative ease in transferring those over to a sustainable finance proposal. Companies that haven't done that have to develop a net-zero strategy and assign performance metrics to obtain funding.



#### **ABSOLUTE EMISSIONS VERSUS EMISSIONS INTENSITY**

Absolute emissions are more complete and tend to be more straightforward. They are the count of total emissions attributed to a company.

Emissions intensity measures a company's emissions relative to some other variable – usually economic or operational. A company can decide to reduce its emissions per dollar of revenue, per square foot of operating space, or using some other relevant variable.

Both types of emissions KPIs are acceptable and will depend on which is most relevant to a company's operations.

There are three things that companies need to keep in mind when determining KPIs and SPTs:

#### **KPIS MUST BE MATERIAL**

Chosen KPIs must be material and relevant to the company. In determining materiality, businesses can look to the GRI Material Topics Guide, the SASB Standards Materiality Finder, the Climate Disclosure Standards Board, or other guidance for materiality assistance. Materiality looks different in each industry, but by using some of the provided resources companies can identify which emissions KPIs are most material to their business.

#### **KPIS MUST BE MEASURABLE AND** BENCHMARKABLE

After determining which emissions KPIs are most material, companies need to develop a consistent method for measuring those emissions. As mentioned earlier, there are some challenges with measuring scope 3 emissions, but companies need to develop an accurate system with an audit-ready record to measure those emissions.

#### TARGETS MUST BE ALIGNED WITH SCIENCE-BASED CLIMATE SCENARIOS

When setting SPTs, companies need to ensure that those targets are aligned with a scenario that ensures global warming does not exceed 2 degrees Celsius above pre-industrial levels, and preferably stays below 1.5 degrees Celsius. Guidance for climate scenario alignment can be found at the SBTi, International Energy Agency (IEA), and other organizations.

These scenarios ensure that a company's SPTs have the appropriate level of ambition. As well, to ensure the validity of SPTs, companies are required to disclose which external party reviewed their KPIs, SPTs, and decarbonization strategy.

## Accommodating the Necessity of Hard-to-Abate Sectors

Hard-to-abate sectors employ industrialized processes that can make it difficult to achieve significant, economically viable emissions reductions. The main sectors that face these challenges are cement and concrete, iron and steel, oil and gas, chemicals, and coal mining.

These large, global industries require low-carbon technology that is often highly specific to their



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company operations, are expensive to develop and implement, and result in incremental reductions in GHG emissions. And the large amount of capital investment required can affect their competitiveness on the global market.<sup>26</sup> Efforts to decarbonize the global economy in line with Paris Agreement targets will only be successful if hard-to-abate sectors are afforded the resources they need to lower their scope 1, 2, and 3 emissions.

## **Difficulties With Reducing Scope 3 Emissions**

There are few viable alternatives that can replace today's heavy industry products. Steel, aluminum, and other key elements are instrumental in the construction of renewable energy infrastructure like solar panels, power grids, wind turbines, and electric vehicles.<sup>27</sup>

Primary aluminum demand is expected to rise by 40% in the coming decades.<sup>28</sup> Coal, although being phased out, is still widely used as an electricity source, particularly in developing economies. Oil and gas, while also being phased out, are still forecasted to play a significant role in the energy mix even beyond 2050.<sup>29</sup>

Acknowledging that the products and services of hard-to-abate sectors are still necessary, the focus turns to emissions reductions. The World Economic Forum has identified 10 "choke points" that act as barriers to emissions

reductions in hard-to-abate sectors. Among these obstacles are the need for breakthrough technology, providing infrastructure access for net-zero solutions, government policy to incentivize reductions, easing scope 3 emissions measuring challenges, and attracting significant capital for investments in lowemission pilot projects.<sup>30</sup>

Hard-to-abate sectors are capital intensive and generally have long investment cycles, low margins, and are competing on the global market.<sup>31</sup> Emissions caps, fines, or decarbonization mandates imposed by governments can significantly weaken a company's competitiveness on the world stage, while hurting the economy. Companies in hard-to-abate sectors need assistance if they are to achieve significant, economically viable emissions reductions.







## How the Low-Carbon Transition is Being Eased Into Hard-to-Abate Sectors

#### **SBTi GUIDANCE**

One of the authorities in the decarbonization movement, the Science Based Targets initiative (SBTi), is currently going through a revision of its scope 3 target-setting guidance to account for some of the difficulties that companies have when trying to measure and set targets to reduce their scope 3 emissions.

The review began with a stakeholder survey that identified six high-level solutions including improved supply chain traceability, enhanced accounting frameworks, and improved target-setting guidance. The goal is to develop a clear target-setting framework that propels value chain decarbonization in line with 1.5 degrees Celsius climate pathways.<sup>32</sup> The framework update includes reviewing scope 3 boundary criteria as well as materiality thresholds. The intention is to also provide "sectoral pathways" to decarbonization that account for difficulties with scope 3 emissions in hard-to-abate sectors.<sup>33</sup>

#### INDUSTRY COALITIONS

Alongside the SBTi framework update, there are industry coalitions that bring expertise and resources to increase the decarbonization rate in some of the hard-to-abate sectors. The Mission Possible Partnership (MPP) provides netzero transformation guidance to seven industrial sectors and the Global Cement and Concrete Association (GCCA) provides net zero by 2050 roadmaps for the cement and concrete sector.

#### DECARBONIZATION STRATEGY GUIDANCE

At the heart of a company's transition plan is the credibility of their decarbonization practices, commitments, and strategy.<sup>34</sup> Companies should be able to demonstrate how they intend to adapt their business model over time to stay in line with a recognized climate pathway to 1.5 C or at minimum well below 2 C.

#### The Climate Transition Finance Handbook

from the ICMA provides guidance on how to develop a credible decarbonization strategy, and these principles are used by third-party reviewers like Morningstar Sustainalytics to assess the credibility of a company's decarbonization plan.

The four principles of a decarbonization strategy are: governance, materiality, science-based, and transparency. Concerning governance, auditors will look to see if a company has a decarbonization strategy, if that strategy has a governance team or oversight committee, and if they have set interim targets.

For materiality, it's necessary to show that the strategy is relevant to the material parts of the company's business model. The strategy should also be complete with science-based targets and pathways, and should identify which recognized climate pathway that the targets are aligned with.

Finally, the strategy must be transparent with its capital and operational expenditure plans.



#### SUSTAINABLE FINANCE

Finally, sustainable finance will play one of the most significant roles in the reduction of emissions in hard-to-abate sectors. Sustainable finance allows financial institutions to lend or invest in traditionally high-emitting sectors, providing companies with the significant capital that they need to reduce emissions, without the financial institutions being penalized for funding a high emitter. Hard-to-abate sectors can take advantage of the opportunities presented by sustainable finance instruments to raise the capital necessary to develop and implement operation-specific low-carbon technologies, while remaining competitive on the global market.

## Securing Sustainable Finance as a Step Toward Net Zero



The incoming wave of net-zero mandates is putting pressure on companies to implement decarbonization plans. In industries where the pathway to net zero is relatively straightforward, the pressure is not so intense and acts more as a nudge in the right direction. In other sectors, like hard-to-abate sectors, reaching net zero can be more difficult to achieve.

Securing sustainable finance requires the accurate measuring and target-setting of scope 3 emissions KPIs. Scope 3 emissions on average make up more than 70% of a company's total emissions,<sup>35</sup> and SBTi near-term targets criteria state that if a company's scope 3 emissions are 40% or more of their total emissions, then a scope 3 target is required. Today, 96% of all SBTi-validated targets include scope 3 emissions.

Setting scope 3 emissions targets begins with accurate, granular scope 3 emissions data. Without quality data, companies do not have confidence in their delivery roadmaps and are hesitant to set emissions targets. Collecting scope 3 data is difficult, however. Between gathering primary data, estimating missing data, setting boundaries, and solving governance challenges, companies find it difficult to create accurate representations of their full scope of emissions.

In SBTi's review of their target-setting guidance, it sent a survey to relevant stakeholders. Eighty-five percent of respondents see scope 3 data access as a barrier to developing an inventory and 90% of respondents find it challenging to set scope 3 targets.

If companies want access to sustainable finance, they need to overcome these hurdles. Carbon accounting frameworks, like the GHG Protocol, provide principles for developing GHG inventories. The GHG Protocol brings an element of standardization to emissions reporting that demands transparency and lends credibility to companies' disclosures. Using a credible framework to conduct emissions measuring and reporting sets a solid foundation for target setting. Companies in hard-to-abate sectors need extra time, and extra investment, to reduce their emissions. Following a sectoral pathway to net zero can help companies set science-based targets that are in line with their sector's guidance for decarbonization. This is also being updated in the SBTi review, but companies can access the guidebook on the Sectoral Decarbonization Approach (SDA) for preliminary guidance on sectoral target setting.

Finally, first movers are vitally important to the low-carbon transition, particularly in hard-to-abate sectors. Companies that engage in target setting and join the sustainability movement at an early stage provide valuable feedback to regulatory agencies like the SBTi, CDP, and ICMA. While helping these organizations to strengthen their guidance, first movers can also enjoy heightened brand reputation and accelerate the innovation of low-carbon technologies.

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#### **Acknowledgements:**

Director, ESG Impact Advisory

We would like to thank the following individuals for sharing their invaluable insights and expertise for this ebook:

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