Transition Risk Analysis Support Toolkit – Element 9

Climate commitments at the company level

The Green House

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1 Introduction

Historically, companies took a bottom-up approach to climate-related target setting, and decided independently which greenhouse gas (GHG) emissions to target, how much to reduce them by and by when. Companies largely followed the guidance published in The Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, published in 2004, which sets out a step-wise approach for developing targets. Since the adoption of the Paris Agreement in 2015, the call for action on climate change has intensified, the climate ambition space has evolved rapidly and the number of companies setting targets and increasing ambition has risen exponentially. The Intergovernmental Panel on Climate Change (IPCC) *Special Report on Global Warming of 1.5°C*[1], published in 2018, highlighted that the window for avoiding catastrophic climate change is closing much faster than anticipated. If the impacts of climate change are to remain predictable and manageable, net carbon dioxide (CO_2) emissions from human activities must be zero by 2050. In order to achieve this temperature target, policies and actions by governments, companies, investors and consumers to reduce greenhouse gas emissions will have to be stepped up significantly, and as soon as possible. As a result, **top-down climate change commitments that reflect what is required by science to limit warming to 1.5°C are overtaking company-determined bottom-up targets.**

The purpose of this document is to unpack how companies are setting climate change related commitments in response to both international best practice as well as local government policy. Company level mitigation targets, if credible, can act as a powerful indicator of the extent to which companies may be negatively impacted by mitigation policies. This is particularly true in South Africa where company level targets are set to be deployed as regulatory instruments in the form of carbon budgets. The document has been prepared as part of a Toolkit to support the asset management and retirement fund industries to improve their climate-related financial disclosures and incorporate climate considerations into investment decisions. For an overview of the toolkit and a description of its other components please see *Introduction to the Transition Risk Analysis Support Toolkit* available from here. The Toolkit has been developed under a broader South Africa UK Partnering for Accelerated Climate Transitions (South Africa-UK PACT)[2] funded project on Climate Related Financial Disclosures. Further outputs from this project, including other elements of the Toolkit, are available online[3].

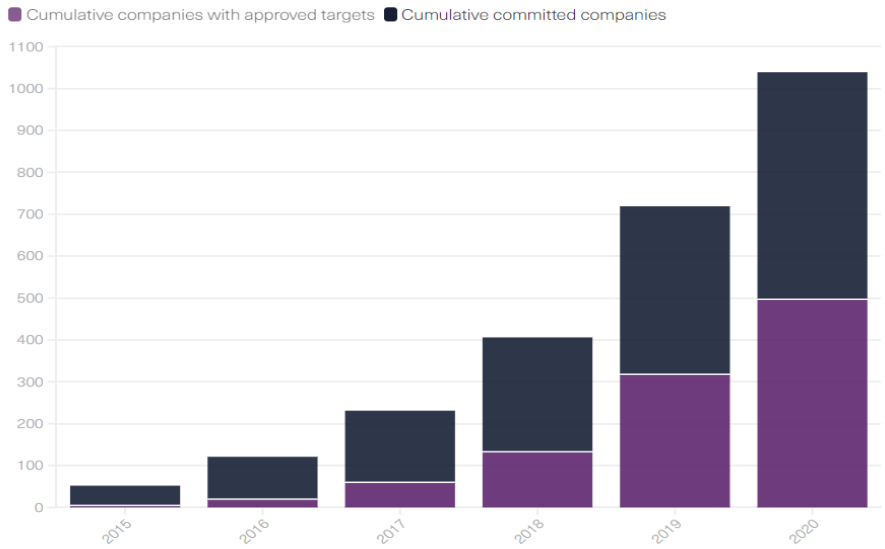
[1] https://www.ipcc.ch/sr15/
[2] UK Partnering for Accelerated Climate Transitions. For more information see https://www.ukpact.co.uk/country-programme/south-africa
[3] http://www.dnaeconomics.com/pages/sa_climate_disclosure/

2 Types of commitments and targets

Table 1 lists the types of commitments and targets commonly used by companies to drive emission reductions. Approaches range from those that have a specific scope, through to those that seek to reduce GHG emissions without taking into account the broader context of what is required globally, through to those which reflect greater ambition in line with global emission reduction efforts. The latter include science-based targets (SBTs) and net-zero commitments.

Over 2100 companies have joined the Science-Based Targets initiative (SBTi) since its launch, with 965 of these companies committing to SBT commitments that align with warming of 1.5°C[4]. The rate of growth in companies committing to the SBTi and setting approved SBTi-aligned targets between 2015 to 2020 is shown in **Error! Reference source not found.**. The rate of growth reflects the increased acknowledgement of the urgency around climate action. Well-known companies participating in the SBTi include Procter & Gamble, Tetra Pak, Sony, Pfizer, Kellogg and Dell, with a full list of companies with SBTs being available on the SBT website.

Figure 1: Total number of companies that have committed to the SBTi and the total number of companies that have set targets



Data from this graph represents company activity from 28 May 28 2015 to 31 October 2020

Source: SBTI (2021) Science Based Targets Initiative Annual Progress Report 2020. Available at: https://sciencebasedtargets.org/sbti-progress-report-2020

[4] https://sciencebasedtargets.org/companies-taking-action

The box below provides an indication of uptake of SBTs in South Africa at the time of writing this document.

South African companies with SBTs: Only four South African companies have set SBTs, with 9 companies in total signed up.

Company	Near term targets	Long term targets	Net zero targets
Woolworths Holdings Ltd.	1.5°C		
Hulamin	Well below 2°C		
Sibanye-Stillwater	2°C		
Emira Property Fund Ltd	2°C		
Shoprite Holdings (Pty) Ltd	Committed		
Harmony Gold Mining Company Ltd	Committed		Committed
Growthpoint Properties	Committed		
Sappi Ltd	Committed		
MTN Group Limited	Committed		

Table 1: Company-level commitments and targets[5]

Commitment	Definition	Examples
Energy Efficiency	Companies set targets to increase energy efficiency of their industrial operations, transport, or buildings. Companies typically achieve these goals by optimizing processes or upgrading equipment.	Climate Group EP 100 Members (https://www.theclimategroup.org/ep100)
Electrification (including vehicle electrification)	Companies set targets to achieve full electrification or substitute electricity as the primary energy source across their vehicle fleet, buildings, and other areas of operation.	Climate Group EV 100 Members (https://www.theclimategroup.org/ev100) Corporate Electric Vehicle Alliance (CEVA) (https://www.ceres.org/climate/transportation/corporate-electric-vehicle-alliance)
Renewable Energy Targets	Companies set targets to procure or run their operations on renewable electricity. Targets can also be set to support suppliers and customers in procuring and operating with renewable electricity.	Various https://www.irena.org/Statistics/View-Data-by-Topic/Policy/Renewable-Energy-Targets
GHG reduction targets	Companies set targets to reduce greenhouse gas emissions. These commitments can be for a specific source of emission, greenhouse gas or geographical location, for some or all of a company's operations (scope 1 and 2), or across a company's entire value chain, covering scopes 1, 2, and 3. GHG reduction targets can be absolute or intensity based, use a fixed or rolling target base year, be a single-year or multi-year target, long-term or short-term, include or exclude the use GHG offsets or credits in achievement of targets. They	GHG Protocol https://www.ghgprotocol.org CDP https://www.cdp.net/en/

[5] Source: Draucker, L., Lowell, J., Olagbegi, B. and Raghavan, A (2021) Investor guide to corporate greenhouse gas commitments. Ceres. https://www.ceres.org/sites/default/files/reports/2021-10/Ceres%20Corporate%20Commitments%20Brief%20FINAL.pdf

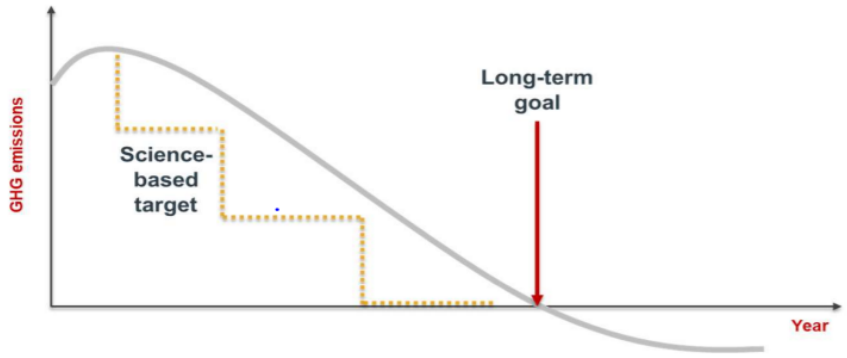
Commitment	Definition	Examples
	can be based on the level of mitigation that companies anticipate being able to achieve in the timeframe.	
Science-Based Targets through the Science Based Target Initiative (SBTi)	Science-based targets (SBT) set through the SBTi are the gold standard for GHG reduction goals for companies across sector. The SBTi provides a pathway for companies to set GHG reduction goals "in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to well-below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C." Companies that set SBTs follow the most recent SBTi criteria. The current criteria require emission abatement goals to be set over the next 5 to 15 years and across scope 1, 2, and 3 emission sources when relevant. Companies cannot use carbon credits to meet a SBT. Starting in July 2022, all SBTs submitted to SBTi for verification will need to align with a 1.5°C pathway rather than one of well below 2°C.	Science-Based Targets initiative https://sciencebasedtargets.org/
Net-Zero Commitments	A commitment to reduce emissions to net zero, typically by 2050 or earlier, which involves reducing emissions as far as technologically or economically feasible and then buying carbon removal credits to balance out the remaining residual emissions to zero. Until recently, there has been no consistent definition of net zero, however the recently-released SBTi Net Zero Standard will require that net zero commitments include scope 1, 2, and 3 emissions and significantly limit the use of carbon removal credits.	Business Ambition for 1.5 https://www.unglobalcompact.org/take-action/events/climate-action-summit-2019/business-ambition Climate Action 100+ Net Zero Company Benchmark https://www.climateaction100.org/progress/net-zero-company-benchmark/ SBTi Net Zero Standard https://sciencebasedtargets.org/net-zero The Climate Pledge https://www.theclimatepledge.com Paris Aligned Investment Initiative https://www.parisalignedinvestment.org

3 Science-based targets (SBTs)

The Paris Agreement is a legally binding global climate agreement that aims to limit global average surface temperature increases to well-below 2°C above pre-industrial levels, and pursue efforts to limit warming to 1.5°C. This requires global emissions not only to be reduced to a certain end point by a certain time (for example, net zero CO_2 by 2050 in the case of the 1.5°C target, as discussed further below), but also to remain with in an overall cumulative budget, given the longevity of greenhouse gases in the atmosphere.

SBTs are target set by companies to drive a reduction in their corporate GHG emissions in line with the global emissions budgets, as per the recommendations of the IPCC and in line with the goals of the Paris Agreement. The main objective of setting SBTs is to drive short-term action, covering the most relevant emission sources across the value chain, towards ultimately achieving the long-term Paris Agreement goals (**Error! Reference source not found.**).

Figure 2 Visual graphic of how SBTs aim to achieve the long-term goals of the Paris Agreement



Source: Cummis, C. and Huusko, H. (2019) New Resources and Criteria for Setting Science-based Targets. Available at: https://sciencebasedtargets.org/wp-content/uploads/2019/04/Americas-SBTi-update-webinar.pdf

The Science-Based Targets initiative (SBTi) is an initiative that guides companies in SBT setting by defining and promoting best practices, and independently assesses and approves companies' targets. The SBTi provides resources and guidance to decrease barriers to adoption. This guidance may improve and change over time based on lessons learned and advances in climate science, scientific modelling and global emission reduction efforts. The SBTi is directed primarily at companies across all sectors and includes state-owned enterprises, joint ventures, private companies and cooperatives. There are various methods available to set a SBT depending on the company size and sector involved. A separate and more streamlined route for small and medium-sized enterprises has been established by the SBTi to bypass the initial stages of committing to set a SBT and the standard target validation process.

3.1 Science-based targets criteria

The criteria that must be met for science-based target(s) to be recognized are as follows:

- Companies are required to follow the GHG Protocol Corporate Standard, Scope 2 Guidance, and Corporate Value Chain, Scope 3 Accounting and Reporting Standard,
- SBTs are required to be short term and cover a minimum of 5 years and a maximum of 15 years from the date of announcement of the target,
- SBT are required to cover scope 1 and 2 emissions for internal operations and Scope 3 emissions across value chains. At least 95% of the scope 1 and 2 emissions should be covered by the SBTs. Scope 3 targets should be set if scope 3 emissions account for more than 40% of total scope 1, 2 and 3 emissions. SMEs are not required to set up targets for their scope 3 emissions but must commit to measure and reduce these emissions, and
- Avoided emissions and offsets do not count towards SBTs.

3.2 Methods for setting science-based targets

SBTi has developed and provided a stepwise guidance and recommendations manual for setting SBTs called the Science-Based Target Setting Manual[6] v 4.1. Sector-specific methodologies, frameworks and requirements have also been developed.

Sector specific methodologies: Guidance is in the scoping phase, is under development or has been developed for a number of sectors.

Sector	Status of guidance
Aviation	Finalised
Aluminium	Scoping phase
Apparel and footwear	Finalised
Buildings	In development
Chemicals	Scoping phase
Cement	In development
Financial Institutions	Finalised
Forest, Land and Agriculture (FLAG)	In development
Information and communication technology (ICT)	Finalised
Iron and Steel	In development
Oil and gas	In development
Power generation	Finalised
Transport	In development

[6] https://sciencebasedtargets.org/resources/legacy/2017/04/SBTi-manual.pdf

There are currently three accepted methods available for setting SBTs for scope 1 and 2 emissions: the **Absolute Contraction Approach** (ACA), the **Sectoral Decarbonization Approach** (SDA) and **Renewable Electricity targets**, which are only applicable to scope 2 emissions (Table 2).

Table 2: Methods for target setting

Method for target setting	Definition
Absolute Contraction Approach (ACA)	The ACA (also known as the absolute emission contraction method) uses the contraction of absolute emissions to set targets that result in absolute emissions reductions. It is expressed as the "overall reduction in the amount of GHGs emitted to the atmosphere by the target year, relative to the base year (e.g. reduce annual CO_2e emissions 35% by 2025, from 2018 levels)." To be aligned with a limiting warming to 1.5°C, companies need to adopt an annual linear reduction in emissions of 4.2%.
Sectoral Decarbonization Approach (SDA)	The SDA (also referred to as physical intensity convergence) requires the emissions intensity for all companies in a sector to converge by a certain date. This method is applicable to companies in large, homogenous and energy intensive sectors.
Renewable Electricity Targets	Renewable electricity targets: companies need to actively procure at least 80% renewable electricity by 2025 and 100% renewable electricity by 2030.

For Scope 3 emissions, quantitative targets are only required if Scope 3 emissions contribute more than 40% of total emissions. Scope 3 targets may also take the form of supplier or customer engagement targets, where companies can set a target for suppliers or customers to sign up to and set SBTs.

3.3 Process for setting SBTs

A five-step process has been established for setting and validating a SBT:

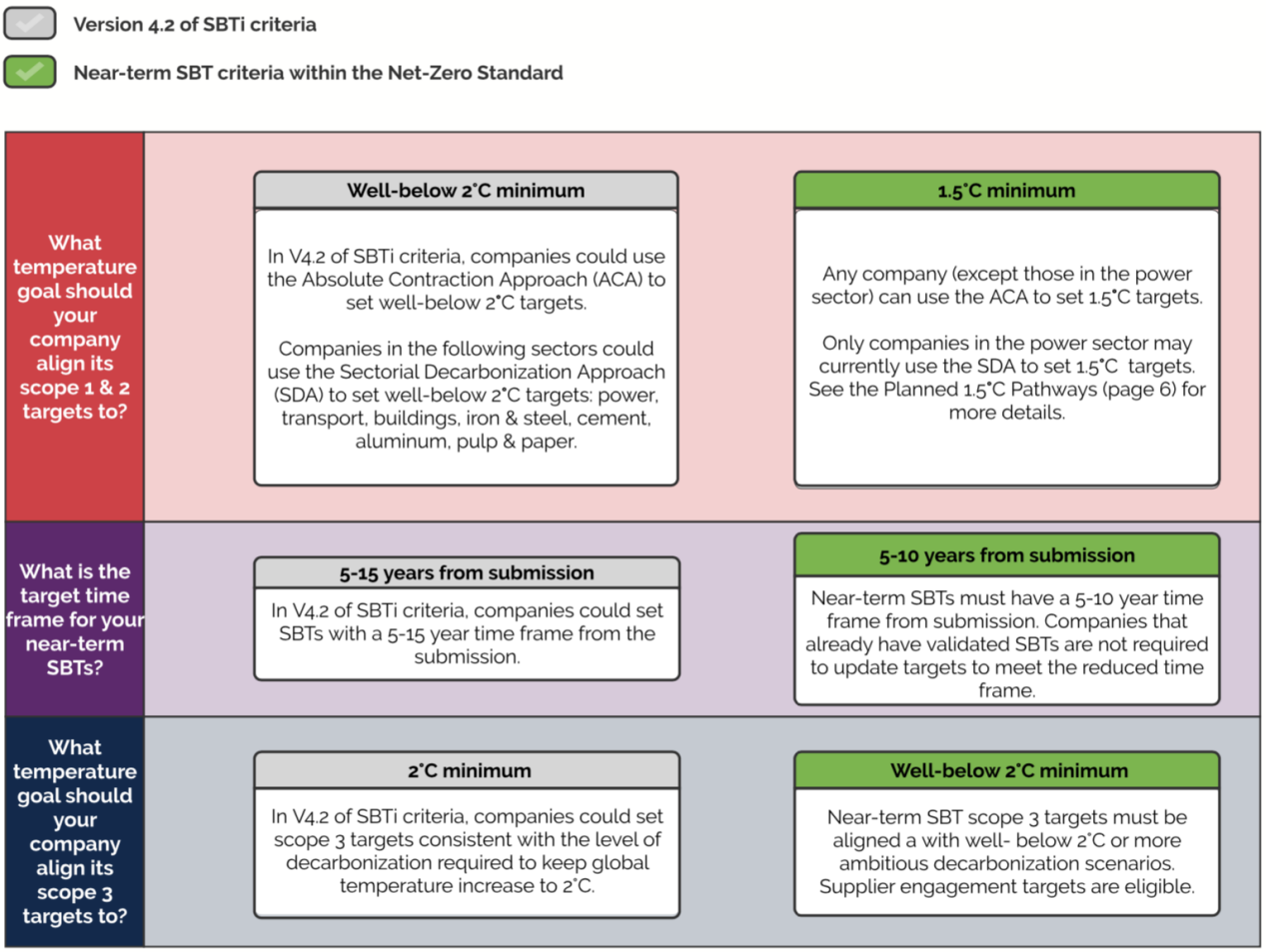
1. **Commit** to setting a SBT by submitting a commitment letter to the SBTi.
2. **Develop** emission reduction target(s) in line with the science-based criteria provided by the SBTi. After submission of the letter of commitment, companies have 24 months to develop, submit, validate, and publish their SBT targets.
3. **Submit** targets for validation.
4. **Communicate** target to stakeholders and the public. The target must be made public within six months of approval, or it will need to be revalidated.
5. **Disclose** progress and report company-wide emissions annually.

3.4 Increasing the stringency of science-based targets

Based on the IPCC Special Report on Global Warming of 1.5°C[7] mentioned previously, there is a recognition that the Paris Agreement target of limiting average temperature increases to "well below 2°C" is insufficient to limit the catastrophic impacts of climate change, and that the target should rather be limiting warming to 1.5°C. To align with the latter target, the SBTi has recognised that more stringent criteria are required in the setting of SBTs, including halving global GHG emissions by 2030 and achieving net zero CO_2 emissions by 2050. The SBTi will thus be releasing a V5.0 of their criteria at the end of 2021, which will come into force from 15 July 2022.

[7] https://www.ipcc.ch/sr15/

Figure 3: Summary of updates to near-term Science-based Targets



Source: SBTI (2021) Getting started guide for the SBTi Net Zero Standard Version 3.0. Available at: https://sciencebasedtargets.org/resources/files/Net-Zero-Getting-Started-Guide.pdf

These new criteria overlap with the criteria for near-term science based targets for net zero. Three key changes are:

- Increasing the minimum scope 1 and 2 ambition temperature classification from well below 2°C to 1.5°C.
- Increasing the minimum scope 3 ambition temperature classification from 2°C to well below 2°C.
- Shortening the timeframe for meeting the temperature targets from 15 to 10 years.

4 Net-zero targets

Net zero carbon dioxide (CO_2) emissions are achieved when global anthropogenic (human-induced) CO_2 emissions are balanced by anthropogenic CO_2 removals over a specified period. In recent years, there has been an acceleration in the adoption of net-zero commitments, with more than 600 companies globally having committed to reach science-based net-zero targets before 2050 through the SBTi Business Ambition for 1.5°C campaign.

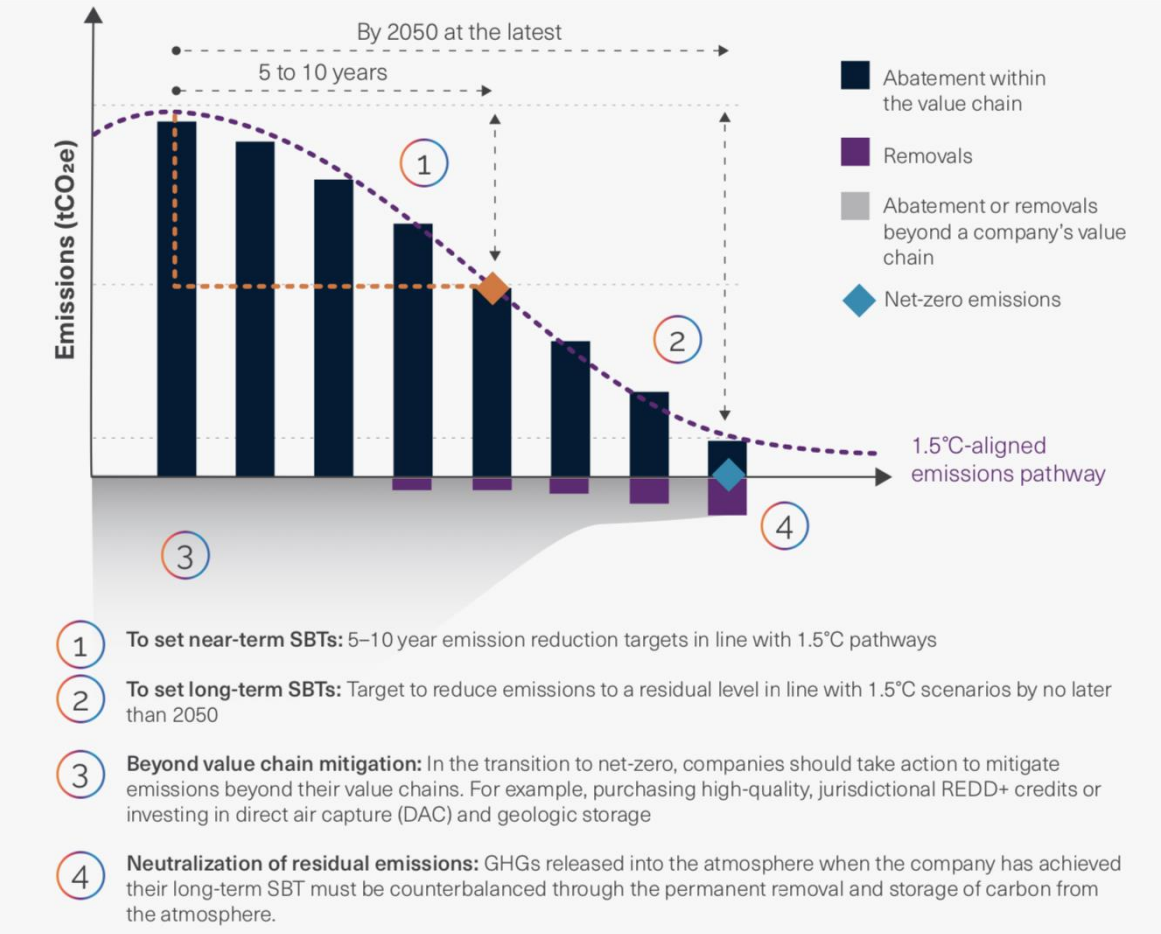
Despite this growth, there have been inconsistencies in the way the term is interpreted, with not all net-zero targets being interpreted in the same way, or seeking to achieve the level of emission reductions required globally. In response to the need for a robust, science-based framework for setting net-zero targets, the SBTi has published the first global standard for corporate net-zero targets.

Climate positive commitments: Some companies are going beyond net zero and aiming for net positive or climate positive outcomes. This means that the organization either removes CO_2 from the atmosphere or that aggregated emission removals and reductions exceed unabated emissions.

The relationship between near-term SBTs and net-zero targets is shown in Figure 4. The criteria for net-zero targets are as follows:

- **Target coverage:** 95% coverage of scope 1 and 2 emissions, 90% of scope 3 emissions
- **Target year:** 2050 or sooner with requirement for the power sector to decarbonise by 2040
- **Minimum levels of ambition:**
  - For companies without sector-specific guidance, 90% reduction of scope 1 and 2 emissions is required. For Forestry, Land and Agriculture emissions, 80% reductions are required.
  - Renewable electricity targets should aim for 100% renewable electricity
  - Scope 3 emissions: Similar reductions are required as for scope 1 and 2 emissions, and supplier/customer engagement targets are not eligible.

Figure 4: Elements of net zero commitments



Source: https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf

5 Carbon budgets

For South African companies that undertake carbon-intensive activities, the Climate Act imposes a mandatory target for emission reductions through a carbon budget. Carbon budgets are specified as the maximum quantum of emissions that can be released over a 5-year period, with carbon budgets being set for three rolling five-year periods, and are updated every five years or sooner if circumstances change significantly during the carbon budget period (e.g. due to divestment or investment in carbon intensive activities). Carbon budgets only cover certain scope 1 or direct emissions that are required to be reported in terms of the national mandatory reporting regulations. Companies will pay higher carbon taxes on emissions that exceed their allocated budgets, which could become material to companies failing to take action on reducing emissions.

Carbon budgets will be set to align with South Africa's national ambition expressed as a national greenhouse gas emissions trajectory, which according to the Climate Act should be updated

regularly. Currently, South Africa's national ambition falls short of that required for the country to make its contribution to keeping warming to 1.5°C[8]. Although South Africa's Low Emissions Development Strategy (LEDS) does mention the possibility of a net-zero future[9], suggesting that targets will become more ambitious in the future, net-zero has not yet been formalised through South Africa's Nationally Determined Contribution (NDC) (which only extends to 2030).

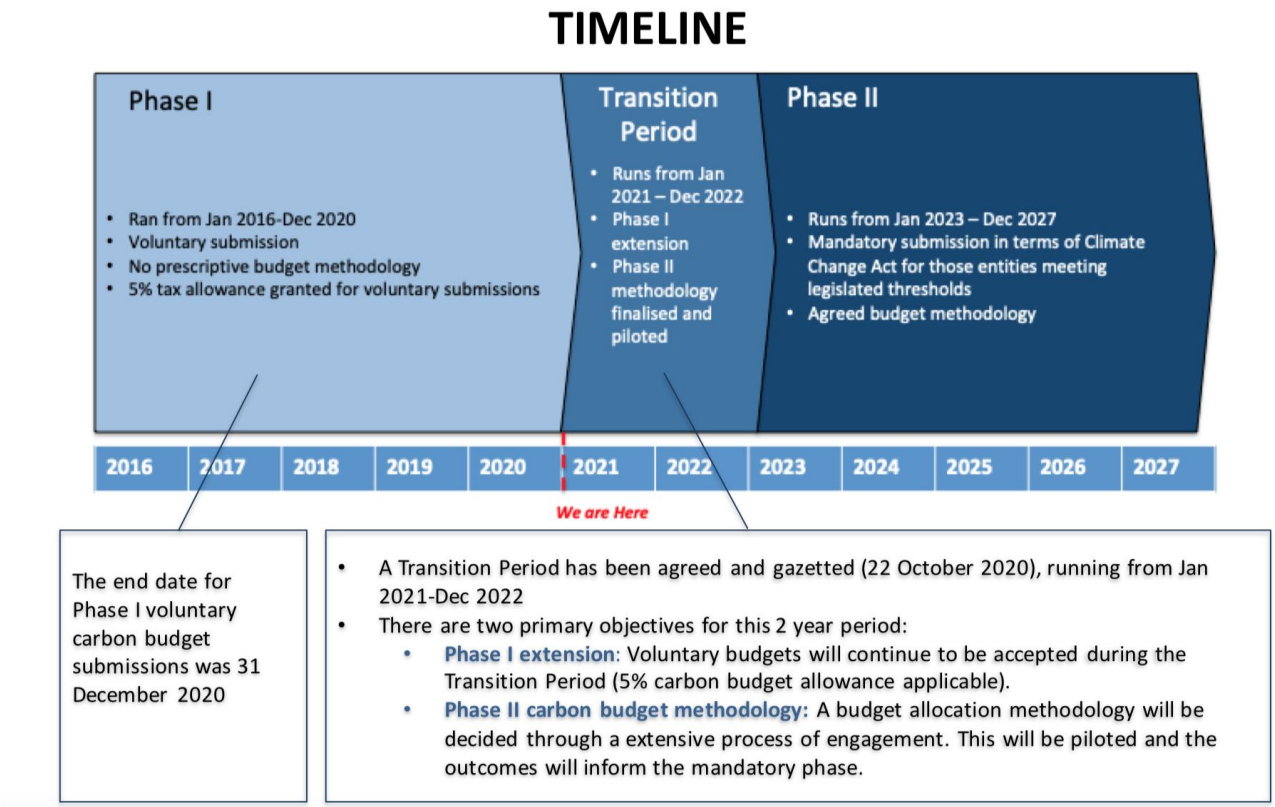
It is thus difficult to comment on the level of ambition that will be applied in future in setting individual companies' carbon budgets, and the exact technical approach to allocating carbon budgets to companies is still under development (see the timeline in **Error! Reference source not found.**). The options for budget allocation under consideration include:

- **Fixed Reduction:** Budgets are sector-wide fixed reductions. This means that for all companies with emissions in a particular sector a single emission reduction factor (e.g. 1.5%) will be applied to all emissions. This approach therefore does not consider mitigation implemented to date by the company. This is similar to the SBT or net zero absolute contraction approach.
- **Mitigation Potential:** Budgets are underpinned by the mitigation potential assessed in the Department of Forestry, Fisheries and Environment's (DFFE's) Mitigation Potential Analysis (MPA) model. The MPA model has been developed through consultation with industry and therefore reflects the mitigation measures that are applicable to South African industry (and other sectors) implemented over a time-frame that is considered achievable. The MPA trajectory does not align with a net zero or required by science trajectory.
- **Benchmarking:** In this approach, budgets are based on benchmark intensity/intensities, determined at a company level but underpinned by performance data at facility level. Product benchmarks are not available across all sectors and fall-back approaches may be applied.

Benchmarks are the preferred allocation approach, followed by mitigation potential and finally fixed reductions. Still under discussion is the level of stringency applied through the budget allocation options and it is likely that carbon budget allocation may require close consultation with individual companies until a robust allocation approach is agreed amongst all parties.

[8] https://climateactiontracker.org/countries/south-africa/
[9] The exact wording is: "to ultimately moving towards a goal of net zero carbon emissions by 2050, which will require various interventions to reduce greenhouse gas emissions. This goal, how it will be achieved to ensure a just transition, and how the economic advantages of the transition will be maximised, will be formally communicated in future iterations of this strategy."

Figure 5: The timeline for carbon budget methodology development[10]



Source: DFFE (2021) Operationalisation of the Carbon Tax – Carbon Budget – Mitigation System Phase II (2023-2027) Available at: https://static.pmg.org.za/210302CarbTax_Sys_in_South_Africa..pdf

Given that they only include certain scope 1 emissions, carbon budgets are different to the expression of SBT or Net-zero targets, which limits direct comparison. Furthermore, the carbon budgets are unique amongst commitments in that there is a consequence for exceeding the target in terms of an increased carbon tax liability. For science-based targets and net-zero targets, there are no significant implications for missing the stated target beyond reputational implications. For net-zero targets, these are only verified if near-term SBTs are likely to be achieved. In addition, the use of carbon offsets to help achieve carbon budgets is allowed (up to a certain level), whereas they may not be used towards achieving SBTs or net-zero targets. A further difference between SBTs and carbon budgets is that companies with SBTs have more flexibility in terms of how they achieve their targets as they cover both scope 1 and 2 emissions. In general, emissions associated

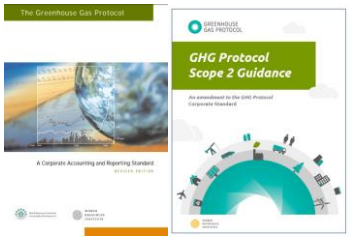
[10] https://static.pmg.org.za/210302CarbTax_Sys_in_South_Africa..pdf

with electricity use are easier to mitigate than certain process and fuel emissions, which may require significant and expensive process or technology changes to mitigate.

Despite these differences, it is argued that if companies have SBTs or net zero commitments, achieving a mandatory carbon budget that is ultimately aligned with net-zero for direct emissions should not be beyond reach, at least in the short term. **This means that companies with SBTs may be less exposed to the punitive carbon tax rate that will be levied if companies do not stick to their carbon budgets.** Such companies are expected to be actively engaging with strategies and actions to reduce their emissions.

A final note is that carbon budgets are confidential and unless published by the company themselves will not be accessible to financial institutions. **SBTs and net-zero targets can thus be used as a good proxy for whether or not carbon budgets and the associated carbon tax liability will have an impact on companies.**

6 Key resources



GHG Protocol accounting standards

The GHG inventories for the SBTs are required to be aligned with GHG Protocol accounting standards. The following resources provide the GHG standards and guidance for determining the GHG inventories.

The Greenhouse Gas Protocol – A Corporate Accounting and Reporting Standard

GHG Protocol Scope 2 Guidance

Corporate Value Chain (Scope 3) Accounting and Reporting Standard - Supplement to the GHG Protocol Corporate Accounting and Reporting Standard

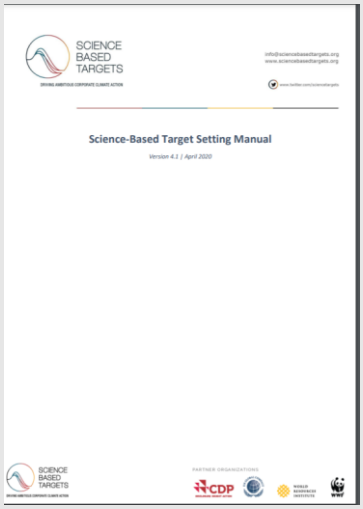
Technical Guidance for Calculating Scope 3 emissions

https://ghgprotocol.org/

Foundations of science-based target setting

The Foundation of science-based target setting report describes how the SBTi has developed the target-setting methods from science and the framework for evaluating emission scenarios associated with these methods

https://sciencebasedtargets.org/resources/files/foundations-of-SBT-setting.pdf



Science-Based Target Setting Manual – Version 4.1

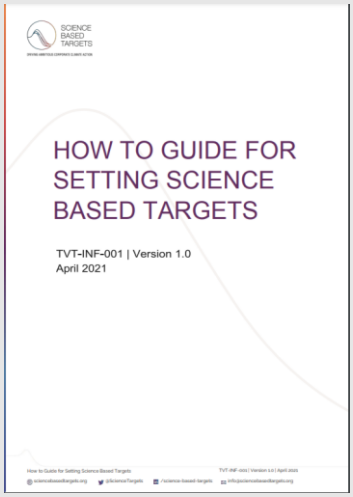
This manual provides stepwise guidance and recommendations for setting SBTs.

https://sciencebasedtargets.org/resources/legacy/2017/04/SBTi-manual.pdf

SBTi Criteria and Recommendations

This report entails the full criteria required when setting SBTs and recommendations provided by the SBTi

https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf

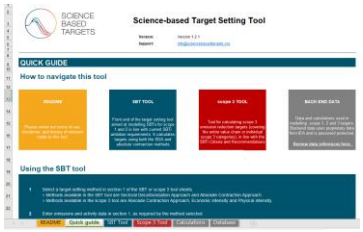


How to Guide for Setting Science Based Targets - Version 1.0

This How-to Guide provides an overview of the step-by-step guide in setting science-based targets for the various sectors

https://sciencebasedtargets.org/resources/files/SBTi-How-To-Guide.pdf

Science-based target setting tool – Version 1.2.1



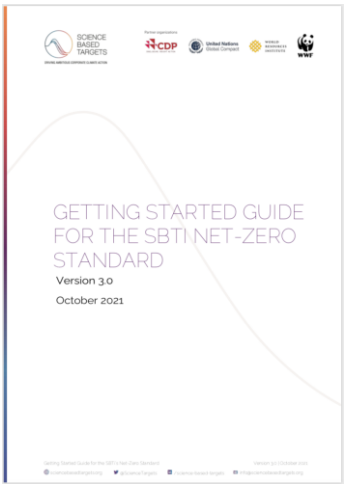
The SBTI target setting tool allows for users to model targets in line with the criteria and methods approved by the SBTi. Both the Absolute Contraction Approach and the Sectoral Decarbonization Approach (converging to 2050) models are provided with updated temperature pathways, and a sheet to calculate targets aligned with the scope 3 criteria.

https://sciencebasedtargets.org/resources/?tab=develop#resource

Target Validation Protocol

This protocol provides guidance on the target setting process, how the SBT will be assessed and the sector-specific requirements.

https://sciencebasedtargets.org/resources/legacy/2019/04/target-validation-protocol.pdf



Getting Started Guide for the SBTi Net-Zero Standard

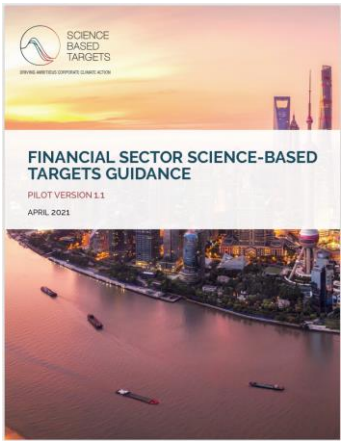
Provides a list of questions and links to all relevant guidance documents and resources

https://sciencebasedtargets.org/resources/files/Net-Zero-Getting-Started-Guide.pdf

SBTI Corporate Net-Zero Standard

Detailed guidance on setting a net-zero target

https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf



Financial Sector Science-based Targets Guidance

Detailed guidance on setting SBTs for the financial sector

https://sciencebasedtargets.org/resources/files/Financial-Sector-Science-Based-Targets-Guidance-Pilot-Version.pdf

Additional tools can be accessed here:

https://sciencebasedtargets.org/finance-tool

CDP WWF Temperature Rating Methodology

A temperature rating method for targets, corporates, and portfolios that translates climate change commitments into temperature ratings.

https://www.cdp.net/en/investor/temperature-ratings/cdp-wwf-temperature-ratings-methodology

See how this tool is used to develop targets for portfolios here: https://sciencebasedtargets.org/finance-tool

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