

Why Science-Based Targets Are the Gold Standard for GHG Emissions Strategy

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The Science-Based Targets initiative (SBTi) is a partnership between CDP, the United Nations Global Compact, World Resources Institute (WRI), and the World Wide Fund for Nature (WWF). It provides guidelines and standards for companies to set net-zero greenhouse gas (GHG) emissions targets designed to limit global climate change to 1.5 degrees C relative to pre-industrial levels. Targets are considered 'science-based' if they align with what the latest climate science deems necessary to meet the goals of the Paris Agreement - limiting global warming to well-below 2 degrees C above pre-industrial levels and pursuing efforts to limit warming to 1.5 degrees C.

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The international community is coming together to tackle climate change. The multi-stakeholder development of the Science-Based Targets initiative (SBTi) provides guidelines and standards for companies to set net-zero greenhouse gas (GHG) emissions targets designed to limit global climate change to 1.5 degrees Celsius relative to pre-industrial levels.

The purchase of carbon offsets cannot contribute to SBTi near-term or long-term targets, but companies are expected to use carbon removals, including carbon credits, to offset any residual emissions that remain once emissions from a company's entire value chain have been reduced to a level that aligns with SBTi criteria. For most businesses, these residual emissions are capped at 10% of total value chain emissions. This places impactful emphasis on companies to actively reduce their own Scope emissions.

The rigour and comprehensive scope of the SBTi are exactly what society needs to take meaningful steps toward accelerated decarbonisation. With thousands of companies already working with SBTi, this target-structured approach is set to become the gold standard protocol for companies looking to take ownership over their environmental impact and demonstrate climate action leadership.

What are Science-Based Targets?

In this context, science-based targets are greenhouse gas (GHG) emissions reduction goals with clearly defined pathways that align with scientific consensus on how to limit global climate change to 1.5 degrees C relative to pre-industrial levels.

Science-based targets involve establishing a baseline reference year and setting near-term and long-term targets in pursuit of net-zero emissions. The interim near-term target typically has a deadline of 5-10 years after plan submission to SBTi and requires steady year-over-year emissions reductions

that keep the company on track to meet their long-term target. The long-term target reflects an overall percentage reduction of GHG emissions across a company's value chain that must be met by 2050.

How to Set a Science-Based Target

The SBTi outlines a five-step process for companies to set their own targets:

Commit: this involves a letter submission that declares the company's commitment to setting a science-based target. This submission activates a two-year countdown to complete steps two through four.

Develop: the company needs to establish a baseline year reflective of normal operating conditions and then set near- and long-term targets that align with SBTi criteria for mitigating climate change.

Submit: the company must present their target to the SBTi for official validation.

Communicate: once approved, the company has to inform stakeholders of its science-based target through an official announcement.

Disclose: the company compiles annual reports that reveal its emissions and track progress toward meeting targets.

Who is Setting Science-Based Targets

The number of companies associated with SBTi continues to rise, with nearly 3,000 companies having commitments and 1,374 having approved targets. Household names like Amazon and Facebook are working with SBTi, as well as some of Australia's largest companies such as Australian Postal Corporation, Bank Australia, and Intrepid Travel. Companies worldwide are noticing the impact of this movement, encouraging more and more to adopt SBTi strategies to tackle climate change and embrace leadership in sustainability.

Why are Science-Based Targets Important?

As the connection between fossil fuel use and climate change becomes clearer, there is a growing incentive to decarbonise as a benefit to the planet, people, and the economy. Joining SBTi enables companies to become part of this movement that will empower society and build a more resilient economy.

The World Needs to Decarbonise

First and foremost, the world must decarbonise. Continued use of fossil fuels is unsustainable and is linked to devastating global shifts - like climate change, sea-level rise, and ocean acidification - that threaten biodiversity, human wellbeing, and financial security.

A Strong Business Strategy

As global consensus unites on the need for decarbonisation, setting meaningful GHG emissions targets is becoming a best practice for companies across industries. Gone are the days when a company could declare a carbon reduction commitment without validating claims. Consumers and investors alike recognize that action is required, and they will gravitate toward companies that are taking action-driven steps toward decarbonisation. Therefore, setting science-based targets is also a strong way to stay relevant to increasingly climate-conscious consumers and investors. Soon, companies without well-established climate action plans will be at a disadvantage, as investors want to ensure their capital is in vehicles that are well-equipped to navigate the changing energy and business landscape.

It Will Strengthen Resilience

To support and accelerate decarbonisation efforts, governmental policy will have to play an impactful role. This will lead to regulatory bodies and reporting frameworks to increase prioritisation of climate

action. Twenty-seven countries, including Singapore and New Zealand, have already embraced a carbon tax. More countries are likely to follow similar strategies that align net-zero initiatives with the corporate agenda. By setting science-based targets, a company is preparing for the inevitable shifts in carbon policy.

Additionally, pathways to reaching science-based targets involve strategies that will help companies save money and gain energy independence. The first steps to decarbonisation often involve improving energy efficiency, which results in lower fuel demands and therefore fewer operational expenses. Beyond energy efficiency, pathways will consider electrification of processes to transition away from fossil fuels and leverage an electric grid with an increasing abundance of clean power generation from renewable energy sources. Taking advantage of the local energy grid reduces a company's susceptibility to fluctuating fossil fuel prices, which will likely increase in the coming years as the world continues its energy transition and governments implement more policies that penalise carbon intensity. Therefore, transitioning to clean, renewable energy sources will provide more predictable energy costs and long-term energy cost savings.

Conclusion

The comprehensive SBTi approach provides guidance and support for companies serious about doing their part to tackle climate change. With targets designed to limit global warming to 1.5 degrees C, companies and entire sectors will have to take transformational action. Those that do not acknowledge science-based targets or embrace the growing decarbonisation movement will be left behind as consumers and investors transition to climate-friendly options.

To help companies stay competitive and improve their corporate responsibility strategy, Northmore Gordon assists with the design, implementation, and reporting of SBTi commitments. We help companies experience profitable decarbonisation that aligns with best scientific practices and their corporate objectives.

SBTi and Northmore Gordon are building momentum. Despite not currently being on pace to uphold the 1.5 degrees C climate change limit set in the Paris Climate Agreement, we are much closer now than we were ten years ago. Through dedication and cooperation, companies and industry can align with SBTi and cement their legacy as being part of the turning point that led society towards a cleaner, brighter future.

Using this guidance

Check the site's operating conditions, data quality, project stage and current program settings before turning the dated discussion into a scope or investment decision.

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What is the Science-Based Targets initiative (SBTi)?

The Science-Based Targets initiative (SBTi) is a partnership between CDP, the United Nations Global Compact, World Resources Institute (WRI), and the World Wide Fund for Nature (WWF). It provides guidelines and standards for companies to set net-zero greenhouse gas (GHG) emissions targets designed to limit global climate change to 1.5°C relative to pre-industrial levels. Targets are considered 'science-based' if they align 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.

What are science-based targets in the context of GHG emissions?

Science-based targets are greenhouse gas (GHG) emissions reduction goals with clearly defined pathways that align with scientific consensus on how to limit global climate change to 1.5°C relative to pre-industrial levels. They involve establishing a baseline reference year and setting both near-term and long-term targets in pursuit of net-zero emissions. These targets provide a measurable framework for organizations to decarbonize their operations and supply chains in line with climate science.

What is the difference between SBTi near-term and long-term targets?

The interim near-term target typically has a deadline of 5-10 years after plan submission to SBTi and requires steady year-over-year emissions reductions that keep the company on track to meet its long-term target. The long-term target reflects an overall percentage reduction of GHG emissions across a company's value chain that must be met by 2050. Together, these create a phased pathway toward net-zero emissions aligned with climate science.

What is the five-step process for setting a science-based target under SBTi?

The SBTi outlines five steps: 1) Commit – submit a letter declaring commitment to setting a science-based target, which starts a two-year countdown to complete steps two through four; 2) Develop – establish a baseline year reflective of normal operating conditions and set near- and long-term targets aligned with SBTi criteria; 3) Submit – present the target to SBTi for official validation; 4) Communicate – once approved, inform stakeholders through an official announcement; 5) Disclose – compile annual reports revealing emissions and tracking progress toward targets.

Can companies use carbon offsets to meet SBTi targets?

No. The purchase of carbon offsets cannot contribute to SBTi near-term or long-term targets. Instead, companies are expected to use carbon removals, including carbon credits, only to offset any residual emissions remaining once emissions from a company's entire value chain have been reduced to a level aligned with SBTi criteria. For most businesses, these residual emissions are capped at 10% of total value chain emissions, emphasizing that actual reductions must precede offset purchases.

How does establishing a baseline year support SBTi target-setting?

A baseline year must reflect normal operating conditions and serves as the reference point against which near-term and long-term emissions reductions are measured. Selecting an appropriate baseline is critical because it establishes the starting emissions level from which percentage-reduction targets are calculated. Our emissions inventory and carbon accounting services help organizations establish credible baselines by clarifying boundaries, data sources, and operating assumptions—essential groundwork for SBTi validation and ongoing progress tracking.

Why do companies increasingly adopt science-based targets?

Companies adopt science-based targets because the world must decarbonize to address climate change, sea-level rise, and ocean acidification threatening biodiversity and financial security. Consumers and investors increasingly favor companies with validated, action-driven climate commitments. Science-based targets also strengthen business resilience by preparing companies for shifting carbon policy—27 countries, including Singapore and New Zealand, have embraced carbon taxes—and by driving energy efficiency and electrification strategies that reduce operational costs and exposure to fossil fuel price volatility.

How does Northmore Gordon support companies in achieving SBTi targets?

We assist organizations with the design, implementation, and reporting of SBTi commitments, helping them achieve profitable decarbonization aligned with best scientific practices and corporate objectives.

Our carbon advisory services—including diagnostic workshops, emissions inventories, transition planning, opportunity assessment, and environmental-attribute due diligence—support companies through the five-step SBTi process. We also provide measurement and verification, renewable energy procurement (moREnewable100), and ASRS-related support for sustainability reporting.

How many companies currently participate in SBTi?

According to the available information, nearly 3,000 companies have made commitments to SBTi and 1,374 have approved targets. Notable participants include Amazon, Facebook, and major Australian companies such as Australian Postal Corporation, Bank Australia, and Intrepid Travel. This growing participation reflects increasing business recognition that science-based targets represent both a climate imperative and a strategic business advantage.

What scope of emissions must science-based targets cover?

Science-based targets must align with SBTi criteria, which typically require companies to address Scope 1 (direct emissions), Scope 2 (purchased energy), and Scope 3 (value chain) emissions across their entire operations and supply chains. This comprehensive scope ensures targets capture the full emissions footprint and prevent companies from achieving apparent reductions by simply shifting activities to suppliers. Our Scope 1, 2 and 3 inventory services help organizations understand and document their complete emissions landscape to establish robust SBTi baselines.