



Climate-Related Disclosures Report

April 2025

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About this Report

Time Frame

This report represents Huali Group's first disclosure of climate-related financial information (Stock code: 300979). The information disclosed in this report covers the period from January 1, 2024, to December 31, 2024. Certain data points may fall outside this timeframe; relevant details will be provided where applicable.

Scope of the Report

This report covers companies and entities within Huali Group's consolidated financial statements and aligns with the scope of the Group's annual report. In this report, Zhongshan Huali Industrial Group Co., Ltd. is referred to as "Huali Group," "the Group," "Huali," "the Company," and "we," as applicable.

Basis of Preparation

This report has been prepared in accordance with "Shenzhen Stock Exchange Self-Regulatory Guidelines for Listed Companies No. 3 – Preparation of Sustainability Reports" issued by Shenzhen Stock Exchange and the "International Financial Reporting Standard S2 – Climate-related Disclosures" published by the International Sustainability Standards Board (ISSB).

Report Disclosure

This report is disclosed concurrently with Huali Group's 2024 annual report. The financial data presented in the report is consistent with the financial statements, which have been independently audited by a third party. The financial estimates for climate risks in this report are presented in US dollars, while all other amounts are in Renminbi, unless otherwise specified.

Introduction to Climate Scenario Analysis

The scenario analysis presented in this report references standards from leading international organizations including the Science Based Targets Initiative (SBTi), the International Energy Agency (IEA), the International Renewable Energy Agency (IRENA), and the Intergovernmental Panel on Climate Change (IPCC). The carbon price data used in the analysis model is sourced from S&P Global Sustainable1, which covers current carbon taxes, emission trading schemes, and fuel tax databases across 171 countries/states. Additionally, it utilizes S&P Global's corporate carbon emissions database, the "At-Risk Carbon Revenue" database, and calculations for carbon budget path consistency. Physical risks are assessed using the Climonomics model from The Climate Service (TCS) under S&P Global Sustainable1.

Report Access

This report is prepared in both Simplified Chinese and English and is available in electronic format. The electronic version can be downloaded and read from Huali Group's official website at <http://www.huali-group.com>. In case of any discrepancies in understanding between the Chinese and English texts, the Simplified Chinese text shall prevail.

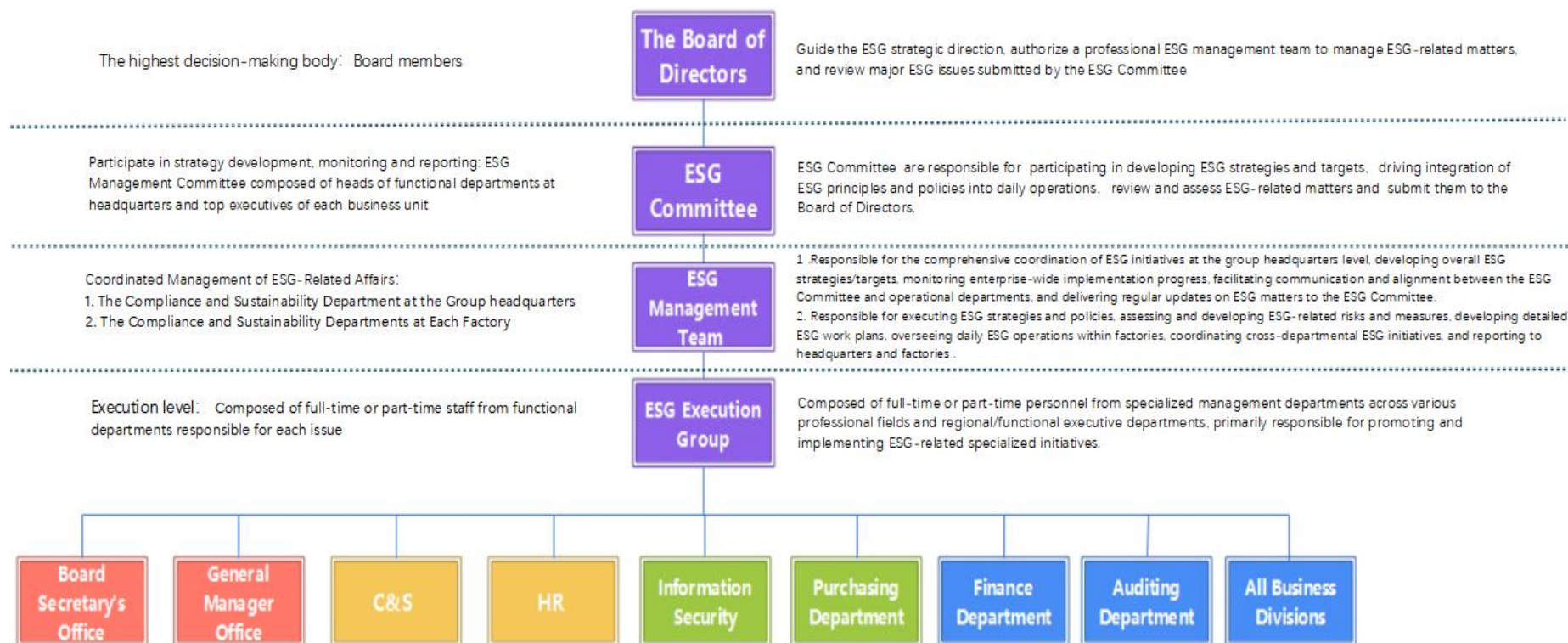
Governance

Climate Governance

In recent years, the Board of Directors and leadership of Huali Group have placed significant emphasis on the impact of climate change on the company. Addressing climate change, as a critical issue for sustainable development, has been deeply integrated into Huali's business strategy and corporate management. The Group has established a climate change governance framework directly led by the Board of Directors, clearly defining the responsibilities at all levels from governance to management and execution, thereby incorporating sustainable development into the highest level of corporate governance. The Board of Directors of Huali strategically oversees climate and sustainability issues, effectively promoting climate change governance and execution efforts.

Huali Group Climate Governance Structure:

Figure 1-1 Climate Governance Structure of Huali Group



The Board and Management's Oversight Mechanism for Climate Issues

The Board of Directors of Huali Group serves as the highest decision-making body for climate governance, consisting of 13 directors, including 4 female directors and 5 independent directors. The Board is responsible for reviewing climate-related risks, setting and implementing strategies and objectives, as well as overseeing the Group's medium- to long-term investment plans. Additionally, the Board closely monitors the development and formulation of international climate change policies and information disclosure standards, ensuring the implementation of applicable sustainability reporting and climate reporting standards for Huali. The Group has established a corporate governance structure referred to as "Three Meetings and One Layer," which includes the General Meeting of Shareholders, the Board of Directors, the Supervisory Board, and the company's management team. The Board has also established a Nomination and Remuneration Committee and an Audit Committee to effectively support its supervision and decision-making on climate-related issues (for more information on Huali Group's governance structure, please refer to the Huali Annual Report).

The Board meets at least twice a year to hear reports from the company's management on measures taken to address climate and sustainability-related risks and opportunities, sustainable investment plans and reports on significant climate and sustainability issues, work plans, performance target setting, and process tracking. The Board also reviews and approves major operational matters, while overseeing climate-related risks and opportunities.

To better support the Board in managing climate change, Huali has established an ESG Committee, composed of heads of various functional departments from headquarters and senior executives from each business unit. This committee is responsible for participating in the formulation of climate strategic objectives and promoting the integration of ESG concepts into daily operations. It also reviews climate and sustainability-related matters and reports to the Board.

Under the ESG Committee, the Group has formed an ESG management team, which consists of the Compliance and Sustainability Department at the Group headquarters and the Compliance and Sustainability departments of each factory. This team ensures that climate issues are integrated into the management and planning of the company's core strategic departments. The Compliance and Sustainability Department at the headquarters is responsible for the overall coordination of climate-related efforts at the headquarters level, setting overall climate strategic objectives, and monitoring implementation, while facilitating communication and coordination between the ESG Committee and various management departments, and regularly reporting on climate-related matters to the ESG Committee.

The Compliance and Sustainability departments at each factory are responsible for the specific execution of climate-related strategies and policies, assessing and formulating climate-related risks and response strategies, developing detailed climate action plans, managing climate-related matters on a daily basis, organizing relevant departments to carry out climate-specific tasks, and reporting to both headquarters and the factories management.

In 2024, the ESG management team convened two meetings to discuss and make decisions on significant issues, including:

1. Initiating the identification of climate-related risks and opportunities and conducting climate scenario analysis in accordance with International Financial Reporting Sustainability Disclosure Standard No. 2 (IFRS ISSB S2), as well as international and national sustainability disclosure requirements, marking an important step towards more scientifically and effectively climate-related risks management.
2. Exploring and establishing an Energy and Carbon Management Group and experts responsible for leading Huali's energy consumption and carbon emissions calculations, and for setting corresponding energy and carbon management objectives.

At the execution level, Huali has formed an ESG Execution Group, consisting of dedicated personnel from relevant functional departments. The execution group includes key departments such as the Board Office, General Office, Human Resources, Procurement, Finance, and Audit. The ESG Execution Group is led by the General Manager of the Compliance and Sustainability Department at the Group headquarters, who is responsible for overseeing ESG-related work. This team holds quarterly meetings, implementing a quarterly reporting mechanism to review progress on climate and sustainability-related work, covering core performance indicators, major project advancements, and planning for the next quarter.

To ensure that the Board and relevant management personnel are timely informed of the latest trends in climate-related risks and opportunities, and to supervise the core management functions related to climate matters, the Compliance and Sustainability Department at the headquarters invited Board members and ESG management to participate in a climate workshop training held by S&P Global in December 2024, with plans for similar training to be conducted periodically in the future. The ESG management team comprises numerous professionals with relevant qualifications and expertise. Team members have systematically undergone professional training related to sustainability, gaining a deep understanding of the requirements of ISSB, GRI, CSRD, and the Ministry of Finance and exchanges in China, and possess expertise in addressing climate change. Team members hold recognized qualifications such as Certified Safety Engineer in China, Certified Safety Professional in the U.S., Energy Manager Certification, and Greenhouse Gas Verifier Certification, ensuring a high level of professionalism in addressing climate change.

To strengthen the Board's and management's oversight of climate-related objectives, Huali has established specific climate-related goals for the Board and management. The Nomination and Remuneration Committee of the Board is responsible for developing assessment criteria for directors and senior management, conducting corresponding evaluations, and formulating and reviewing remuneration policies and schemes for directors and senior management. Environmental performance indicators related to climate change and water resource management are included in the annual remuneration of directors and executives.

To ensure the achievement of key ESG performance indicators, Huali plans to align the performance indicators of management with climate-related indicators, such as energy conservation, carbon reduction, and physical risk prevention.

Upgrading the CDP Environmental Information Disclosure System and Climate Governance Practices

Standardization of Environmental Information Disclosure

International Standards Benchmarking Practice: In April 2024, Huali Group was recognized by the global environmental information disclosure platform CDP as a key enterprise in supply chain climate action. Based on investor demand, the Group fully discloses its environmental management information through the CDP platform. Its disclosure framework deeply integrates the International Sustainability Standards Board (ISSB) IFRS S2 climate standards and the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), enabling comprehensive alignment of environmental risk quantification indicators with the international capital markets.

Advancement in Climate Governance Performance and Capabilities

Through the CDP questionnaire system, Huali Group provides standardized data across 16 core indicators, including environmental policies, carbon emission intensity, and supply chain climate resilience, which serve as foundational data support for investors to construct climate risk quantification assessment models. In February 2025, CDP

announced its 2024 scoring results, with Huali Group receiving a B rating in its first participation in the climate change sector. The Group's scores in five key action plans, including Scope 1, 2, and 3 emissions, risk disclosure, opportunity disclosure, and governance, exceeded the industry average.

Setting Industry Benchmark

This upgrade in environmental information disclosure responds to the mandatory disclosure requirements for climate scenario analysis and supply chain carbon management outlined in the "Guidelines for Sustainability Reporting of Listed Companies." Its model of "localization of international standards + data-driven decision-making" provides a replicable practice paradigm for ESG governance among publicly listed manufacturing companies. By establishing a two-way value transmission mechanism between environmental data and capital markets, Huali Group has positioned itself at the forefront of the industry in ESG rating competitiveness.

Climate Strategy

The Group fully recognizes the importance of developing a climate strategy and enhancing climate resilience. Huali identifies climate-related risks and opportunities in accordance with the International Sustainability Standards Board's Climate Change Standard No. 2 (IFRS S2)¹ and the sustainability reporting guidelines issued by the Shenzhen Stock Exchange² in 2024. The Group conducts scenario analyses of key climate risks, quantifies the financial impacts of these risks, and formulates corresponding climate transition plans and strategic response.

Identify Climate-related Risks and Opportunities

The primary step in Huali's climate change strategy is the systematic identification and assessment of climate-related risks and opportunities in conjunction with the company's business operations. Huali identifies relevant climate risks and opportunities based on the IFRS S2 and the sustainability reporting guidelines issued by the Shenzhen Stock Exchange. Through climate workshops, in-depth communication with stakeholders, and collaboration with S&P Global to conduct climate scenario analyses, Huali clarifies the significant impacts of relevant climate risks and opportunities on the company's business, strategy, and financial planning, including the nature of these impacts and their time dimensions.

In line with the timeframe set for Huali's greenhouse gas reduction targets, the Group categorizes the timeframes for the impacts of climate risks and opportunities into short-term (2025-2026), medium-term (2026-2032), and long-term (2032-2050). The Environmental, Social, and Governance (ESG) management department at Huali, following in-depth discussion and research, assesses the impact of identified risks on business strategy in the short, medium, and long term based on a comprehensive understanding of the Group's operations, and assigns impact ratings of high, medium, or low. The second step involves assessing the financial impacts of identified risks, using S&P Global's models and data to further quantify the financial implications of transition risks and physical risks on Huali's operations and supply chains. Ultimately, Huali combines qualitative and quantitative assessments of risks to derive comprehensive evaluations of climate risk impacts in the short, medium, and long term.

Regarding transition risks, Huali, in collaboration with S&P Global, conducts in-depth research on the primary impacts of policy risk, market risk, technological risk, and reputational risk:

- **Policy Risk (Carbon Price Risk):** Scenario analyses indicate that under a net-zero scenario, the rising carbon prices in the short and medium term have a limited impact on Huali's operating profits (approximately 5% of net profit). In the long term, given Huali's own emission reduction targets, the carbon costs that the company will need to bear for future operations will gradually decrease if targets are met.
- **Market Risk (Supply Chain):** The carbon price pressure resulting from rising carbon costs for suppliers has a limited short-term impact. However, in the medium to long term, Huali's suppliers of chemicals and packaging materials are likely to be increasingly affected by the continuously rising carbon prices, necessitating ongoing carbon management efforts throughout the supply chain.

¹ :International Sustainability Standards Board's Climate Change Standard No. 2 (IFRS S2), 2023, <https://www.ifrs.org/issued-standards/ifrs-sustainability-standards-navigator/ifrs-s2-climate-related-disclosures/#standard>

² :Self-Regulatory Guidelines No. 17 for Companies Listed on Shenzhen Stock Exchange—Sustainability Report (For Trial Implementation),2024, https://www.szse.cn/lawrules/rule/stock/supervision/currency/t20240412_606839.html

- **Technological Risk:** From the perspective of low-carbon energy investment, Huali is expected to benefit from the continued decline in costs of clean energy sources such as photovoltaics and wind power, leading to a gradual decrease in energy technology transition costs in the medium to long term. Conversely, regarding the use of low-carbon materials, Huali primarily procures from suppliers with the required technology. Due to limitations in technological development, medium- to long-term risks remain relatively high.
- **Reputational Risk:** Climate issues have become a "must-answer" question in capital market investments and corporate sustainability. In the short term, stakeholders' ongoing attention to Huali's climate performance, ambition in carbon reduction actions, and targets significantly influence the company's development. In the medium to long term, by integrating climate strategy into corporate development and continuously enhancing the company's sustainability capabilities, the impact of reputational risk will correspondingly decrease.



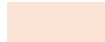
Regarding physical risks, Huali has assessed the financial impacts of physical risks on the Group's assets and those of key upstream suppliers. The results indicate that under medium and high emission scenarios, the financial impacts of physical risks in the short and medium term are limited. However, in the long term, the financial impacts associated with extreme high temperatures and water resource pressures will continue to increase steadily.

Table 2-1 Identifying and Assessing the Impacts of Climate Risks

Type	Relevant Risks	Specific Risk Classification	Impact Channels	Extent of Impact		
				Short Term (2025-2026)	Medium Term (2026-2032)	Long-Term (2032-2050)
Transition Risks	Policies and laws	Current carbon emission and energy consumption regulations	China is gradually strengthening its greenhouse gas reduction requirements for enterprises, shifting from dual control of energy consumption to dual control of carbon emissions. Concurrently, countries where Huali operates, such as Vietnam and other Southeast Asian nations, have also introduced management regulations addressing greenhouse gas emissions and energy consumption.			
		Emerging carbon markets and regulations (such as the EU CBAM regulation)	The potential expansion of carbon markets and carbon trading systems may expose Huali to additional carbon costs associated with its own carbon emissions. Additionally, regulations regarding product carbon footprints and the imposition of the Carbon Border Adjustment Mechanism (CBAM) in the European market will significantly impact Huali's product exports.			
		Compliance/Litigation	Mandatory reporting and compliance costs, along with potential litigation risks, may pose challenges to Huali's operations.			
	Market risk	Supply chain costs	Compliance and emission costs incurred by raw material suppliers in the market may be passed on to Huali, resulting in increased supply chain costs for the company.			
		Customer preferences	Shifting preferences among brand customer and consumer are intensifying			

	Technology risk	change	market competition and may negatively affect Huali's sales.			
		Low-carbon products and services	The demand for low-carbon and environmentally friendly products from brand customers is prompting Huali to shift towards the procurement and research and development of low-carbon materials.			
	Reputation risk	Low-carbon technologies and investments	Huali is committed to transitioning to low-carbon emission technologies, such as using green clean energy to reduce carbon emissions in operations.			
		Company image and value	Evaluations and comparisons made by capital markets, consumers, and the public regarding Huali's climate transition efforts will directly impact the company's market reputation.			
Physical Risk	Acute	Floods caused by heavy rainfall, wildfires, typhoons, etc. (based on the average score of SSP 2-4.5)	<p>Extreme weather events (such as typhoons, floods, and heavy rainfall) may lead to the following consequences:</p> <ol style="list-style-type: none"> 1. Disruptions in Huali's production and damage to facilities, resulting in decreased output. 2. Interruptions in transportation or the supply chain operations. 3. Diminished asset value of infrastructure (such as production facilities). 4. Increased safety costs for employees. 			
	Chronic	Extreme heat, drought, water scarcity and coastal flooding (based on the average SSP2-4.5 score)	<p>Long-term climate disaster risks (such as rising sea levels and extreme high temperatures) may result in the following consequences:</p> <ol style="list-style-type: none"> 1. Coastal facilities and assets may suffer damage or premature decommissioning. 2. Employees may be affected by high temperatures, leading to increased health expenditures. 3. Prolonged high temperatures may result in rising cooling costs. 4. Water resource scarcity may disrupt production activities. 			

Source: S&P Global Sustainable Research

 : low
  :medium
  : high

At the same time, Huali recognizes the importance of climate opportunities for its business and strategy, conducts in-depth analyses aimed at leveraging these opportunities to reduce climate risks and enhance commercial and asset value. For instance, in terms of the opportunity of "climate adaptability," Huali focuses on actively addressing the

climate risks faced by its assets and supply chain, while proactively implementing mitigation measures. Given that some of Huali's assets are increasingly affected by extreme high temperatures and water resource pressures in the medium to long term, the significance of climate adaptability for Huali is correspondingly heightened.

Table 2-2 Identifying Climate Opportunities and Assessing the Impacts of Climate Opportunities

Type	Climate-Related Opportunities	Impact on Business Activities	Extent of Impact		
			Short Term (2025-2026)	Medium Term (2026-2032)	Long-Term (2032-2050)
Resource efficiency	Production and transportation efficiency	By adopting more efficient and energy-saving transportation methods and designing optimized production and distribution processes, Huali is able to achieve resource savings and enhance operational efficiency.			
	Circular economy	Measures such as product recycling, material reuse, and waste repurposing contribute to the establishment of a circular economy, thereby saving costs and increasing benefits.			
Energy sources	Clean energy	The proactive adoption of clean energy and the procurement of green electricity aims to reduce future emission costs associated with greenhouse gas emissions.			
Products and services	Low-carbon environmental protection products	Developing low-carbon and environmentally friendly products effectively addresses the changing preferences of consumers and the demands of brand customers.			
Market	Deepening brand collaborations and expanding in emerging markets	By entering new markets, establishing partnerships with new collaborators, and gaining favor in capital markets, Huali is expected to further increase its market share.			
	Carbon market	The company can also effectively manage its greenhouse gas emissions by participating in carbon trading markets and Capitalizing on carbon credit trading for economic benefits.			
Climate adaptation	Assets under operation for climate mitigation and adaptation	Based on the analysis of medium- to long-term physical climate risks, Huali will proactively implement mitigation measures to enhance climate resilience.			
	Supply chain climate resilience	Advance planning and response to the future impacts of physical risks on the supply chain will further strengthen its climate resilience.			

Source: S&P Global Sustainable Research

Climate Adaptation Assessment and Scenario Analysis

To further assess the impacts of physical risks and transition risks on the company, Huali collaborated with S&P Global Sustainable1 to conduct a systematic climate scenario analysis, referencing climate scenarios provided by the International Energy Agency (IEA) and the Intergovernmental Panel on Climate Change (IPCC).

Table 2-3 Summary of Transition Risks and Physical Risks Scenarios

Scenario Selection	Transition Risks	Physical Risk
Context And Description Of The Scenario	<p>The International Energy Agency (IEA) updated three energy transition scenarios in its 2024 publication, "World Energy Outlook." The IEA's long-term energy scenarios focus on the future development changes of the global energy system from a policy perspective.</p>	<p>The RCP-SSP trajectories in the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (2021) combine two key components: RCP (Representative Concentration Pathways) begins with physical states, considering the radiative forcing levels corresponding to 2100. SSP (Shared Socioeconomic Pathways) reflects the potential changes in net emissions by combining qualitative descriptions of social development characteristics with quantitative development measures and climate data, outlining how humanity might rapidly reduce greenhouse gas emissions.</p>
High Emission Scenario	<p>Stated Policies Scenario (STEPS): This scenario broadly assesses current policies, including the nationally determined contributions (NDCs) outlined in the Paris Agreement. The Stated Policies Scenario aims to provide insights into the mainstream direction of energy system development through a detailed examination of the existing policy landscape. According to this scenario, there is a 50% probability that global temperatures will rise by 2.4°C by 2100.</p>	<p>SSP5-8.5 (Low Mitigation Scenario): It is projected that by 2075, total greenhouse gas emissions will double, leading to a global average temperature increase of 3.3-5.7°C by 2100.</p>
Medium Emission Scenario	<p>Announced Pledges Scenario (APS): This scenario illustrates the extent to which announced ambitions and targets can achieve the net-zero emissions reduction goals required by 2050. It encompasses all recent major national announcements up to the end of August 2024, including 2030 targets and long-term net-zero or carbon neutrality commitments, regardless of whether these announcements have been established in legislation or updated national contributions. According to this scenario, there is a 50% probability that global temperatures will rise by 1.7°C by 2100.</p>	<p>SSP2-4.5 (Medium Mitigation Scenario): Total greenhouse gas emissions are expected to stabilize at current levels before 2050, followed by a gradual decline from 2050 to 2100. This scenario is projected to result in a global average temperature increase of 2.1-3.5°C by 2100.</p>

Low Emission Scenario

Net Zero Emissions Scenario (NZE): This normative scenario demonstrates pathways for the global energy sector to achieve net-zero carbon dioxide emissions by 2050, with developed economies leading the way in reaching net-zero emissions. According to this scenario, there is a 50% probability that global temperatures will rise by 1.5°C by 2100.

SSP1-2.6 (Aggressive Mitigation Scenario): It is anticipated that total greenhouse gas emissions will be reduced to net zero by 2050, resulting in a global average temperature increase of 1.3-2.4°C by 2100, in line with the goals of the Paris Agreement.

Transition Risks

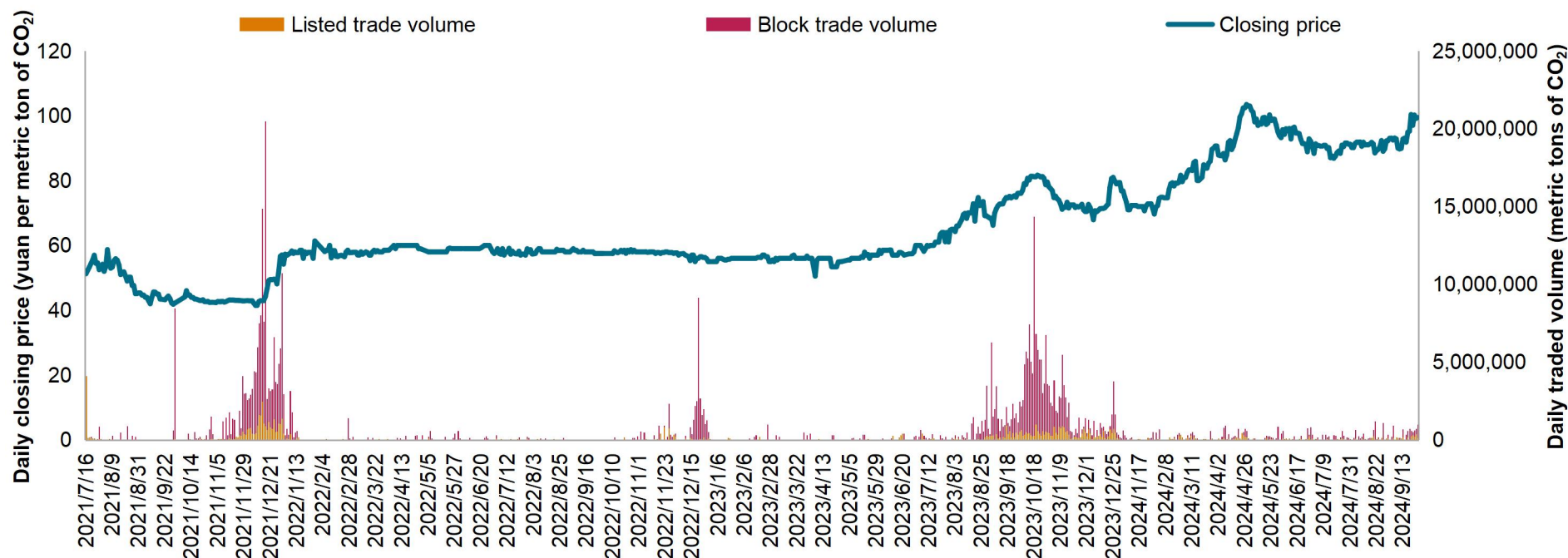
Policy Risks

In actively responding to climate change, governments around the world are continuously strengthening climate regulatory policies to limit economic activities that have adverse effects on the climate. To accelerate the low-carbon transition of the economy, governments primarily utilize carbon pricing markets to incorporate carbon emission costs into corporate production and operational activities, thereby encouraging companies to adopt energy-saving and emission-reducing measures. Consequently, in terms of policy risk, Huali focuses on the development of China's carbon market and the potential increasing carbon price pressure on the company's operating costs and profitability.

Since the establishment of the national carbon emission trading system in July 2021, the carbon market has continued to develop. The Central Economic Work Conference held at the end of 2024 mentioned that the government will continue to promote the construction of the national carbon market in 2025, accelerating the establishment of a product carbon footprint management system and carbon labeling certification work. Currently, the country has shifted from dual control of energy consumption to dual control of carbon emissions, making the carbon market a key tool for low-carbon transformation. This shift not only encourages companies to fulfill their responsibilities for emission reduction but also promotes the discovery of carbon asset prices, driving more effective carbon asset management.

Looking ahead, China's carbon market construction will expand in phases to more energy-intensive and high-emission industries, including aluminum, cement, steel, petrochemicals, and pulp industries, gradually increasing the paid ratio to reflect true emission reduction costs and enhancing price discovery functions. For manufacturing companies like Huali, paying close attention to the development of the carbon market and carbon emission costs is the core for identifying the impact of low-carbon transformation on their business.

Figure 2-1 Daily Trading Price and Volume of China's National Carbon Emission Trading System



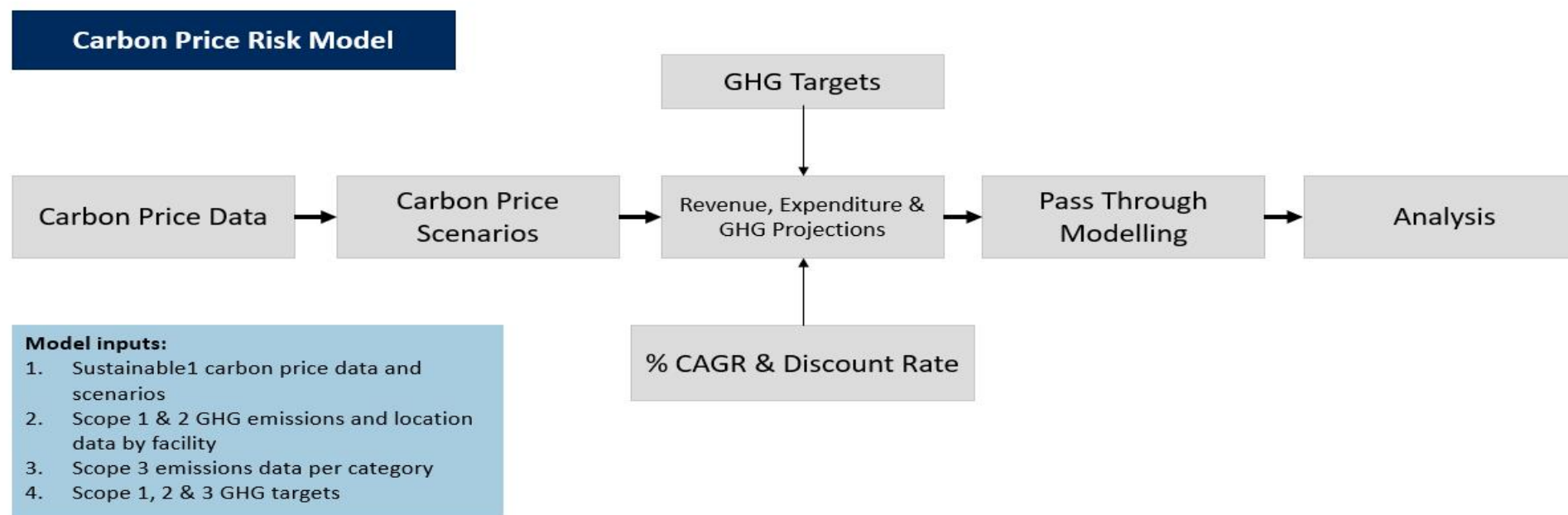
Source: S&P Global Commodity Insights, Shanghai Environment and Energy Exchange

Note: Listed trading refers to trading on an exchange, while OTC trading is a bulk trade of more than 100,000 tons of quota, usually conducted over the counter through bilateral negotiations

To better evaluate the potential financial impacts of the carbon market on Huali, the company utilizes climate scenario analysis to assess its climate adaptability. Huali assumes future carbon prices based on the three climate scenarios proposed by the International Energy Agency (IEA) ("Stated Policies," "Announced Pledges," and "Net Zero Emissions" scenarios) and references the compliance carbon prices in the Chinese carbon market to calculate the "carbon risk premium" (future carbon price minus current carbon price) for the short, medium, and long term.

Secondly, Huali uses its 2023 financial data as a baseline to make basic assumptions about financial operating revenues and expenditures for the short, medium, and long term. These projection will serve as the foundation for future financial analysis. Finally, Huali combines its Scope 1, Scope 2, and Scope 3 emissions data from 2023, along with its science-based carbon targets, to analyze its carbon emission pathways and the potential impact of carbon costs on its financial performance.

Figure 2-2 Process and Assumptions of Climate Policy Risk Scenario Analysis in Huali



Source: S&P Global Sustainable1 Research

In the short term, under the "Net Zero Emissions" scenario, the rapid increase of carbon prices due to stringent climate targets results in carbon costs accounting for approximately 6-8% of Huali's operating profits. In the medium to long term, Huali has established and approved science-based carbon reduction targets that align with the 1.5°C warming goal of the Paris Agreement. These targets help to effectively mitigate the pressure from rising carbon prices. Across the three climate scenarios, the proportion of Huali's carbon cost risk relative to its revenues shows a declining trend.

Table 2-4 Impact of Future Carbon Price Risk on Huali's Earnings Under Three IEA Scenarios

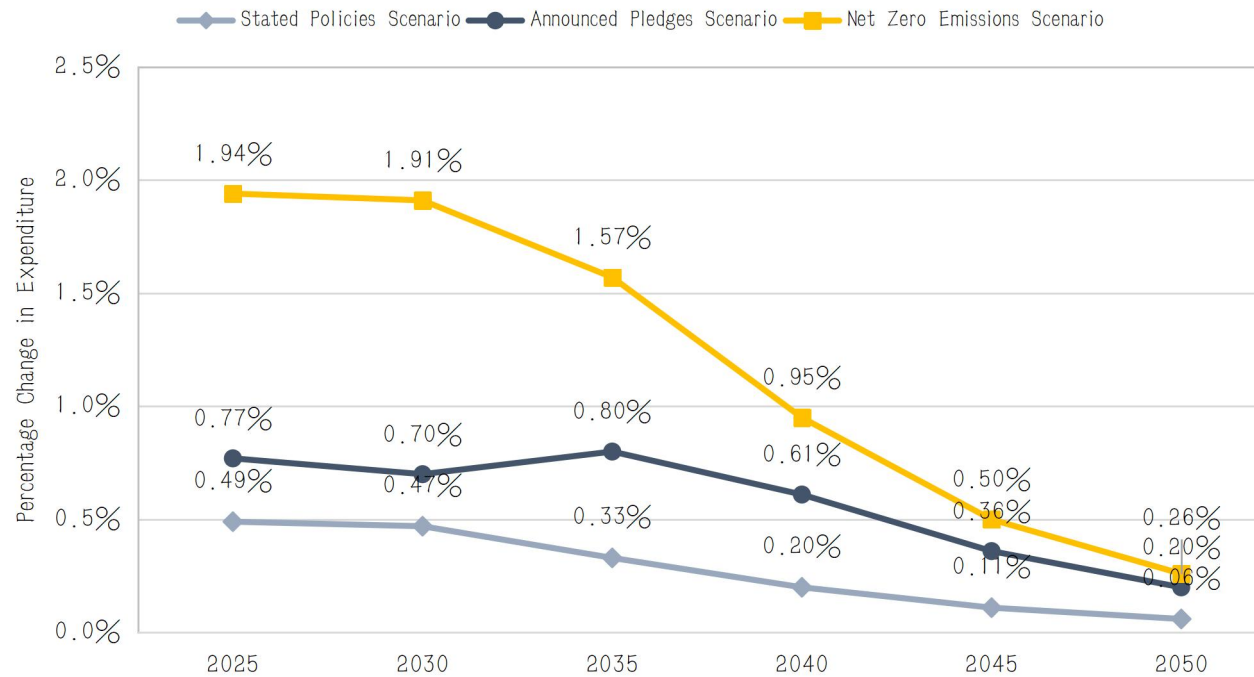
Three Scenarios	Stated Policy Scenario (STEPS)	Announced Policy Scenario (APS)	Net Zero Emissions Scenario (NZE) 2050
	Impact of carbon risk premium on Huali's EBIT under different scenarios (based on the assumption that Huali achieves its SBTi targets)		
Short Term (2025-2026)	2026:1.45%	2026:2.22%	2026:5.65%
Medium Term (2026-2032)	2030:1.22%	2030:1.81%	2030:4.96%
Long-Term (2032-2050)	2050:0.09%	2050:0.30%	2050:0.38%

Source: S&P Global Sustainable Research

Note: Revenue refers to Huali's operating profit, which is the difference between operating income and expenses. The impact of the carbon risk premium on revenue is calculated as the percentage effect of including carbon emission costs in the total costs on operating profits.

Under the "Net Zero" scenario, in the short to medium term (2025-2032), potential carbon price costs account for approximately 2% of Huali's total expenses. After 2030, however, this proportion is anticipated to gradually decline as Huali implements its emission reduction targets.

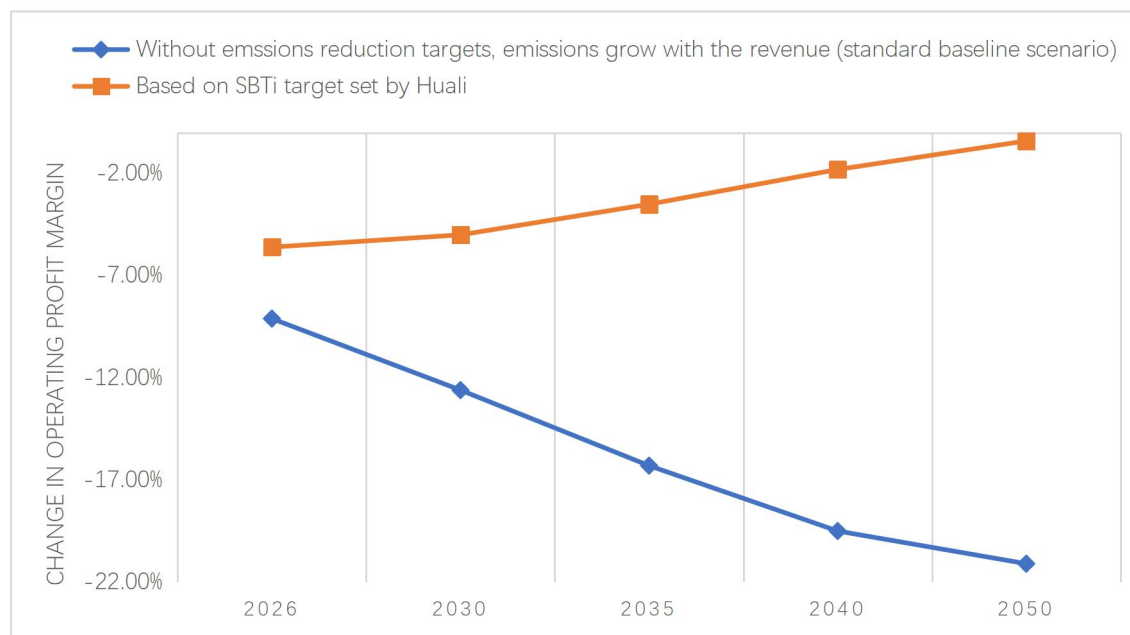
Figure 2-3 Percentage of Carbon Price Costs Relative to Corporate Operating Expenses Under the Three IEA Scenarios



Source: S&P Global Sustainable Research

Assuming Huali does not set corresponding emission reduction targets and that the company's financial forecasts remain unchanged, it is expected that under the Net Zero scenario, the carbon price risk associated with Huali's operational emissions (Scope 1 and Scope 2) will increase fivefold by 2050. If Scope 3 emissions are also taken into account, the overall carbon price costs under the Net Zero scenario will reduce Huali's operating profit margin by 21% by 2050. Therefore, establishing emission reduction targets and ensuring their implementation is crucial for Huali to address climate risks and enhance climate adaptability.

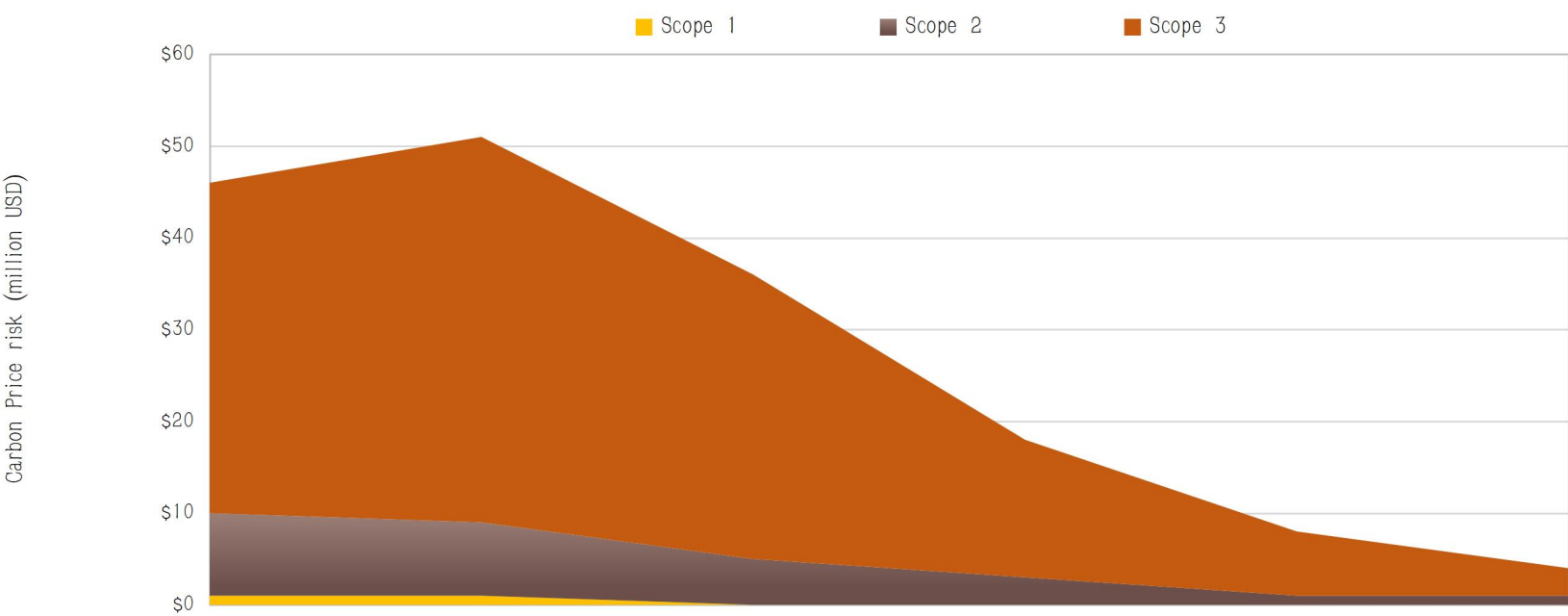
Figure 2-4 Comparison of the Impact of Carbon Prices on Huali's Operating Profit Margin Under the Achievement of Established SBTi Emission Reduction Targets Versus the Assumption of No Emission Reduction Targets



Source: S&P Global Sustainable Research

Among different emission categories, the carbon price costs associated with Scope 3 account for the vast majority of Huali's total carbon price costs. According to the 2023 emissions data, Huali's Scope 3 emissions comprise 78% of the total emissions (Scope 1, Scope 2, and Scope 3). In the scenario analysis, Huali only included upstream Scope 3 emissions (Categories 1 to 8). Within these upstream Scope 3 emissions, "purchased goods and services" contribute a significant 69% of the total. This indicates that supply chain emissions reduction is a crucial aspect for Huali in mitigating carbon price risks.

Figure 2-5 Carbon Pricing Risks for Huali Across Different Emission Scopes Under the IEA Net Zero Scenario



Source: S&P Global Sustainable1 Research

Market Risk

Climate change will have a profound impact on the supply and demand dynamics of the market. In the context of the evolving carbon market, upstream supply chain industries may pass rising costs down to downstream enterprises, thereby increasing the supply chain expenditure costs for companies. Huali calculates the "EBITDA Risk Indicator" based on S&P Global's industry average carbon price risk metrics, combined with the industry's EBITDA values, to assess the carbon pricing risks faced by Huali's primary raw material suppliers under different climate transition scenarios. The EBITDA carbon price risk depends on the average greenhouse gas footprint of the enterprise, the health of its profit margins, and the carbon pricing in place in its operating region.

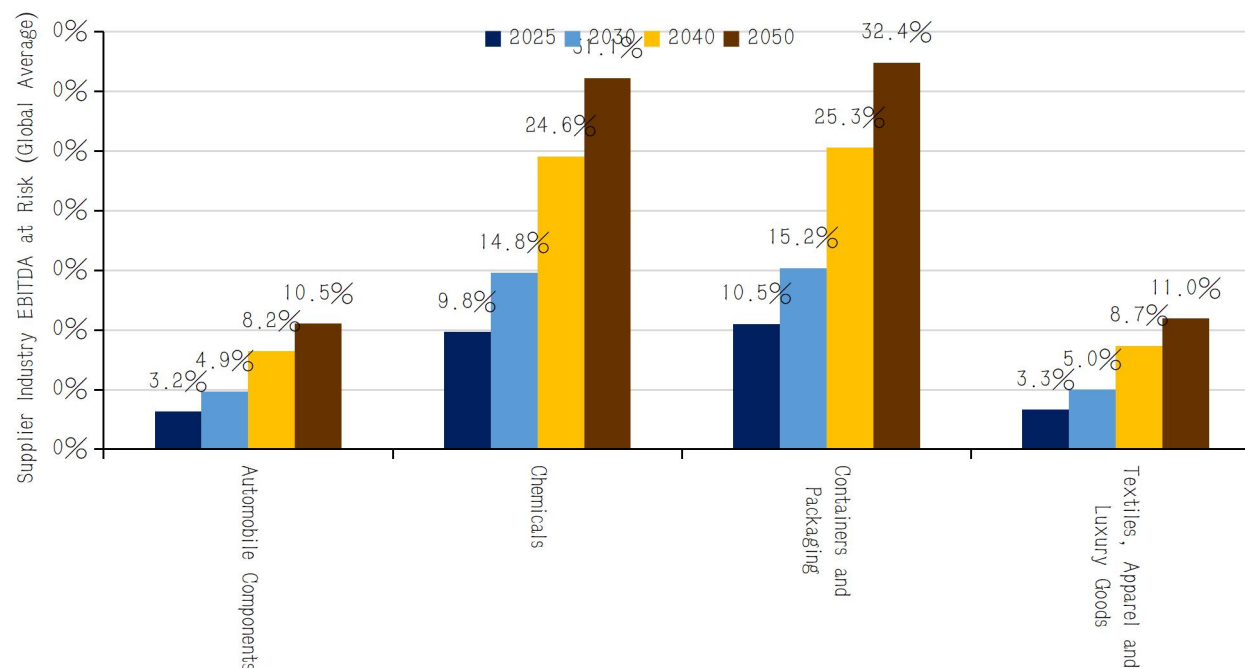
Through this assessment, Huali identifies the industries within the supply chain that are most affected by carbon risks in the future, providing important references for the company's supplier procurement and engagement strategies. In particular, the chemical sector (such as synthetic agents, adhesives, and other chemical materials) and the packaging materials industry exhibit a high percentage of EBITDA risk. Under the 1.5°C net-zero scenario, it is expected that by 2030, the average EBITDA risk ratio for these two industries will reach 15%, and by 2050, the risk will double to 31-32%. As a result, Huali plans to prioritize detailed screenings of major suppliers in these two industries and will pay close attention to suppliers' management of carbon emissions, including their emissions calculations and the implementation of reduction targets.

Among Huali's top 60 suppliers, those in the rubber, synthetic agents, and packaging materials sectors are predominantly located in Vietnam. Therefore, Huali is highly attentive to the Vietnamese government's climate initiatives and the development of the carbon market.

Most of Huali's processing and manufacturing plants are concentrated in Vietnam. With the approaching implementation of the European Union's Carbon Border Adjustment Mechanism (CBAM), Vietnam is accelerating the development of its carbon market. In 2024, Vietnam's Ministry of Natural Resources and Environment released a draft amendment to Government Decree No. 06/2022/ND-CP, which stipulates that power plants, steel mills, and cement production facilities will receive government-allocated emission quotas in 2025 and 2026 and must implement reduction plans based on the allocated quotas.

The original Decree No. 06/2022/ND-CP, issued by the Vietnamese government in 2022, laid the groundwork for greenhouse gas emissions regulation, covering industries such as thermal power generation, industrial production, goods transportation, commercial buildings, and solid waste management. This revision underscores the government's clear initiatives to promote corporate adaptation to emission reporting and carbon trading. The Vietnamese government has announced plans to officially operate a national carbon emissions trading market by 2028 and intends to begin trial operations of a carbon trading platform starting in 2025 to prepare for the full launch.

Figure 2-6 Average EBITDA at Risk Percentage by GICS Industry Under the 1.5°C Scenario



Source: S&P Global Sustainable Research

Note 1: The Global Industry Classification Standard (GICS) is a method for categorizing companies into specific economic sectors and industry groups that best define their business operations. It is an industry classification system developed by MSCI and S&P in 1999 for use by the global financial community.

Note 2: EBITDA Risk Indicator (Carbon Earnings at Risk Indicator): The percentage impact of potential carbon costs that a company may incur under future carbon price scenarios on the company's current EBITDA.

Note 3: The industry EBITDA risk indicator is based on the median risk values of companies within the industry as recorded in S&P Global's "Carbon Earnings at Risk" database.

In regard to supply chain emissions reduction, Huali Group is committed to reducing the absolute greenhouse gas emissions from purchased goods and services by 30% by 2032, using 2022 as the baseline. To facilitate the achievement of this goal, Huali Group launched the "Supply Chain Emissions Reduction Initiative" in October 2024. Specific measures include requiring upstream suppliers (who account for 85% of procurement spending) to submit third-party certified reports of their ISO 14064-1 organizational carbon verification or lifecycle assessment (LCA) product carbon footprints annually, starting in 2024. This ensures the reliability and credibility of the greenhouse gas emissions data associated with the goods and services purchased by Huali Group. Additionally, Huali Group requires these suppliers to commit to reducing their absolute greenhouse gas emissions by at least 3% annually, using 2022 as the baseline.

In recent years, downstream brand customers have also established their Scope 3 emissions reduction targets and have imposed corresponding requirements on the upstream supply chain, which includes Huali. Among the brand customers collaborating with Huali, ten have set Scope 3 emissions reduction targets by 2030 in alignment with the

Science Based Targets initiative (SBTi). To achieve these targets, most brand customers have set specific emissions reduction requirements for the supply chain (including Huali), such as enhancing energy efficiency, using renewable electricity, and adopting environmentally friendly and sustainable materials. Some brand customers have set specific reduction targets for the supply chain. For example, Nike requires its supply chain to achieve zero growth in absolute greenhouse gas emissions compared to 2020 by 2025, while Adidas requires suppliers to reduce greenhouse gas emissions per unit of product by 15%. In terms of material usage, nearly all brand customers require the use of environmentally friendly and recyclable materials, such as bio-based materials, and adjustments in footwear materials and manufacturing processes. Brand customers actively set climate-related targets and require Huali to cooperate in achieving sustainability goals. Huali is also aware of the risks associated with non-compliance with brand requirements and works closely with brand customers to adhere to their environmental policies and requirements.

Huali's engagement and collaboration with brand customers include:

- **Frequency:** The frequency of engagement on climate-related topics with brands ranges from low to high, occurring quarterly or annually for some brands.
- **Format:** Engagement formats include emails, briefings, training sessions, and monthly and annual high-level leadership meetings.
- **Interactive Projects:** Brands and Huali jointly identify annual energy efficiency improvement and emissions reduction projects and participate in environmental activities, such as clean-up initiatives.

Technology risk

In the climate transition process, Huali Group actively utilizes renewable energy and focuses on battery storage, carbon capture, and carbon sequestration technologies. The application and emphasis on clean technologies will replace traditional technologies, impacting the company's production methods, distribution costs, and product competitiveness. Therefore, investment, research and development, and application of low-carbon energy and emerging environmentally friendly technologies are key factors in assessing technological risks.

Based on its research on the footwear industry's supply chain and benchmarking against peers, Huali focuses on two categories of low-carbon technologies: clean energy and low-carbon materials. These two types of technologies are crucial for Huali to achieve operational emissions reductions, improve resource utilization efficiency, and develop low-carbon and environmentally friendly products.

Huali assesses the technological risks in climate transition from two aspects: first, the costs associated with the transition to low-carbon technologies (including research and development and investment costs); second, the impact of these technologies on products and services (including environmental impacts and the demand for products and services in the end consumer market). The greater the impact of technology on products and services, and the higher the costs of investing in technological research and development and replacing existing technologies, the greater the associated technological risks.

Table 2-5 Evaluation of Major Transition Technologies for Huali

	Short-To Medium-Term (2025-2032)		Long-Term (2032-2050)		Technology Risks (short-medium term)	Technolgoiy Risk (long-term)
	Technology transition costs (including investment and research costs)	Impact on products and services (including environmental impact and market demand)	Technology transformation costs (including investment and research costs)	Impact on products and services (including environmental impact and market demand)		
Clean energy	low	high	low	high	medium-low	low
Low-carbon materials	medium	high	medium	high	medium-high	medium-high

Clean Energy Technologies: Photovoltaic and Biomass Fuels

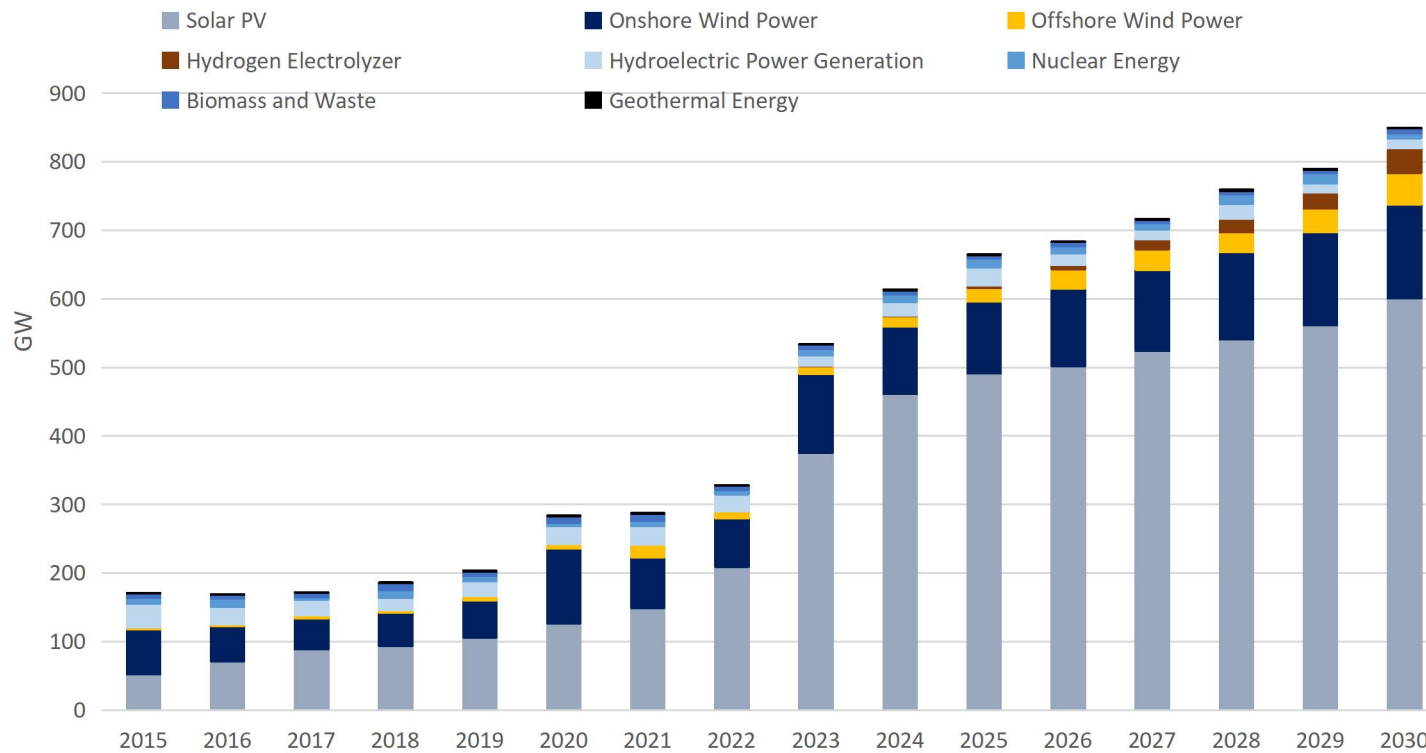
Huali Group is actively adjusting its energy structure and increasing the proportion of renewable energy consumption to reduce greenhouse gas emissions. By 2023, Huali's renewable energy share had reached 29%. The renewable energy sources primarily come from three areas: first, biomass fuels used in operational boilers; second, purchased rooftop solar power; and third, purchased energy attribute certificates (international green certificates). The peer companies that Huali benchmarks against are also actively engaging in rooftop solar power projects and boiler renovation projects.

According to the International Energy Agency (IEA) 2024 publication "Energy Technology Outlook," global investment in clean technology manufacturing grew by 50% in 2023, reaching \$235 billion. Of this investment, four-fifths is allocated to solar photovoltaics and battery manufacturing. For solar photovoltaic modules, if only considering the committed capacity expansions scheduled to come online by 2030, it is expected that by 2035, the capacity will exceed demand by nearly 30% (under the IEA's Net Zero scenario). These large-scale investments and capacity expansions will further reduce the costs of photovoltaic technology.

In terms of photovoltaic capacity, an increasing number of emerging markets and developing economies are expanding, particularly in Southeast Asia, including Malaysia, Vietnam, and Indonesia. IEA data indicates that these countries have added a new capacity of 17 gigawatts for silicon wafers and 1 gigawatt for polysilicon. This growth presents a valuable opportunity for Huali to install rooftop solar systems at its factories in Vietnam, further increasing the share of photovoltaic power generation.

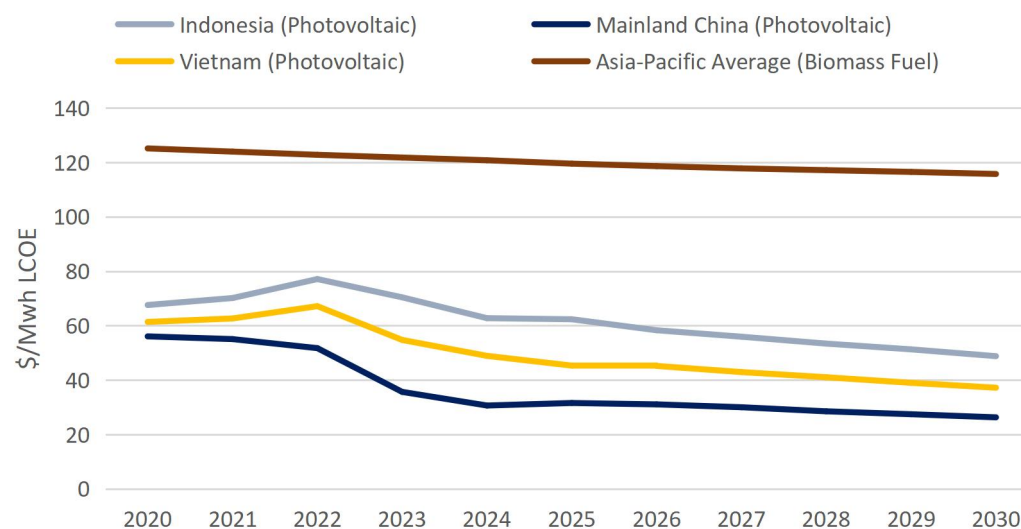
Although the cost per kilowatt-hour of biomass fuel is currently higher compared to photovoltaics, future costs are expected to gradually decline. According to data from S&P's Commodity Department, Huali has selected forecasts for the cost per kilowatt-hour of solar photovoltaics in mainland China and India, as well as the cost per kilowatt-hour of biomass fuel in major Southeast Asian and Asia-Pacific countries. With the proliferation of renewable energy technologies and the decrease in generation costs, Huali Group will further enhance the proportion of renewable energy and increase the share of rooftop solar power and biomass fuels.

Figure 2-7 Total New Capacity (GW) Of Major Clean Energy Technologies, 2015-2030



Source: S&P Global Commodity Insight Research

Figure 2-8 Cost of Biomass Fuel Power Generation in Major Emerging Markets in Asia and Cost of Solar Photovoltaics in Mainland China and Indonesia



Source: S&P Global Commodity Insight Research

Low-Carbon Materials Technologies

To better achieve low-carbon transformation and sustainable development, companies need to focus not only on emissions during the operational phase but also on the green and low-carbon aspects of the entire value chain, building a resource-circulating industrial system. This involves conducting lifecycle carbon accounting, to comprehensively assess the environmental impacts of the product production process from raw material acquisition to production, use, end-of-life treatment, recycling, and final disposal.

From the perspective of a supply chain, leading brand customers have raised higher demands for the low-carbon and sustainable characteristics of products. For example, NIKE has set a target to increase the use of environmentally friendly materials so that by 2025, 50%³ of all key materials (polyester, cotton, leather, and rubber) will be sourced sustainably. Adidas, since 2017, has targeted replacing all virgin polyester with recycled polyester by the end of 2024 and to achieve 90% of its products using environmentally friendly materials by 2025. Puma has also established corresponding targets: by 2025, 100% of its cotton, polyester fibers, leather, down, and paper and cardboard will come from sustainable sources.

Regarding product carbon footprints, the European Union and the United States have officially established accounting and certification requirements. Under the Carbon Border Adjustment Mechanism (CBAM), clear accounting of carbon emissions from raw materials and products has become particularly important. In response, China has also introduced relevant rules and standards in the past two years to accelerate the development of a product carbon footprint accounting system. Reducing the product carbon footprint has become a key focus for companies in addressing low-carbon transformation. To this end, companies should strengthen green production, promote resource recycling, and adopt new technologies such as new materials and recyclable materials to minimize environmental impacts.

Building a circular economy has become an important policy for countries to address green and sustainable development. In March 2020, the European Union adopted a new Circular Economy Action Plan (CEAP), which serves as one of the main cornerstones of the European Green Deal. The EU's Circular Economy Action Plan has facilitated a range of initiatives focused on the sustainable management of waste and materials, as well as the circular use of consumer goods such as batteries, packaging, plastics, textiles, construction, food, and water.

China has also introduced the "14th Five-Year Plan for Circular Economy Development," which outlines a series of corresponding goals, including improving the output rate of major resources by approximately 20% compared to 2020 by 2025; reducing energy consumption and water usage per unit of GDP by 13.5% and approximately 16%, respectively, compared to 2020; maintaining the comprehensive utilization rate of crop straw at over 86%; and achieving a comprehensive utilization rate of bulk solid waste of 60%.

In the circular economy system, many emerging technologies can help improve resource utilization efficiency and strengthen clean production. Among these, low-carbon and environmentally friendly materials and recyclable materials technologies are crucial for reducing product carbon footprints, building a resource-circulating economy, and enhancing resource utilization efficiency. Currently, low-carbon and environmentally friendly materials mainly include plant- or microorganism-based materials (such as algae, mycelium, and sugarcane), biodegradable and low-carbon biobased and plant-based materials, as well as recyclable materials made from waste plastics (such as ocean plastics), recycled polyester (rPET), or old shoes.

Huali Group and its peers are continuously researching and using more low-carbon and environmentally friendly materials, such as recycled polyester fibers, recycled cotton, organic cotton, and biopolymers. By 2023, Huali had developed a total of 3,162 shoe models, of which 58.8% used recycled or low-carbon materials.

³ :The information is provided by the supplier.

In the short term, the investment demand for new material technologies remain high, and the application costs are relatively elevated. Currently, the application of biobased materials is still in the early development stage, with high costs and uncertainty regarding consumer acceptance of environmental premiums. Additionally, biodegradable materials still need improvements in wear resistance and support to ensure that new materials can meet product performance requirements.

In the medium to long term, the research and development and market scale of biobased materials will continue to expand. In recent years, the Chinese government has introduced several policies to support the development of the biobased materials industry, including the "14th Five-Year Plan for Bioeconomy Development"⁴ released by the National Development and Reform Commission in 2022, and the "Three-Year Action Plan to Accelerate the Innovative Development of Non-Food Biobased Materials"⁵ issued by the Ministry of Industry and Information Technology and other departments in 2023. According to statistics, the market size of biobased materials in China has grown from 173 billion yuan in 2016 to 664 billion yuan in 2023, with a compound annual growth rate exceeding 20%⁶. Government funding and policy support will gradually promote the research and application of new materials. In Europe, the EU continues to provide funding to support the development of the circular economy; for instance, under "Horizon 2020"⁷ program, the EU invested 1 billion euros in 2020 to support circular economy and materials research and development.

Reputation Risk

Companies' performance on climate issues has a significant impact on their reputation. Huali has conducted an analysis using three indicators —“Carbon Performance,” “Carbon Budget Path Consistency,” and “Climate Risk Disclosure”—based on S&P's expertise and compared them with selected peer companies (shoe manufacturing contractors) as well as two major footwear brand clients.

Huali believes that these three indicators reflect how the market evaluates the company's progress in climate transition :

- **Carbon Performance:** This refers to the company's carbon intensity performance relative to industry peers and the changes in carbon intensity over time.
- **Carbon Budget Alignment:** This indicates whether the company's emission trajectory aligns with the International Energy Agency (IEA) transformation scenario temperature pathways, demonstrating consistency with the IEA's decarbonization path.
- **Climate Risk Disclosure:** This involves the company's disclosure of relevant greenhouse gas data and its alignment with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). The data is based on S&P's company ESG ratings.

The results of the indicators are classified into five red-green light categories based on the company's performance relative to other companies in the industry group, ranked by deciles. Overall, Huali's current carbon intensity is positioned in the mid-to-high range within the industry. Looking at the carbon emission pathway towards 2030, Huali's

⁴ :Source: the National Development and Reform Commission, the "14th Five-Year Plan for Bioeconomy Development", <https://www.ndrc.gov.cn/xxgk/zcfb/ghwb/202205/P020220510324220702505.pdf>

⁵ :Source: the Ministry of Industry and Information Technology and other departments, the "Three-Year Action Plan to Accelerate the Innovative Development of Non-Food Biobased Materials", https://www.gov.cn/zhengce/zhengceku/2023-01/14/content_5736864.htm

⁶ :Source: Analysis of China's Biomaterial Industry Chain, Market Size, Competitive Enterprises, and Development Trends in 2024 (Zhiyan Consulting), <https://www.chyxx.com/industry/1202972.html>

⁷ :Horizon 2020, "Horizon 2020 Work Programme (2018-2020)", http://www.casisd.cas.cn/zkcg/ydkb/kjczyxkb/2017/201712/201712/t20171207_4909948.html

carbon emission trajectory aligns with the Announced Pledges Scenario (APS, 1.7°C) in the IEA scenarios and converges with the Net Zero Emissions Scenario (NZE, 1.5°C) by 2030.

In terms of climate disclosure, although Huali's current disclosure rating is moderate compared to the industry (with lower results being better), this climate-related report will enhance the market's understanding of the company's climate-related information, continuously improving the transparency and quality of Huali's disclosures. Additionally, Huali proactively responded to the CDP questionnaire in 2024 and received a rating of B for the climate change section.

Table 2-6 Key Indicators of Reputation Risk

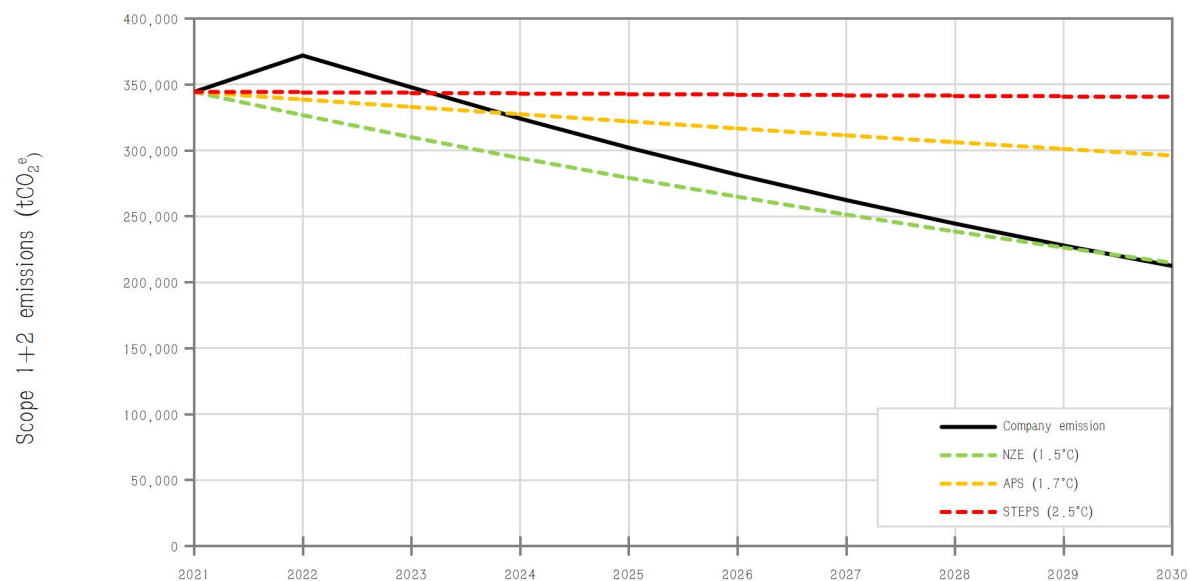
#	Company Name	Impact Factor	Carbon Performance	Carbon Budget Alignment (2021-2030)	Climate Disclosure
1	Huali Industrial Group Co., LTD	low	Medium to high	APS (1.7C)	centre
2	Peer 1	low	Medium to high	APS (1.7C)	low
3	Peer 2	low	Medium to high	Inconsistent	low
4	Peer 3	low	Medium to high	Inconsistent	low
5	Brand 1	low	Very low	NZE (1.5C)	Very low
6	Brand 2	low	Very low	APS (1.7C)	Centre

classify	pigment	decile
Very low	n	Top 20%
Low	n	30 – 40%
Medium	n	50 - 60%
Medium to high	n	70 – 80%
High	n	Bottom 20%

Source: S&P Global Sustainable1 Research

1. The impact factor refers to the carbon emission intensity indicators of Huali and its peer companies within the industry. It is a contextual indicator and is not used in the overall calculation of reputational risk scoring and classification.
2. The reputational risk scoring red-green light system is derived from the company's scores relative to other companies in the industry group. A higher score indicates worse performance relative to the industry average, resulting in higher risk, and vice versa.

Figure 2-9 Company Emissions Trajectory Relative to IEA Scenarios (Scope 1+2)



Source: S&P Global Sustainable Research

Note: The Transition Pathway Budget Adjustment (TPBA) is calculated as the total difference between the company's carbon budget and its carbon emissions. S&P Global's timeframe for assessing transition pathway budget consistency is from 2021 to 2030. The covered emission scopes include Scope 1 and Scope 2. The decarbonization pathways are defined by the compound annual growth rates of the decarbonization pathways from the three scenarios presented in the IEA's "World Energy Outlook 2022" report.

Physical Risk

Huali fully recognizes the impact of physical climate risks on the Group's assets and supply chain. Using S&P's physical risk financial analysis model, Huali assessed 47 operational assets with a total value of \$1.136 billion. Among these, 90% of the assets are located in Vietnam. Huali evaluated the financial impacts of eight types of physical

risks (namely: tropical cyclones, droughts, wildfires, extreme temperatures, water resource pressures, river flooding, coastal flooding, and flash flooding) on its assessed assets over the decades from the 2020s to the 2090s, including both absolute values (in millions of dollars) and relative values (as a percentage of asset value).

The medium- to long-term impacts of physical risks on Huali are more pronounced. From the 2040s to the 2050s, according to calculations from S&P's physical risk model, under the SSP2-4.5°C scenario, the average annual financial impact of the assessed climate disasters is expected to reach 5.9% of the total value of the assessed assets. In the SSP5-8.5°C scenario, the total asset risk value from climate disasters in the 2050s is projected to rise to 8.7%.

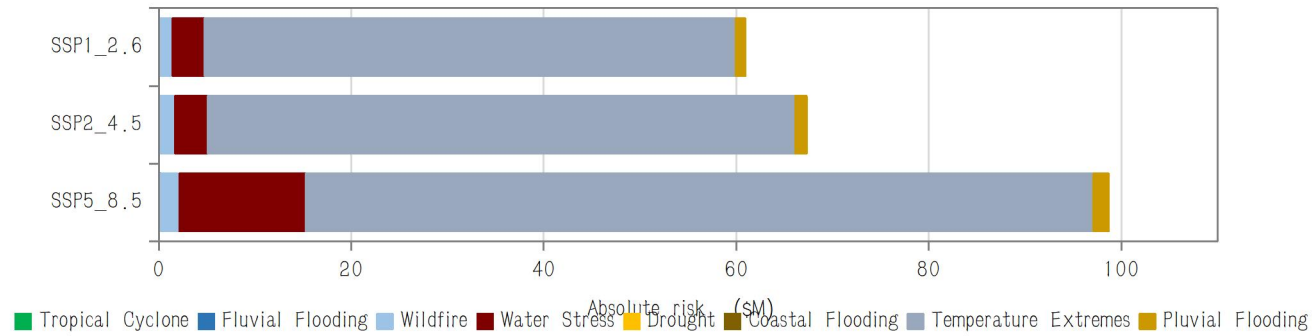
Figure 2-10 Financial Impacts of Physical Risks Assessed by Huali Group



Note: The risk exposure classification threshold is defined as follows: [high>10%,10%> medium>5%, low <5%]

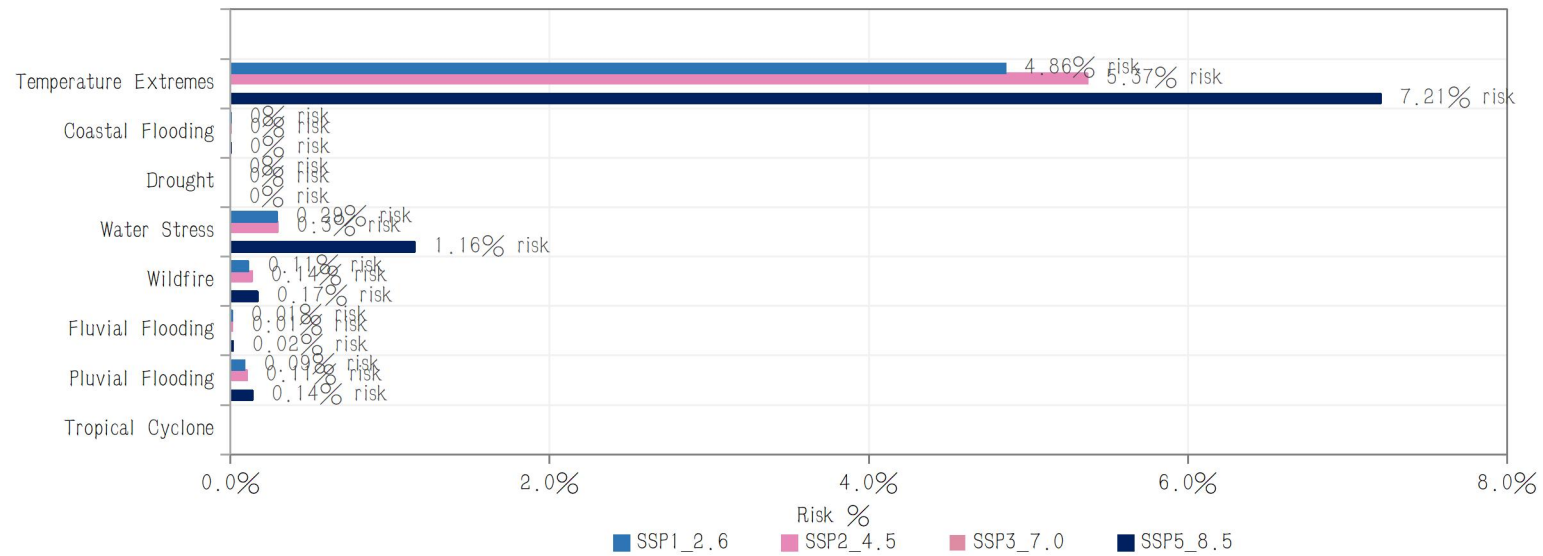
The most significant physical risk impacts are from extreme heat and water stress. Of the top 20 assets in terms of relative risk, 80% are located in Vietnam, with the rest in China and Indonesia.

Figure 2-11 Modelled Average Annual Loss by Physical Risk Hazard (SSP4.5 – 2050s)



Source: S&P Global Sustainable Research

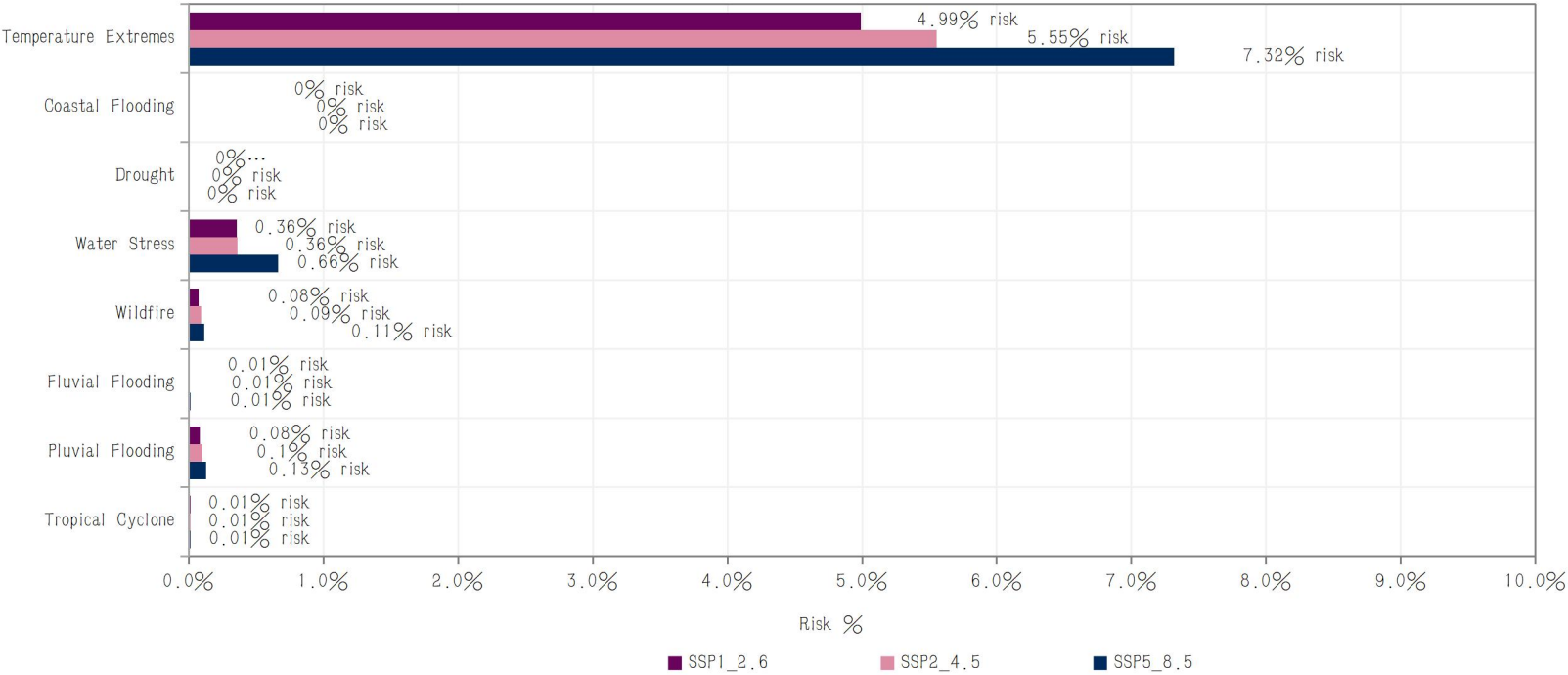
Figure 2-12 Relative Financial Impacts by Climate Hazard in the 2050s



Source: S&P Global Sustainable Research

At the same time, Huali also assessed the physical risk situation of 59 key suppliers. The results indicate that under the SSP2-4.5°C scenario in the 2050s, 16 out of the top 20 assets ranked by relative risk face moderate physical risks, with relative risks greater than 5%. These risks are primarily driven by extreme temperatures and water resource pressures. Seven of these suppliers are located in China, while the remaining suppliers are all based in Vietnam.

Figure 2-13 Relative Financial Impacts by Climate Hazard on Huali Group's Suppliers in the 2050s



Source: S&P Global Sustainable Research

Huali's physical risk assessment results indicate that both its operational assets and suppliers face extreme high temperatures and water resource pressures as the two most prominent physical risks in the medium to long term. In response, Huali has developed a comprehensive adaptation plan to ensure that the Group can steadily cope with long-term high-temperature weather and water resource pressures. For specific details, please refer to the "Climate Transition Plan" section.

Climate Opportunities

Climate change not only poses challenges for Huali Group but also presents opportunities. In addressing climate change, the Group identifies and seizes climate opportunities through robust data analysis and market research, ongoing sustainable practices, and close collaboration with key partners such as brand customers and suppliers, thereby better achieving low-carbon sustainable growth.

Table 2-7 Climate-related Opportunities and Huali's Initiatives

Climate-related opportunities	Subitem	Climate Opportunity Description	Market General Strategy	Huali's Initiative
Resource Efficiency	Production process and transportation	Resource consumption in the footwear industry is primarily concentrated in raw materials (such as leather, rubber, and textiles) as well as the use of water and chemicals in the production process. Additionally, optimizing supply chain management and selecting more efficient transportation methods are important measures to enhance resource utilization efficiency.	<p>1. Optimize Material Utilization: Reduce scrap waste through digital design, such as using 3D modeling technology and CAD/CAM computer-aided design to optimize cutting plans.</p> <p>2. Efficient Transportation: Utilize smart logistics management systems to enhance transportation efficiency.</p>	<p>Research and Development Investment and Automation Construction: Huali's headquarters has established an automation department focused on specialized research and development in areas such as woven uppers, advanced formulations for shoe soles, molds, and automated production. The Group's investment in R&D and the proportion of R&D personnel are continuously increasing, with R&D expenditure reaching 1.54% of total costs in 2023 and R&D personnel accounting for 2.4% of the total workforce.</p> <p>3D Printing Mold Technology: Huali utilizes 3D printing mold technology to enhance the efficiency of mold design and development. Additionally, the company is developing integrated molding technology for dual-color and different hardness shoe soles, reducing production processes and improving production efficiency.</p> <p>Low-Carbon Transportation Strategy: As a participant in international freight transportation, Huali prioritizes</p>

				maritime transport while ensuring the efficiency of raw material and finished product transportation. The company aims to reduce the carbon footprint of its products by selecting transportation methods with lower carbon emissions.
	Recycling system, circular economy	By promoting the concept of a circular economy, footwear factories can explore the use of renewable materials and biobased materials to reduce their dependence on petrochemical materials.	<p>1. Circular Supply Chain Management: Collaborate with suppliers to develop recycled materials and promote a closed-loop production model.</p> <p>2. Establishment of a Recycling System: Build a resource-saving circular economy system from the design phase to recycling channels.</p>	<p>Huali adheres to the principles of "reduction, reuse, and resource recovery" by developing sustainable products, utilizing recyclable and low-carbon materials, recycling and utilizing waste, and implementing green packaging, thereby establishing a resource-intensive circular economy system.</p> <p>The Group has formulated an environmental management strategy with specific goals, including:</p> <ol style="list-style-type: none"> 1. Achieving zero landfill and zero incineration of general solid waste by 2025. 2. Utilizing 100% environmentally friendly materials by 2035. 3. Ensuring 100% recycling and utilization of general solid waste by 2035.
Energy Sources	Clean energy use	The footwear industry relies on fossil fuels in energy-intensive processes, while global net-zero targets drive companies towards a transition to renewable energy.	<p>1. Increase the Proportion of Renewable Energy: Install solar photovoltaic systems and gradually replace coal-fired boilers.</p> <p>2. Enhance Energy Efficiency: Introduce smart energy management systems (such as motor variable frequency technology) to optimize equipment operating efficiency.</p> <p>3. Green Power Procurement: Sign long-term green power purchase agreements with local power grids to ensure a sustainable energy supply.</p>	<p>Long-Term Strategic Goals: Huali Group's long-term strategic goal in the energy sector is to achieve carbon neutrality in the footwear production process. To this end, the company has set clear targets for energy consumption, carbon emissions, and the proportion of renewable energy usage.</p> <p>Enhancing Renewable Energy Utilization: The Group continuously works to enhance the utilization of renewable energy through the following measures: First, since 2017, it has phased out coal-fired boilers and fully transitioned to biomass fuels. Second, it actively collaborates with project developers to invest in and construct rooftop solar projects for self-consumption.</p>

				Additionally, the company is also focusing on Direct Power Purchase Agreements (DPPA) in the Vietnam region, aiming to establish long-term green power procurement agreements.
Products and Services	Low-carbon environmental protection products	Developing low-carbon and environmentally friendly products is at the core of a company's sustainable development strategy and serves as a key approach to meeting the demands of brand customers and consumers.	<p>1. Material Selection: Use renewable and bio-based materials, as well as environmentally friendly coatings and adhesives.</p> <p>2. Design Concept: Implement disassemble and modular design.</p>	<p>The Group procures low-carbon and environmentally friendly materials from suppliers based on customer requirements. The recyclable low-carbon materials used by Huali primarily include:</p> <ol style="list-style-type: none"> 1. Renewable or Biobased Materials: Such as recycled plastics, plant-based leather, and regenerated rubber. 2. Biodegradable Materials. 3. Recycled Polyester Fibers: The goal is to increase the use of all environmentally friendly materials according to customer demands.
Market Access	Brand cooperation has been deepened and emerging markets have been expanded	Companies should strengthen collaboration with brand customers and consumers while actively positioning themselves in emerging markets.	<p>1. Emerging Market Expansion: Strategically position in markets such as Southeast Asia and Africa, where there is growing demand for sustainable products.</p> <p>2. Deepening Brand Cooperation: Establish long-term partnerships with brands that have high ESG ratings to enhance supply chain competitiveness.</p>	Huali collaborates with brand customers to determine the execution of annual energy efficiency improvement and emission reduction projects through monthly and annual meetings, as well as daily training and email communications. Additionally, Huali purchases International Renewable Energy Certificates (I-REC) to meet brand customers' greenhouse gas reduction targets for 2025. At the same time, Huali is continuously enhancing cooperation and trust with brand customers regarding more environmentally friendly materials and eco-friendly adhesives.
	Carbon market	Companies can effectively manage their greenhouse gas emissions by participating in carbon trading markets, leveraging carbon credit trading for economic	<p>1. Participate in Carbon Trading Markets and Invest in Emission Reduction Projects: Companies can invest in emission reduction projects to acquire carbon credits and generate profit from selling these credits in the market.</p> <p>2. Assessment of Carbon Footprint: Optimize</p>	<p>Carbon Emission Inventory and Verification: The Group conducts a comprehensive corporate carbon emission inventory annually and undergoes third-party verification to enhance the reliability and credibility of the data.</p> <p>Achievement of Emission Reduction Targets: Huali achieves its emission reduction targets by purchasing</p>

		benefits.	product design through Life Cycle Assessment (LCA) to reduce carbon footprint, thereby gaining a competitive advantage in the carbon market.	Energy Attribute Certificates (EAC) and participating in the renewable energy certificate trading mechanism.
Climate Adaptation	Measures to protect fixed assets from climate-related physical risks	It is essential for companies to proactively prepare to mitigate the impacts of future physical risks on their assets, thereby enhancing climate resilience.	<ol style="list-style-type: none"> 1. Assess Climate Risk Impacts: Analyze the climate vulnerability of factories and key assets. 2. Strengthen Adaptation Measures: Develop initiatives to address key climate impacts based on the analysis results. 	<p>Huali has identified the impacts of extreme high temperatures and water resource shortages on its Southeast Asian footwear manufacturing bases through detailed physical risk model analysis and has developed corresponding mitigation measures.</p> <p>Extreme High Temperatures: Increase the installation capacity of rooftop solar systems and actively promote Direct Power Purchase Agreements (DPPA) to reduce reliance on the municipal power grid, thereby avoiding production interruptions due to power outages and economic losses from diesel generation.</p> <p>Water Resource Shortages: Advance rainwater collection and purification reuse projects; explore scientific water-saving processes and aim to use more water-efficient equipment in newly commissioned factories to reduce freshwater consumption at the source; establish water-saving management systems to enhance employee awareness of water conservation. Additionally, recycle cooling water and reclaim treated wastewater to replace the use of fresh water.</p>
	Supply chain reliability and climate resilience	Attention should also be given to enhance the climate resilience of the supply chain] by proactively addressing the potential impacts of future physical risks.	3. Building Supply Chain Resilience: Integrate physical climate risks into supply chain management systems to achieve real-time alerts.	Supplier Management Measures: Huali has implemented a series of management measures for suppliers to encourage emission reductions and real-time monitoring of climate risks. These measures include carbon inventories adopting the implementation of green procurement policies, applying tiered management of suppliers, and providing emission reduction training and technical support to suppliers, as well as assisting them in

				<p>setting emission reduction targets.</p> <p>Physical Risk Monitoring: In response to physical risks, Huali has established a real-time monitoring system to track climate change and risk conditions in the areas where suppliers are located, providing timely alerts. Additionally, suppliers are required to report regularly on the implementation and effectiveness of their climate adaptation measures to ensure transparency and traceability.</p>
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Climate-related Transition Plans

To address climate change, support the achievement of the Paris Agreement's 1.5°C scenario goals, and achieve carbon neutrality by 2050, Huali Group has established near-term targets for 2032 and long-term targets for 2050, using 2022 as the baseline. In August 2024, the company officially received validation for its targets from the Science Based Targets initiative (SBTi), committing to achieve "net zero" greenhouse gas emissions across the entire value chain by 2050 (see Figure 2-14).

Through the analysis of climate transition risks, Huali's emission reduction target setting will significantly reduce its exposure to future climate policy risks. Therefore, implementing science-based emission reduction targets is key to enhancing climate resilience. Based on the established science-based carbon targets and combined with assessments of climate transition and physical risks, the Group has developed three key strategies to support the achievement of its carbon reduction goals (transition risks) and address physical risks.

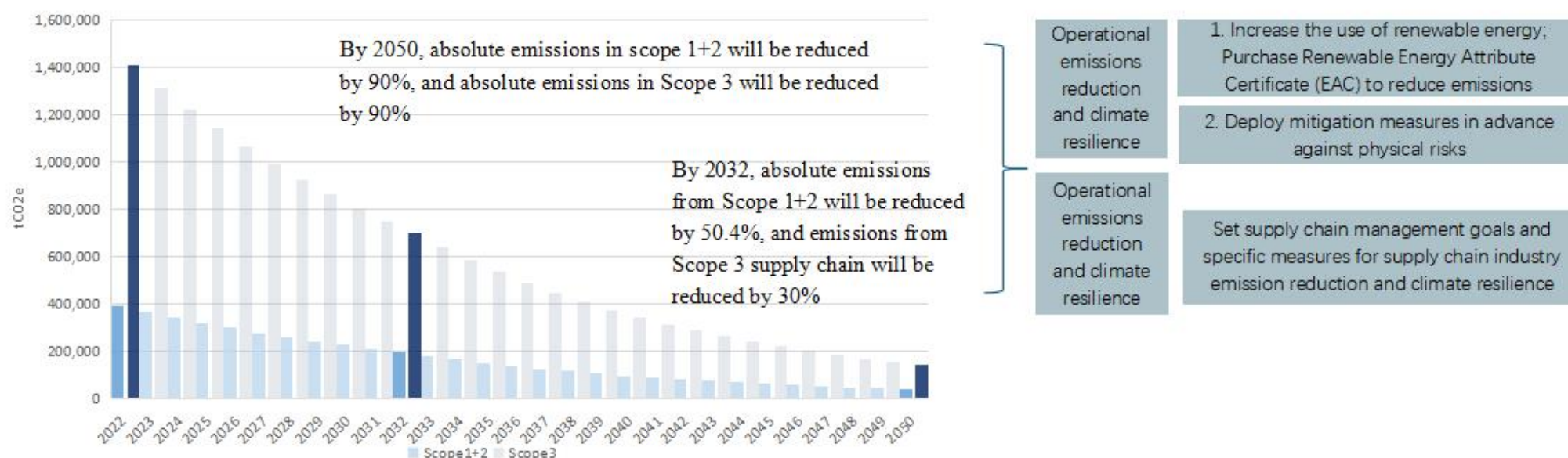
Operational Management (Scope 1 + 2):

- Implement system performance enhancement projects, focusing on energy-saving technical renovations across utilities and production equipment.
- Plan to collaborate with third-party developers to create rooftop photovoltaic projects, utilizing contract energy management and other models to achieve renewable energy power substitution and increase the application ratio of green energy.
- Achieve proactive emission reductions and passive neutrality in parallel by increasing the proportion of renewable energy consumption combined with the purchase of international green certificates, systematically promoting the optimization of carbon footprints.
- Deepen the strategic layout of the Direct Power Purchase Agreement (DPPA) pilot project in Vietnam, enhancing policy dynamic tracking and optimizing project development pathways to promote the large-scale consumption of renewable energy, resulting in a breakthrough increase in the proportion of green power consumption.
- Develop corresponding mitigation measures for extreme high temperatures and water stress.

Supply Chain Management (Scope 3):

- Establish detailed climate goals and management plans for the supply chain.

Figure 2-14 Key Strategies for Huali's SBTi Commitment to Emission Reduction Pathways and Achievement of Goals



Source: S&P Global Sustainable Research

Huali's Operational Emission Reductions and Climate Resilience

Electricity emissions account for over 90% of Huali's Scope 1 and Scope 2 emissions. The Group has established a renewable energy proportion indicator and will continue to utilize rooftop solar power in conjunction with the newly launched Direct Power Purchase Agreement (DPPA) project to achieve its emission reduction goals.

Rooftop Solar Projects

In 2021, Annora Vietnam successfully commenced commercial operations of a 1.7 MWp rooftop solar project in collaboration with TotalEnergies. This project generates approximately 1.9 million kilowatt-hours of electricity annually, equivalent to a reduction of 1,250 tons of greenhouse gas emissions each year.

In July 2022, Huali Group's Zhongshan headquarters partnered with Huangding New Energy to implement a 0.6 MWp rooftop solar project, which achieved commercial operations in September. This project is expected to generate 550,000 kilowatt-hours of electricity annually, reducing 277 tons of greenhouse gas emissions each year.

In October 2024, Welina Vietnam reached an agreement with SP Group for a 3.76 MWp rooftop solar project, which has been submitted for approval to the Vietnamese government.

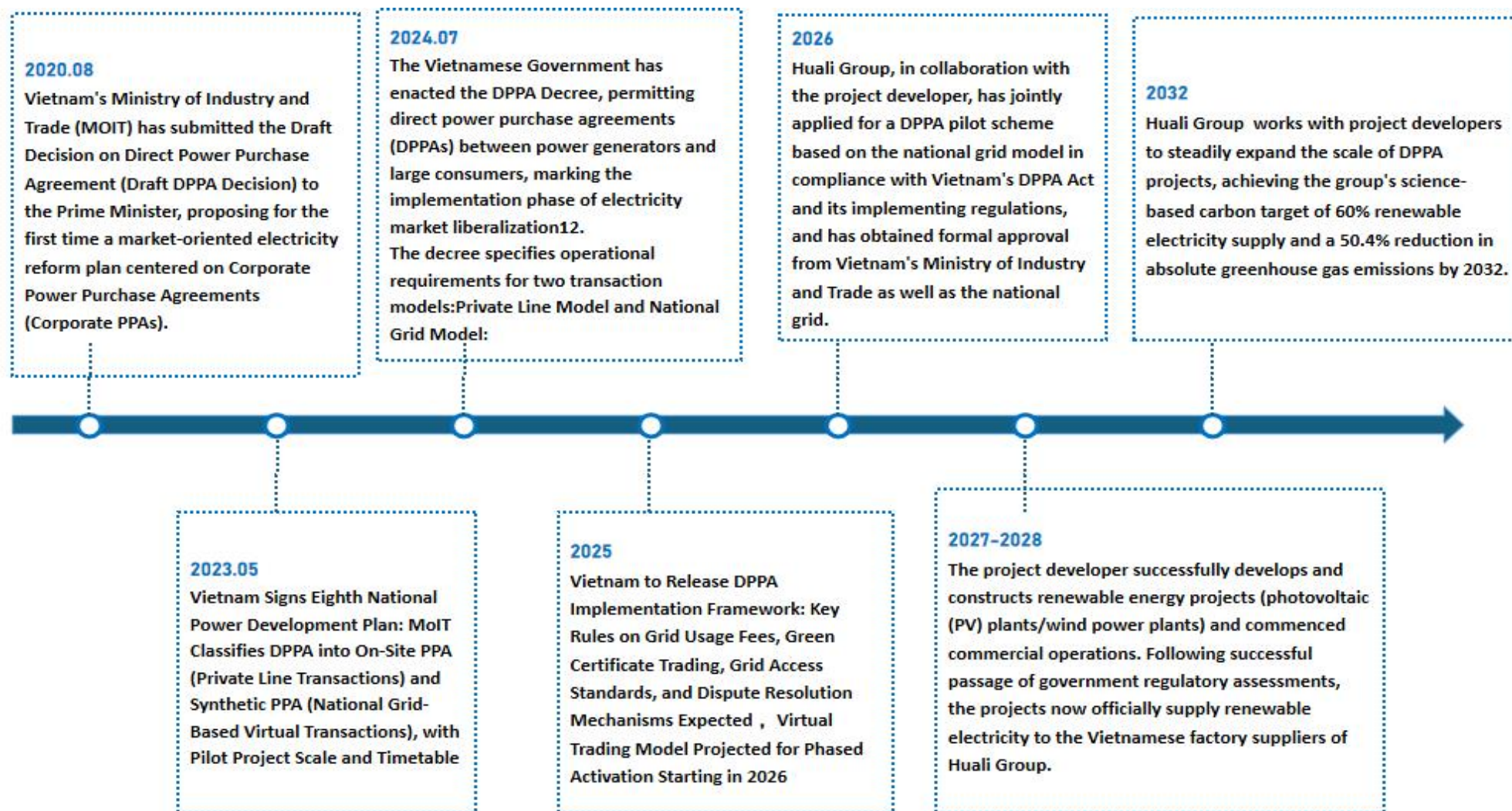
Looking ahead to 2025, Huali Group's factories in Vietnam plan to invite project developers to further expand the scale of rooftop solar projects, with expected planned capacities reaching between 10 MWp and 20 MWp.

At the same time, Huali Group has set renewable energy targets, aiming to use at least 60% renewable electricity by 2032 and 100% renewable electricity by 2050.

Direct Purchase of Electricity Project (DPPA)

Huali Group actively participates in Direct Power Purchase Agreements (DPPA) in the Vietnam region, aiming to establish long-term green power procurement agreements and promote the use of renewable electricity.

Figure 2-15 Timeline of Direct Electricity Purchase Projects



Purchase of Renewable Energy Certificates (RECs)

In the short term, since the rooftop solar projects not yet achieving scaled commercial operations and the Direct Power Purchase Agreements (DPPA) in Vietnam still pending finalization due to policy factors, Huali Group plans to offset greenhouse gas emissions from grid electricity by purchasing Energy Attribute Certificates (EAC) to meet the Group's science-based carbon targets and the renewable energy goals of its brand partners. It is estimated that if the company offsets grid electricity emissions by purchasing EACs annually from 2024 to 2032 to achieve its established science-based carbon targets, the total expenditure over the next eight years will exceed \$980,000, based on the Group's projected annual electricity consumption and green certificate prices.

Proactively Addressing the Impact of High Temperatures and Water Pressure on Factory Operations

Huali's physical risk assessment results indicate that extreme high temperatures and water resource pressures will be the two main risks affecting Huali's assets in the medium to long term. With most of Huali's production bases are located in Vietnam, extreme high temperatures could lead to severe electricity shortages causing frequent power outages impacting production and increasing diesel generation costs. In response to this impact, Huali plans to increase the installation capacity of rooftop solar systems and actively promote DPPA projects to reduce reliance on municipal electricity, thereby avoiding production stoppages and mitigate the additional costs of diesel generation due to power outages, thus minimizing potential losses.

To address water resource shortages, Huali is focusing on the following areas:

1. Reducing freshwater input by installing water-saving facilities, controlling water usage in production processes, and recycling cooling water.
2. Recycling treated wastewater to reduce reliance on fresh water.

Additionally, the Group plans to:

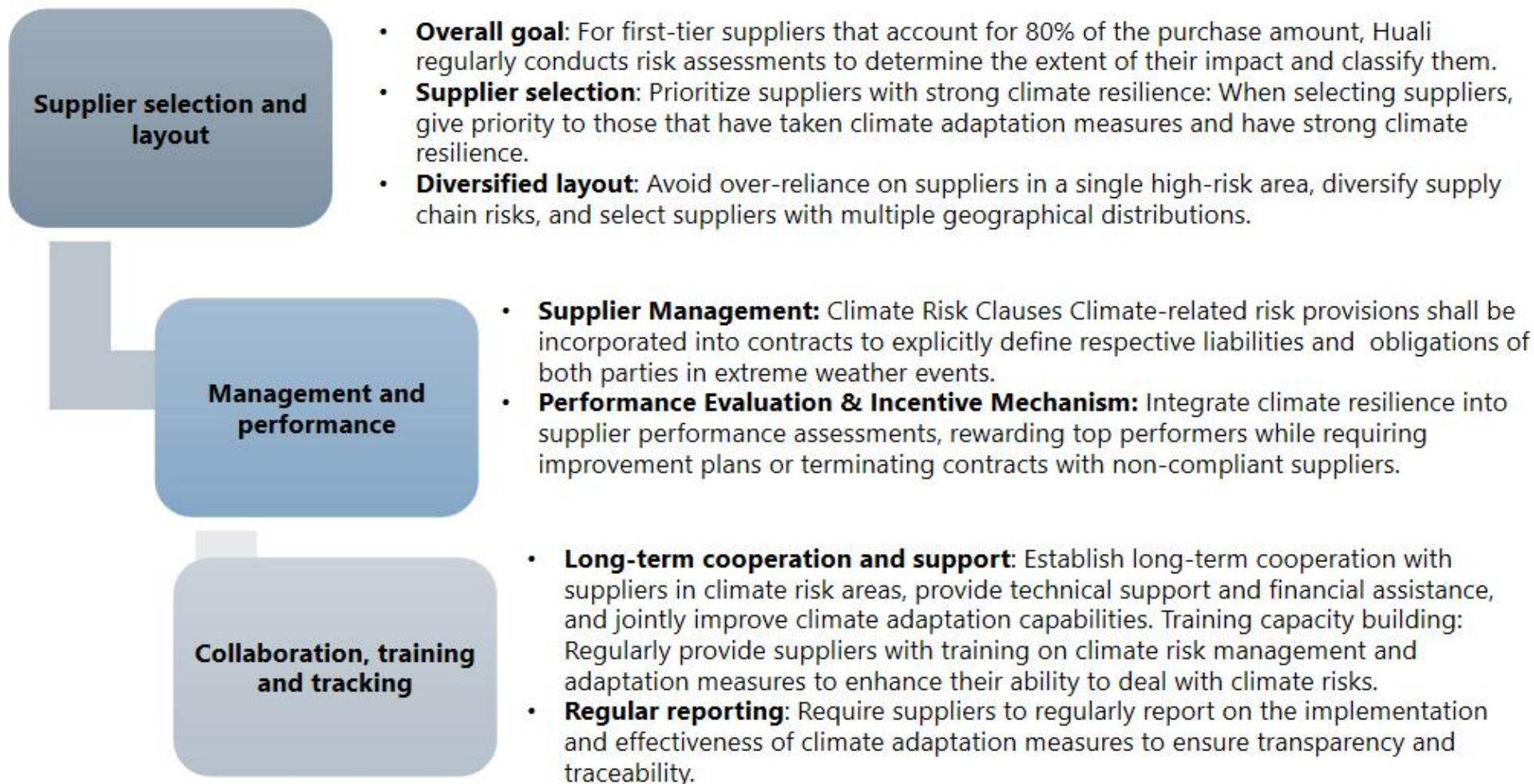
3. Use water-saving processes and install water-saving devices to further reduce freshwater usage.
4. Optimize wastewater treatment technologies to improve wastewater quality and gradually achieve 100% recycling and utilization of wastewater.
5. Explore rainwater collection systems to treat and utilize rainwater in appropriate areas to reduce the demand for fresh water.

Supply Chain Emission Reductions and Climate Resilience

In terms of supply chain emission reductions and climate resilience, Huali has established specific supply chain emission reduction targets and a series of supply chain management systems.



At the same time, in order to deal with climate risks in the supply chain, Huali also incorporates climate issues into the selection, management and cooperation of suppliers.



Risk Management

Based on climate scenario analysis, Huali continuously improves the identification, measurement, and monitoring of climate risks, enhancing its climate risk management capabilities.

Identification and Assessment of Climate Risks

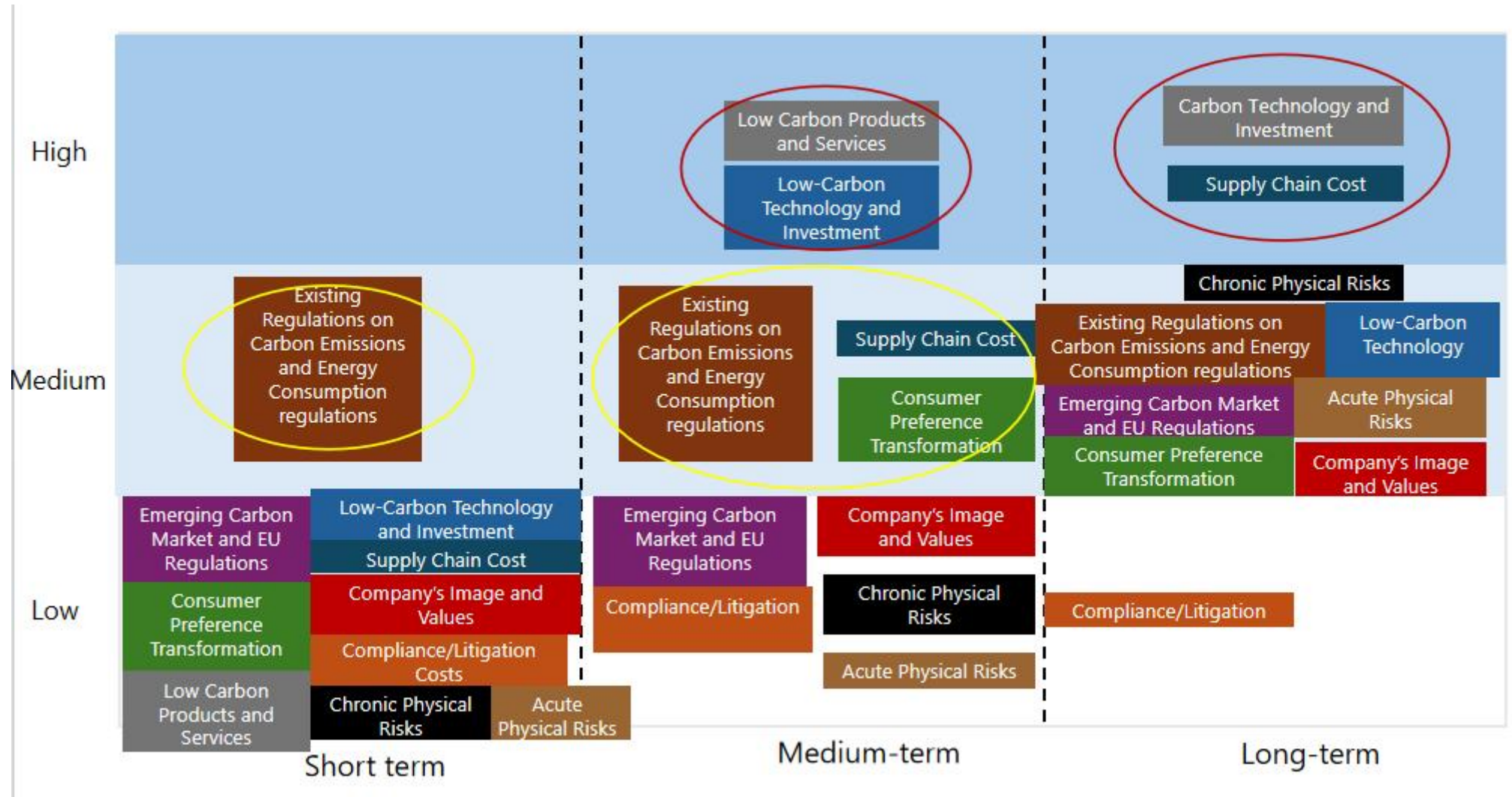
During the reporting period, Huali Group, in collaboration with S&P Global, adopted a dual-track approach of "scenario analysis + quantitative assessment," systematically identifying climate risks and opportunities by combining international standards (such as IEA and IPCC climate scenarios) with industry characteristics. We conducted climate risk assessments for the short, medium, and long term, categorizing the severity of impacts into low, medium, and high levels to implement corresponding management responses for different levels.

- **Scenario Analysis:** Following TCFD recommendations, we selected the IEA's Net Zero Emissions, Announced Pledges, and Stated Policies scenarios, as well as the IPCC's SSP1-2.6, SSP2-4.5, and SSP5-8.5 scenarios, to simulate the short, medium, and long-term impacts of transition risks and physical risks on the supply chain, production operations, and market demand.
- **Quantitative Assessment:** In collaboration with S&P Global, we quantified risk levels (low/medium/high) through financial impact assessments, such as losses from factory shutdowns due to extreme weather and the impact of rising carbon prices on costs.
- **Industry Benchmarking and Market Research:** Based on the practices of peer companies and market research, we focused on carbon market policies, supply chain resilience, low-carbon technology applications, and brand customers requirements as core assessment dimensions, studying the impacts of policy, technology, and market changes on Huali's operations and supply chain.

Huali Group conducts climate workshops, internal research, and quantitative analyses to carefully assess the probability and impact of each climate risk and opportunity using a risk matrix model. Huali assigns comprehensive scores based on financial impact amounts (weighted at 50%) and strategic importance (weighted at 50%), categorizing climate risks and prioritizing them accordingly. For specific assessment results, please refer to the climate risk and opportunity impact table in the "Climate Strategy" section.

We present the comprehensive impacts of identified climate risks over the short, medium, and long term in a matrix diagram:

Figure 3-1: Climate Risk Impact Matrix for Short, Medium, and Long-Term Risks



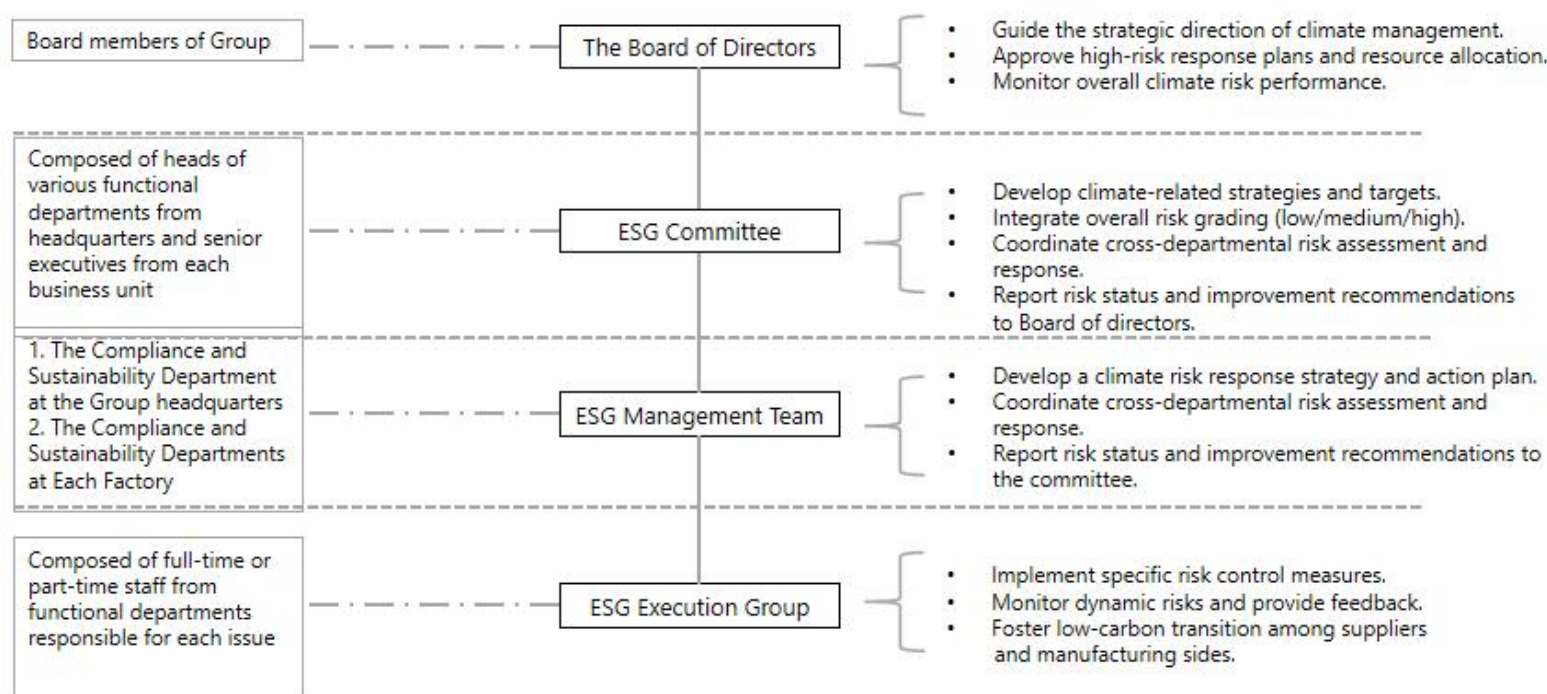
Overall, based on the prioritization results for climate risks, Huali Group has established the following short, medium, and long-term goals:

- **Short Term (2025-2026):** Focus on energy consumption dual control and carbon neutrality policies, as well as the development of the carbon market, with an emphasis on improving energy efficiency and reducing emissions from its own operations.
- **Medium Term (2026-2032):** Continue to focus on emission reductions in both operations and the supply chain while increasing investments in low-carbon energy technologies and developing sustainable materials and low-carbon production technologies.
- **Long Term (2032-2050):** Focus on enhancing climate resilience in the supply chain, developing low-carbon products, and addressing chronic physical risks (such as high temperatures and water resource pressures), while planning long-term strategies to enhance the climate resilience of factories.

Organizational Structures and Processes for Climate Risk Management

Huali Group adopts a "three-tier governance structure" aligned with the TCFD framework to integrate climate risks into corporate strategy and operations, ensuring that responsibilities for risk-tiered management are clearly defined.

Figure 3-2: Climate Risk Management Structure of Huali Group



The Board of Directors organizes at least one meeting each year, while the ESG Committee holds meetings periodically based on actual circumstances to ensure effective follow-up and management of climate risk matters. The Compliance and Sustainability Department dynamically monitors risk indicators and regularly reports on risk changes. Additionally, Huali has established a management system of "dynamic monitoring + tiered reporting" to assess climate risks through indicator tracking and data monitoring, creating a reporting mechanism for different levels of risk:

- **High Risk:** Requires strategic direction from the Board of Directors, with progress reported annually.
- **Medium Risk:** The ESG Committee develops a three-year action plan and conducts an annual review.
- **Low Risk:** Incorporated into departmental KPI assessments, with semi-annual tracking.

Furthermore, the Compliance and Sustainability Department implements a quarterly reporting mechanism to track work progress and submits a summary report to the ESG Committee at the end of the year. The report covers the achievement of core indicators, the advancement of significant issues, and planning for the upcoming year. After reviewing the report from compliance and strategic perspectives, the Committee submits it to the Board of Directors for final approval. Based on this, the Board integrates sustainability performance into decision-making to ensure the long-term sustainability and compliance of the Group's development.

Integrating Climate Risk into Management Process

Huali deeply embeds climate risks into strategic decision-making and daily operations. The Group incorporates the management goals and measures for climate risks into daily management processes through systematic risk assessments, a tiered governance mechanism, and cross-departmental collaboration. This specifically includes:

- **Compliance and Sustainability Department:** Incorporates carbon emission risks within climate risks into daily carbon reduction projects. Specific measures include:
 - **Data-Driven Decision Making:** Deploy IoT smart meters and energy management systems (EMS) to monitor energy consumption and carbon emission intensity in factories and offices in real-time; generate a monthly "Carbon Emission Risk Heat Map" highlighting high-energy consumption processes (such as sole injection molding) and prioritizing reduction efforts.
 - **Target Breakdown and Closed-Loop Management:** Decompose annual reduction targets for each manufacturing facility (e.g., a 5% annual reduction in carbon emissions per unit product at the Vietnam factory) and sign relevant energy performance contracts with factory management.
 - **Cross-Departmental Collaboration Mechanism:** The ESG Execution Team holds quarterly "Emission Reduction Technology Seminars" with production and equipment departments to assess the feasibility of new technologies (such as using biobased EVA materials).

- **Supplier Management:** The Procurement Department strengthens supplier management by requiring suppliers to participate in the Group's supply chain emission reductions and closely monitoring implementation. Additionally, low-carbon material suppliers are included in the supplier development process, tracking price fluctuations of climate-related materials, and integrating alternative suppliers into the daily supplier management process. For details on supplier-tiered management and supply chain climate resilience, please refer to the climate-related transition plan section in the "Climate Strategy" section.
- **Incorporating Physical Climate Risks into Daily Risk Management Processes:** To better integrate physical risks into daily management, Huali collaborated with S&P to conduct asset-level physical risk analyses, assessing the impacts of various physical risks on assets in different locations and years based on the geographical locations and asset values of Huali's operations and supply chain. Additionally, we have established emergency plans to take preventive measures for high-risk factories under water resource pressures and extreme heat conditions. Specific measures can be found in the "Climate Strategy" section.
- **Linking Climate-Related Goals to Performance Assessments:** To better integrate climate-related indicators into management processes, Huali Group has established climate-related assessment indicators at different management levels, which are tied to bonuses. At the beginning of each year, the Compliance and Sustainability Department signs performance contracts with each factory, based on full consultation between headquarters and the factories, to clarify specific project goals that need to be achieved in terms of sustainability. Each project goal has corresponding indicator weights to ensure comprehensiveness and fairness in assessments. The achievement of performance contract goals will directly impact the assessments of supervisors at all levels in the factories, becoming one of the important metrics for measuring their work effectiveness.
- **Incorporating Investments for Climate Risk Responses into Financial Budget Planning:** Huali Group will separately list "Climate Resilience Investment" projects in the annual budget and allocate a specified proportion for targeted investments in renewable energy, green power procurement, and the development of low-carbon materials and production processes.
- **Integrating Climate Risk Assessments into Investment Risk Evaluation Processes:** For significant investment projects, scenario stress tests will be conducted, incorporating carbon cost variables into the investment evaluation process to assess climate sensitivity (or make corresponding valuation adjustments).

Metrics and Targets

Huali Group fully recognizes the potential impacts of climate risks and opportunities on its operations and actively promotes a sustainable development strategy. The Group has established a comprehensive management system for climate risks and opportunities, setting greenhouse gas emissions and other climate-related indicators and targets.

Cross-Industry Relevant Indicators

In accordance with the requirements of the International Sustainability Standards Board (ISSB S2), Huali has identified climate-related cross-industry indicators, primarily categorized into greenhouse gas emissions indicators and other relevant climate indicators covering both transition risks and physical risks.

Greenhouse Gas Emission Indicators

In 2024, Huali updated its methodology for calculating greenhouse gas emissions and the sources of emission factors include the IPCC 2006 National Greenhouse Gas Inventory Guidelines, the Greenhouse Gas Protocol, the UK Department for Environment (GOV.UK), and the U.S. Open Data Network (Data.GOV), among others. To more accurately account for the greenhouse gas emissions generated during the overall operational process, Huali updated its accounting methodology for Scope 3 Category 1 emissions, transitioning from the industry average data method and expenditure-based method to a more precise supplier-specific data method. The consolidation approach used to define organizational boundaries is the operational control method, and the accounting scope includes direct greenhouse gas emissions (Scope 1), indirect greenhouse gas emissions from purchased energy (Scope 2), and Scope 3 emissions from the upstream and downstream value chain of the company's operations.

- **Scope 1:** Direct greenhouse gas emissions refer to emissions generated from facilities and equipment owned or controlled by the company, including self-generated electricity, thermal energy, or steam (from boilers and diesel generators); transportation of raw materials, products, waste, and employees (vehicle transportation); and fugitive emissions (such as refrigerants, fire extinguishers, and wastewater treatment). In 2024, Huali's Scope 1 emissions amounted to 30,049 tons, an increase of 11% compared to 2023, primarily due to increased mobile combustion emissions and fugitive emissions.
- **Scope 2:** Indirect greenhouse gas emissions from purchased energy include purchased electricity, steam, and thermal energy. The electricity used by Huali Group includes purchased grid electricity and self-generated solar power. We calculated Scope 2 emissions using both the "location-based" and "market-based" approaches as per the greenhouse gas accounting methodology, resulting in emissions of 381,623 tons and 331,947 tons, respectively.
- **Scope 3:** Scope 3 emissions indicate emissions related to the company's business activities. These greenhouse gases are primarily generated within upstream and downstream supply chain companies and are considered indirect emissions for Huali Group. In 2024, Huali's Scope 3 emissions were 1,628,232 tons, up 32% from 1,232,249 tons in 2023. This increase was mainly due to a 69% rise in purchased goods and services under Category 1 compared to 2023.

Table 4-1 Greenhouse Gas Emissions Data

	2022 (tons) ⁸	2023 (tons) ⁹	2024 (tons)
Scope 1			
1. Combustion Emissions	3,504	4,691	3,534
2. Mobile Emissions	6,722	6,933	8,643
3. Fugitive Emissions	16,123	15,383	17,872
Total Emissions	26,349	27,007	30,049
1. Location-based Emissions	366,662	332,589	381,623
2. Market-based Emissions	365,207	318,270	331,947
1. Outsourcing goods and services	932,589	844,284	1,125,149
2. Capital goods	53,284	39,071	57,748
3. Fuel and energy-related activities	91,883	60,073	70,628
4. Upstream transportation and distribution	141,567	127,313	170,436
5. Waste generated during operation	1,614	1,457	3,939

⁸:Given that Huali Group acquired Athena Vietnam Footwear Co., Ltd. in 2023, to ensure the completeness and accuracy of the company's greenhouse gas inventory, according to the requirements of the internationally accepted Greenhouse Gas Accounting System (GHG Protocol), the group has decided to conduct a systematic retrospective accounting of greenhouse gas emission data for the base year 2022 and the reporting year 2023.

⁹:According to the "Guidance on the Implementation of Scope 3 of the Greenhouse Gas Accounting System" (GHG Protocol Scope 3 Standard), the Group's Scope 3 emissions for 2024 will be accounted for using a tiered disclosure mechanism: for Category 1 (purchased goods and services), Category 4 (upstream transportation and distribution), and Category 5 (downstream transportation and distribution), the current preliminary calculations are based on benchmark data verified by SBTi in 2022, using the Time-series Extrapolation (Time-series Extrapolation) method. This interim data will be revised and officially disclosed after a special audit of the supply chain carbon footprint is completed in Q42024; for Category 15 (Investments), according to the recommended method in Article 8.2 of the "Corporate Value Chain (Scope 3) Accounting and Reporting Standards," if complete financial data from the invested company has not yet been obtained, the investment proportion method (Proportional Investment Approach) will be prioritized for estimation. Therefore, once the audited consolidated financial statements or ESG report of the invested party are released in 2024, precise calculations will be implemented using the equity method (Equity Method).

6. Business travel	147	341	142
7. Commuting for employees	102,178	96,012	108,935
8. Upstream leased assets	0	0	0
9. Downstream transportation and distribution	22,150	15,931	14,648
10. Processing of products sold	21,564	16,393	39,915
11. Use of sold products	0	0	0
12. End-of-life treatment of sold products	37,014	31,335	36,656
13. Downstream leased assets	0	0	0
14. Franchising	0	0	0
15. Investment	1,049	39	36
Total Scope 3	1,405,039	1,232,249	1,628,232

Status of Greenhouse Gas Emission Reduction Targets

Huali has set clear greenhouse gas emission reduction targets and records the achievement of these targets annually by calculating greenhouse gas emissions. The comparison of emissions calculated for 2024 with the baseline emissions from 2022 is as follows (recalculated due to acquisitions):

- **Scope 1 and Scope 2:** Huali Group's absolute greenhouse gas emissions for Scope 1 and Scope 2 (based on market) in 2024 amounted to 361,996 tons, representing a decrease of 7.5% compared to the 2022 baseline year.
- **Scope 3:** Emissions have increased by 15.9% compared to 2022; this is primarily due to Huali Group's current accounting method for upstream supply chain greenhouse gas emissions (Category 1) still being based on procurement amounts under the Greenhouse Gas Protocol (GHG Protocol). Data shows that due to expanded procurement scale, carbon emissions from the supply chain in 2024 have increased compared to the 2022 baseline year, and this accounting method no longer objectively reflects the actual emission reduction effectiveness of suppliers. To address this management bottleneck, the Group plans to improve accounting methodologies and build supplier capabilities in 2024, with the expectation that the intensity of Scope 3 greenhouse gas emissions will improve by 2025. This upgrade not only complies with TCFD climate disclosure requirements but also signifies that Huali Group has formally established a scientific carbon reduction management system covering the entire value chain.

Huali Group strictly follows the framework of the Science Based Targets Initiative (SBTi) to develop a phased emission reduction strategy system.

Figure 4-1 GHG Emissions and Share of Huali Group in 2024

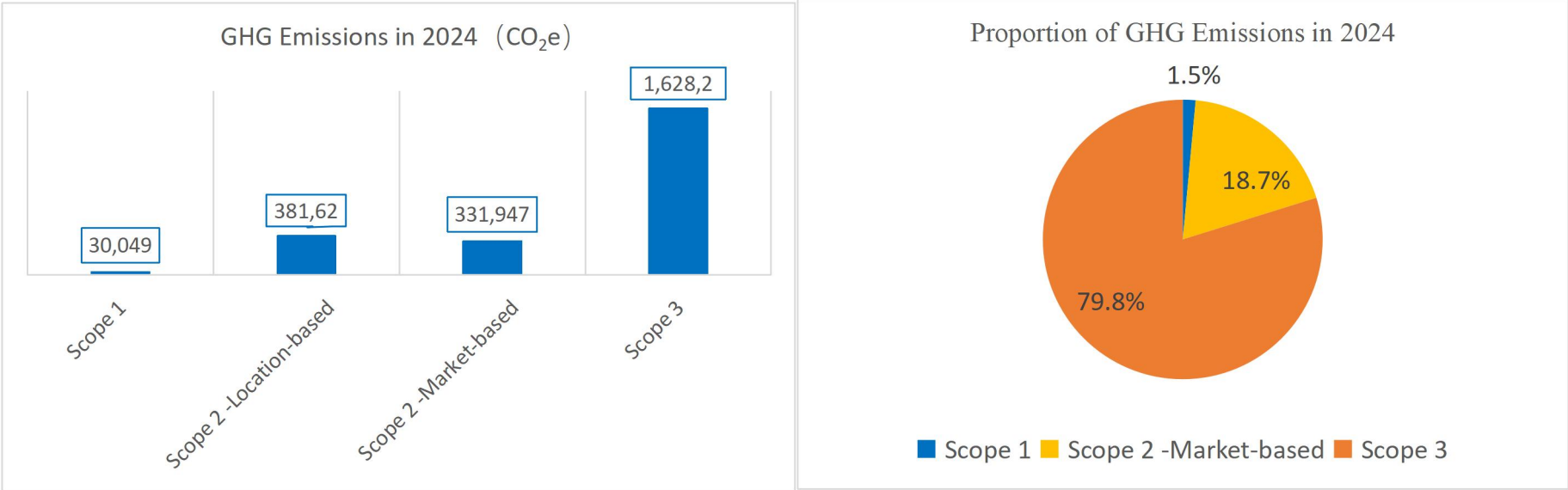
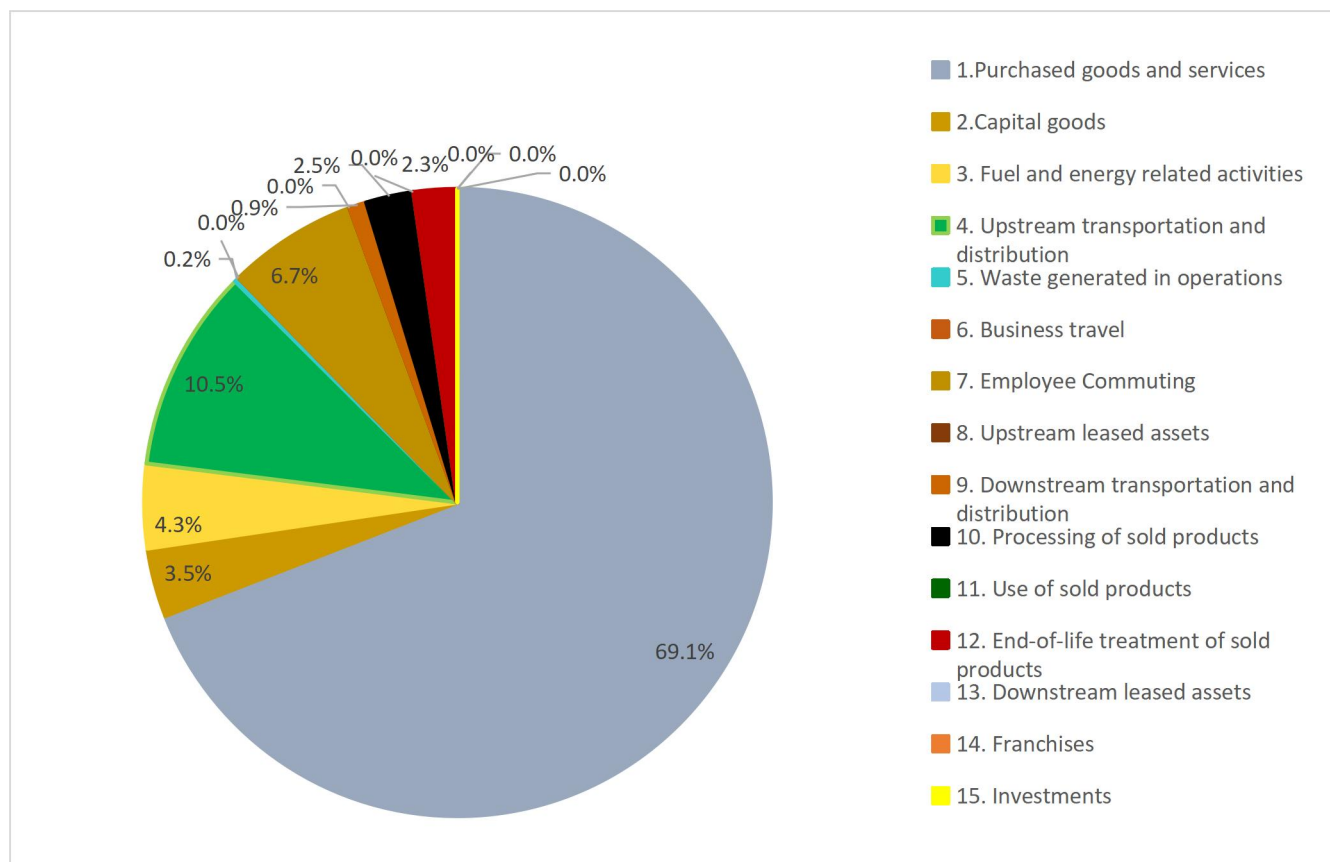


Figure 4-2 Proportion of Scope 3 Emissions in Huali Group in 2024



Other Emissions: Biomass Combustion Emissions

According to the Greenhouse Gas Protocol's "Corporate Accounting and Reporting Standards," biogenic carbon dioxide emissions are not included in Scope 1, Scope 2, or Scope 3 and should be accounted for separately from mineral-based carbon dioxide emissions. Additionally, since biological photosynthesis does not absorb methane and nitrous oxide, the methane and nitrous oxide produced from the combustion of biomass will be released into the atmosphere, negatively impacting the climate. This portion of emissions should be included in Scope 1.

Table 4-2 Emissions from Biomass Combustion

Report separately	2022 (ton)	2023 (ton)	2024 (ton)
Direct CO ₂ emissions from biomass combustion	99,801	81,780	83,453
Emissions from upstream activities of biomass fuels	3,007	2,464	2,514
Emissions from upstream transportation of biomass fuels	646,970	438,314	452,765
Emissions from land-use change	11,823	15,645	18,238

Iterative Upgrade of Scope 3 Accounting Methodology

Baseline Method Verification Phase (January - August 2024)

Based on the international greenhouse gas accounting standards (GHG Protocol), Huali Group submitted its Scope 3 emissions target document to the Science Based Targets initiative (SBTi) in January 2024, initially establishing the following accounting methods:

- **Purchased Goods:** Focused on raw materials, utilizing the industry average data method to cover the full lifecycle emissions from raw material production to delivery.
- **Purchased Services:** Implementing an expenditure-based emission model to quantify the carbon footprint of service-related activities.

Following SBTi certification in August 2024, assessments indicated that the industry average data method was insufficient to meet the target requirement of a 30% reduction by 2032, highlighting the urgent need to enhance data granularity.

Methodology Iterative Upgrade (Starting October 2024)

Huali Group issued the "Huali Group Supply Chain Decarbonization Action Statement," requiring the top 85% of suppliers by procurement amount to:

- Submit third-party certified ISO 14064-1 organizational carbon verification reports or lifecycle assessment (LCA) product carbon footprint reports starting in 2024.
- Replace the industry average data method with a supplier-specific data method to achieve precise accounting of Scope 3 Category 1 emissions.

In 2023, the emissions generated from purchased goods were calculated using the supplier-specific data method:

Table 4-3 Organizational Carbon Verification and Product Carbon Footprint of Suppliers

Project	Number of suppliers involved (households)	Total emissions allocated to Huali (tons)	Purchase amount ratio (%)	Estimated emissions of Huali Group Scope 3 (tons)
Organize carbon verification	82	199,448	39.1%	713,818
Product carbon footprint	14	79,655		
Total	96	279,103		

As the inaugural year for launching supply chain decarbonization projects, Huali Group has completed the collection of carbon verification and product carbon footprint data from the first batch of suppliers for 2023. However, due to the complexity of supply chain collaboration, there is still room for improvement in the initial project's coverage. Based on the theoretical support of the supply chain transmission mechanism, the Group will systematically address the transmission obstacles to supply chain decarbonization through three driving forces: strategic collaboration, technological innovation, and business mechanism innovation, ensuring that the company's net zero target for 2050 aligns strategically with the Paris Agreement's 1.5°C temperature control goal.

Other Climate-related Indicators

In addition to greenhouse gas emissions indicators, Huali Group has established other climate-related indicators as an important component of its climate risk and opportunity management system, urging subsidiaries, factories, and departments to actively implement sustainable development strategies.

Climate-Related Transition Risks: Huali has conducted financial impact analyses related to climate transition, focusing particularly on the impact of carbon pricing on operating profits under different transition scenarios. For detailed information, please refer to the "Strategy" section.

Climate-Related Physical Risks: Huali has assessed the financial impacts of eight physical risks on its own assets and suppliers using S&P's physical risk model. For detailed information, please refer to the "Strategy" section.

Climate-Related Opportunities: Huali continuously tracks market changes, strengthens collaboration with brand partners, and develops and designs low-carbon and environmentally friendly products to expand the market and increase revenues.

Capital Deployment: Huali continues to invest in innovation, with R&D expenditures amounting to 20,113,740 yuan in 2023, accounting for 1.43% of total costs. Additionally, Huali will allocate special funds for investing in energy-saving equipment and water-saving facilities.

Internal Carbon Pricing: Huali Group places great importance on the establishment of internal carbon pricing and is actively exploring carbon pricing to apply it in decision-making.

Compensation: The Group links the compensation of directors and executives to climate indicators. The Board of Directors' Nomination and Remuneration Committee is responsible for setting assessment criteria for directors and senior management, conducting evaluations, and formulating and reviewing compensation policies and plans. The annual compensation for directors and executives includes indicators related to environmental issues, such as climate change and water resources. Corresponding requirements also apply at the subsidiary and manufacturing plant levels. The Compliance and Sustainability teams (referred to as C&S Department) of each subsidiary and manufacturing plant regularly conduct monthly or Irregular inspections and communications regarding environmental issues within facilities and workshops. The assessment content in the field of climate change includes energy efficiency improvements, waste reduction, and carbon emissions indicators (absolute emissions and emission intensity). In terms of water resource management, the assessment covers water conservation, reduction of industrial and domestic water use, enhancement of water resource utilization efficiency, water reuse ratios, quarterly water quality testing, and semi-annual ZDHC testing to ensure compliance with local requirements and reduce pollution incidents.

The Group has established inspection scoring and incentive mechanisms. The C&S Department of the factory conducts monthly inspections and scoring for relevant indicators and projects in various production and logistics departments, providing bonuses based on the scoring results (e.g., the first-place reward for the Annora factory in Vietnam is 1,000,000 VND, the second place is 500,000 VND, and the third place is 300,000 VND). Relevant management personnel also receive corresponding rewards. Additionally, if production and logistics departments can provide examples of environmental improvements, the factory will grant an extra reward of 200,000 VND. The above inspection scoring and incentive mechanisms will influence the promotion and salary increase conditions for management positions in the relevant departments.

For other related indicators, such as energy consumption management, please refer to our 2024 Sustainable Information Disclosure Report.

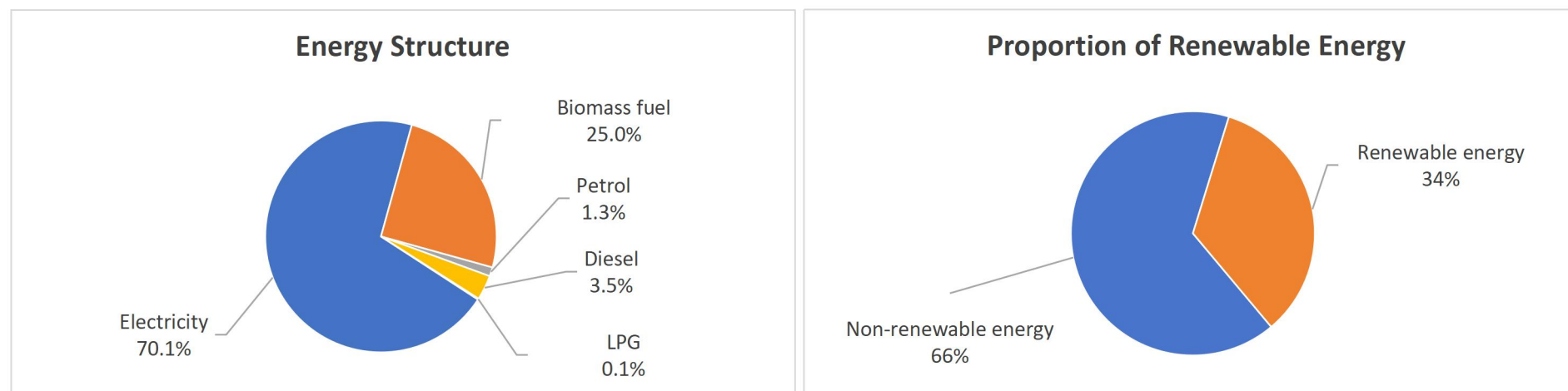
Energy Management

Huali Group has set renewable energy targets: it plans to achieve at least 60% renewable power usage by 2032 and reach a 100% renewable power goal by 2050. Currently, Huali's energy mix includes five major categories: electricity, biomass fuels, Petrol, diesel, and liquefied petroleum gas. In terms of energy proportions, electricity accounts for about 70%, while biomass fuels make up approximately 25%, representing the two primary energy types. Other categories such as Petrol, diesel, and liquefied petroleum gas together account for about 5%, which are secondary energy types. The company is actively optimizing and adjusting its energy structure, promoting electrification, and increasing the use of renewable energy.

Table 4-4 Types of Energy in Huali¹⁰

Year	Power grid electricity (kWh)	Solar power (kWh)	Energy attribute certificate (kWh)	Biomass fuel (tons)	Petrol (L)	Diesel (L)	Liquefied petroleum gas (kg)
2022	508,115,443	2,027,071	0	50,578	732,865	2,371,707	86,061
2023	490,372,190	2,461,055	6,500,000	41,445	938,801	2,817,716	86,689
2024	577,482,918	2,446,603	72,933,667	42,293	1,134,726	2,811,238	93,791

Figure 4-5 Energy Mix and Proportion of Renewable Energy in Huali



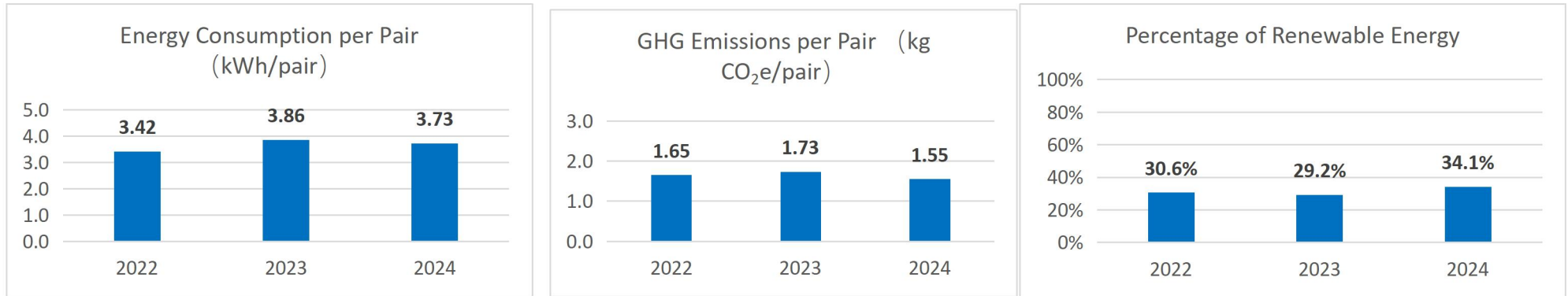
In order to comprehensively evaluate the energy performance of the group, the company has set energy consumption indicators, carbon emission indicators and renewable energy proportion indicators to comprehensively and systematically calculate, evaluate and report the company's energy efficiency and greenhouse gas emission reduction results.

¹⁰:Based on the analysis of Huali Group's energy structure characteristics, electricity consumption accounts for 70% of total energy consumption. Therefore, when setting energy consumption targets, it is essential to establish electricity as the benchmark energy source. According to the ISO 50001 Energy Management System standard, the thermal equivalent method is used to convert the consumption of fossil fuels such as gasoline, diesel, and liquefied petroleum gas. Specifically, the fuel's lower heating value (LHV) is used for electrical equivalent conversion, with the unit being kWh (kilowatt-hour equivalent).

Table 4-5 Group Energy Targets for 2024

Total energy consumption ¹	Energy consumption per unit product	Total greenhouse gas emissions ²	Greenhouse gas emissions per unit product ²	Total renewable energy	Proportion of renewable energy
kWhe ⁴	kWhe4/pair	t CO2e	kg CO2e/pair	kilowatt-hour kWhe	%
eight hundred and twenty six million eight hundred and fifty one thousand eight hundred and ninety two	3.73	344,124	1.55	282,092,771	34.1%

Figure 4-6 Energy Consumption And Renewable Energy of Huali



Climate-related Targets

Greenhouse Gas Emission Reduction Targets

Huali's greenhouse gas reduction targets are divided into net zero targets, near-term targets, and long-term targets, collectively forming the vision for Huali's greenhouse gas reduction process. In February 2023, Huali Group officially committed to the Science Based Targets initiative (SBTi) and established science-based carbon targets. After 18 months of relentless efforts, Huali Group successfully obtained official validation from the SBTi for its near-term and long-term targets in August 2024, becoming one of the few exemplary companies in the footwear industry.

In setting its greenhouse gas reduction targets, Huali adopted the SBTi's carbon reduction methodology to help plan a more rational carbon reduction pathway and achieve continuous and scientific emission reductions. Huali's reduction targets encompass carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), with SBTi's short-term targets refined into annual goals. Huali plans to achieve emission reductions by setting absolute emissions targets for each year, breaking them down by factory, and implementing measures such as installing rooftop solar systems, purchasing International Renewable Energy Certificates (I-REC), and promoting Direct Power Purchase Agreements (DPPA).

1. **Net Zero Target:**

Huali Industrial Group Co., Ltd. commits to achieving "net zero" greenhouse gas emissions across the entire value chain by 2050.

2. **Near-Term Target:**

Huali Industrial Group Co., Ltd. commits to reducing absolute greenhouse gas emissions from Scope 1 and Scope 2 by 50.4% by 2032, using 2022 as the baseline. Huali Industrial Group Co., Ltd. also commits to reducing absolute greenhouse gas emissions from purchased goods and services in Scope 3 by 30.0% during the same period.

The target boundary includes land-related emissions and the removal of bio-based emissions.

3. **Long-Term Target:**

Huali Industrial Group Co., Ltd. commits to reducing absolute greenhouse gas emissions from Scope 1 and Scope 2 by 90% by 2050, using 2022 as the baseline.

Huali Industrial Group Co., Ltd. also commits to reducing absolute greenhouse gas emissions from Scope 3 by 90% ¹¹during the same period.

For more information on Huali's greenhouse gas reduction plans, please refer to the 2024 Sustainable Information Disclosure Report.

¹¹ :The above target boundaries include emissions associated with land change and removal of biogenic emissions.

Appendix

Table 1: Index of Climate-related Disclosures

metric	Corresponding chapter	page number
Climate governance		
a) How climate-related risks and opportunities are reflected in the terms of reference, mandate, role description and other relevant policies of the agency or individual	Climate Governance-Climate governance structure of Huali Group	4
b) How institutions or individuals determine whether they have or will develop the appropriate skills and capabilities to oversee strategies aimed at addressing climate-related risks and opportunities	Climate governance-a supervisory mechanism for climate issues by the board of directors and management	5-6
c) How and how often institutions or individuals are informed of climate-related risks and opportunities	Climate governance-a supervisory mechanism for climate issues by the board of directors and management	5-6
D) How organizations or individuals consider climate-related risks and opportunities when monitoring the entity's strategy, major transaction decisions and its risk management processes and policies	Climate governance-the supervisory mechanism of the board and management on climate issues	5-6
e) How institutions or individuals oversee the setting of climate-related risk and opportunity-related goals and monitor progress towards these goals; including whether and how relevant performance indicators are incorporated into compensation policies	Climate governance-the supervisory mechanism of the board and management on climate issues	5-6
f) The role of management in governance processes, controls and procedures used to monitor, manage and oversee climate-related risks and opportunities	Climate governance-the supervisory mechanism of the board and management on climate issues	5-6
Climate strategy		
A) Identify climate-related risks and opportunities that are expected to affect the outlook of the institution	Climate strategy-identifying climate risks and opportunities	7-9
b) The current and expected impact of these climate-related risks and opportunities on the business model and value chain of the institution	Climate Strategy-Identifying climate risks and opportunities	7-9
c) The impact of these climate-related risks and opportunities on institutional strategy and decision-making, including information on their climate-related transition plans	Climate Strategy-Climate-related Transformation Plan	33-39
d) The impact of these climate-related risks and opportunities on the financial, financial performance and cash flow of the institution during the reporting period and their expected impact on the institution's short-, medium-and long-term financial position, financial performance and cash flow	Climate strategy-climate adaptation assessment and scenario analysis	10-32
E) Institutional strategies and their business models for climate resilience to climate-related changes, development and uncertainty	Climate strategy-climate adaptation assessment and scenario analysis	10-32
risk management		
A) Processes and policies used by organizations to identify, assess, prioritize and monitor climate-related risks	Risk management-organizational structure and processes for climate risk management	42
b) The process by which an organization identifies, assesses, prioritizes and monitors climate-related opportunities, including information on whether and how the organization uses climate-related scenario analysis to inform its identification of climate-related opportunities	Risk management-identification and assessment of climate risks	40-41
c) The extent to which and how processes for identifying, assessing, prioritizing and monitoring climate-related risks and	Risk management-incorporating climate risk into	43-44

opportunities are integrated into and guide the organization's overall risk management process	the management process	
Indicators and targets		
A) Information related to cross-industry indicator categories, including greenhouse gas emissions, climate-related transition risks, physical risks, climate opportunities, capital deployment, internal carbon pricing and compensation	Indicators and targets-cross-industry related indicators	45-49
b) The objectives set by the organization and any objectives required by law or regulation to mitigate or adapt to climate-related risks or take advantage of climate-related opportunities	Indicators and targets-climate-related targets	49-50

Table 2: Glossary of Terms

noun	paraphrase
Climate Adaptation Assessment	Assess the ability of ecosystems, societies or businesses to predict, prepare for and respond to the impacts of climate change.
Scenario Analysis	A method of evaluating a range of hypothetical outcomes by considering various possible future states (scenarios) given a set of specific assumptions and constraints.
Transition Risks	Climate transition risk is the risk brought about by policy change, technological innovation, changes in market sentiment and preferences, and changes in business models in the process of tackling climate change and shifting to a sustainable development economy.
Physical Risk	The risk caused by climate events (such as extreme weather events).
Physical Risk Scenario-RCP	The Intergovernmental Panel on Climate Change (IPCC) proposed a series of RCP scenarios in 2014, known as Representative Concentration Pathways (Representative Concentration Pathways). The RCP scenarios are primarily divided into four categories: the RCP2.6 scenario projects a temperature increase of 1.0°C by 2100; the RCP4.5 scenario projects a temperature increase of 1.8°C by 2100; the RCP6.0 scenario projects a temperature increase of 2.2°C by 2100; and the RCP8.5 scenario projects a temperature increase of 4°C by 2100.
Physical Risk Scenario-SSP	Shared Socioeconomic Path (SSP) scenario. Reflects potential changes in net emissions by combining qualitative narratives of social development characteristics with quantitative development measures and climate data to plan how humans can rapidly reduce greenhouse gas emissions.
EU Carbon Border Adjustment Mechanism (CBAM)	A mechanism based on carbon emission quotas, in which the European Union imposes a tax on the carbon emissions of some imported goods. The certificates can be used to pay for the carbon emissions of the goods imported by the enterprise itself.
Direct Electricity Purchase Projects	It refers to the written agreement between power plants and large industrial users who ultimately use electricity, without going through the grid company, in the form of direct transactions.
Climate Resilience	The ability of interrelated social, economic and ecosystem systems to respond or reorganize in order to maintain their basic functions, characteristics and structures in response to climate events, trends or disturbances.
Renewable Energy Certificates	Renewable energy certificate is the only proof of environmental properties of renewable energy electricity in China, and the only certificate to identify the production and consumption of renewable energy electricity.
Energy Attribute Certificate	Prove that the holder has one megawatt hour (MWh) of zero-carbon electricity generated from renewable sources and delivered to the grid.

Carbon Risk Premium	The gap between current carbon prices and future potential carbon price targets is defined as the "carbon price risk premium". This premium varies by industry and region, reflecting the additional financial cost per ton of emissions paid due to increased future carbon price regulation, and is a useful benchmark for setting internal carbon prices.
Carbon Costs	Carbon pricing, which attaches the cost of each unit of greenhouse gas emissions to emissions in order to encourage emitters to reduce fossil fuel burning.
EBITDA Risk Indicators	The "EBITDA risk" indicator can be used to calculate forward estimates of financial risk, assess future prices paid for its greenhouse gas emissions, and the potential impact on the company's current earnings.
Battery Storage	A device that can store electrical energy in the form of chemical energy and release it when needed.
Carbon Capture, Carbon Storage	The process of separating carbon dioxide from industrial processes, energy use or the atmosphere and using it directly or injecting it into formations to achieve permanent carbon dioxide reduction.
Carbon Budget Path Consistency	Whether the company's emissions trajectory is consistent with the decarbonization path of the IEA scenario.
GICS Industry Classification	The Global Industry Classification Standard (GICS) was developed in 1999 by S&P Dow Jones Indices and MSCI. The GICS methodology is designed to optimize investment research and asset management processes for financial professionals around the world.
Simulate Annual Average Loss	Quantitative financial impact indicators of physical risk: average annual asset losses per decade due to climate-related physical disasters.
IEA	The International Energy Agency (IEA) is an intergovernmental international organization headquartered in Paris, France. It is one of the auxiliary agencies of the Organization for Economic Cooperation and Development.
IPCC	The Intergovernmental Panel on Climate Change (IPCC) is the leading international organization for assessing climate change. It was established in 1988 by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO), aiming to provide a comprehensive assessment of scientific, technical, and socio-economic knowledge about climate change, its causes, potential impacts, and response strategies. The IPCC is currently in its sixth assessment cycle.
SBTi	SBTi is an enterprise climate action organization aimed at helping businesses and financial institutions around the world play their part in addressing the climate crisis. It develops standards, tools, and guidelines to enable companies to set appropriate greenhouse gas reduction targets, aiming to keep global warming below catastrophic levels and achieve net-zero emissions by 2050 at the latest.