Science-Based and Net Zero Greenhouse Gas Targets

Using quantitative analysis to set and achieve ambitious emissions reduction targets





In the 2015 Paris Agreement, governments committed to limit global temperature rise to well-below 2° Celsius and pursue efforts to limit temperature rise to 1.5°C, the level beyond which the world will experience dangerous climate impacts. After rejoining the Paris Agreement in 2021, the United States made a public commitment to cut greenhouse gas emissions in half, based on 2005 levels, by 2030. Companies, organizations and institutions can play their part in combating climate change and minimizing risk by setting science-based greenhouse gas (GHG) emissions reduction targets (SBTs) aligned with reduction pathways that limit global temperature rise to 1.5°C or well-below 2°C compared to pre-industrial temperatures. Aligning targets with science has become a key measure of leadership; as stakeholder and shareholder expectations for strong sustainability governance are on the rise, SBTs demonstrate a commitment and vision to thrive in a low carbon future, and an understanding of an organization's full value chain.

SCIENCE-BASED TARGETS

The Science-Based Targets initiative (SBTi) provides guidance, resources and requirements to companies setting SBTs for short, medium, and long-term commitment. SBTi validates GHG emissions reduction targets against global or sector-specific emission reduction pathways that limit global temperature rise to either 1.5°C or well-below 2°C. The standards and criteria set by SBTi ensure alignment with climate science. In the past, organizations set targets largely based on what they could justify - what was feasible, what competitors were doing and what was expected — with no guarantee it was aligned with the decarbonization pathways scientists tell us are required to avoid the worst impacts of climate change. SBTs instead dictate the scope and level of ambition required to safeguard the climate irrespective of the competitive landscape. SBTs have also focused significant attention on the scope 3 emissions that frequently dominate a company's overall GHG footprint but were often less of a priority in the past.

While SBTs introduce new, more consistent criteria and an expanded focus on scope 3 emissions, many aspects of the traditional GHG emissions reduction target-setting process are unchanged: one must *commit* publicly to hold themselves accountable, *develop* the target through a consultative process, *model* a pathway to achievement, *communicate and disclose* goal progress, and *govern to implement* a decarbonization strategy.

DRIVERS FOR ACTION

Through the SBTi call to action, more than 1,300 global organizations have committed to setting science-based targets with SBTi — a combined market capitalization exceeding USD \$15 trillion. In addition, SBTi is a lead partner of the Business Ambition for 1.5°C campaign, an urgent call to action from a global coalition of UN agencies, business and industry leaders, mobilizing companies to set net-zero SBTs in line with a 1.5°C future.



Net-Zero Emissions

SBTi defines net-zero emissions as reducing human-caused GHG emissions from the atmosphere at a rate consistent with the pathways that limit warming to 1.5°C, and any remaining emissions, residual emissions, are neutralized through carbon removal. Carbon removal can be achieved through afforestation, reforestation, land restoration, soil carbon sequestration, carbon capture and storage (CCS), direct air capture and carbon storage (DACCS), and ocean alkinalization, among other methods. Net-zero targets are typically long-term targets to be achieved by 2050 (or sooner) that can be complemented by multiple short-to-medium-term SBTs along the way.

Our Services

WSP supports clients from target setting to target achievement. Our team members serve on advisory groups and participate in road testing of new target-setting protocols and guidance with clients. We use data analysis — including climate science — to determine options for a target's level of ambition, and we manage stakeholder engagement to support clients in setting a target that suits the unique interests of their business, industry and stakeholders. WSP provides support to implement measures and programs to achieve SBTs, including sourcing renewable energy, greening supply chains and purchasing carbon removals.

Key process activities



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Advise on appropriate initiative/pledge

Assessing the merits of SBTi's standard commitment letter, the Business Ambition for 1.5°C commitment, and other pledges that align with climate science.

DEVELOP THE TARGET

Benchmarking

Assessing the target-setting landscape based on activity of peers, customers and leaders to inform target scope and ambition and motivate action.

Scope identification

Identifying emissions to be covered in scope, including performing a scope 3 screening.

Stakeholder engagement

Identifying and consulting internal and external stakeholders on target scope, ambition and priorities, and communicating strategy and progress to stakeholders throughout the target period.



MODEL THE PATHWAY

Science-based target analysis

Evaluating alignment with SBTi criteria and the latest climate science for 1.5°C (well-below 2°C) and net-zero pathways, and analyzing current and historic performance and projecting pathways for future performance.

Scope 3 goal setting

Recommending scope 3 target framing approaches such as quantitative reductions, supplier engagement and customer engagement.

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COMMUNICATE AND DISCLOSE

External communication

Developing strategies to convey target progress and achievement to relevant stakeholders, including creating content such as press releases, report materials and meeting presentations.



IMPLEMENT

Target achievement planning and monitoring

Identifying and prioritizing measures to achieve the target, planning implementation of the measures, monitoring progress and revising the achievement strategy throughout the target period.



Prominent Case Studies

LED SBT SETTING FOR A TECHNOLOGY CLIENT

- Determined scope, focus and objective for setting a SBT
- Calculated scenarios to meet the published criteria of SBTi
- Engaged internal stakeholders to communicate target options and actions to achieve the target
- Generated a portfolio of GHG and facility energy projections to understand the potential impact of efficiency improvements on achievement of the recommended goal

DEVELOPED SBT TARGET ACHIEVEMENT ROADMAP FOR HEALTHCARE EQUIPMENT MANUFACTURER

- Recommended targets in alignment with SBTi criteria
- Analyzed GHG inventory to identify hotspots in operations
- Interviewed stakeholders and conducted an energy and water assessment at a key manufacturing facility to identify opportunities to reduce energy use and emissions
- Developed models to understand the impacts of business growth on GHG emissions, potential GHG reduction levers and related costs and savings

GUIDED PROCESS FOR DEVELOPING GHG TARGET ALIGNED WITH SBTI FOR AN APPAREL AND FOOTWEAR CLIENT

- Quantified value chain (scope 3) GHG emissions
- Modeled future emissions
- Recommended appropriate targets
- Supported target submission and target communications once approved by SBTi

PREPARED FOR AND DEVELOPED SBT FOR A DIVERSIFIED MANUFACTURER

- Reviewed client's scope 1 and 2 inventory to identify alignment with SBTi criteria
- Calculated scope 3 inventory across all relevant categories, focusing on category 11: customer use
- Modeled viable targets, engaging internal stakeholders to validate scope, ambition and achievement potential
- Proposed target for submission to SBTi; prepared SBTi target submission form

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About WSP USA

WSP USA is the U.S. operating company of WSP, one of the world's leading engineering and professional services firms. Dedicated to serving local communities, we are engineers, planners, technical experts, strategic advisors and construction management professionals. WSP USA designs lasting solutions in the buildings, transportation, energy, water and environment markets. With more than 10,000 people in 170 locations across the U.S., we partner with our clients to help communities prosper. In the U.S., our multidisciplinary sustainability, energy and climate change team has been providing related services for two decades. We support clients across sectors by providing strategy and planning as well as operational and technical expertise. We are passionate about contributing to our clients' successes through our depth of experience, collaborative approach and unique perspective on the market. WSP's own GHG reduction targets are approved by SBTi and we have committed to net-zero across our value chain by 2040

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