

Sustainability & Climate Related Financial Disclosure Report 2025 (IFRS S1 & S2)



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TUNG HO STEEL

2025
永續與氣候相關財務揭露報告書
(IFRS S1 & S2)

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Message from the Management

A Declaration for Corporate Sustainable Development in the Face of Climate Change

To enhance the quality of sustainability disclosures, the Company proactively launched preparatory work to align with the IFRS Sustainability Disclosure Standards starting in 2024. This report is prepared with reference to IFRS S1 “General Requirements for Disclosure of Sustainability-related Financial Information” and IFRS S2 “Climate-related Disclosures,” both issued by the International Sustainability Standards Board (ISSB) under the IFRS Foundation, and issued the “Tung Ho Steel Sustainability & Climate-Related Financial Disclosure (IFRS S1 & S2) Report 2025.”

Compared to the Climate-Related Financial Disclosure Reports issued from 2020 to 2024, this report is the first to be prepared with reference to the IFRS Sustainability Disclosure Standards. The reporting boundary is consistent with that of the individual and consolidated financial statements of the Group. Through this report, the Group formally discloses to all stakeholders its actions and efforts in sustainable development and in responding to climate change.

The Group has established a robust governance framework. The Board is responsible for reviewing and guiding the strategies, action plans, and annual targets related to sustainability and climate change, as well as conducting regular annual oversight of implementation and reviewing the greenhouse gas reduction targets and their achievement. The Sustainability Development Committee is responsible for matters related to sustainability and climate change, including the formulation, oversight, and review of environmental sustainability systems and objectives, and regularly reports implementation status to the Board. In addition, in 2024, the Company established the “Regulations for Distribution of ESG Bonus for Top Managers” to incentivize senior executives to actively participate in and promote ESG objectives, thereby enhancing the Company’s sustainability competitiveness.

This year, the Group identified a total of five climate-related risks, two climate-related opportunities, and three sustainability risks. Explanations are provided regarding scenario analysis, adaptive capacity, strategic responses, and financial impacts associated with these items. Compared to an uncontrolled risk scenario, the implementation of risk control measures enables the Group to maintain financial stability over the short, medium, and long term while also capturing opportunities arising from climate change to generate additional revenue. No material cash flow risks are anticipated, and the measures are expected to positively impact access to financing and the cost of capital.

To align with global trends and Taiwan’s 2050 net-zero emissions goal, the Group has established interim targets for 2035, aiming for a 30% reduction in carbon emissions and RE30. Using 2021 as the base year, the Group has set a greenhouse gas reduction target of 30% by 2035. Its long-term decarbonization

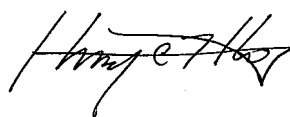
goal is aligned with the national Net-Zero Roadmap by 2050. In terms of renewable energy, the Group aims for 30% of its total electricity consumption to come from renewable sources by 2035.

To achieve its carbon reduction targets, Group companies will successively implement decarbonization projects such as electric furnace upgrades, elimination of pig iron usage, reduction of auxiliary raw materials, adoption of low-carbon fuels, waste heat recovery, energy efficiency improvements, and process optimization. These measures aim to mitigate the impact of evolving sustainability and climate-related regulations and transform them into future financial opportunities for the Group's operations. In terms of green energy, the Group continues to develop renewable energy sources such as solar and wind power, investing in on-site renewable energy generation facilities for self-use and purchasing external renewable energy certificates through (bundled) REC systems. The goal is to ensure that 30% of the Group's total electricity consumption comes from renewable sources by 2035. All these claims can specifically demonstrate our strong and determined self-expectations and responsible actions and strategies for sustainable development so as to contribute to eco-friendliness and net-zero emissions.

To take action for climate change adaptation and mitigation, the Board passed the establishment of the "Regulations for Appropriation and Utilization of the Special Reserve for Climate Change Adaptation and Mitigation" in 2022 to spend the special reserve on projects and programs for climate change adaptation and mitigation, such as energy-efficient equipment, equipment performance improvement and replacement, the R&D of energy conservation technology, and the development of technology for low-emission products.

Looking ahead, the Group will continue to monitor global climate change trends and international response strategies. Sustainability and climate change will remain key topics within the Group's sustainable development framework and will be regarded as one of the Company's most significant and material risks. Ongoing efforts will be made to analyze and manage these issues, with continued focus on both climate adaptation and greenhouse gas mitigation. Going forward, the Group will refer to the IFRS Sustainability Disclosure Standards to regularly review and enhance the quality and completeness of its disclosures. The aim is to ensure robust reporting and effective implementation of measures related to sustainability and climate risks and opportunities. The Group is committed to maintaining a lower carbon intensity than other electric furnace peers, actively responding to stakeholder expectations, and ensuring the long-term sustainability of the Company's operations.

Chairman Henry C. T. Ho





1. Sustainability and Climate-Related Financial Disclosure

According to the Global Risks Report 2025, published by the World Economic Forum (WEF) in January 2025, the top three long-term global risks ranked by severity are: extreme weather events, biodiversity loss and ecosystem collapse, and critical change to Earth systems. In addition, Taiwan's government released the "Taiwan's Pathway to Net-Zero Emissions in 2050" in March 2022, outlining four major transformations, "energy transition," "industrial transition," "lifestyle transition," and "social transition," supported by two key governance pillars: "technological innovation" and "climate legislation." These initiatives are aimed at achieving stringent control over greenhouse gas emissions. In December 2022, Taiwan's National Development Council announced the phase targets and key strategies for the 2050 net-zero transition. At the end of 2024, the Ministry of Environment declared that the nation's net greenhouse gas emissions by 2030 must be reduced to $28\pm 2\%$ of 2005 baseline levels, representing a 5-percentage-point increase from the $24\pm 1\%$ Nationally Determined Contribution (NDC) target previously set by the National Development Council in 2022.

In August 2024, the formal announcement of the three carbon fee regulations marked Taiwan's official entry into the carbon pricing era. Starting in 2026, carbon fees will be imposed on enterprises whose annual greenhouse gas emissions at a single site equal or exceed 25,000 metric tons of CO₂ equivalent. In order to pursue sustainable development and stay committed to addressing the risks and opportunities associated with sustainability and climate change, Tung Ho Steel Enterprise Corporation (hereinafter "Tung Ho Steel" or "the Group") has included climate change as a material issue and a key material risk for sustainable development, and has continued to engage in its analysis and control and promote low-carbon transition and climate adaptation.

■ Milestones in Sustainability and Climate-Related Management

2007	► Feb	The project for installation of new wind turbines in the Longgang Industrial Park passed the EIA review, and the project formally commenced to install wind turbines with a capacity of 11.5MW.
2009	► Jul	Construction began in the project to install -11.5MW wind turbines.
	► Sep	In accordance with the "Principles Governing the Inventory and Registration of Greenhouse Gases" and "Principles Governing the Early Action and Offsetting Programs for Greenhouse Gases" promulgated by the Environmental Protection Administration, we began to conduct greenhouse gas inventories retroactively to 2003.
	► Nov	Upon an investigation by the Environmental Protection Administration, we provided the data of the greenhouse gas emission intensity of our products as a basis of reference for determining the phase-1 emission intensities to be published for the steel industry to ensure smooth implementation of the subsequent policy on early action programs.
2010	► Jul	The steel rolling mill of the Taoyuan Works conducted a successful hot trial run of its direct hot charge rolling system and began production, making it the first steel mill in Taiwan adopting a process for direct rolling of hot steel billets without any reheating furnace.
2011	► Oct	Installation of the 11.5MW wind turbines was completed, but they could not be incorporated into the systems of Taipower due to problems in feeder lines.
	► Nov	The Miaoli Works obtained carbon footprint verification statements for its products of steel shapes and plates.

2012	►Oct	We applied to join the World Steel Association (WSA) as an associate member, and we also joined the WSA Climate Action Program to become a climate action member. We submitted the information of greenhouse gases and retroactively provided the data of greenhouse gas emissions for 2007–2011.
	►Dec	The Miaoli Works was certified under the ISO 50001 Energy and Resource Management System.
2014	►Jun	A plan for alternative lines was implemented for the project to install wind turbines, with the laying of 22.8kV power cables until the Longgang Branch No. 1 transmission tower adjacent to the Miaoli Works to be incorporated into the systems of Taipower.
	►Aug	The Taoyuan Works and Miaoli Works received reduction quotas issued by the Environmental Protection Administration for greenhouse gas early action programs totaling 447,603 tCO ₂ e.
	►Nov	The Kaohsiung Works obtained carbon footprint verification statements for five products and won a “glazed trophy” from the Industrial Technology Research Institute for the carbon footprints of these products, including steel shapes and rebar, making it the first steelworks in the rebar industry of Taiwan to receive a “carbon footprint certificate.”
2015	►Mar	The “Corporate Social Responsibility Best-Practice Principles” (renamed the “Sustainable Development Best-Practice Principles” in 2022) was published and became effective after approval by the Board.
	►Sep	The Taoyuan Works received a “verification statement issued for the carbon footprints of five products including rebar.
	►Dec	We set up a cross-departmental “CSR Task Force.”
2016	►Jan	The fuel for the reheating furnaces at the steel rolling mill of the Kaohsiung Works was changed from heavy oil to natural gas. The Kaohsiung Works also applied for a greenhouse gas offsetting program and was expected to receive an offsetting quota of 71,600 tCO ₂ e.
	►Aug	<p>We voluntarily published our first CSR report (which won the silver award for traditional industries in corporate sustainability reporting from the “2016 Taiwan Corporate Sustainability Awards”).</p> <p>Our subsidiary, Tung Kang Wind Power Corp., received a 25-year license for a power company issued by the Bureau of Energy, Ministry of Economic Affairs, and began to sell electricity on a wholesale basis.</p>
2017	►Jan	We received a certificate from the World Steel Association (WSA) recognizing us as a 10-year climate action member.
	►Jul	The Miaoli Works passed the verification and received a “statement on verification of water footprints” for its products of steel shapes and plates.
	►Nov	The Taoyuan Works was certified under the ISO 50001 Energy and Resource Management System.
2018	►Jan	<p>The carbon steel billets from the electric furnaces of the Miaoli Works passed and received the “certification for green products using recycled resources.”</p> <p>We became a formal member of the World Steel Association (WSA).</p>
	►Sep	We took part in the presentation of achievements of energy efficiency service teams at businesses organized by the Bureau of Energy, Ministry of Economic Affairs, and we won the Award for Outstanding Performance in Achievements of Energy Efficiency in 2015–2017.

2019

- Mar The steel rolling mill of Tung Ho Steel Vietnam Corporation Limited conducted a successful hot trial run of its direct hot charge rolling system and began production, making it the first steel mill in Vietnam adopting a process for direct rolling of hot steel billets without any reheating furnace.
- Jun We made an investment to establish Tung Sugar Energy Service Co., Ltd. as a biomass energy processing center to generate marsh gas power.
- Sep The Board established a Corporate Governance Committee, under which an “Environmental Sustainability Working Group” was set up to manage climate-related issues.
- Oct The Taoyuan Works cooperated with the Water Resources Agency in organizing the 2019 Work Plan for Guidance in Water Conservation by Major Water Consumers in Central Taiwan, and received a certificate of appreciation for the “Observational On-site Visits to Entities with Outstanding Performance in Water Conservation.”

The Taoyuan Works received a statement on verification of material flow cost accounting (MFCA) and won an award for “exemplary businesses in analysis of material flow cost accounting” from the Industrial Development Bureau, Ministry of Economic Affairs.

The fuel for the reheating furnaces at the steel rolling mill of the Miaoli Works was changed from heavy oil to natural gas. The Miaoli Works also applied for a greenhouse gas offsetting program and was expected to receive an offsetting quota of 144,600 ton-CO₂e.
- Nov The Taoyuan Works received a “statement on verification of carbon footprints” for its products.

2021

- Jan The Miaoli Works was certified by UL in the U.S. and received a certificate of Type III Environmental Product Declaration (EPD) for its steel shapes and plates, making it the first steel producer in Taiwan to receive an EPD for steel shapes and plates.
- May The Group set an absolute reduction target, which was a science-based reduction target calculated with the SBTi Tool (SDA_Tool_v1.2.1 using the Sectoral Decarbonization Approach (SDA)) provided by the Science Based Target Initiative.
- Jul Published the Company’s first Task Force on Climate-related Financial Disclosures (TCFD) Report in 2021, which was verified by the British Standards Institution (BSI).
- Nov We won the platinum award for traditional industries in corporate sustainability reporting from the “2021 Taiwan Corporate Sustainability Awards.”
- Dec For the first time, we completed CDP’s climate change questionnaires and achieved the level of “Management (B).”

2022

- Jan We received a Type III Environmental Product Declaration (EPD) certificate for the rebar from the Taoyuan Works, as well as for the steel shapes and channels from the Kaohsiung Works.
- Apr Signed up to the “Carbon Neutrality Alliance” formed by the Chinese National Federation of Industries and Taiwan Steels and Iron Industries Association. Our 2022 report on climate-related financial disclosures (TCFD) was verified by the British Standards Institution (BSI).
- Aug Signed up to the Corporate ESG for Net Zero in Agriculture.
- Nov Signed the “Environmental, Renewables, and Carbon Reduction Initiative” advocated by the National Central University.

Became a member of the Step Up Program of World Steel Association (WSA).
- Dec Answered the CDP Climate Change Questionnaire 2022 and ranked “B” in management and “A-” in leadership for supplier engagement.

Passed the certification of ISO 14064-1:2018 Greenhouse Gas Inventory and received the assurance statement.

2023

- Feb The Board passed the 2030 stage target: Carbon reduction by 30% + RE30 for “Net Zero 2050”.
Signed up to the Global Steel Climate Council as a supporting member.
- Mar Joined the “Alliance of Industrial Application of Hydrogen in Combustion and Hydrogen High-Pressure Storage Technology Industry”.

Announced the no use of pig iron as the raw material for steel refining at the target meeting.
- Apr Sustainable Finance First Movers Coalition engagement with E.SUN Bank.
- May 2023 Fubon Sustainable Future Forum: Key transition of Taiwan in global multiple crises (the President was the panelist)

NCKU Civil Engineering Construction Materials TDP: Low-emission Buildings.
- Oct Received the 2023 Net-Zero Industry Competitiveness Award – Excellence Award, the highest honor in the steel industry category.

Received the Outstanding Award in the Enterprise Category at the 4th Taiwan Circular Economy Awards.
- Nov Won the platinum award for traditional industries in corporate sustainability reporting from the “2023 Taiwan Corporate Sustainability Awards.”

2024

- Jan Received an ESG rating of “2” from Sustainable Fitch, where 1 is the highest rating on a scale of 1–5. The Group ranked among the top-performing companies globally.
- Feb In the 2023 CDP Questionnaire, the Group received a Leadership Level (A-) rating for Climate Change and a Management Level (B) rating for Water Security.
- Apr Ranked among the top 5% of listed companies in the 10th Corporate Governance Evaluation.
- Sep Named one of the “2024 Top 100 Taiwan Companies Selected by Foreign Investors.”
- Oct Received the 2024 Net-Zero Industry Competitiveness Award – Excellence Award in the steel industry category.
- Nov Ranked No. 1 in the steel industry in Business Weekly’s “2024 Carbon Competitiveness Top 100.”
- Dec Tung Kang Steel Structure received the “2024 TSMC Outstanding Supplier Award for Excellence in Performance.”

Tung Kang Engineering and Construction was awarded the “Chinese Telecom Sustainable Supply Chain – Gold Supplier” award.

2025

- Feb Received an ESG rating of “2” from Sustainable Fitch, ranking among the top-performing companies globally
- Mar In the 2024 CDP Questionnaire, the Group received a Leadership Level (A-) rating for Climate Change and a Management Level (B) rating for Water Security.
- Apr The Board of Directors approved the Group’s 2035 interim targets under the 2050 Net-Zero Emissions Roadmap: 30% carbon reduction + RE30.
- May Joined the Green Growth Alliance of the Ministry of Environment.

■ Tung Ho Steel Sustainability and Climate-Related Management Overview



■ Statement of Compliance

IFRS S1、S2

S1.17、S1.55、S1.72、
S2.2、S2.12、S2.23

To enhance the quality of sustainability disclosures, this report has been prepared with reference to the Regulations Governing Information to be Published in Annual Reports of Public Companies, as well as the International Financial Reporting Standards (IFRS) Sustainability Disclosure Standards approved and adopted by the Financial Supervisory Commission (FSC). This report is developed from the perspective of the primary users of general purpose financial reporting, including existing and potential investors, lenders, and other creditors. It refers to IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information, IFRS S2 Climate-related Disclosures, and the Industry-based Guidance – Steel Producers, and uses the SASB Sustainability Accounting Standard for Steel Producers to identify reasonably expected sustainability- and climate-related risks and opportunities that could affect the Group’s outlook. It aims to disclose material information regarding these risks and opportunities. The 2025 report is the Group’s first report prepared with reference to the IFRS Sustainability Disclosure Standards. Unless otherwise specified, all referenced financial impact figures are consistent with those in the Group’s consolidated financial statements and are presented in the functional currency, New Taiwan dollars (NT\$). The Tung Ho Steel Sustainability & Climate-Related Financial Disclosure (IFRS S1 & S2) Report 2025 (hereinafter referred to as “this Report”) was issued following its presentation to the 3rd Sustainability Development Committee (5th meeting) and the 25th Board of Directors (16th meeting) in May 2025.

■ Reporting Boundary

IFRS S1、S2

S1.20、S1.B38

To ensure that the primary users of general purpose financial reports can understand material information related to sustainability and climate-related risks and opportunities, the reporting entity covered in this Report is consistent with that of the Group's consolidated financial statements. The reporting scope includes the following entities:

Company Name	Principal Business Activities or Products
Tung Ho Steel Enterprise Corporation (Parent Company)	Steel Industry
Tung Kang Steel Structure Corporation	Structural Steel Construction and Engineering
Tung Kang Engineering and Construction Corp., Ltd.	Civil and Architectural Engineering
Tung Kang Wind Power Corp.	Power Generation
Katec Creative Resources Corp.	Waste Resource Recycling and Steel Industry
Tung Ho Steel Vietnam Corp., Ltd. (THSVC)	Steel Industry
Duc Hoa International Joint Stock Company	Limestone Plant

2. Sustainability and Climate-Related Governance

IFRS S1、S2

S1.27(a)、S2.6(a)

■ Board responsibility for sustainability and climate-related governance

The Board of Directors of the Group is responsible for reviewing and guiding the climate strategy, action plans, and annual targets, and conducts regular annual oversight of implementation progress and reviews of greenhouse gas (GHG) reduction targets and achievements.

The Board has established a Sustainability Development Committee as a functional committee. The Committee comprises three members, the majority of whom are independent directors, appointed by Board resolution. The Chairperson, who also serves as the Convener, is the Chairman of the Board. The Committee is responsible for sustainability and climate-related matters, including the formulation, oversight, and review of environmental sustainability systems and targets. The Sustainability Development Committee convenes at least twice per year, and reports annually to the Board on matters related to sustainability and climate change. In addition, the Board reviews quarterly reports on GHG inventory and scheduling. On December 24, 2024, the 13th meeting of the 25th Board of Directors approved the IFRS Sustainability Disclosure Standards Alignment Plan and the identification of risks and opportunities. On February 25, 2025, the 25th session of the 14th Board of Directors approved the IFRS S1 and S2 disclosure content report. This Report was issued following its presentation to the 3rd Sustainability Development Committee (5th meeting) and the 25th Board of Directors (16th meeting) in May 2025.

■ Board competencies in governing sustainability and climate-related matters

IFRS S1、S2

S1.27(a)、S2.6(a)

With regard to climate change-related issues, we have hired external instructors in 2021 to 2025 to provide the relevant training. All members of the Board and senior managers have attended training sessions on corporate climate governance and sustainability-related practices for a total of 287 hours.

Additionally, the Board actively participates in engagements between the government and industries regarding corporate issues, while facing the challenges of climate change to sustainable development with a pragmatic and forward-looking approach.

◆ Exchanges and Cooperation

Name of Trade Association	Position	Group Representative
Taiwan Steel and Iron Industries Association	Convener of the Board of Supervisors	Chairman
Chinese National Federation of Industries	Managing director	Chairman

◆ Names of Climate-related Initiatives

Name of Trade Association	Date of Singing	Group Representative
"Carbon Neutrality Alliance" formed by the Chinese National Federation of Industries.	April 2022	Chairman
Corporate ESG for Net-Zero in Agriculture of the Council of Agriculture.	August 2022	Chairman
"Environmental, Renewables, and Carbon Reduction Initiative" of National Central University.	November 2022	Chairman
Global Steel Climate Council-Supporting Member.	February 2023	Chairman
Joined the "Alliance of Industrial Application of Hydrogen in Combustion and Hydrogen High-Pressure Storage Technology Industry."	March 2023	Chairman

◆ Media organization

Media Organization	Title of Interview	Date of Publication	Our representative
Business and Industry Interview	Dayeh Works Investment: Enhance THS competitiveness; Pave way for the next 60 years with an open mind. Say no to EAF works, Lead by two generations of curve wreckers, maintain brotherhood with workers.	April 2023	Chairman President
CommonWealth Magazine	The Thing That Neither THS Nor TSMC Can Miss: THS Green Transition	April 2023	Chairman President
Economic Daily News	Private Sector Giants Participate in State-Affiliated Power Sales Company Tung Ho Steel: Welcomes the Initiative as a Solution to the Green Power Shortage	December 2024	President

◆ Government Agency

Government Agency	Title of Meeting	Date of Meeting	Group Representative
Ministry of Economic Affairs	Alliance of Industrial Application of Hydrogen in Combustion and Hydrogen High-Pressure Storage Technology Industry	March 28, 2023	Chairman President
Ministry of Economic Affairs	Steel Industry Senior Executive Self-Regulation Meeting	April 14, 2023	President
Ministry of Economic Affairs	1st plenary meeting of the “Committee on Work Circle of Industrial and Energy Efficiency” in 2023	May 22, 2023	Chairman President
Ministry of Education	Seminar on Green Transition for High-Emission Industries	July 14, 2023	Chairman President
Industrial Development Bureau	Decarbonization and Sustainability of Brand Enterprises	August 16, 2023	President
Taiwan Research Institute	1+N Carbon Management Demonstration Team for Net-Zero Transformation in the Manufacturing Sector	August 16, 2023	President
Chinese National Federation of Industries	ITRI Research Talent	December 28, 2023	President
Miaoli County Government	Leading Enterprises to Drive SMEs for Low-Carbon and Smart Transformation Counseling Program	April 11, 2024	President
Taiwan Society for Circular Economy	Low-Carbon and Circular Taiwan Sustainable and Durable Construction Seminar	June 24, 2024	President
National Science and Technology Council	Net-Zero Working Group Meeting	September 11, 2024	President
Ministry of Economic Affairs	Taiwan-Japan Public-Private Steel Dialogue Conference	September 30, 2024	President
21st Century Foundation	Net-Zero Industry Competitiveness Award – Excellence Award	October 19, 2024	President
Ministry of Economic Affairs	Taiwan-Korea Public-Private Steel Dialogue Conference	November 6, 2024	President

◆ Climate Change-related Training Session

Date of Session	Climate Change-related Training Session	Hours	Attendees
May 11, 2021	2021 Guide to Corporate Governance – Corporate Climate Governance and TCFD Disclosure Practices	3 hours	All members of the Board and senior managers
May 5, 2022	Risks and Opportunities of Climate Change and the Net-Zero Emission Policy for Business Operations	3 hours	All members of the Board and senior managers
March 8, 2023	Development and Planning of Energy Storage Systems	4 hours	All members of the Board
August 8, 2023	Corporate Climate Governance and TCFD Disclosure Practices	3 hours	All members of the Board and senior managers
April 30, 2024	Carbon Management Trends and Response Strategies Toward Net-Zero Emissions	3 hours	All members of the Board and senior managers
April 25, 2025	Domestic and International Trends in Carbon Pricing Mechanisms	3 hours	All members of the Board and senior managers

■ Designated representatives for sustainability and climate-related topics at the board level

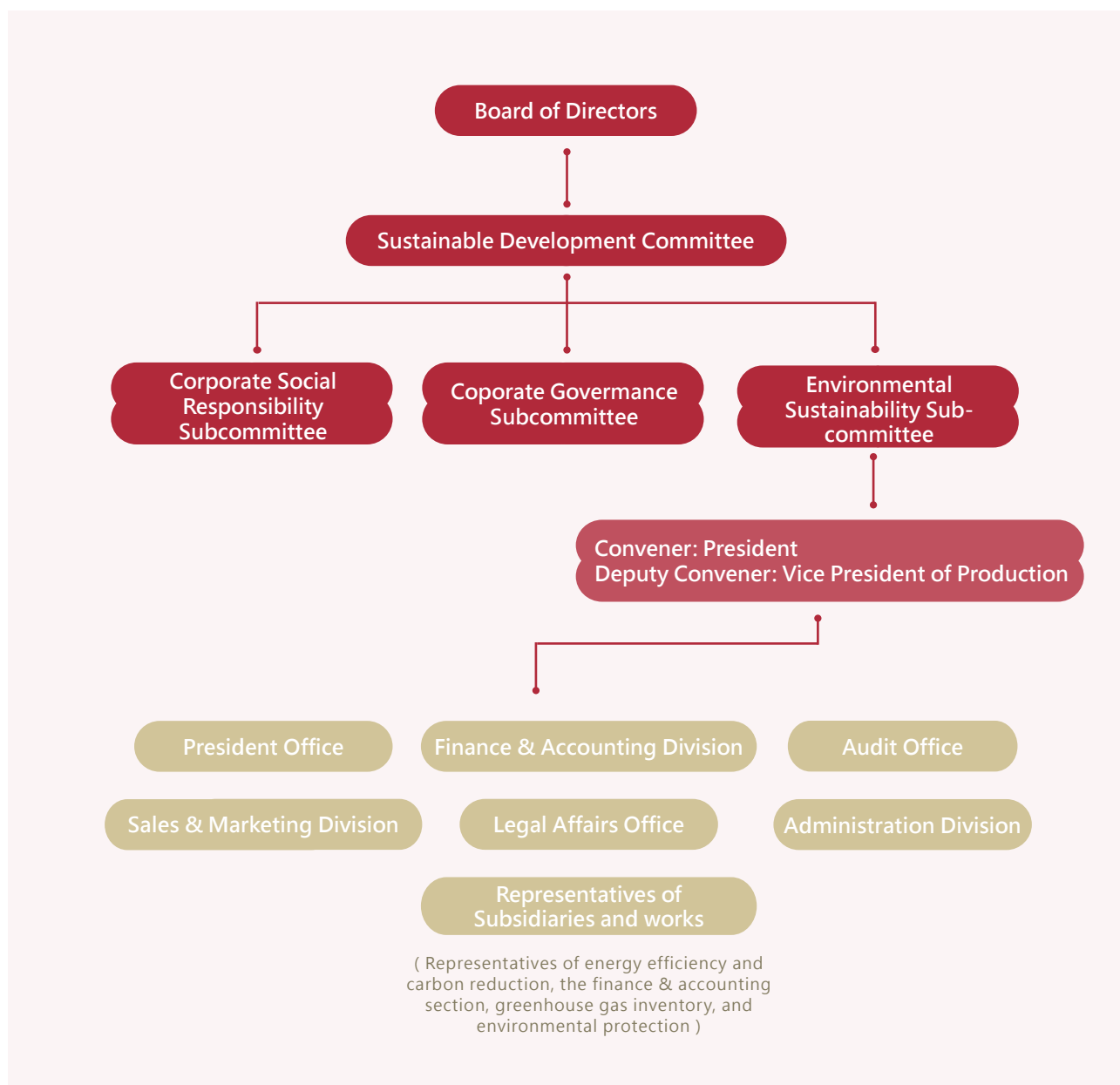
IFRS S1・S2 S1.27(a)・S2.6(a)

The Group's Sustainability Development Committee (a functional committee) under the Board of Directors has established the Environmental Sustainability Working Group, with the President serving as the convener and the Vice President of Production as the deputy convener. The team comprises personnel appointed by relevant departments and is responsible for evaluating and managing sustainability- and climate-related risks and opportunities, setting corresponding strategies and targets, and continuously conducting analysis and control. The Environmental Sustainability Working Group periodically reports its performance to the Sustainable Development Committee

With the carbon fee scheme taking effect on January 1, 2025, the Environmental Sustainability Team has established the "Voluntary Reduction Program Task Force." As of mid-March 2025, the task force has convened 9 review meetings and proactively formulated 57 reduction measures across the Company, aiming to secure preferential carbon fee rates through the implementation of concrete voluntary reduction programs. The Environmental Sustainability Working Group remains responsible for executing these measures and tracking their effectiveness.

To continuously explore the latest energy-saving and carbon reduction technologies and information, and to dynamically update the voluntary reduction program, the Environmental Sustainability Working Group has subscribed to Elsevier's "ScienceDirect full-text database." Through this platform, the team accesses and downloads leading international journal publications, and shares insights via internal reading groups to stimulate the development of more effective energy-saving and carbon reduction solutions.

◆ Tung Ho Steel Sustainability and Climate Governance Structure



1 Board

Convener : Chairman

▸ Sustainability and Climate-Related Governance Missions

Reviewing and directing the strategies, action plans and annual targets for climate change, regularly monitoring their implementation on an annual basis, and reviewing the targets of greenhouse gas reduction and the level of their achievement.

▸ Performance

- February 22, 2023 – At the 25th meeting of the 24th Board of Directors, Tung Ho Steel approved the 2030 interim targets for achieving net-zero carbon emissions by 2050: (1) Reduce carbon emissions by 30%: total carbon reduction by 30% over 2005; (2) RE30: Use over 30% of renewables in total electricity consumption in 2030.
- December 26, 2023 – At the 6th meeting of the 25th Board of Directors, the amendment to the “Regulations for Appropriation and Utilization of Special Reserve for Climate Change Adaptation and Mitigation” was approved.
- May 24, 2024 – At the 9th meeting of the 25th Board of Directors, the establishment of the climate change management strategy, reduction targets, and action plans was approved.
- May 24, 2024 – At the 9th meeting of the 25th Board of Directors, the adoption of the “Regulations for ESG Bonuses for Top Managers” was approved.
- May 24, 2024 – At the 9th meeting of the 25th Board of Directors, the issuance of the Climate-related Financial Disclosures Report 2024 was approved.
- May 24, 2024 – At the 9th meeting of the 25th Board of Directors, the issuance of the 2023 Sustainability Report and stakeholder engagement outcomes was approved.
- Dec 24, 2024 – At the 13th meeting of the 25th Board of Directors, the Group approved Work plan report on sustainability disclosure: (1) 2024 Report Compilation Plan ; (2) IFRS Sustainability Disclosure Standards Alignment Plan and risk & opportunity identification results.
- April 25, 2025 – At the 15th meeting of the 25th Board of Directors, the Group approved the 2030 interim targets for achieving net-zero carbon emissions by 2050: (1) Reduce Group carbon emissions by 30%: total carbon reduction by 30% over 2021; (2) RE30: Use over 30% of renewables in total electricity consumption in 2030 and complete the renewables procurement contracts for up to 30% of the Group’ s total electricity consumption by 2030.
- April 25, 2024 – At the 15th meeting of the 25th Board of Directors, the issuance of the 2024 Sustainability Report and stakeholder engagement outcomes was approved.
- May 20, 2024 – At the 16th meeting of the 25th Board of Directors, the establishment of the GHG management strategy, reduction targets, and action plans was approved.
- May 20, 2025 – At the 16th meeting of the 25th Board of Directors, the publication of the 2025 Tung Ho Steel Climate-related Financial Disclosures (IFRS S1, S2) Report was approved.

2 Sustainable Development Committee

Convener : Chairman

▸ Sustainability and Climate-Related Governance Missions

Climate change-related issues, including the establishment, supervision and review of the system and targets for environmental sustainability, and submitting regular reports on climate-related issues to the Board.

▸ Performance

- May 9, 2024 – At the 2nd meeting of the 3rd Sustainability Development Committee, the climate change management strategy, reduction targets, and action plans were established and submitted to the Board of Directors.
- May 9, 2024 – At the 2nd meeting of the 3rd Sustainability Development Committee, the remuneration indicators

and targets linking top management compensation with ESG performance were established and submitted to the Board of Directors.

- May 9, 2024 – At the 2nd meeting of the 3rd Sustainability Development Committee, the issuance of the Climate-related Financial Disclosures Report 2024 was approved and submitted to the Board of Directors.
- May 9, 2024 – At the 2nd meeting of the 3rd Sustainability Development Committee, the issuance of the 2023 Sustainability Report and stakeholder engagement outcomes was approved and submitted to the Board of Directors.
- April 7, 2025 - At 4th Meeting of the 3rd Sustainability Development Committee
 1. Approved the issuance of the 2024 Sustainability Report and communication with stakeholders, and submitted to the Board of Directors.
 2. Approved the establishment of greenhouse gas management strategies, reduction targets and plans, and submitted to the Board of Directors.
 3. Approved the issuance of the 2025 Tung Ho Steel Sustainability and Climate-related Financial Disclosures (IFRS S1 & S2) Report, and submitted to the Board of Directors.
- April 7, 2025 - At 4th Term, 4th Meeting of the 3rd Sustainability Development Committee, approved the Group's 2035 carbon reduction targets and renewable energy usage targets, and submitted to the Board of Directors

3 Environmental Sustainability Sub-committee

Converner : President
Deputy Convener : Vice President for Production

▸ Sustainability and Climate-Related Governance Missions

Assessing and managing climate-related risks and opportunities, establishing the relevant operational plans and targets, and submitting regular reports to the Corporate Governance and Nomination Committee regarding its performance.

▸ Performance

2023

- Held Meetings on Climate-related Scenarios and Financial Assessment Methodologies, Climate-related Strategy Evaluation, and Climate-related Target Setting.
- A meeting was held on the project for modification of steel scrap preheating-type electric furnaces.
- Held the energy conservation and carbon reduction program planning meeting, established a working group, and unfolded the analysis and assessment of various energy conservation and carbon education plans.
- Implemented the carbon capture and reuse and hydrogen energy technology development projects (TDPs) of the Green Energy and Environment Research Labs, ITRI.
- Participated in the WSA Step Up Program and submitted data on carbon dioxide emissions, energy, recycling rates, maintenance and reliability, and raw materials.
- Launched climate-related engagement planning along the value chain and promoted the signing of the "Carbon Reduction Collaborative Agreement" across the value chain.
- Participated in the MOEA "Leading Enterprises to Drive SMEs for Low-Carbon and Smart Transformation Subsidy Program."
- Reviewed the "Application Form for Climate Change Adaptation and Mitigation Projects."

2024

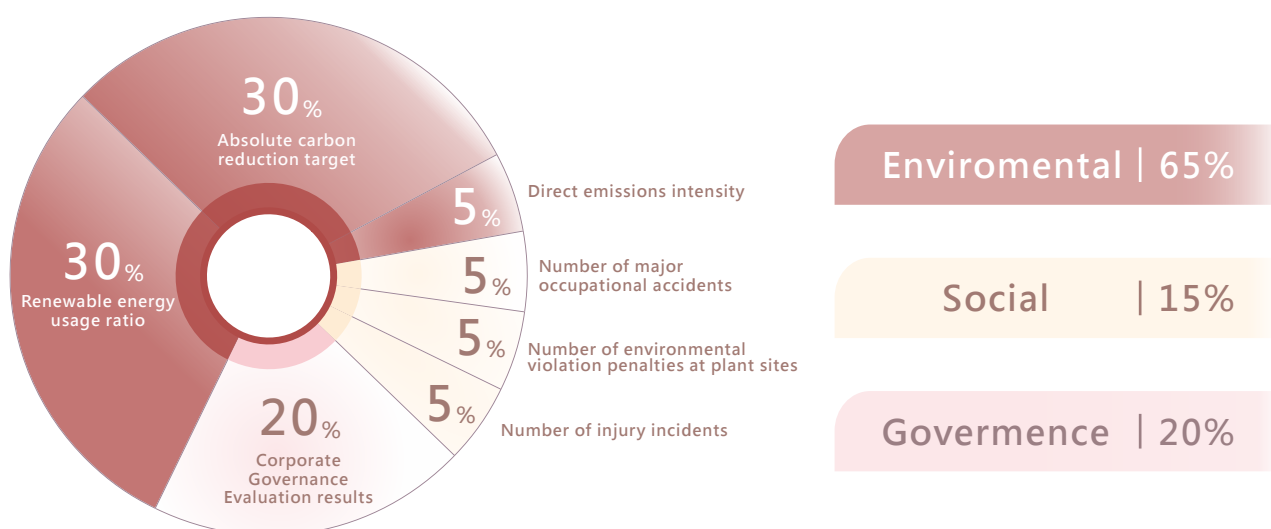
- Held a total of 9 review meetings for the Voluntary Emission Reduction Plan from 2024 to March 2025, and planned 57 reduction measures.
- Organized internal study groups on energy-saving and carbon reduction technologies.
- Held Group-wide discussions on sustainability- and climate-related risks and opportunities in accordance with IFRS S1 & S2.

■ Incentive mechanisms linked to sustainability and climate-related performance

IFRS S1 · S2

S1.27(a) · S2.6(a)

To incentivize senior executives to actively engage in and promote ESG objectives and enhance the Company's sustainability competitiveness, the "Regulations for Distribution of ESG Bonus for Top Managers" were established. The performance indicators include short- and medium-term targets such as: "Renewable energy usage ratio (30%)," "Absolute carbon reduction target (30%)," "Direct emissions intensity (5%)," "Number of environmental violation penalties at plant sites (5%)," "Number of major occupational accidents (5%)," "Number of injury incidents (5%)," "Corporate Governance Evaluation results (20%)." ESG bonuses are granted based on each department's level of alignment with the indicators and achievement of targets. The performance indicators and the relevant regulations were approved at the 6th Meeting of the 5th Remuneration and Nomination Committee and the 9th Meeting of the 25th Board of Directors in May 2024.





3. Management of Climate Change-Related Risks and Opportunities

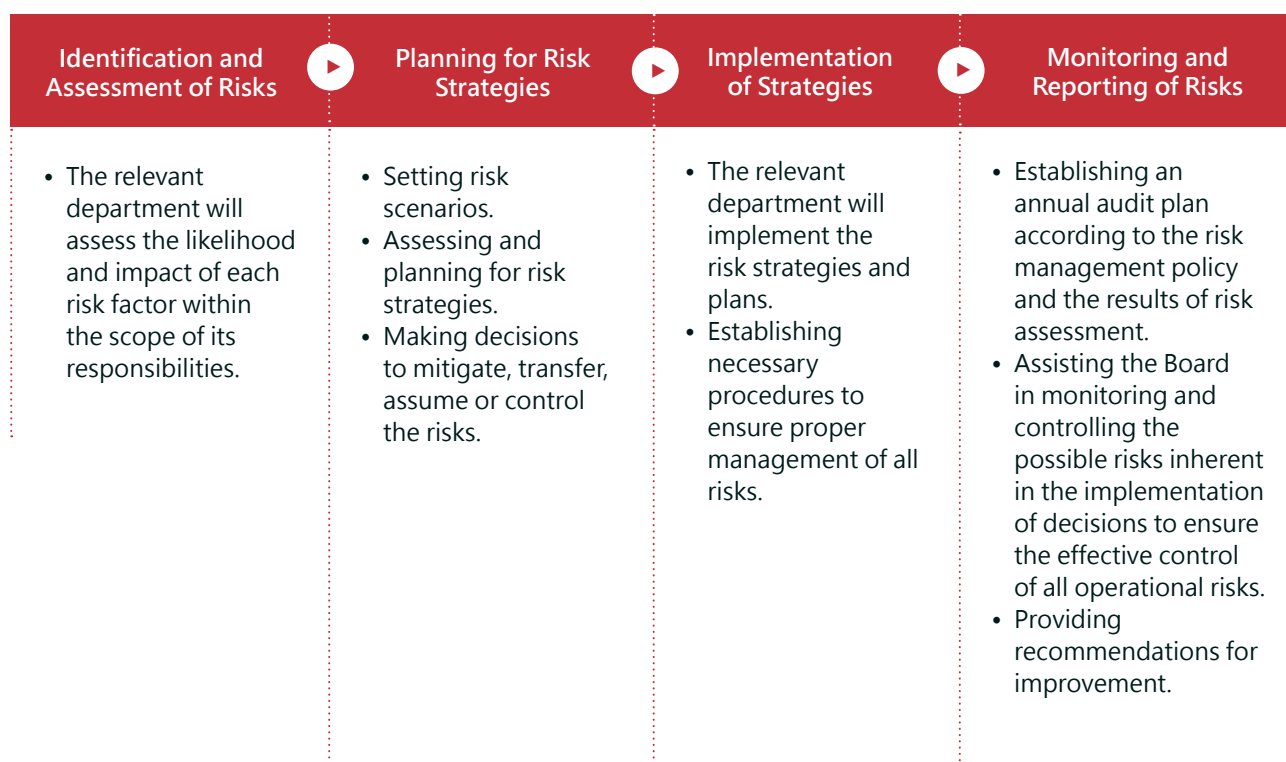
■ Risk and opportunity management process

IFRS S1 · S2

S1.44(c) · S2.25(c)

Tung Ho Steel has established the Sustainable Development Committee with three working groups: Environmental Sustainability, CSR, and Corporate Governance working groups. The Corporate Governance Working Group establishes, oversees, and reviews the policies and management mechanisms relating to corporate governance, ethical corporate management, and risk management. The Board has set up a Corporate Governance and Nomination Committee consisting of sub-committees on corporate governance, sustainable development, ethical management, environmental sustainability, and risk management. The Risk Management Sub-committee is a body responsible for risk management, and is tasked with coordinating with the relevant departments in risk identification, assessment, control, and monitoring and submitting regular reports to the Corporate Governance and Nomination Committee regarding its performance. The Corporate Governance and Nomination Committee will submit a report to the Board regarding the overall performance in risk management at least annually. Each of the relevant departments will assess the likelihood and impact of each risk factor within the scope of its responsibilities and establish and implement necessary measures to properly manage all risks. The Audit Office will establish an annual audit plan according to the risk management policy and the results of risk assessment, conduct audits of the relevant systems according to the plan, assist the Board in monitoring and controlling the possible risks inherent in the implementation of decisions, ensure the effective control of all operational risks, and provide timely recommendations for improvement.

The Environmental Sustainability Working Group under the Corporate Governance and Nomination Committee is a body responsible for climate change-related management. The Group reviews the content of various international initiatives and organizations related to sustainability and climate change. It incorporates the focal points and assessment criteria of these global initiatives into the formulation of its environmental and greenhouse gas policies, aligning with international development trends and enhancing the Group's capability to respond to climate change.



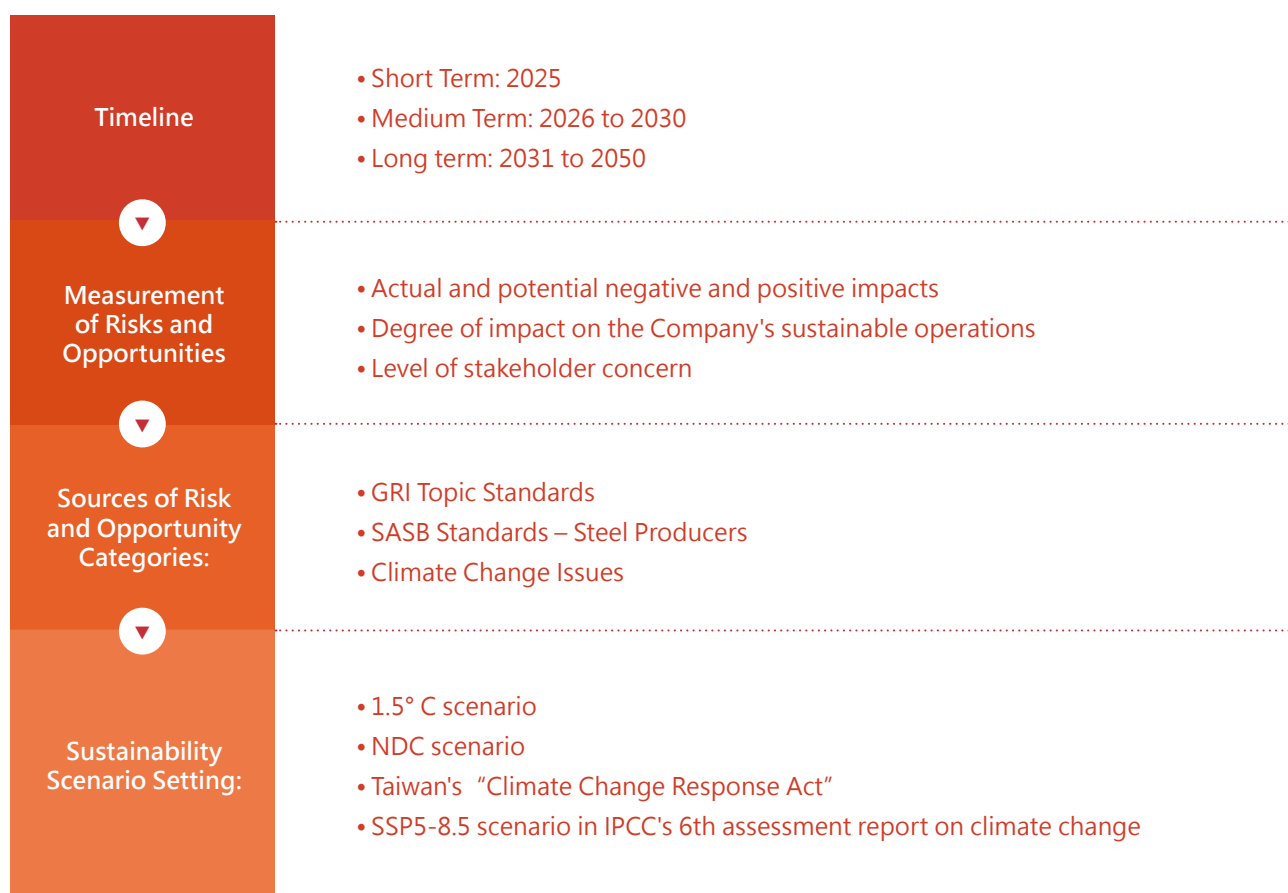
■ Identification, assessment, and management process for sustainability-related risks and opportunities

IFRS S1 · S2

S1.44(a) · S1.44(b)

Meetings for the identification of sustainability-related risks and opportunities were convened by the Sustainability Development Committee. The process was based on the GRI Topic Standards, the Taiwan Stock Exchange's "Rules Governing the Preparation and Filing of Sustainability Reports by TWSE Listed Companies," the GRI G4 Mining and Metals Sector Disclosures, the SASB Standards for Steel Producers, and the United Nations Sustainable Development Goals (SDGs). Stakeholder feedback was also taken into consideration. Through this process, 25 sustainability topics relevant to the Group's characteristics were identified, encompassing the four sustainability dimensions of corporate governance, economy, environment, and society (including people and human rights). Representatives from Tung Ho Steel's departments and subsidiaries then assessed the corresponding strategies and financial impacts of key short-, medium-, and long-term risks and opportunities identified in the meetings. The assessment considered the implications for the Group's operations and strategy concerning products and services, supply chain, adaptation and mitigation activities, R&D investment, and business operations (including business type and facility locations). The identification and assessment of sustainability-related risks and opportunities covered the actual and potential negative impacts and positive contributions of each sustainability topic in the dimensions of corporate governance, economy, environment, and society (including people and human rights), as well as the degree of impact on the Group's sustainable development and the level of stakeholder concern.

Following the matrix analysis of identified issues and discussions among representatives from all departments and subsidiaries, the Group finalized its material climate-related risks and opportunities. A strategy discussion meeting on sustainability and climate-related risks and opportunities was then convened to determine the Group's future sustainability response strategies. These risks, opportunities, strategies, and targets were subsequently reviewed by the Sustainability Development Committee. Ultimately, the Board of Directors is responsible for reviewing and guiding the Group's climate transition strategy, action plans, and annual targets, and for regularly overseeing their implementation and reviewing performance against those targets.



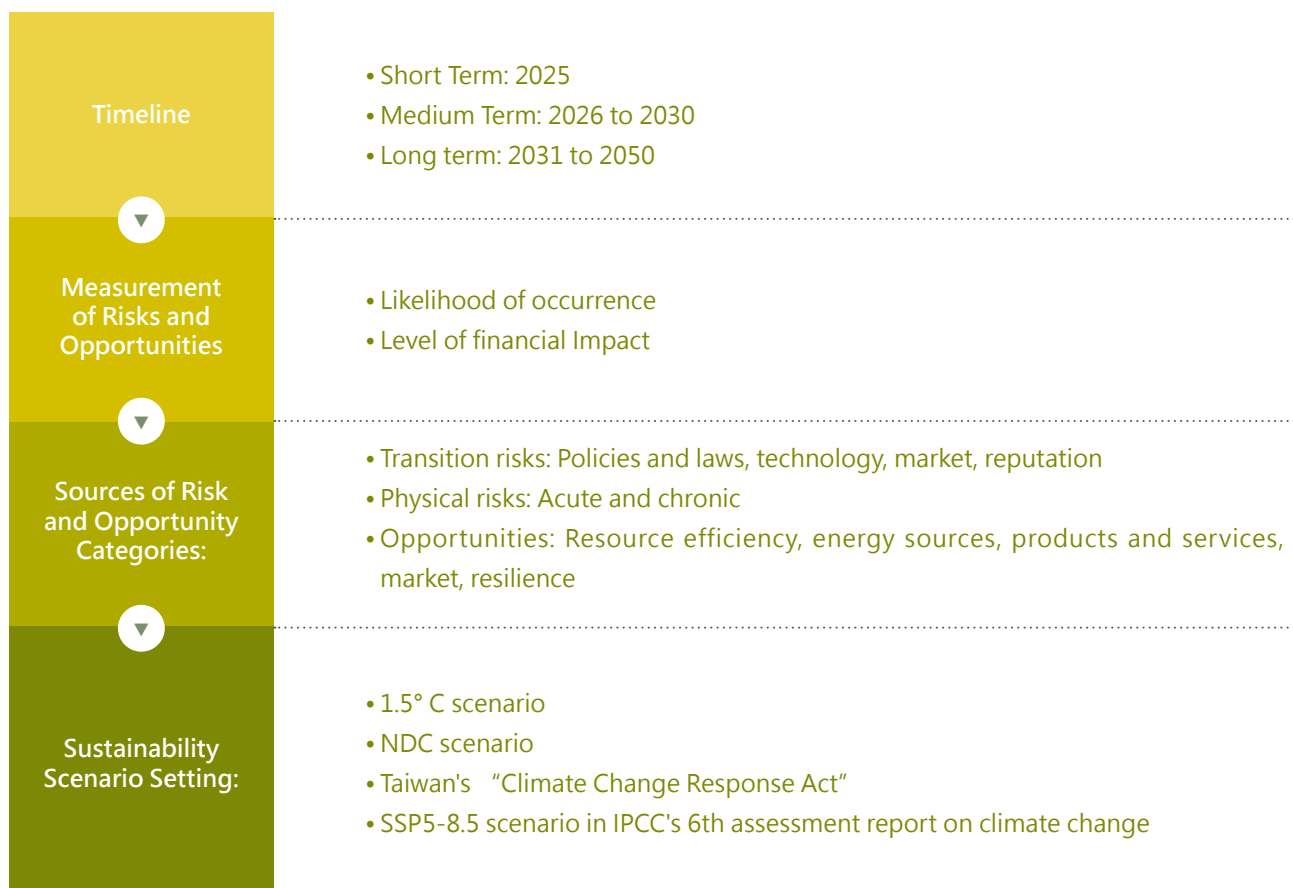
■ Identification, assessment, and management process for climate-related risks and opportunities

IFRS S1 、S2

S2.25(b) 、S2.25(c)

Climate-related risk and opportunity identification meetings are convened by members of the Environmental Sustainability Working Group. Based on transition risks, physical risks, and opportunity inventories, each department and subsidiary assesses the identified key short-, medium-, and long-term risks and opportunities, and evaluates corresponding strategies and financial impacts. The evaluation also takes into account the effects on the Group's business and strategy, including products and services, supply chain, adaptation and mitigation activities, R&D investment, and business operations (such as business type and facility locations). The identification and assessment of climate change-related transition risks and physical risks include the level of their impact on business operations and the likelihood of their occurrence. The identification and assessment of climate change-related opportunities include the level of their effects on business operations and the likelihood of their occurrence.

Following the matrix analysis of identified issues and discussions among representatives from all departments and subsidiaries, the Group finalized its material climate-related risks and opportunities. A strategy discussion meeting on sustainability and climate-related risks and opportunities was then convened to determine the Group's future sustainability response strategies. These risks, opportunities, strategies, and targets were subsequently reviewed by the Sustainability Development Committee. Ultimately, the Board of Directors is responsible for reviewing and guiding the Group's climate transition strategy, action plans, and annual targets, and for regularly overseeing their implementation and reviewing performance against those targets.





4. Sustainability and Climate-Related Strategies

IFRS S1、S2

S1.20、S1.B38

■ Application of sustainability and climate-related scenarios

Sustainability- and climate-related risks and opportunities affect the Group's strategy and financial planning. Accordingly, the Group has assessed the resilience of its sustainability and climate strategies by analyzing transition, regulatory, and physical risks, along with the worst-case scenarios associated with sustainability- and climate-related opportunities.

Types of Sustainability- and Climate-Related Risks and Opportunities	Group's Scenario for Strategy Assessment	Scenario Description
<ul style="list-style-type: none"> • Transition Risk • Regulatory Risk • Sustainability Opportunity • Climate Opportunity 	<ul style="list-style-type: none"> • 1.5° C scenario • Taiwan's pathway and strategy for net-zero emissions in 2050 • Taiwan NDC • Taiwan's "Climate Change Response Act" • Environmental Protection Act • Occupational Safety and Health Act 	<ul style="list-style-type: none"> • Net-Zero Trend Net-zero emissions in 2050 have become a global trend. In March 2022 the government of Taiwan published "Taiwan's Pathway to Net-Zero Emissions in 2050," which is focused on the four areas of "energy transition," "industrial transition," "lifestyle transition" and "social transition" as well as the two foundations of governance in "technology R&D" and "climate legislation" to maintain strong control over greenhouse gas emissions, with likely effects on the operations of Tung Ho Steel and its value chains. • Goals of the Net-Zero Transformation Stage In December 2022, the National Development Council announced Taiwan's phased targets and key strategies for achieving net-zero emissions by 2050. By the end of 2024, the Ministry of Environment declared that Taiwan's net greenhouse gas emissions in 2030 should be reduced to 28±2% of the 2005 base line emissions. This represents a 5-percentage-point increase from the previously announced Nationally Determined Contribution (NDC) target of 24%±1% set by the National Development Council in 2022. • Increasingly stringent environmental protection and occupational safety and health regulations The above scenarios are expected to impact the operations of the Group and its value chain.

Types of Sustainability- and Climate-Related Risks and Opportunities	Group' s Scenario for Strategy Assessment	Scenario Description
<ul style="list-style-type: none"> Physical Risks 	<ul style="list-style-type: none"> IPCC Sixth Assessment Report – Worst-case Global Warming Scenario (SSP5-8.5) 	<p>Under a scenario of extremely high greenhouse gas emissions (SSP5-8.5), climate change would exacerbate changes in the average temperature, extremely high temperature, annual total precipitation, annual maximum 1-day intensity of heavy precipitation, annual maximum number of consecutive dry days and percentage of strong typhoons in the future. These scenarios are anticipated to impact the operations of the Group and its value chain.</p>

1.5° C Scenario, Taiwan 2050 Net-Zero Emissions Roadmap and Strategy, and Taiwan Climate Change Response Act – Projected Descriptions	
Carbon fee collection	<ul style="list-style-type: none"> In August 2024, the formal announcement of the three carbon fee regulations was made. Starting in 2026, carbon fees will be imposed on enterprises whose annual greenhouse gas emissions at a single site equal or exceed 25,000 metric tons of CO₂ equivalent. In 2024, it was announced that enterprises with electricity consumption of 10 million kWh or more per site, or with annual total greenhouse gas emissions reaching 10,000 metric tons of CO₂ equivalent or more, will be required to begin annual greenhouse gas emissions inventory and reporting starting in 2026. The collection of carbon fees for these enterprises is expected to begin in 2031. In October 2024, the official carbon fee rate was announced. The standard rate is NT\$300 per metric ton of CO₂ equivalent, with chargeable emissions calculated as (annual emissions - 25,000 metric tons of CO₂ equivalent). The fee rate is expected to gradually increase, reaching NT\$1,500 to NT\$2,000 per metric ton of CO₂ equivalent after 2031.
Electricity price increase	<p>In response to the government of Taiwan' s 2030 NDC, Taiwan Power Company (TPC) will raise the electricity price by 20% every five years.</p>

1.5° C Scenario, Taiwan 2050 Net-Zero Emissions Roadmap and Strategy, and Taiwan Climate Change Response Act – Projected Descriptions

Taipower emission factor reduction	In response to the government of Taiwan' s Net-Zero 2050 policy, TPC adjusts the electricity carbon emission factor every year.
Renewable energy installation requirement	In accordance with the Renewable Energy Development Act, the government of Taiwan requests heavy electricity users to build renewables generation facilities with a capacity of about 10% of the required contract capacity.
Changes in customer behavior	In the medium term and beyond, some customers have begun requiring the Group' s products to be accompanied by carbon neutrality certification.
Government incentives	The government of Taiwan subsidizes businesses for carbon reduction, renewables, energy storage systems, and carbon capture in accordance with the Climate Change Response Act.

IPCC Sixth Assessment Report – Worst-case Global Warming Scenario (SSP5-8.5)

Temperature rise	It is estimated that the temperature in Taiwan will continue to rise. Under the worst-case scenario for global warming (SSP5-8.5), the average temperatures in the middle and at the end of the 21st century are likely to rise by more than 1.8°C and 3.4° C, respectively.
Extreme heat	In future events of extremely high temperature, the number of days with maximum temperature above 36 ° C would increase. Under the worst-case scenario (SSP5-8.5), the number of days in the middle and at the end of the 21st century would increase by approximately 8.5 and 48.1, respectively.
Increase in total precipitation	It is estimated that the annual total precipitation in Taiwan is likely to increase in the future. Under the worst-case scenario (SSP5-8.5), the average amount of annual total precipitation in Taiwan in the middle and at the end of the 21st century would increase by approximately 15% and 31%, respectively.
Increase in intensity of extreme rainfall	The annual maximum 1-day intensity of heavy precipitation in Taiwan is likely to increase. Under the worst-case scenario (SSP5-8.5), the average annual maximum 1-day intensity of heavy precipitation in the middle and at the end of the 21st century would increase by approximately 20% and 41.3%, respectively.
Increase in consecutive dry days	The annual maximum number of consecutive dry days is likely to increase. Under the worst-case scenario (SSP5-8.5), such number of days in the middle and at the end of the 21st century would increase by an average of approximately 5.5% and 12.4%, respectively.
Changes in typhoon patterns	Under the worst-case scenario (RCP8.5), the number of typhoons affecting Taiwan in the middle and at the end of the 21st century would decrease by approximately 15% and 55% respectively, and the percentages of strong typhoons would increase by approximately 100% and 50% respectively, while the rates of change in typhoon precipitation would increase by approximately 20% and 35% respectively.

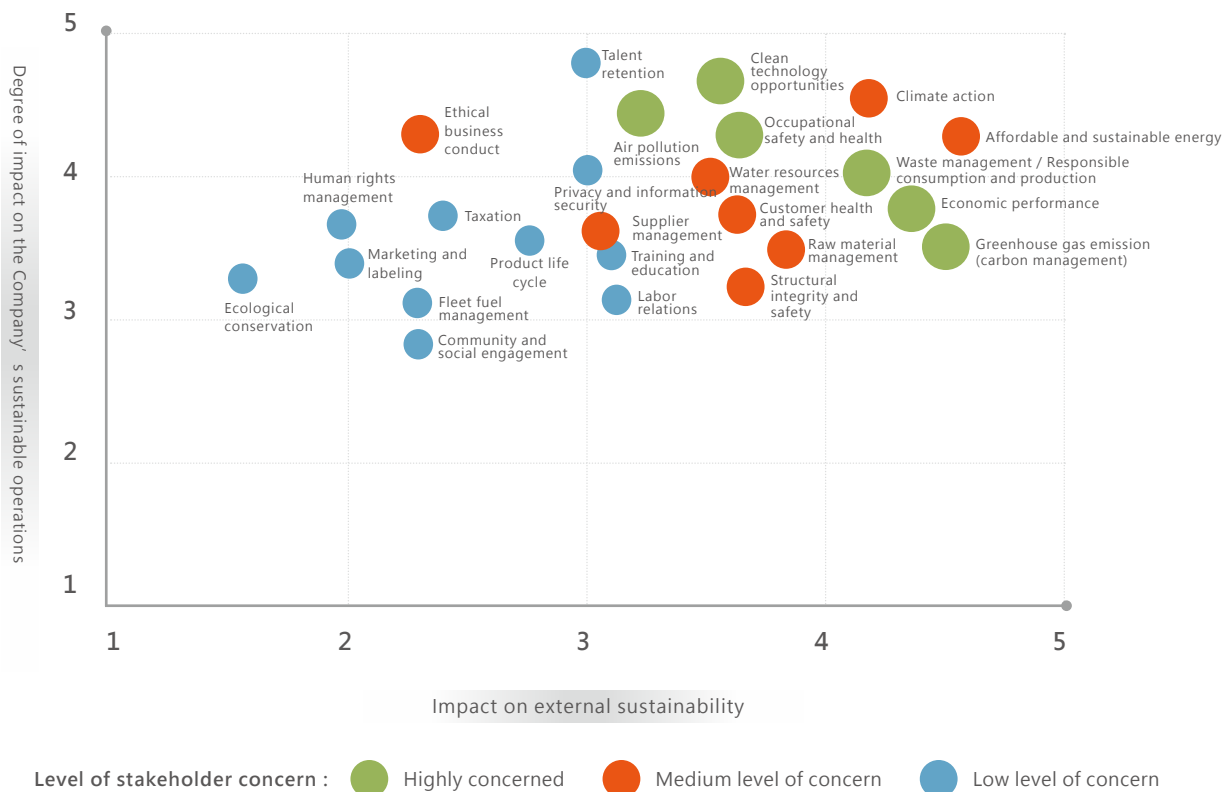
■ Sustainability-related risks and opportunities identified

IFRS S1、S2

S1.30(a)、S1.30(b)、S1.30(c)、S1.32(b)

The Sustainability and Development Committee convened a meeting to identify sustainability-related risks and opportunities. Based on the frameworks recommended by GRI and SASB, the assessment considered the actual and potential negative impacts and positive effects of each sustainability topic across the corporate governance, economic, environmental, and social (including human rights) dimensions. The evaluation also factored in the degree of impact on the Company's sustainable operations and the level of concern expressed by stakeholders. As a result, four material sustainability-related risks and opportunities were identified. The definition of financial impact (NT\$/year) refers to the average value for each period: short term (2025), medium term (2026–2030), and long term (2031–2050). The classification of financial impact levels is based on Tung Ho Steel's Risk Management Policy and Procedures.

◆ Sustainability-related Risks and Opportunities Matrix



◆ Identified Sustainability-related Material Risks and Opportunities

Risk Ranking	Sustainability-related Risks and Opportunities	Boundary of Impact of Risks and Opportunities on Business Model and Value Chain			Time Horizon		
		Upstream	The Group	Downstream	Short term	Medium term	Long term
1	【Climate-related Risks and Opportunities】 Climate action	•	<ul style="list-style-type: none"> Taiwan Tung Ho Steel, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Tung Kang Wind Power, Katec Corp. Vietnam TSHVC, Duc Hoa International J.S.C. 	•	•	•	•
2	【Sustainability Risk】 Waste management	•		-	•	•	•
3	【Sustainability Risk】 Occupational health and safety	•		-	•	•	•
4	【Sustainability Risk】 Air pollutant emissions	-	<ul style="list-style-type: none"> Taiwan Tung Ho Steel, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Katec Corp. Vietnam TSHVC, Duc Hoa International J.S.C. 	-	•	•	•

Note: Climate action includes the following categories: energy management, greenhouse gas emissions management, clean technology opportunities, water resources management, low-carbon technology transition, and physical climate risks.

■ Climate-related risks and opportunities identified

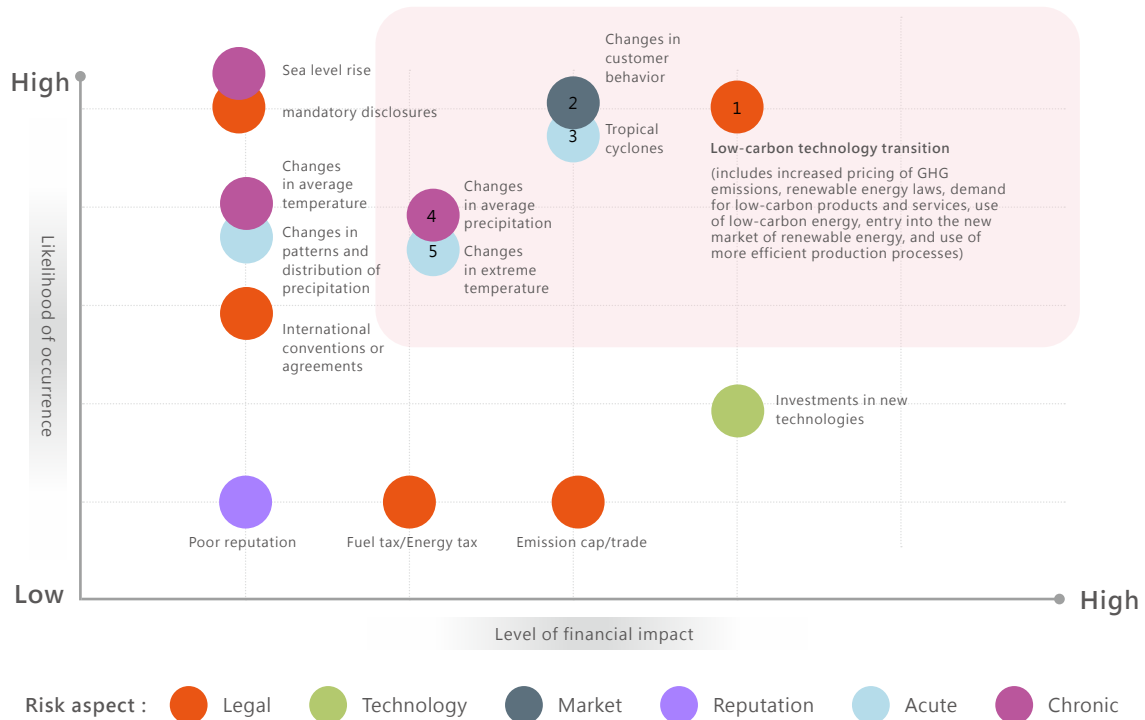
IFRS S1 · S2

S2.10(a) · S2.10(b) · S2.10(c) · S2.10(d) · S2.13(b)

A climate-related risk and opportunity identification meeting was convened by members of the Environmental Sustainability Working Group. Based on the Task Force on Climate-related Financial Disclosures -recommended evaluation framework (items with a score of [significance of impact x likelihood of occurrence] ≥ 8 are classified as material), a total of five material climate-related risks and two material climate-related opportunities were identified. The definition of financial impact (NT\$/year) refers to the average value for each period: short term (2025), medium term (2026–2030), and long term (2031–2050). The classification of financial impact levels is based on Tung Ho Steel's Risk Management Policy and Procedures.

The 2025 climate risk and opportunity assessment was conducted using the following scenario references: the 1.5°C scenario, Taiwan's 2050 Net-Zero Emissions Pathway and Strategy, the worst-case global warming scenario (SSP5-8.5) from the IPCC Sixth Assessment Report, and Taiwan's 2030 Nationally Determined Contribution (NDC) emission reduction targets. Compared with 2024, the material climate-related risk items in 2025 remain unchanged, while the material climate-related opportunities have decreased by one item in 2025: "Transition to non-concentrated energy."

Matrix of Climate-related Risks



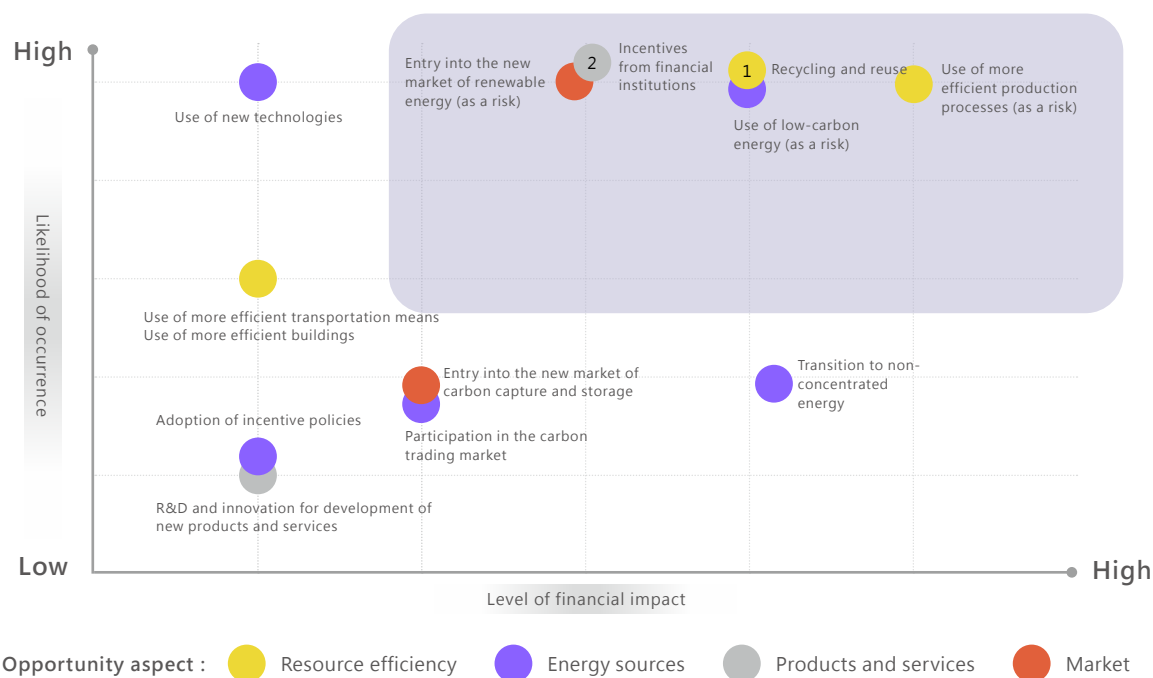
Material Climate-related Risks Identified

Risk Ranking	Climate-related Risk	Boundary of Impact of Climate Risks on Business Model and Value Chain			Time Horizon		
		Upstream	The Group	Downstream	Short term	Medium term	Long term
1-1	【Transition Risk & Opportunity】 Low-carbon technology transition	•	<ul style="list-style-type: none"> Taiwan Tung Ho Steel, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Katec Corp. Vietnam TSHVC, Duc Hoa International J.S.C. 	•	•	•	•
1-2	【Transition Risk】 Changes in customer behavior	-	<ul style="list-style-type: none"> Taiwan Tung Ho Steel, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Tung Kang Wind Power, Katec Corp. Vietnam TSHVC, Duc Hoa International J.S.C. 	•	-	•	•
1-3	【Acute Physical Risk】 Tropical cyclones	•	<ul style="list-style-type: none"> Taiwan Tung Ho Steel, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Katec Corp. Vietnam TSHVC. 	-	•	•	•

Risk Ranking	Climate-related Risk	Boundary of Impact of Climate Risks on Business Model and Value Chain			Time Horizon		
		Upstream	The Group	Downstream	Short term	Medium term	Long term
1-4	【Chronic Physical Risk】 Changes in average precipitation and water management	•	<ul style="list-style-type: none"> Taiwan Tung Ho Steel, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Katec Corp. Vietnam TSHVC, Duc Hoa International J.S.C. 	-	-	-	•
1-5	【Acute Physical Risk】 Changes in extreme temperature.	•	<ul style="list-style-type: none"> Taiwan Tung Ho Steel, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Katec Corp. Vietnam TSHVC, Duc Hoa International J.S.C. 	-	•	•	•

Note: The low-carbon technology transition includes risks and opportunities such as increased pricing of greenhouse gas emissions, renewable energy regulations, demand for low-carbon products and services, use of low-carbon energy, entry into new renewable energy markets, and the adoption of more efficient production.

◆ Matrix of Climate-related Opportunities



◆ Material Climate-related Opportunities Identified

Risk Ranking	Climate-related Risk	Boundary of Impact of Climate Opportunities on Business Model and Value Chain			Time Horizon		
		Upstream	The Group	Downstream	Short term	Medium term	Long term
1	【Energy Efficiency】 Recycling and reuse.	-	<ul style="list-style-type: none"> Taiwan Tung Ho Steel 	-	•	•	•
2	【Market】 Incentives from financial institutions.	•	<ul style="list-style-type: none"> Taiwan Tung Ho Steel Vietnam TSHVC 	-	•	•	•

■ Assessment of climate-related material risks and strategies

IFRS S1、S2

S2.10 (a) (b) (c) (d)、S2.14 (a) (b) (c)、
S2.16 (a) (b) (c) (d)、S2.22 (a) (b)

The Group identified its major climate-related risks and, following discussions across departments, conducted financial exposure assessments. The Finance & Accounting Division and the finance and accounting unit of each subsidiary participated in evaluating financial exposure, strategy-related costs and benefits. In accordance with the Group's accounting policies and IFRS requirements, they also helped define the relevant accounting line items in the income statement, balance sheet, and cash flow statement. The Company, based on its business strategy development and financial planning, defines the time frame for climate-related risks and strategy planning as follows: short term (2025), medium term (2026–2030), and long term (2031–2050).

Risk 1-1 Low-carbon technology transition

1. Current and Anticipated Impacts of the Risk on the Business Model and Value Chain

- Governments worldwide are progressively implementing policies such as carbon trading, carbon taxes, and carbon fees, which will increase operating costs in the steel industry. This could adversely affect the entire value chain, including downstream sectors such as construction and steel processing customers. The Group may face profitability risks or cause increased procurement costs for downstream clients.

- With the promulgation of the “Climate Change Response Act” and related renewable energy regulations, demand for renewable energy equipment and low-carbon electricity is expected to continue rising. This will likely drive revenue growth among upstream renewable energy equipment manufacturers and low-carbon electricity suppliers.

2. Resilience

Scenarios: 1.5° C Scenario, Taiwan's 2050 Net-Zero Emissions Pathway, Vietnam's NDC

Taiwan

- **Net-Zero Legislation:** In March 2022, the National Development Council published the Taiwan's Pathway to Net-Zero Emissions in 2050 and Strategy Overview. In 2023, the Climate Change Response Act was enacted, legally mandating the 2050 net-zero greenhouse gas emissions target. This elevates net-zero commitments to legal obligation and demonstrates the government's strong determination to implement climate actions.

- **Carbon Fee Implementation Timeline:** In August 2024, the formal announcement of the three carbon fee regulations was made. Starting in 2026, carbon fees will be imposed on enterprises whose annual greenhouse gas emissions at a single site equal or exceed 25,000 metric tons of CO₂ equivalent. In 2024, it was announced that enterprises with electricity consumption of 10 million kWh or more per site, or with annual total greenhouse gas emissions reaching 10,000 metric tons of CO₂ equivalent or more, will be required to begin annual greenhouse gas emissions inventory and reporting starting in 2026. The collection of carbon fees for these enterprises is expected to begin in 2031.

- **Carbon Fee Rates to Increase Gradually:** In October 2024, the official carbon fee rate was announced. The standard rate is NT\$300 per metric ton of CO₂ equivalent, with chargeable emissions calculated as (annual emissions – 25,000 metric tons of CO₂ equivalent). This rate will gradually increase, and by 2031, is expected to reach NT\$1,800 per metric ton of CO₂ equivalent. At that point, the 25,000 metric ton exemption will be abolished.

- **Impact of the Renewable Energy Development Act:** In accordance with the Renewable Energy Development Act, the government of Taiwan requests that heavy electricity users build renewable generation facilities with a capacity of approximately 10% of the required contract capacity. Failure to comply will result in compensatory payments.

Vietnam

- **Phased Implementation of GHG Management System:** According to Decree No. 06/2022-ND-CP, and under Article 11, Clause 4, the government will promote the development of a national GHG emissions inventory system. From 2026 to 2030, under Article 7, Clause 4, a GHG emissions quota system will be implemented, forming the basis for a future carbon trading market and total emissions control. As per Article 17, Clause 2, the carbon market is scheduled to begin operations in 2028.

Adaptability:

The Group possesses a robust governance structure, enabling timely formulation of short-, medium-, and long-term strategic plans and responsive decisions in relation to climate-related regulations. Additionally, its sound financial position provides the capacity to support transformation investments and absorb the expected increase in cash outflows. Beyond its core steel business, the Group's subsidiaries engage in circular economy initiatives and renewable energy generation, thereby enhancing its flexibility and adaptability in response to evolving climate-related regulations and trends.

3. Strategy and Decision-Making Response

To address increasingly stringent requirements such as renewable energy regulations, carbon fees, emission caps, low-carbon transformation services, and the growing demand for low-carbon products and services, and to achieve the Group's 2050 net-zero emissions target, the Group plans to implement a series of strategic responses. These include adopting newer and more energy-efficient electric furnaces, investing in renewable energy generation businesses, procuring bundled renewable energy certificates (RECs), transforming steelmaking processes toward low-carbon technologies, enhancing equipment energy efficiency, applying for voluntary emissions reduction programs, and leveraging carbon capture, utilization, and storage (CCUS) technologies. Through these initiatives, the Group aims not only to mitigate the impact of evolving climate-related regulations but also to convert regulatory pressure into financial opportunities for its business operations.

Risk 1-1 Impact of risks on the existing basis of profits

Term	Average annual impact amount	Description of financial impact
Current period (2024)	0	<ul style="list-style-type: none"> Taiwan: Since the government has not yet implemented carbon fee collection or the penalty payment mechanism under the Renewable Energy Development Act, Tung Ho Steel, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Tung Kang Wind Power, and Katec Corp. currently incur no additional cash outflows due to carbon fees or penalty payments under the Act. Vietnam: As emissions cap-and-trade regulations and carbon trading mechanisms have not yet been enforced, THSVC and Duc Hoa International J.S.C. are not subject to purchasing emission quotas, and therefore experience no additional cash outflows from such costs. This had no material impact on the Group's access to financing or the cost of capital.
Short term (2025)	-210 million	<ul style="list-style-type: none"> Taiwan: In 2025, Tung Ho Steel will, for the first time, report and pay carbon fees in accordance with the three carbon fee sub-laws. With a rate of NT\$300 per ton of CO₂e, the company expects to recognize an estimated NT\$210 million in reduced provisions and corresponding cash outflows, which will be covered by internal funding. As for Tung Kang Steel Structure, Tung Kang Engineering and Construction, Tung Kang Wind Power, and Katec Corp., the carbon fee collection and penalty payments under the Renewable Energy Development Act are expected to result in zero additional cash outflows. Vietnam: As emissions cap-and-trade regulations and carbon trading mechanisms have not yet been enforced, THSVC and Duc Hoa International J.S.C. are not subject to purchasing emission quotas, and therefore experience no additional cash outflows from such costs. There is no material impact anticipated on the Group's access to financing or the cost of capital.
Medium term (2026–2030)	-670 million	<ul style="list-style-type: none"> Taiwan: In the medium term, Tung Ho Steel is expected to report and pay carbon fees in accordance with the three sub-laws established under the Climate Change Response Act. With the carbon fee rate anticipated to rise to NT\$1,000 per metric ton of CO₂e by 2030, the resulting cash outflow for cost expenditures is estimated to be approximately NT\$550 million. Additionally, Tung Ho Steel and Katec Corp. are expected to pay the surcharge required under the Renewable Energy Development Act in 2030, resulting in an estimated cash outflow for cost expenditures of approximately NT\$260 million. These cost expenditures will be paid using the companies' internal funds. Tung Kang Steel Structure, Tung Kang Engineering and Construction, and Tung Kang Wind Power are not expected to incur any additional cost-related cash outflows arising from the carbon fee or the surcharge under the Renewable Energy Development Act. Vietnam: As emissions cap-and-trade regulations and carbon trading mechanisms have not yet been enforced, THSVC and Duc Hoa International J.S.C. are not subject to purchasing emission quotas, and therefore experience no additional cash outflows from such costs. For the Group as a whole, the average annual cash outflow from increased cost expenditures in the medium term – due to carbon fees, the surcharge under the Renewable Energy Development Act, and future obligations to purchase emissions allowances under a cap-and-trade system – is estimated to be approximately NT\$670 million. These costs are not expected to have a material impact on the Group's access to financing or the cost of capital.

Risk 1-1 Impact of risks on the existing basis of profits

Term	Average annual impact amount	Description of financial impact
Long term (2031–2050)	-1.31 billion	<ul style="list-style-type: none"> Taiwan: In the long term, Tung Ho Steel, Tung Kang Steel Structure, and Katec Corp. are expected to report and pay carbon fees in accordance with the three sub-laws under the Climate Change Response Act. With the carbon fee rate projected to rise to NT\$1,500 per metric ton of CO₂e by 2040, the anticipated cash outflow for cost expenditures is approximately NT\$870 million. Additionally, these companies are expected to pay the surcharge under the Renewable Energy Development Act in 2040, resulting in an estimated cash outflow of approximately NT\$260 million. All of the above cost-related cash outflows will be paid using internal funds. Tung Kang Engineering and Construction and Tung Kang Wind Power are not expected to incur any cost-related cash outflows arising from the carbon fee or the surcharge under the Renewable Energy Development Act. Vietnam: With the implementation of an emissions cap-and-trade system, THSVC and Duc Hoa International J.S.C. are expected to incur additional cost-related cash outflows of approximately NT\$60 million in 2040 due to the purchase of carbon credits under the emissions cap scheme. For the Group as a whole, the average annual cash outflow from increased cost expenditures in the long term, due to carbon fees, the surcharge under the Renewable Energy Development Act, and future obligations to purchase emissions allowances under a cap-and-trade system, is estimated at approximately NT\$1.31 billion. These costs are not expected to have a material impact on the Group's access to financing or the cost of capital.

Risk 1-1 Impact on the existing basis of profit after implementation of the risk response strategy

Term	Average annual impact amount	Description of financial impact
Current period (2024)	+71 million	<ul style="list-style-type: none"> Taiwan: As of now, the government has not yet begun collecting carbon fees or the surcharge under the Renewable Energy Development Act from enterprises. In 2024, Tung Ho Steel's purchase of (bundled) RECs from Tung Kang Wind Power resulted in a cost-related cash outflow of approximately NT\$17 million. For the energy efficiency improvement projects already implemented, there were no capital expenditure cash outflows in 2024. However, these projects incurred equipment depreciation costs while generating savings in energy expenses. Katec Corp., through its self-use of solar power, also achieved energy cost savings. Vietnam: An emissions cap-and-trade system has not yet been implemented. In 2024, the Group's implementation of strategies in response to low-carbon technology transition risks led to cost reductions of approximately NT\$71 million. This is not expected to have a material impact on the Group's access to financing or the cost of capital.

Risk 1-1 Impact on the existing basis of profit after implementation of the risk response strategy

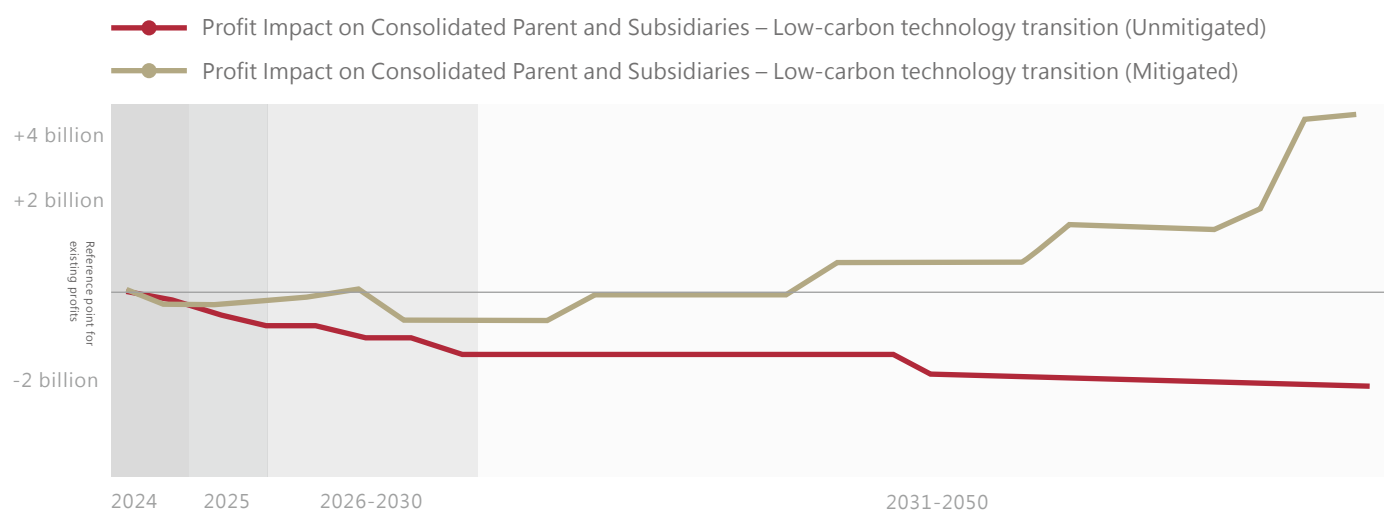
Term	Average annual impact amount	Description of financial impact
Short term (2025)	-240 million	<p>In 2025, after the Group implements corresponding strategies to address the risks of low-carbon technology transformation, costs are expected to increase by approximately NT\$240 million.</p> <ul style="list-style-type: none"> In 2025, Tung Ho Steel will file its first carbon fee declaration and payment under the three sub-laws at a carbon fee rate of NT\$300 per metric ton of CO₂e. The estimated reduction in provisions and cash outflow is approximately NT\$210 million. Tung Ho Steel plans to apply for a voluntary reduction program, which is expected to lower the carbon fee rate and reduce related cash outflows. The voluntary reduction program includes measures such as the purchase of (bundled) RECs and enhancements in equipment energy efficiency. These measures will result in increased cash outflows due to higher equipment depreciation expenses and renewable electricity procurement costs, but will also reduce carbon fee expenditures and the cost of purchasing electricity from Taipower. In 2025, Tung Kang Steel Structure, Katec Corp., and Duc Hoa International J.S.C. will also implement self-generated solar power and energy efficiency enhancement programs, resulting in increased equipment depreciation costs and reduced electricity purchase costs from Taipower. Capital expenditures for self-generated solar power and energy efficiency improvements in 2025 are expected to result in cash outflows of approximately NT\$1.1 billion. These will be partially funded by the companies' own capital and partially through bank loans with an expected interest rate of 1.8% to 2.5%, leading to an increase in financing cost cash outflows of approximately NT\$9 million.
Medium term (2026–2030)	-220 million	<p>After the Group implements corresponding strategies to address the risks of low-carbon technology transformation in the medium term, the estimated cost is expected to increase by an average of NT\$220 million per year.</p> <ul style="list-style-type: none"> Tung Ho Steel will continue to file and pay carbon fees under the three sub-laws, with the carbon fee rate expected to rise to NT\$1,000 per metric ton of CO₂e by 2030. This is projected to result in a cash outflow of approximately NT\$550 million. To mitigate this cost, Tung Ho Steel plans to apply to the Ministry of Environment for a voluntary reduction program, which is expected to reduce the applicable carbon fee rate and overall cash outflows related to carbon fees. The voluntary reduction program includes measures such as the purchase of (bundled) RECs and enhancements in equipment energy efficiency. These measures will result in increased cash outflows due to higher equipment depreciation expenses and renewable electricity procurement costs, but will also reduce carbon fee expenditures and the cost of purchasing electricity from Taipower. In 2030, both Tung Ho Steel and Katec Corp. are required to pay the renewable energy surcharge under the Renewable Energy Development Act, resulting in an estimated cash outflow of approximately NT\$260 million. Tung Ho Steel intends to offset this cost by purchasing (bundled) RECs, while Katec Corp. plans to rely on self-generated solar power to fulfill the requirement. Tung Kang Steel Structure, Katec Corp., THSVC, and Duc Hoa International J.S.C. will also implement self-generated solar power and energy efficiency enhancement measures in the medium term, leading

Risk 1-1 Impact on the existing basis of profit after implementation of the risk response strategy

Term	Average annual impact amount	Description of financial impact
		<p>to higher equipment depreciation costs and reduced electricity purchases from Taipower.</p> <ul style="list-style-type: none"> Capital expenditures for self-generated solar power, equipment efficiency upgrades, and process improvements are expected to result in a total cash outflow of approximately NT\$5.4 billion in the medium term. These will be funded partly with internal resources and partly through bank loans. With projected interest rates ranging from 1.8% to 2.5%, the resulting increase in financing costs is estimated to average approximately NT\$38 million per year.
Long term (2031–2050)	+780 million	<p>After the Group implements corresponding strategies to address the risks of low-carbon technology transformation in the long term, the estimated cost is expected to increase by an average of NT\$780 million per year.</p> <ul style="list-style-type: none"> Tung Ho Steel, Tung Kang Steel Structure, and Katec Corp. will continue to file and pay carbon fees under the three sub-laws announced by the Ministry of Environment, with the carbon fee rate expected to rise to NT\$1,500 per metric ton of CO₂e by 2040. This is projected to result in a cash outflow of approximately NT\$870 billion. To mitigate this cost, Tung Ho Steel plans to apply to the Ministry of Environment for a voluntary reduction program, which is expected to reduce the applicable carbon fee rate and overall cash outflows related to carbon fees. The voluntary reduction program includes measures such as the purchase of (bundled) RECs, improving equipment energy efficiency, and implementing carbon capture, utilization, and storage (CCUS) technologies. These measures will result in increased cash outflows due to higher equipment depreciation expenses and renewable electricity procurement costs, but will also reduce carbon fee expenditures and the cost of purchasing electricity from Taipower. In 2040, Tung Ho Steel, Tung Kang Steel Structure, and Katec Corp. are required to pay the renewable energy surcharge under the Renewable Energy Development Act, resulting in an estimated cash outflow of approximately NT\$260 million. Tung Ho Steel and Tung Kang Steel Structure intend to offset this cost by purchasing (bundled) RECs, while Katec Corp. plans to rely on self-generated solar power to fulfill the requirement. THSVC and Duc Hoa International J.S.C. are expected to incur additional cost-related cash outflows of approximately NT\$60 million in 2040 due to the purchase of carbon credits under the emissions cap scheme. Tung Kang Steel Structure, Tung Kang Engineering and Construction, Tung Kang Wind Power, Katec Corp., THSVC, and Duc Hoa International J.S.C. will also implement initiatives in the long term such as on-site solar power generation, procurement of bundled renewable energy certificates (RECs), enhancement of equipment energy efficiency, and adoption of carbon capture, utilization, and storage (CCUS) technologies, leading to higher equipment depreciation costs and reduced electricity purchases from Taipower. Capital expenditures for self-generated solar power, equipment efficiency upgrades, and process improvements are expected to result in a total cash outflow of approximately NT\$2.4 billion in the long term. These will be funded partly with internal resources and partly through bank loans. With projected interest rates ranging from 1.8% to 2.5%, the resulting increase in financing costs is estimated to average approximately NT\$68 million per year.

◆ Risk 1-1 Current, Short-, Medium-, and Long-Term Risk and Strategy

Illustration and Description



In response to the risks and opportunities associated with the low-carbon technology transition, the Group anticipates that in the short, medium, and long term, there will be risks of increased cash outflows resulting from government-imposed carbon fees, payments under the Renewable Energy Development Act, and the purchase of carbon allowances required by emissions cap regulations. The Group will respond by applying for voluntary reduction programs and implementing strategies such as on-site solar power generation for self-use, purchasing (bundled) renewable energy certificates, enhancing equipment energy efficiency, and modifying production processes.

Following the implementation of the strategy, the Group expects the short-term impact on financial performance to shift from a profit decrease of NT\$210 million to a profit decrease of NT\$240 million. In the medium term, the average annual profit decrease of NT\$670 million is projected to improve to an average annual profit decrease of NT\$220 million. In the long term, the average annual profit decrease of NT\$1.3 billion is expected to improve to an average annual profit increase of NT\$780 million.

In the medium and long term, a portion of the capital expenditure cash outflows will be covered by the Company's own funds, while the remainder will be financed through bank loans. No cash flow risk is expected, and a positive impact on financing availability and capital costs is anticipated.

Risk 1-2 Changes in customer behavior

1. Current and Anticipated Impacts of the Risk on the Business Model and Value Chain

Under the global trend of pursuing the 1.5°C temperature control target and achieving net-zero emissions by 2050, carbon management has increasingly become a shared focus of both policy and industry. If the products and services provided by the Group fail to meet customers' carbon management requirements, it may result in a decline in business volume, operating revenue, and profit.

- Public sector procurement trends: Public construction project owners have begun incorporating carbon footprint and low-carbon product certifications for construction and material supplies as procurement requirements.
- Shifting demands from private sector clients: In order to obtain higher-level green building certifications and meet the review requirements of science-based targets (SBTi), clients are gradually requesting carbon footprint disclosures and low-carbon procurement measures for “purchased goods and services” under Scope 3 emissions.

2.Resilience

Scenarios: 1.5° C Scenario, Taiwan's 2050 Net-Zero Emissions Pathway, Vietnam's NDC

- The Group primarily provides products and services such as rebar, structural steel, steel structure engineering, construction contracting, and waste treatment. With the tightening of net-zero emissions policies toward the 2050 goal, Tung Ho Steel, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Katec Corp., and THSVC are expected to face concrete requirements from government procurement entities for carbon footprint information in the short term. In the medium and long term, it is anticipated that both public and private sector procurement demands will evolve beyond merely requiring carbon footprint disclosures to increasingly request that suppliers provide products and services with low-carbon characteristics.
- Since 2024, the Public Construction Commission of the Executive Yuan has required bidding suppliers to disclose the carbon content of their products on the Government e-Procurement System, and has included “carbon intensity” as one of the evaluation criteria for public construction tenders. Meanwhile, the New Taipei City Public Works Department has introduced Building Information Modeling (BIM), and plans to incorporate carbon emission assessment templates into public construction contract specifications starting in 2025.

Adaptability:

The Group already possesses comprehensive carbon management capabilities for its products and services, and has extended these capabilities, such as ISO 14064-1 organizational-level carbon inventories, ISO 14067 product carbon footprinting, Environmental Product Declarations (EPDs), and carbon reduction declarations, to its subsidiaries across the Group. In addition, beyond its core steel business, the Group’s subsidiaries operate in areas such as circular economy (via Katec Corp.) and renewable energy generation (via Tung Kang Wind Power), which support the Group’s strategic response to growing customer demand for low-carbon products.

3.Strategy and Decision-Making Response

The Group responds promptly to customer demands for carbon footprint disclosures and low-carbon products across the short, medium, and long term to ensure client requirements are met. Currently, Tung Ho Steel has obtained third-party verified declarations for product carbon footprints and Environmental Product Declarations (EPDs), while Katec Corp. holds a carbon label issued by the Ministry of Environment. Although obtaining third-party verified declarations for carbon management entails manpower and verification costs, it may also present opportunities for business growth for the Group.

Risk 1-2 Impact of risks on the existing basis of profits

Term	Average annual impact amount	Description of financial impact
Current period (2024)	-300 million	The Group's customers include publicly listed companies in the technology industry, public works entities, and manufacturers. In 2024, the Group has already received requests from clients requiring Tung Kang Steel Structure, Tung Kang Engineering and Construction, and Katec Corp. to provide carbon footprint certifications for their products or services. Failure to provide such certifications may adversely affect business and revenue, resulting in an estimated profit reduction of NT\$300 million. However, there is no significant impact on the Group's access to financing or the cost of capital.
Short term (2025)	-350 million	In the short term, the Group expects that clients such as publicly listed technology companies, public construction agencies, manufacturing customers, and international brand clients in Vietnam seeking LEED green building certification will require Tung Kang Steel Structure, Tung Kang Engineering and Construction, Katec Corp., and THSVC to provide carbon footprint certifications for their products or services. Failure to meet these requirements may negatively impact business and revenue, resulting in an estimated profit reduction of approximately NT\$350 million. There is no material impact anticipated on the Group's access to financing or the cost of capital.
Medium term (2026–2030)	-790 million	In the medium term, the Group anticipates that publicly listed technology companies, public construction agencies, major construction contractors, manufacturing clients, and international brand clients in Vietnam pursuing LEED green building certification will require Tung Ho Steel, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Katec Corp., and THSVC to provide product carbon footprint certifications and low-carbon product certifications. Failure to comply may adversely affect business and revenue, resulting in an estimated average annual profit reduction of approximately NT\$790 million. Due to the decline in profitability, the Group expects a negative impact on its access to financing and cost of capital.
Long term (2031–2050)	-1.77 billion	In the long term, the Group anticipates that publicly listed technology companies, public construction agencies, major construction contractors, manufacturing clients, and international brand clients in Vietnam pursuing LEED green building certification will require Tung Ho Steel, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Katec Corp., and THSVC to provide product carbon footprint certifications and low-carbon product certifications. Failure to comply may adversely affect business and revenue, resulting in an estimated average annual profit reduction of approximately NT\$1.77 billion. Due to the decline in profitability, the Group expects a negative impact on its access to financing and cost of capital.

Risk 1-2 Impact on the existing basis of profit after implementation of the risk response strategy

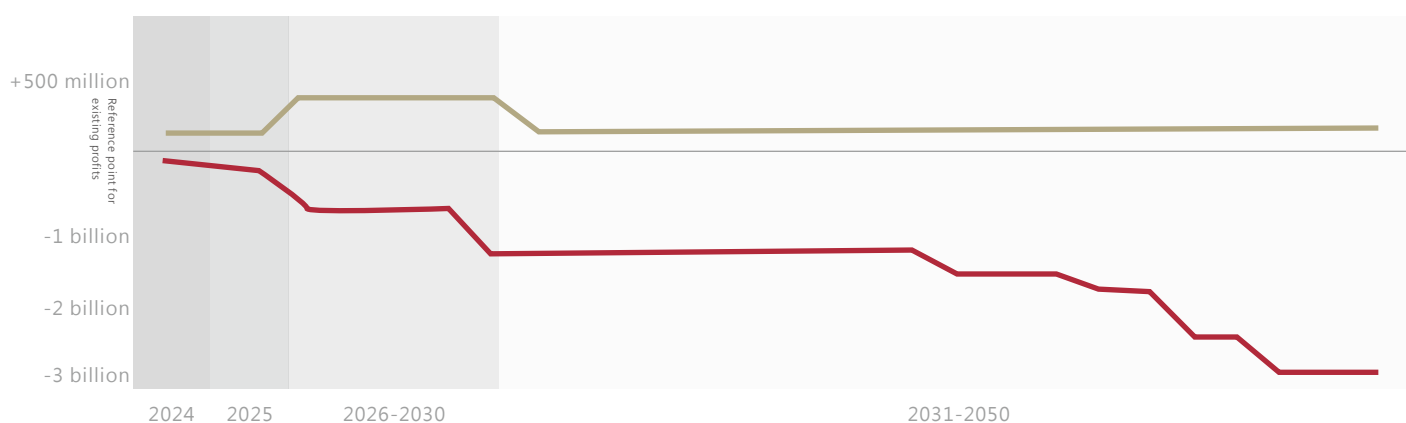
Term	Average annual impact amount	Description of financial impact
Current period (2024)	-1.7 million	<ul style="list-style-type: none"> In 2024, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Katec Corp., and THSVC proactively responded to customer requests for product or service carbon footprint certification, thereby fully offsetting the risk of profit loss arising from the potential loss of customer orders. The implementation of carbon footprint and carbon labeling initiatives resulted in approximately NT\$1.7 million in cash outflows for manpower input, external consulting fees, and third-party verification costs. These expenses were covered using internal funds and had no material impact on the Group's access to financing or the cost of capital.
Short term (2025)	+18 million	<p>Following the implementation of the mitigation measures, the impact on the Group's profitability is an estimated increase of approximately NT\$18 million. There is no material impact anticipated on the Group's access to financing or the cost of capital.</p> <ul style="list-style-type: none"> In the short term, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Katec Corp., and THSVC will proactively respond to customer requests for product or service carbon footprint certification, thereby fully offsetting the risk of profit loss arising from the potential loss of customer orders. Moreover, THSVC is expected to generate approximately NT\$25 million in additional business and profit growth. The implementation of carbon footprint and carbon labeling initiatives resulted in approximately NT\$7 million in cash outflows for manpower input, external consulting fees, and third-party verification costs.
Medium term (2026–2030)	+280 million	<p>Following the implementation of the mitigation measures, the impact on the Group's profitability is an estimated annual increase of approximately NT\$280 million. The Group expects a positive impact on its access to financing and cost of capital.</p> <ul style="list-style-type: none"> In the medium term, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Katec Corp., and THSVC will proactively respond to customer requirements for carbon footprint certification and low-carbon products. As a result, the risk of profit reduction due to lost customer orders will be fully mitigated. Furthermore, Tung Ho Steel and THSVC are expected to generate additional business and profit growth of approximately NT\$360 million per year on average. The implementation of carbon footprint and carbon labeling initiatives resulted in approximately NT\$80 million in cash outflows for manpower input, external consulting fees, and third-party verification fees, and the cost of purchasing external carbon credits.

Risk 1-2 Impact on the existing basis of profit after implementation of the risk response strategy

Term	Average annual impact amount	Description of financial impact
Long term (2031–2050)	+15 million	<p>Following the implementation of the mitigation measures, the impact on the Group' s profitability is an estimated increase of approximately NT\$15 million. There is no material impact anticipated on the Group' s access to financing or the cost of capital.</p> <ul style="list-style-type: none"> In the long term, Tung Ho Steel, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Katec Corp., and THSVC will actively respond to customer demands for product or service carbon footprint certification and low-carbon product credentials. As a result, the risk of profit decline due to lost customer orders has been fully mitigated. However, since most industry peers are also expected to implement carbon footprint and related measures in the long term, the resulting business and profit growth is expected to be limited. The implementation of carbon footprint and carbon labeling initiatives resulted in approximately NT\$15 million in cash outflows for manpower input, external consulting fees, and third-party verification fees, and the cost of purchasing external carbon credits.

◆ Risk 1-2 Current, Short-, Medium-, and Long-Term Risk and Strategy Illustration and Description

- Profit Impact on Consolidated Parent and Subsidiaries – Changes in customer behavior (Unmitigated)
- Profit Impact on Consolidated Parent and Subsidiaries – Changes in customer behavior (Mitigated)



Note: In the financial impact figures (NT\$/year), a minus sign (-) indicates a decrease in operating profit, while a plus sign (+) indicates an increase in operating profit.

In response to the transition risk arising from changing customer behavior, the Group anticipates that in the short, medium, and long term, clients such as listed technology companies, public infrastructure agencies, leading construction contractors, manufacturing clients, and international brand clients in Vietnam involved in LEED-certified green building projects will require Tung Ho Steel, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Katec Corp., and THSVC to provide product carbon footprint certifications and low-carbon product certifications. Failure to provide such documentation may adversely impact business operations and revenue.

The Group will proactively respond to customer demands for product or service carbon footprint certifications and low-carbon products. Following the implementation of corresponding strategies, the impact on financial performance is expected to improve as follows: in the short term, from a profit reduction of NT\$350 million to a profit increase of NT\$18 million; in the medium term, from an average annual profit reduction of NT\$790 million to a profit increase of NT\$280 million; and in the long term, from an average annual profit reduction of NT\$1.77 billion to a profit increase of NT\$15 million.

The implementation of the strategy involves no capital expenditure-related cash outflows in the short, medium, or long term. Therefore, no cash flow risk is anticipated, and in the medium term, a positive impact on financing availability and cost of capital is expected.

Risk 1-3 Tropical cyclones

1.Current and Anticipated Impacts of the Risk on the Business Model and Value Chain

The Group's main production sites are located in Taiwan and Vietnam, which are frequently affected by typhoons accompanied by heavy rainfall from June to October each year. These events may cause damage to production or transportation equipment, resulting in disaster-related costs and operational interruption losses. It is anticipated that the impacts of typhoons and flooding will intensify in the future. The natural disaster insurance products provided by the Group's property insurance providers may serve as a risk transfer strategy option for the Company.

2.Resilience

Scenario: SSP 5–8.5

- According to the 2024 presentation on “National Climate Change Scientific Report 2024: Phenomena, Impacts, and Adaptation – Scientific Highlights from Chapters 1 to 3” by the National Science and Technology Council and the Ministry of Environment, Taiwan shows an increasing trend in annual maximum one-day rainfall intensity. The average annual maximum 1-day intensity of heavy precipitation in the middle and at the end of the 21st century would increase by approximately 20% and 41.3%, respectively. The number of typhoons affecting Taiwan in the middle and at the end of the 21st century would decrease by approximately 15% and 55% respectively, and the percentages of strong typhoons would increase by approximately 100% and 50% respectively, while the rates of change in typhoon precipitation would increase by approximately 20% and 35% respectively. Typhoon scenarios for Vietnam are expected to be similar to those for Taiwan.

- The Group assumes that in the short to medium term (2025–2030), there will be 1 extreme typhoon/flood disaster event per year, and in the long term (2031–2050), there will be 2 such events per year, causing property damage and operational shutdowns at all production sites, which will result in financial impacts.

Adaptability:

All production facilities at the Group's operational sites are equipped with basic typhoon- and flood-resistant designs and structural reinforcements, along with established typhoon contingency measures to effectively mitigate the impacts of typhoons. In addition, each operational site within the Group is covered by natural disaster insurance to reduce the potential financial impact arising from property damage.

3.Strategy and Decision-Making Response

In response to the potential financial impact of future severe typhoons, the Company will adopt a risk transfer strategy by purchasing relevant insurance policies to mitigate the financial consequences.

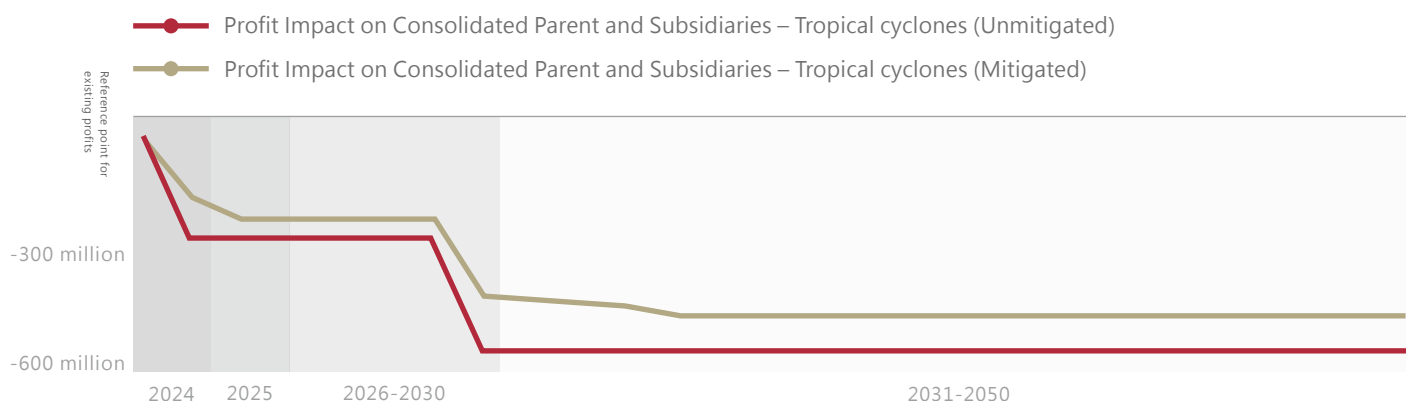
Risk 1-3 Impact of risks on the existing basis of profits

Term	Average annual impact amount	Description of financial impact
Current period (2024)	-17 million	In 2024, due to typhoon-related damages, the Group's entities including Tung Ho Steel, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Katec Corp., and Duc Hoa International J.S.C. incurred approximately NT\$17 million in increased operating costs, cash outflows, and losses related to fixed electricity charges, plant depreciation, and labor costs caused by production shutdowns. These expenses were covered using the Company's own funds and had no material impact on the Group's access to financing or the cost of capital.
Short term, Medium term (2025-2030)	-250 million	In the short term and Medium term, the Group expects that one disaster-level typhoon may strike operations of Tung Ho Steel, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Tung Kang Wind Power, Katec Corp., and Duc Hoa International J.S.C. Based on the higher range of historical damage, the estimated increase in operating costs, cash outflows, and losses due to production shutdowns, such as fixed electricity charges, plant depreciation, and labor costs, amounts to approximately NT\$250 million. These expenses will be covered using the Company's own funds and are not expected to have any material impact on the Group's access to financing or the cost of capital.
Long term (2031-2050)	-500 million	In the long term, the Group anticipates that two disaster-level typhoon may cause damage to the operations of Tung Ho Steel, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Tung Kang Wind Power, Katec Corp., THSVC, and Duc Hoa International J.S.C. Based on higher-end historical damage estimates, the resulting increase in operating costs, cash outflows, and losses due to production shutdowns, such as fixed electricity charges, plant depreciation, and labor costs, amounts to approximately NT\$500 million. These expenses will be covered using the Company's own funds and are not expected to have any material impact on the Group's access to financing or the cost of capital.

Risk 1-3 Impact on the existing basis of profit after implementation of the risk response strategy

Term	Average annual impact amount	Description of financial impact
Current period (2024)	-36 million	<p>In 2024, the Group' s subsidiaries purchased insurance coverage against typhoons, floods, and other natural disasters, resulting in cash outflows for insurance premium expenses and cash inflows from insurance claims. Overall, after implementing this insurance strategy, the financial impact of typhoons in 2024 led to a decrease in profit of approximately NT\$36 million. This had no material impact on the Group' s access to financing or the cost of capital.</p>
Short term (2025)	-150 million	<p>In the short term, after implementing the strategy, the financial impact of typhoons on the Company is expected to result in a profit reduction of approximately NT\$150 million. This is not expected to have a material impact on the Group' s access to financing or the cost of capital.</p> <ul style="list-style-type: none"> As a response strategy, the Group' s subsidiaries have taken out insurance coverage against typhoons, floods, and other natural disasters, which is expected to result in cash outflows for insurance premium expenses and corresponding cash inflows from insurance claims.
Medium term (2026–2030)	-200 million	<p>Following the implementation of the mitigation measures, the impact on the Group' s profitability is an estimated annual increase of approximately NT\$280 million. The Group expects a positive impact on its access to financing and cost of capital.</p> <ul style="list-style-type: none"> In the medium term, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Katec Corp., and THSVC will proactively respond to customer requirements for carbon footprint certification and low-carbon products. As a result, the risk of profit reduction due to lost customer orders will be fully mitigated. Furthermore, Tung Ho Steel and THSVC are expected to generate additional business and profit growth of approximately NT\$360 million per year on average. The implementation of carbon footprint and carbon labeling initiatives resulted in approximately NT\$80 million in cash outflows for manpower input, external consulting fees, and third-party verification fees, and the cost of purchasing external carbon credits.
Long term (2031–2050)	-410 million	<p>In the long term, after implementing the strategy, the financial impact of typhoons on the Company is expected to result in an average annual profit reduction of approximately NT\$410 million. This is not expected to have a material impact on the Group' s access to financing or the cost of capital.</p> <ul style="list-style-type: none"> As a response strategy in the long term, the Group' s subsidiaries have taken out insurance coverage against typhoons, floods, and other natural disasters, which is expected to result in cash outflows for insurance premium expenses and corresponding cash inflows from insurance claims.

◆ Risk 1-3 Current, Short-, Medium-, and Long-Term Risk and Strategy Illustration and Description



Note: In the financial impact figures (NT\$/year), a minus sign (-) indicates a decrease in operating profit, while a plus sign (+) indicates an increase in operating profit.

All companies within the Group face the risk of increased operating costs, cash outflows, and losses from basic electricity bills, plant depreciation, and labor costs resulting from damage caused by catastrophic typhoons in the short, medium, and long term. As a response strategy, the Group's subsidiaries have taken out insurance coverage against typhoons, floods, and other natural disasters, which is expected to result in cash outflows for insurance premium expenses and corresponding cash inflows from insurance claims.

Following the implementation of the strategy, the Group expects the short-term impact on financial performance to improve from a profit reduction of NT\$250 million to a reduction of NT\$150 million. In the medium term, the average annual impact is expected to improve from a profit reduction of NT\$250 million to a reduction of NT\$200 million. In the long term, the average annual impact is expected to improve from a profit reduction of NT\$500 million to a reduction of NT\$410 million.

The implementation of the strategy involves no capital expenditure-related cash outflows in the short, medium, or long term. Therefore, no cash flow risk is anticipated, and there is no significant impact on the Group's access to financing or the cost of capital.

Risk 1-4 Changes in average precipitation and water management

1. Current and Anticipated Impacts of the Risk on the Business Model and Value Chain

Water is an indispensable cooling resource in the Group's steelmaking process. Drought-induced water supply interruptions would lead to plant shutdowns and disrupt production and sales plans. As droughts are expected to intensify due to climate change, the adaptive capacity of upstream suppliers, such as water utility companies, will be critical. In addition, the availability of backup water resources and water truck rental services will directly affect the Group's drought response capabilities at each operating site.

2. Resilience

Scenario: SSP 5–8.5

- With respect to the worst-case scenario for global warming (SSP5-8.5) in IPCC's 6th scientific assessment report, the annual total precipitation in Taiwan will increase by 15% over the long term, but the number of consecutive dry days will increase by 5.5%, leading to a cutoff of water supply from Taiwan Water Corporation and 7 days of water outage at the works and financial impacts including reduced revenue and increased operating cost.
- Government regulations on wastewater discharge are expected to become increasingly stringent. Failure to meet discharge standards may result in fines or even enforced suspension of operations.

Adaptability:

The Group has reinforced its water resource recycling and zero-discharge water policies across all operating sites, including the installation of water storage tanks, cooling water recycling systems, and rainwater harvesting systems, effectively enhancing the efficiency of water resource recovery and reuse. In addition, certain plants are equipped with groundwater wells, which serve as backup water sources in the event of a municipal water supply suspension.

3. Strategy and Decision-Making Response

The Group continues to promote water resource recycling and zero-discharge water policies. In the long term, in the event of drought-induced water supply suspension, the Group plans to transport water with water tankers to maintain works water supply for the long run. Although transporting with water tankers will increase the cost of water supply, this can lower the financial impacts of reduced revenue and increased operating cost.

Risk 1-4 Impact of risks on the existing basis of profits

Term	Average annual impact amount	Description of financial impact
Current period (2024)	0	In 2024, due to typhoon-related damages, the Group's entities including Tung Ho Steel, Tung Kang Steel Structure, Tung Kang Engineering and Construction, Katec Corp., and Duc Hoa International J.S.C. incurred approximately NT\$17 million in increased operating costs, cash outflows, and losses related to fixed electricity charges, plant depreciation, and labor costs caused by production shutdowns. These expenses were covered using the Company's own funds and had no material impact on the Group's access to financing or the cost of capital.
Short term Medium term (2025–2030)	0	In the short term and medium term, none of the Group's operating sites is expected to experience production losses due to drought-induced water supply suspension, nor are any regulatory fines or enforced shutdowns anticipated as a result of non-compliance with wastewater discharge standards. Changes in average rainfall and water management risks did not result in any losses related to base electricity charges, facility depreciation expenses, or labor costs due to plant shutdowns for the Group. These factors had no material impact on the Group's access to financing or the cost of capital.

Risk 1-4 Impact of risks on the existing basis of profits

Term	Average annual impact amount	Description of financial impact
Long term (2031–2050)	-19 million	In the long term, Tung Ho Steel, Tung Kang Engineering and Construction, Katec Corp., and THSVC within the Group are expected to incur losses from a seven-day production halt caused by drought-induced water supply suspensions. However, no fines or enforced shutdowns due to wastewater discharge violations are anticipated. Changes in average rainfall and water management risks are not expected to result in losses related to basic electricity charges, plant depreciation, or labor costs due to production suspensions at the Group' s facilities, with the average annual financial impact estimated at approximately NT\$19 million. These risks are not expected to have any material impact on the Group' s access to financing or the cost of capital.

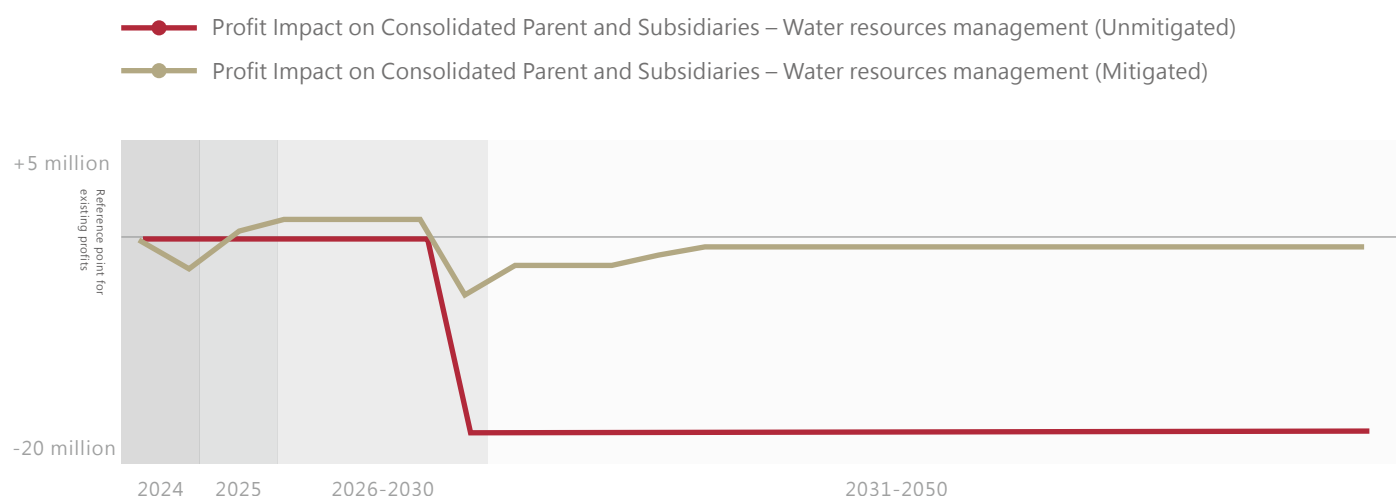
Risk 1-4 Impact on the existing basis of profit after implementation of the risk response strategy

Term	Average annual impact amount	Description of financial impact
Current period (2024)	0	In 2024, none of the Group' s operating sites experienced production losses due to drought-induced water supply suspension, nor were there any incidents of regulatory fines or enforced shutdowns resulting from non-compliance with wastewater discharge standards. Changes in average rainfall and water management risks did not result in any losses related to base electricity charges, facility depreciation expenses, or labor costs due to plant shutdowns for the Group. These factors had no material impact on the Group' s access to financing or the cost of capital.
Short term (2025)	-2.3 million	<p>Short-term capital expenditure amortization and equipment maintenance costs are expected to increase expenses by approximately NT\$2.3 million, with no material impact on the Group' s access to financing or the cost of capital.</p> <ul style="list-style-type: none"> • In the short term, none of the Group' s operating sites is expected to experience production losses due to drought-induced water supply suspension, nor are any regulatory fines or enforced shutdowns anticipated as a result of non-compliance with wastewater discharge standards. • Tung Ho Steel' s Miaoli Works plans to implement a water optimization project for its steelmaking process to reduce unnecessary water loss and improve water use efficiency, resulting in capital expenditure cash outflows of NT\$9 million, to be covered by the Company' s own funds.

Risk 1-4 Impact on the existing basis of profit after implementation of the risk response strategy

Term	Average annual impact amount	Description of financial impact
Medium term (2026–2030)	+1.3 million	<p>Following the implementation of strategies addressing changes in average rainfall and water management risks, the Company expects an average annual cost reduction of approximately NT\$1.3 million during the medium term, with no material impact on the Group' s access to financing or the cost of capital.</p> <ul style="list-style-type: none"> • In the medium term, none of the Group' s operating sites is expected to experience production losses due to drought-induced water supply suspension, nor are any regulatory fines or enforced shutdowns anticipated as a result of non-compliance with wastewater discharge standards. • Tung Ho Steel' s Taoyuan, Miaoli, and Kaohsiung Works – Jiaxing are scheduled to implement enhanced water recycling and zero-discharge water strategies. These initiatives are expected to result in capital expenditures totaling approximately NT\$5 million in the medium term. Although the related equipment depreciation will lead to increased costs, the initiatives will also yield cost savings by reducing wastewater treatment fees.
Long term (2031–2050)	-1.5 million	<p>Following the implementation of strategies addressing changes in average rainfall and water management risks, the Company expects an average annual cost increase of approximately NT\$1.5 million in the long term, with no material impact on the Group' s access to financing or the cost of capital.</p> <ul style="list-style-type: none"> • In the long term, Tung Ho Steel, Tung Kang Engineering and Construction, Katec Corp., and THSVC within the Group are expected to incur losses from a seven-day production halt caused by drought-induced water supply suspensions. However, no fines or enforced shutdowns due to wastewater discharge violations are anticipated. • The Group' s Tung Ho Steel (Taoyuan Works & Kaohsiung Works – Daye), Tung Kang Engineering and Construction, and Katec Corp. plan to secure water supply through water truck rentals. THSVC will establish an additional water pipeline. These measures are expected to offset the cost increase risks associated with production suspension due to water outages, though they will incur additional costs such as water truck rental fees and pipeline expenses. • The Group' s Taoyuan & Miaoli Works, and Kaohsiung Works – Jiaxing are expected to implement a plan to increase water recycling and reuse and achieve zero wastewater discharge. While equipment depreciation will result in increased costs, the initiatives are expected to generate cost-saving benefits by reducing wastewater treatment fees.

◆ Risk 1-4 Current, Short-, Medium-, and Long-Term Risk and Strategy Illustration and Description



Note: In the financial impact figures (NT\$/year), a minus sign (-) indicates a decrease in operating profit, while a plus sign (+) indicates an increase in operating profit.

Tung Ho Steel, Tung Kang Engineering and Construction, Katec Corp., and TSHVC will experience a 7-day work suspension due to the drought and water outage. However, there will be no fines or work stoppage orders related to water discharge. The Group will implement response strategies including increased water recycling and a zero-discharge plan, as well as supplying water via water trucks. While capital expenditures and water truck rental costs are expected, these will offset the risk of increased costs from the suspension and result in reduced sewage fees.

Following the implementation of the strategies, the financial performance impact is expected to be as follows: a profit decrease of approximately NT\$2.3 million in the short term; an average annual profit increase of approximately NT\$1.3 million in the medium term; and an improvement in long-term performance from an average annual profit decrease of approximately NT\$19 million to a profit decrease of approximately NT\$1.5 million.

The capital expenditures associated with strategy implementation in the short, medium, and long term are funded through the Group's internal resources. No cash flow risk is expected, and there is no material impact on the Group's access to financing or the cost of capital.

Risk 1-5 Changes in Extreme Temperatures

1. Current and Anticipated Impacts of the Risk on the Business Model and Value Chain

Electricity is an indispensable energy source for the Group's steelmaking and other manufacturing operations. Power rationing or outages caused by extreme heat may result in production shutdowns, disrupting production and sales plans. As climate change is expected to intensify extreme heat conditions, the adaptive capacity of upstream power utility providers becomes increasingly critical. In addition, the availability of backup generator rental services will also affect the Group's ability to respond to power outages across its operating sites.

2. Resilience

Scenario: SSP 5–8.5

According to the IPCC Sixth Assessment Report under the worst-case global warming scenario (SSP5-8.5), power rationing caused by extreme heat in Taiwan is projected to result in production shutdowns lasting 5 days in the short term, 10 days in the medium term, and 20 days in the long term. These disruptions are expected to cause financial impacts due to reduced revenue and increased costs.

Adaptability:

The Group's existing investment in Tung Kang Wind Power, a renewable energy generation company, together with the rental of diesel generators, enables partial self-sufficiency in electricity supply. In addition, the implementation of a flexible shift scheduling system helps mitigate potential labor cost losses during anticipated production shutdowns.

3. Strategy and Decision-Making Response

In response to potential power rationing or outages caused by extreme heat, Tung Kang Steel Structure and Duc Hoa International J.S.C. plan to rent diesel generators to meet their own electricity needs. Meanwhile, Tung Ho Steel, Katec Corp., and THSVC will adopt flexible shift scheduling as a strategy to reduce labor cost losses.

Risk 1-5 Impact of risks on the existing basis of profits

Term	Average annual impact amount	Description of financial impact
Current period (2024)	0	In 2024, none of the Group's operating sites experienced production losses due to power rationing or outages caused by extreme heat. Risks associated with extreme temperature changes did not result in fixed electricity charges, plant depreciation expenses, or labor cost losses from production suspensions. There was no material impact on the Group's access to financing or the cost of capital.
Long term (2031–2050)	-47 million	In the short term, the Group expects that Tung Ho Steel, Tung Kang Steel Structure, Katec Corp., THSVC, and Duc Hoa International J.S.C. may incur production losses due to power rationing or outages caused by extreme heat, resulting in a five-day shutdown. Risks associated with extreme temperature changes are estimated to cause approximately NT\$47 million in losses from fixed electricity charges, plant depreciation expenses, and labor costs due to production suspension. There is no material impact on the Group's access to financing or the cost of capital.
Short term, Medium term (2025–2030)	-97 million	In the medium term and Medium term, the Group expects that Tung Ho Steel, Tung Kang Steel Structure, Katec Corp., THSVC, and Duc Hoa International J.S.C. may incur production losses due to power rationing or outages caused by extreme heat, resulting in a ten-day shutdown. Risks associated with extreme temperature changes are estimated to cause average annual losses of approximately NT\$97 million from fixed electricity charges, plant depreciation expenses, and labor costs due to production suspension. There is no material impact on the Group's access to financing or the cost of capital.

Risk 1-5 Impact of risks on the existing basis of profits

Term	Average annual impact amount	Description of financial impact
Long term (2031–2050)	-200 million	In the long term, the Group expects that Tung Ho Steel, Tung Kang Steel Structure, Katec Corp., THSVC, and Duc Hoa International J.S.C. may incur production losses due to power rationing or outages caused by extreme heat, resulting in a twenty-day shutdown. Risks associated with extreme temperature changes are estimated to cause average annual losses of approximately NT\$200 million from fixed electricity charges, plant depreciation expenses, and labor costs due to production suspension. There is no material impact on the Group's access to financing or the cost of capital.

Risk 1-5 Impact on the existing basis of profit after implementation of the risk response strategy

Term	Average annual impact amount	Description of financial impact
Current period (2024)	0	In 2024, none of the Group's operating sites experienced production losses due to power rationing or outages caused by extreme heat. Risks associated with extreme temperature changes did not result in fixed electricity charges, plant depreciation expenses, or labor cost losses from production suspensions. There was no material impact on the Group's access to financing or the cost of capital.
Short term (2025)	-25 million	<p>Following the implementation of mitigation strategies in response to power rationing or outages caused by extreme heat, the Group expects an increase in costs of approximately NT\$25 million. There is no material impact on the Group's access to financing or the cost of capital.</p> <ul style="list-style-type: none"> Tung Ho Steel, Tung Kang Steel Structure, Katec Corp., THSVC, and Duc Hoa International J.S.C. are expected to incur losses from a five-day production suspension due to power outages. Tung Kang Steel Structure and Duc Hoa International J.S.C. will maintain operations by renting generators, while Tung Ho Steel, Katec Corp., and THSVC will adopt flexible shift arrangements to reduce labor cost losses. There is no capital expenditure-related cash outflow; however, the Group expects cash outflows for generator rental and fuel costs.
Medium term (2026–2030)	0	<p>Following the implementation of mitigation strategies in response to power rationing or outages caused by extreme heat, the Group expects an average annual increase in costs of approximately NT\$55 million. There is no material impact on the Group's access to financing or the cost of capital.</p> <ul style="list-style-type: none"> Tung Ho Steel, Tung Kang Steel Structure, Katec Corp., THSVC, and Duc Hoa International J.S.C. are expected to incur losses from a ten-day production suspension due to power outages. Tung Kang Steel Structure and Duc Hoa International J.S.C. will maintain operations by renting generators, while Tung Ho Steel, Katec Corp., and THSVC will adopt flexible shift arrangements to reduce labor cost losses. There is no capital expenditure-related cash outflow; however, the Group expects cash outflows for generator rental and fuel costs.

Risk 1-5 Impact on the existing basis of profit after implementation of the risk response strategy

Term	Average annual impact amount	Description of financial impact
Long term (2031-2050)	-140 million	<p>Following the implementation of mitigation strategies in response to power rationing or outages caused by extreme heat, the Group expects an average annual increase in costs of approximately NT\$140 million. There is no material impact on the Group's access to financing or the cost of capital.</p> <ul style="list-style-type: none"> Tung Ho Steel, Tung Kang Steel Structure, Katec Corp., THSVC, and Duc Hoa International J.S.C. are expected to incur losses from a twenty-day production suspension due to power outages. Tung Kang Steel Structure and Duc Hoa International J.S.C. will maintain operations by renting generators, while Tung Ho Steel, Katec Corp., and THSVC will adopt flexible shift arrangements to reduce labor cost losses. There is no capital expenditure-related cash outflow; however, the Group expects cash outflows for generator rental and fuel costs.

◆ Risk 1-5 Current, Short-, Medium-, and Long-Term Risk and Strategy Illustration and Description

- Profit Impact on Consolidated Parent and Subsidiaries – Extreme temperature change (Unmitigated)
- Profit Impact on Consolidated Parent and Subsidiaries – Extreme temperature change (Mitigated)



Note: In the financial impact figures (NT\$/year), a minus sign (-) indicates a decrease in operating profit, while a plus sign (+) indicates an increase in operating profit.

Tung Ho Steel, Tung Kang Steel Structure, Katec Corp., THSVC, and Duc Hoa International J.S.C. are expected to incur production losses due to power rationing or outages caused by extreme heat. In response, the Group plans to rent generators to maintain operations and implement flexible shift arrangements to reduce labor cost losses. While no capital expenditure is anticipated, the strategy will result in cash outflows related to generator rentals and fuel expenses. These measures are expected to partially offset the increased costs caused by production interruptions due to power outages.

Following the implementation of the strategy, the Group expects the short-term financial impact to improve from a profit reduction of NT\$47 million to a profit reduction of NT\$25 million. In the mid term, we aim to improve from an average annual profit reduction of NT\$97 million to NT\$55 million. In the long term, we aim to improve from an average annual profit reduction of NT\$200 million to NT\$140 million.

The resulting cash outflows from operating costs in the short, mid, and long term will be covered by internal funding. No cash flow risk is anticipated, and there is no material impact on the Group's access to financing or the cost of capital.

■ Assessment of climate-related material opportunities and strategies

IFRS S1、S2

S2.10 (a) (b) (c) (d)、S2.14 (a) (b) (c)、
S2.16 (a) (b) (c) (d)、S2.22 (a) (b)

The Group identified its major climate-related opportunities and, following discussions across departments, conducted financial exposure assessments. The Finance & Accounting Division participated in evaluating financial exposure, strategy-related costs and benefits. In accordance with the Group's accounting policies and IFRS requirements, they also helped define the relevant accounting line items in the income statement, balance sheet, and cash flow statement. The Company, based on its business strategy development and financial planning, defines the time frame for climate-related opportunities and strategy planning as follows: short term (2025), medium term (2026–2030), and long term (2031–2050).

Opp 1 Recycling and reuse

1. Current and Anticipated Impacts of the Opportunity on the Business Model and Value Chain

Waste is generally generated by enterprises and needs to be disposed of by upstream waste disposal contractors. In the future, more and more downstream customers will demand the use of recycled and reused raw materials to reduce carbon emissions. Waste recycling and reuse will become an important trend to mitigate the impact of climate change. The Group's diversified investment in the circular economy has significant financial benefits.

2. Resilience

Scenarios: 1.5° C Scenario, Taiwan's 2050 Net-Zero Emissions Pathway

Taiwan has released the "Taiwan 2050 Net-Zero Emissions Pathway and Strategy," which outlines twelve key strategic areas of investment. Among these, the net-zero strategy for the manufacturing sector includes circular economy initiatives. The goal is to reduce industrial waste and promote local participation in circular economy programs by 2030, thereby facilitating cross-sector collaboration among industries and contributing to environmental sustainability through concrete actions and targeted partnerships. Among the global trends in climate-related risk management, the waste recycling and reuse strategy in the circular economy becomes increasingly important, bringing financial opportunities to the recycling and reuse industry.

Adaptability:

The Group is committed to developing waste-to-resource policies within its own manufacturing operations and has also invested in related waste resource recovery businesses. These efforts are expected to support the Group's long-term sustainability strategy and planning.

3. Strategy and Decision-Making Response

The Group has invested in resource recycling businesses such as Taiwan Steel Union Co., Ltd. and Katec Corp., generating stable financial returns and creating financial opportunities.

Opp 1 Impact on the existing basis of profits after implementation of the opportunity response strategy

Term	Average annual impact amount	Description of financial impact
Current period (2024)	+120 million	In 2024, the Group received approximately NT\$120 million in dividend income from its investments in resource recycling businesses such as Taiwan Steel Union and Katec Corp. This cash inflow had no material impact on the Group's access to financing or the cost of capital.
Short term (2025)	+170 million	In the short term, the Group expects to receive approximately NT\$170 million in cash inflows from dividend income through its investments in resource recycling businesses such as Taiwan Steel Union and Katec Corp., which is anticipated to have a positive impact on the Group's access to financing and cost of capital.
Medium term (2026–2030)	+210 million	In the medium term, the Group expects to receive an average annual dividend income of approximately NT\$210 million from its investments in Taiwan Steel Union, Katec Corp., and other recycling and reuse businesses, which will have a positive impact on the Group's access to financing and cost of capital.
Long term (2031–2050)	+220 million	In the long term, the Group expects to receive an average annual dividend income of approximately NT\$220 million from its investments in resource recycling businesses such as Taiwan Steel Union and Katec Corp., which is anticipated to continue contributing positively to the Group's access to financing and cost of capital.

◆ Opp 1 Current, Short-, Medium-, and Long-Term Risk and Strategy Illustration and Description

— Profit Impact on Consolidated Parent and Subsidiaries – Recycling and reuse (Opportunity)



Note: In the financial impact figures (NT\$/year), a minus sign (-) indicates a decrease in operating profit, while a plus sign (+) indicates an increase in operating profit.

The Group has consistently invested in sustainability-related transition initiatives over the years, including investments in resource recycling businesses such as Taiwan Steel Union and Katec Corp. Following the implementation of these strategies, the Group expects to increase its profit by approximately NT\$170 million in the short term, by an average of NT\$210 million per year in the medium term, and by an average of NT\$220 million per year in the long term. Overall, this is expected to have a positive impact on the Group's access to financing and cost of capital.

Opp 2 Incentives from financial institutions

1. Current and Anticipated Impacts of the Opportunity on the Business Model and Value Chain

In sustainable business planning, financial institutions serve as a primary source of corporate funding. Sound financing channels and favorable capital costs enable enterprises to adopt more flexible operational strategies. Financial institutions encourage and support the funding needs of sustainable enterprises. Through financial mechanisms, they not only drive companies to prioritize and implement ESG practices but also achieve stable economic returns while fostering a robust sustainable finance ecosystem.

2. Resilience

Scenarios: 1.5° C Scenario, Taiwan's 2050 Net-Zero Emissions Pathway

Amid the global trend toward sustainable finance, and to promote the effective operation of Taiwan's green finance market while advancing the comprehensive development of sustainable finance, the Financial Supervisory Commission introduced the "Green Finance Action Plan 3.0" in 2022. Under this framework, financial institutions' credit and investment decisions are linked to a company's ESG and climate change management performance. Companies with strong sustainability performance may gain financial opportunities through reduced loan interest costs, while those with weaker performance may face adverse impacts on financing availability and capital costs.

Adaptability:

The Group has established a sound governance structure and has consistently invested in sustainability-related transition initiatives over the years. In 2024, it received a "Leadership Level A- rating" for Climate Change and a "Management Level B rating" for Water Security in the CDP questionnaire. Through the establishment of a Group-wide sustainability policy and ongoing employee training, the Group continues to advance sustainable development.

3. Strategy and Decision-Making Response

The Company will continue to engage in climate-related financial disclosures, CDP reporting, and other climate change management assessments. It will also establish a Group-wide net-zero roadmap and carbon reduction targets. These actions are expected to enhance the Group's access to credit, low-interest loans, and other financing opportunities in the capital markets, thereby having a positive impact on financing availability and capital costs.

Opp 2 Impact on the existing basis of profits after implementation of the opportunity response strategy

Term	Average annual impact amount	Description of financial impact
Current period (2024)	0.13 million	Tung Ho Steel and THSVC secured sustainability-linked preferential loans from banks, resulting in interest expense savings of approximately NT\$130,000 in cash outflows. During the year, Tung Ho Steel and THSVC also incurred consulting fees and increased labor costs related to climate-related financial disclosures and CDP reporting. Overall, this is expected to have a positive impact on the Group's access to financing and cost of capital.

Opp 2 Impact on the existing basis of profits after implementation of the opportunity response strategy

Term	Average annual impact amount	Description of financial impact
Short term (2025)	0.82 million	Tung Ho Steel and THSVC are expected to continue obtaining sustainability-linked preferential loans from banks in the short term, resulting in interest expense savings of approximately NT\$820,000 in cash outflows. Tung Ho Steel and THSVC will also incur cash outflows for consulting services and increased labor costs related to climate-related financial disclosures and CDP reporting. Overall, this is expected to have a positive impact on the Group's access to financing and cost of capital.
Medium term (2026–2030)	3.4 million	Tung Ho Steel and THSVC are expected to have 50% of their loan portfolios linked to sustainability performance, securing preferential loan rates and resulting in average annual interest expense savings of approximately NT\$3.4 million in cash outflows. Tung Ho Steel and THSVC will also incur cash outflows for consulting services and increased labor costs related to climate-related financial disclosures and CDP reporting during the medium term. Overall, this is expected to have a positive impact on the Group's access to financing and cost of capital.
Long term (2031–2050)	+140 million	Tung Ho Steel and THSVC are expected to secure preferential interest rates for their entire loan portfolios through sustainability-linked loans, resulting in average annual interest expense savings of approximately NT\$140 million in cash outflows. Tung Ho Steel and THSVC will also incur cash outflows for consulting services and increased labor costs related to climate-related financial disclosures and CDP reporting in the long term. Overall, this is expected to have a positive impact on the Group's access to financing and cost of capital.

◆ Opp 2 Current, Short-, Medium-, and Long-Term Risk and Strategy Illustration and Description

— Profit Impact on Consolidated Parent and Subsidiaries – Incentives from financial institutions (Opportunity)



Note: In the financial impact figures (NT\$/year), a minus sign (-) indicates a decrease in operating profit, while a plus sign (+) indicates an increase in operating profit.

The Group has established a sound governance structure and has consistently invested in sustainability-related transition initiatives over the years. In 2024, it received a “Leadership Level A- rating” for Climate Change and a “Management Level B rating” for Water Security in the CDP questionnaire. Under the context of the FSC’s 2022 launch of the “Green Finance Action Plan 3.0” to promote the effective operation of Taiwan’s green finance market and the comprehensive development of sustainable finance, the Group expects that, following the implementation of sustainability strategies and disclosures, it will increase profitability by approximately NT\$890 thousand in the short term, by an annual average of approximately NT\$1.7 million in the medium term, and by an annual average of approximately NT\$140 million in the long term. Overall, this is expected to have a positive impact on the Group’s access to financing and cost of capital.

■ Assessment of Sustainability material opportunities and strategies

IFRS S1、S2

S1.30(a)(b)(c)(d)、S1.32(a)(b)(c)
S1.33(a)(b)(c)(d)、S1.34(a)(b)

After identifying the sustainability-related risks and opportunities, and conducting financial exposure assessments through discussions across departments, the Finance & Accounting Division assisted all departments in defining the relevant accounting items in the statement of comprehensive income, statement of financial position, and statement of cash flows, based on the Company's accounting system and IFRS, by evaluating the financial exposure as well as the cost and effectiveness of strategies. The Group, based on its business strategy development and financial planning, defines the time frame for sustainability-related risks and strategy planning as follows: short term (2025), medium term (2026–2030), and long term (2031–2050).

Risk 2 Waste management

1. Current and Anticipated Impacts of the Risk on the Business Model and Value Chain

Each business unit within the Group generates waste that requires treatment by upstream waste disposal providers. Waste reduction and cost control related to waste management are key issues for the Group, as they directly impact operating costs and profitability.

2. Resilience

Scenario: Environmental Protection Regulations

Environmental protection regulations in both Taiwan and Vietnam are expected to become increasingly stringent. In addition to rising waste treatment costs, there is also a risk of regulatory fines or even enforced shutdowns in the event of non-compliance.

Adaptability:

Tung Ho Steel has implemented the ISO 14001 Environmental Management System and is committed to waste reduction and resource recovery.

3. Strategy and Decision-Making Response

The Group will mitigate financial risks associated with waste management through strategies such as process optimization, enhanced waste sorting, and in-plant waste treatment.

Risk 2 Impact of risks on the existing basis of profits

Term	Average annual impact amount	Description of financial impact
Current period (2024)	-260 million	In 2024, the Group recorded approximately NT\$260 million in cash outflows for waste management across all business units. The expenses were funded through internal capital. No incidents of enforced shutdowns due to waste-related regulatory violations occurred. There was no impact on the Group's access to financing or the cost of capital.

Risk 2 Impact of risks on the existing basis of profits

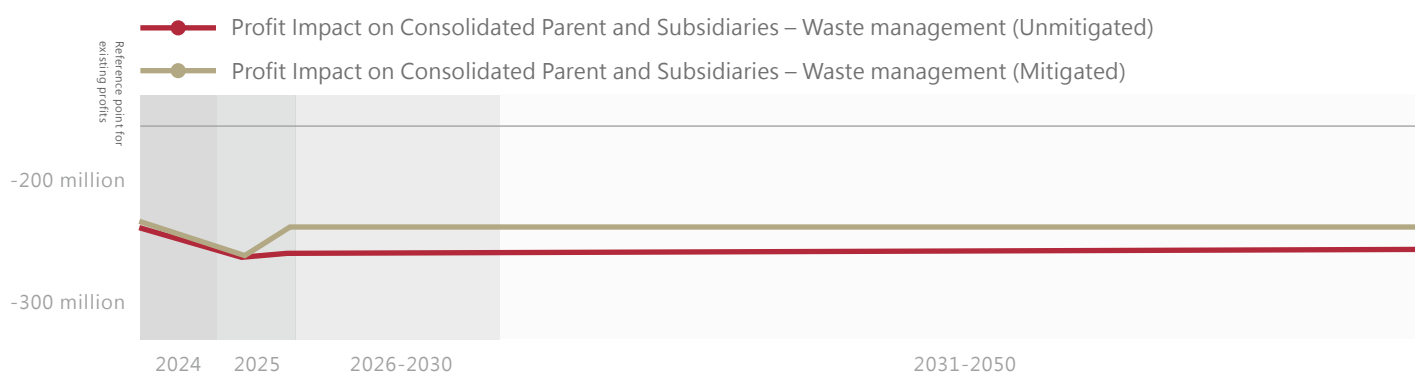
Term	Average annual impact amount	Description of financial impact
Short term (2025)	-272 million	In the short term, the Group anticipates an increase in waste treatment fees for certain business units, resulting in approximately NT\$272 million in waste management cash outflows. These costs will be covered by internal capital. No enforced shutdowns due to waste-related regulatory violations are expected. The Group's access to financing and cost of capital will remain unaffected.
Medium term (2026–2030)	-280 million	In the medium term, waste treatment costs are expected to continue rising for certain business units, with estimated cash outflows reaching NT\$280 million. These costs will be covered by internal capital. No enforced shutdowns due to waste-related regulatory violations are expected. The Group's access to financing and cost of capital will remain unaffected.
Long term (2031–2050)	-280 million	In the long term, the Group expects waste treatment costs to stabilize, with estimated annual cash outflows of approximately NT\$280 million. These costs will be covered by internal capital. No enforced shutdowns due to waste-related regulatory violations are expected. The Group's access to financing and cost of capital will remain unaffected.

Risk 2 Impact on the existing basis of profit after implementation of the risk response strategy

Term	Average annual impact amount	Description of financial impact
Current period (2024)	-266 million	Tung Kang Steel Structure implemented a supplier pallet recycling strategy for raw materials, reducing waste treatment costs by approximately NT\$3 million. Overall, the Company's total waste management cash outflows amounted to approximately NT\$260 million.
Short term (2025)	-266 million to -270 million	Following the implementation of waste management strategies, the Group expects average annual waste management costs to range between NT\$266 million and NT\$270 million in the short, medium, and long term.
Medium term (2026–2030)		In the short term, Tung Ho Steel will adopt process modifications (slag recycling) to reduce unit treatment costs and decrease the use of secondary raw materials. Tung Kang Steel Structure will continue to strengthen its raw material pallet recycling efforts and enhance waste classification and sorting. Katec Corp. will reduce outsourced waste treatment costs through on-site treatment and regulatory applications.
Long term (2031–2050)		

◆ Risk 2 Current, Short-, Medium-, and Long-Term Risk and Strategy

Illustration and Description



Note: In the financial impact figures (NT\$/year), a minus sign (-) indicates a decrease in operating profit, while a plus sign (+) indicates an increase in operating profit.

The Group's business entities may face financial risks in the short, medium, and long term due to waste treatment costs, regulatory fines, or enforced shutdown. Following the implementation of waste management strategies, the Group has reduced cash outflows related to waste management costs. Overall, the Group's average annual waste management costs across the short, medium, and long term are expected to remain within the range of NT\$266 million to NT\$270 million. There is no material impact anticipated on the Group's access to financing or the cost of capital.

Risk 3 Occupational safety and health

1.Current and Anticipated Impacts of the Risk on the Business Model and Value Chain

If a major occupational safety incident were to occur at any of the Group's operations, it could lead to enforced production shutdowns and resulting losses in production and sales. On the other hand, as certain production processes are outsourced to contractors, managing occupational health and safety for on-site contractor personnel is also critically important. In the future, strategies to reduce occupational safety and health risks (such as the adoption of robotic arms and automated welding equipment) will be closely tied to the technological capabilities and cost structures of equipment suppliers.

2.Resilience

Scenario: Occupational Safety and health

Occupational safety and health regulations in Taiwan and Vietnam are expected to become increasingly stringent. From an operational perspective, this may lead to increased costs for implementing occupational safety and health management systems. In addition, there are potential risks of workforce-related injury costs, regulatory fines, and even enforced shutdowns due to non-compliance.

Adaptability:

Tung Ho Steel, Tung Kang Steel Structure, and THSVC have implemented the ISO 45001 Occupational Health and Safety Management System. These entities have also undertaken on-site process improvements and automation initiatives, embedding a zero-accident policy and safety awareness into the daily operations of each business unit.

3.Strategy and Decision-Making Response

The Company will continue to reduce occupational safety and health risks through strategies such as on-site process enhancements and the deployment of robotic arms and automated welding equipment at specific workstations.

Risk 3 Impact of risks on the existing basis of profits

Term	Average annual impact amount	Description of financial impact
Current period (2024)	-17 million	In 2024, the Group incurred approximately NT\$17 million in cash outflows due to occupational safety and health risks, including fines, labor costs from work-related injury leave, and increased expenses associated with occupational safety and health management systems. These were funded through internal resources. No enforced shutdowns occurred during the year.
Short term (2025)	-20 million	The Group's occupational safety and health risks include cash outflows resulting from fines, labor costs due to injury-related leave, and additional costs associated with the occupational safety and health management system. No enforced shutdowns have occurred. Occupational safety and health risks are expected to result in an average annual increase in costs of approximately NT\$20 million over the medium to long term. There is no material impact anticipated on the Group's access to financing or the cost of capital.
Medium term (2026–2030)		
Long term (2031–2050)		

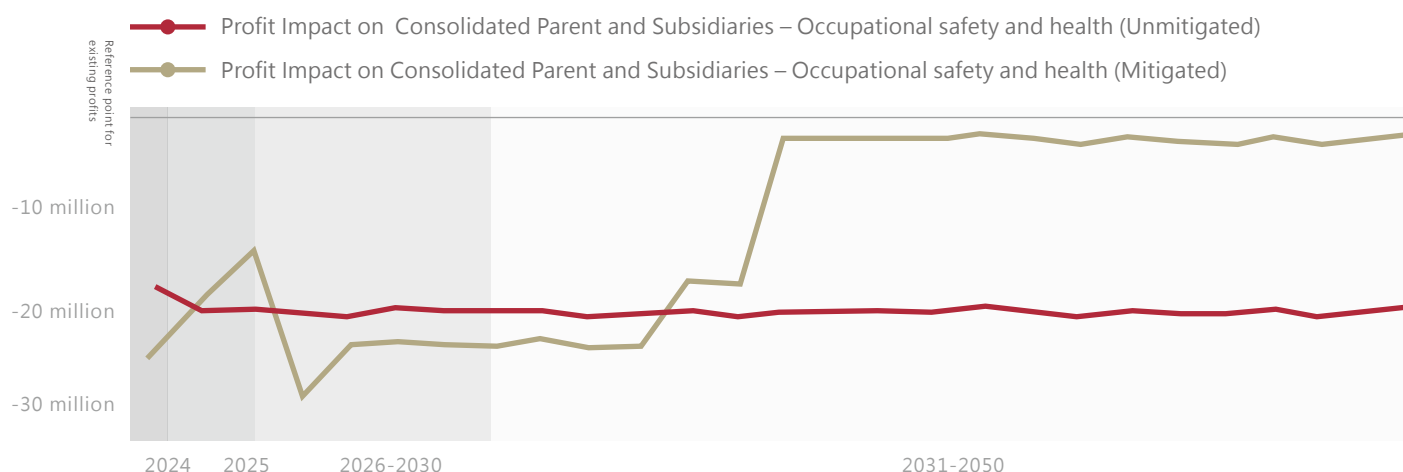
Risk 3 Impact on the existing basis of profit after implementation of the risk response strategy

Term	Average annual impact amount	Description of financial impact
Current period (2024)	-25 million	In 2024, Tung Ho Steel implemented on-site process improvement initiatives to mitigate future occupational safety and health risks, resulting in approximately NT\$8 million in cost-related cash outflows. Overall, following strategy implementation, the financial impact of occupational safety and health risks amounted to an increase in costs of approximately NT\$25 million.
Short term (2025)	-19 million	<p>Following strategy implementation, the short-term financial impact of occupational safety and health risks is estimated to be an increase in costs of approximately NT\$19 million.</p> <ul style="list-style-type: none"> Tung Ho Steel and THSVC plan to introduce robotic arms for designated workstations, while Tung Kang Steel Structure plans to implement automated welding equipment. These initiatives will result in capital expenditures of approximately NT\$62 million, funded by internal resources. In addition to equipment depreciation, these investments are expected to reduce fines and labor costs associated with work-related injury leave.
Medium term (2026–2030)	-23 million	<p>In the medium term, the financial impact of occupational safety and health risks is projected to result in an average annual increase in costs of approximately NT\$23 million.</p> <ul style="list-style-type: none"> Tung Ho Steel and THSVC will continue deploying robotic arms for designated workstations, incurring capital expenditures of approximately NT\$150 million, funded by internal resources. Beyond depreciation expenses, these investments are expected to reduce fines and labor costs related to injury leave.

Risk 3 Impact on the existing basis of profit after implementation of the risk response strategy

Term	Average annual impact amount	Description of financial impact
Long term (2031–2050)	-8.3 million	<p>In the long term, the financial impact of occupational safety and health risks is expected to result in an average annual increase in costs of approximately NT\$8.3 million.</p> <ul style="list-style-type: none"> Tung Ho Steel and THSVC will have completed the deployment of robotic arms for designated workstations, and Tung Kang Steel Structure will have implemented automated welding equipment. As no further capital expenditures or depreciation are expected, these measures are anticipated to reduce fines and labor costs associated with occupational injuries.

◆ Risk 3 Current, Short-, Medium-, and Long-Term Risk and Strategy Illustration and Description



Note: In the financial impact figures (NT\$/year), a minus sign (-) indicates a decrease in operating profit, while a plus sign (+) indicates an increase in operating profit.

The Group's occupational safety and health risks include cash outflows arising from fines, labor costs due to injury-related leave, and increased costs associated with the implementation of occupational safety and health management systems. There were no incidents of enforced shutdown.

Tung Ho Steel and THSVC have introduced robotic arms at specific workstations, while Tung Kang Steel Structure has implemented automated welding equipment. In addition, on-site process improvement programs have been carried out. Although these measures result in equipment depreciation costs, they also lead to reductions in fines and labor costs associated with injury-related leave.

Overall, following the implementation of the strategy, the short-term financial impact is expected to improve from a profit reduction of NT\$20 million to a profit reduction of NT\$19 million. In the medium term, the financial impact is expected to worsen from an average annual profit reduction of NT\$20 million to a profit reduction of NT\$23 million. In the long term, the financial impact is expected to improve from an average annual profit reduction of NT\$20 million to a profit reduction of NT\$8 million.

The capital expenditures and operating cost outflows associated with the implementation of the strategy in the short, mid, and long term will be covered by internal funding. No cash flow risk is anticipated, and there is no material impact on the Group's access to financing or the cost of capital.

Risk 4 Air pollutant emissions

1.Current and Anticipated Impacts of the Risk on the Business Model and Value Chain

Air pollution control measures at each of the Group's business entities not only affect costs related to air pollution fees but are also a key concern for stakeholders. Non-compliance with regulatory requirements may adversely impact operations and could even result in an enforced shutdown.

2.Resilience

Scenario: Environmental Protection Regulations

Environmental protection regulations in both Taiwan and Vietnam are expected to become increasingly stringent. For businesses, in addition to air pollution-related costs, there is also a risk of regulatory fines or even enforced shutdowns in the event of non-compliance.

Adaptability:

Tung Ho Steel has implemented the ISO 14001 Environmental Management System and remains committed to reducing air pollutant emissions and ensuring compliance with regulatory requirements.

3.Strategy and Decision-Making Response

The Group is upgrading its reheating furnaces to reduce air pollution fees and fuel costs. By adopting oxy-fuel combustion technology, both fuel consumption and carbon dioxide emissions can be reduced. Compared to conventional air-fuel burners, this technology also significantly lowers nitrogen oxide emissions. The Group will continue to strengthen its air pollution emission management system to achieve the goal of zero violations.

Risk 3 Impact of risks on the existing basis of profits

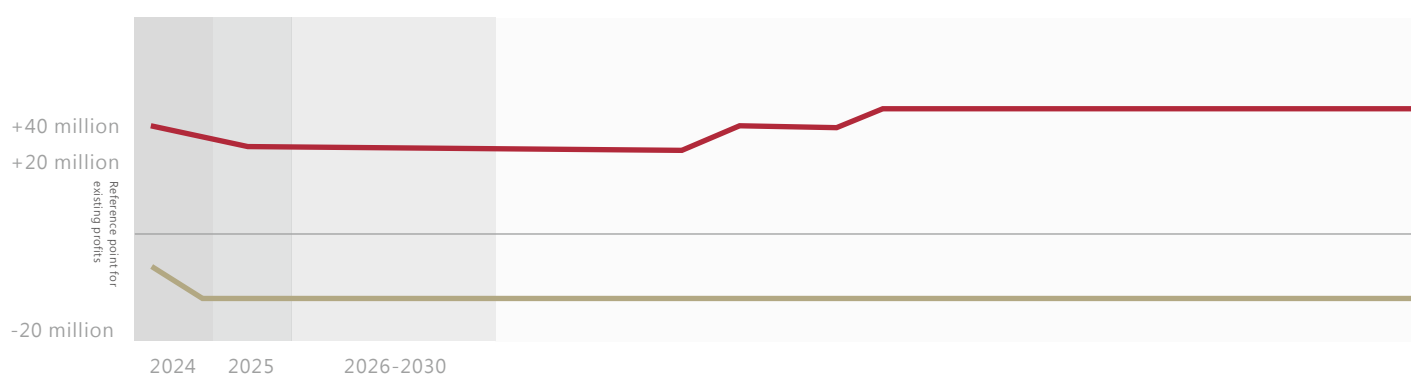
Term	Average annual impact amount	Description of financial impact
Current period (2024)	-8 million	In 2024, the Group's business entities recorded a cash outflow of approximately NT\$8 million in air pollution control fees, funded entirely through internal resources. No incidents of work suspension due to air pollution violations occurred. There was no impact on capital accessibility or the cost of capital.
Short term (2025)	-14 million	The Group anticipates an average annual cash outflow of approximately NT\$14 million in air pollution control fees over the short, medium, and long term. These costs will be covered with internal funds. No work suspension events resulting from air pollution violations are expected, and no impact is anticipated on capital accessibility or the cost of capital.
Medium term (2026–2030)		
Long term (2031–2050)		

Risk 4 Impact on the existing basis of profit after implementation of the risk response strategy

Term	Average annual impact amount	Description of financial impact
Current period (2024)	+35 million	Following the implementation of the strategy, the Group achieved a financial benefit of NT\$35 million in 2024 through reduced air pollution management costs. There was no impact anticipated on the Group' s access to financing or the cost of capital. <ul style="list-style-type: none"> In 2024, Tung Ho Steel' s Kaohsiung Works – Daya undertook a reheating furnace upgrade, resulting in a capital expenditure cash outflow of NT\$54 million, funded through internal resources. This upgrade is expected to reduce annual cash outflows related to air pollution and fuel costs by approximately NT\$47 million.
Short term (2025)	+30 million to +36 million	Following the implementation of the strategy, the Group anticipates an average annual cost reduction of NT\$30 million to NT\$36 million in air pollution management over the short, medium, and long term. There is no impact anticipated on the Group' s access to financing or the cost of capital. The reheating furnace upgrade at Tung Ho Steel' s Kaohsiung Works – Daya is expected to deliver annual reductions in air pollution and fuel cost cash outflows of approximately NT\$47 million.
Medium term (2026–2030)		
Long term (2031–2050)		

◆ Risk 4 Current, Short-, Medium-, and Long-Term Risk and Strategy Illustration and Description

- Profit Impact on Consolidated Parent and Subsidiaries – Air pollution emissions (Unmitigated)
- Profit Impact on Consolidated Parent and Subsidiaries – Air pollutant emissions (Mitigated)



Note: In the financial impact figures (NT\$/year), a minus sign (-) indicates a decrease in operating profit, while a plus sign (+) indicates an increase in operating profit.

The Group anticipates ongoing cash outflows related to air pollution control fees across its business entities in the short, medium, and long term. No incidents of work suspension due to air pollution violations have occurred.

Following the reheating furnace upgrade at Tung Ho Steel's Kaohsiung Works – Daya, the Group expects to reduce annual cash outflows related to air pollution and fuel costs by approximately NT\$47 million.

Overall, the financial impact of air pollution emission management has improved significantly following the implementation of the strategy, from an average annual cost increase of NT\$14 million to an average annual cost reduction of NT\$30 million to NT\$36 million. There is no impact anticipated on the Group's access to financing or the cost of capital.

Overall assessment of sustainability and climate-related material risks, opportunities and strategies

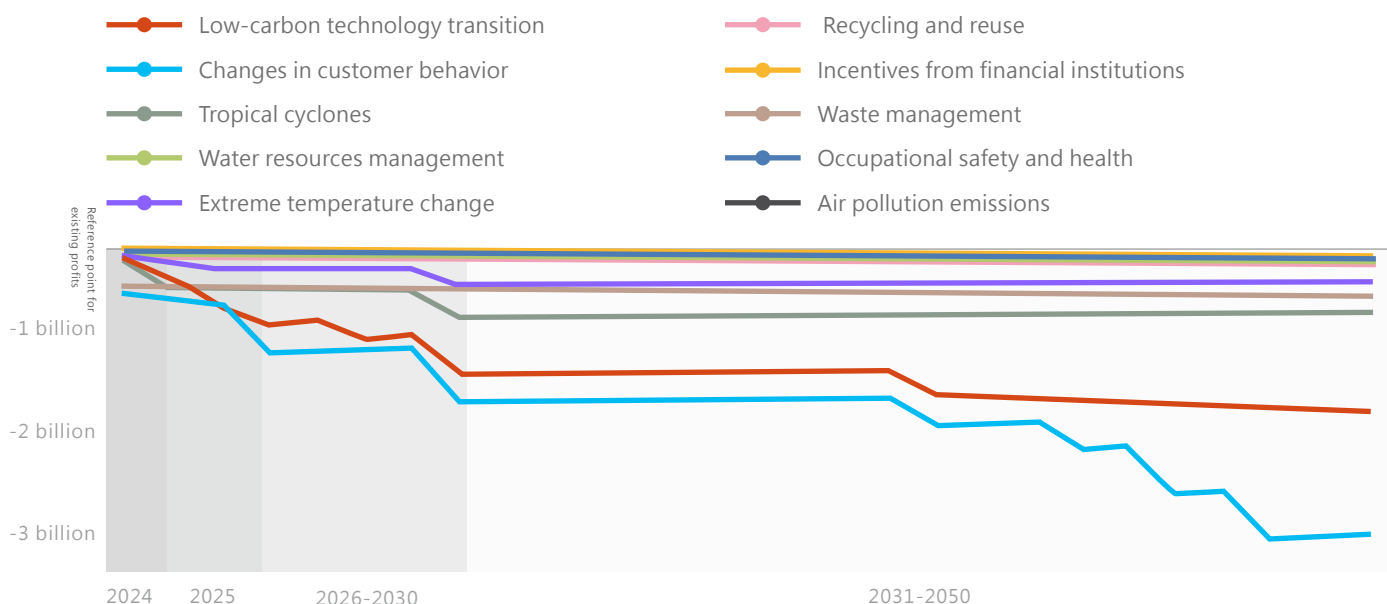
Sustainability and Climate-Related Risks and Opportunities for the Group

Climate Risks	Climate Opportunities	Sustainability Risks
<p>【Transition Risk & Opportunity】 Low-carbon technology transition</p> <p>【Transition Risk】 Changes in customer behavior</p> <p>【Acute Physical Risk】 Tropical cyclones</p> <p>【Chronic Physical Risk】 Changes in average precipitation and water management</p> <p>【Acute Physical Risk】 Changes in extreme temperature.</p>	<p>【Energy Efficiency】 Recycling and reuse.</p> <p>【Market】 Incentives from financial institutions.</p>	<ul style="list-style-type: none"> • Waste management • Occupational safety and health • Air pollutant emissions

Sustainability and Climate-related Risks and Opportunities under Unmitigated Conditions

Under unmitigated conditions, “changes in customer behavior” represent the most significant risk factor impacting the Group’s profitability.

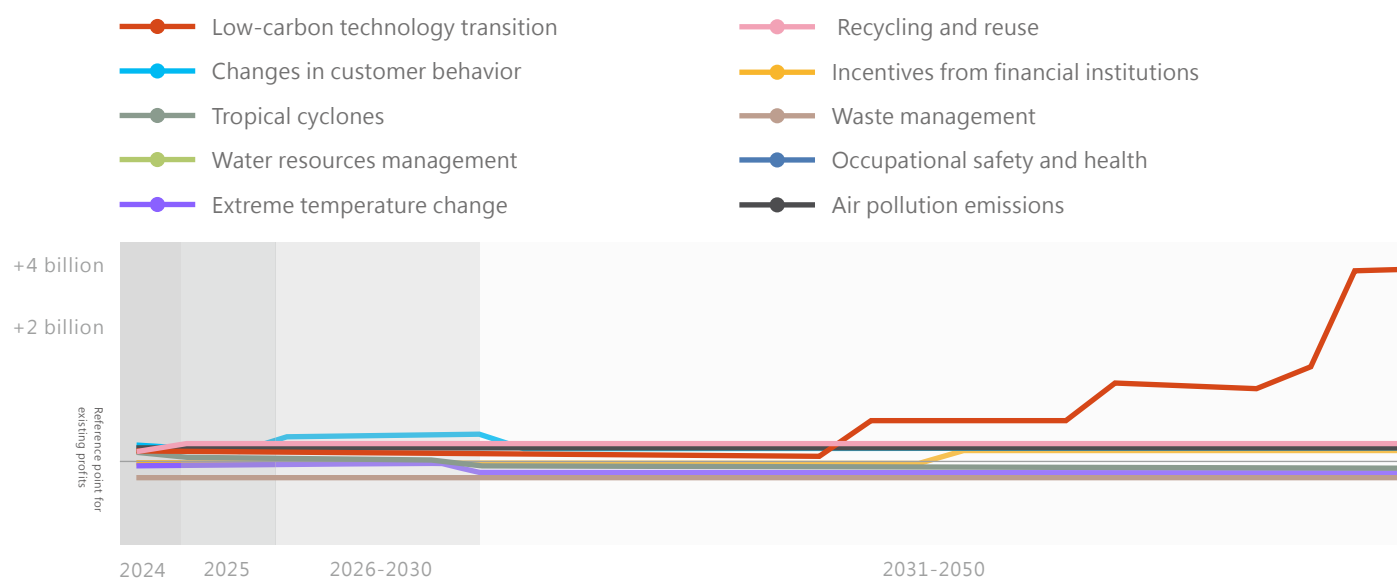
- In the absence of mitigation measures, transition risks related to low-carbon technology transformation and changes in customer behavior are expected to have the greatest financial impact in the short, medium, and long term, with changes in customer behavior posing the highest threat to the Company’s profitability.
- The expected impact on financial performance includes a profit reduction of approximately NT\$350 million in the short term, an average annual profit reduction of approximately NT\$790 million in the medium term, and an increase to an average annual profit reduction of approximately NT\$1.77 billion in the long term, which is anticipated to negatively affect our access to financing or the cost of capital.



Estimated Profit Impact of (Mitigated) Sustainability and Climate-Related Risks and Opportunities for Tung Ho Steel and Its Subsidiaries

Following the implementation of mitigation measures, the transition to low-carbon technologies generates the most significant profit increase in the long term (2031–2050).

- Following the implementation of mitigation measures, the financial impact of the Group's sustainability and climate-related risks and opportunities shows significant improvement across the short, medium, and long term, with the transition to low-carbon technologies demonstrating the most notable shift to increased profitability in the long term.
- The Group expects the short-term impact on financial performance to shift from a profit decrease of NT\$210 million to a profit decrease of NT\$240 million. In the medium term, the average annual profit decrease of NT\$670 million is projected to improve to an average annual profit decrease of NT\$350 million. In the long term, the average annual profit decrease of NT\$1.3 billion is expected to improve to an average annual profit increase of NT\$520 million.
- In the medium and long term, a portion of the capital expenditure cash outflows will be covered by the Company's own funds, while the remainder will be financed through bank loans. No cash flow risk is expected, and a positive impact on financing availability and capital costs is anticipated.

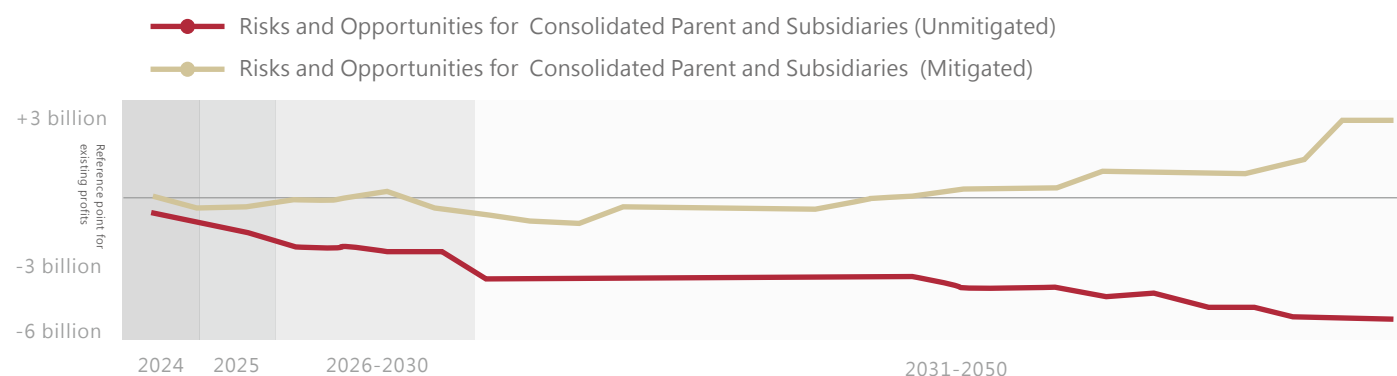


Total Profit Impact of (Mitigated) Sustainability and Climate-Related Risks and Opportunities

Following the implementation of the strategy, the Group expects the short-term impact on financial performance to shift from a profit decrease of NT\$1.17 billion to a profit decrease of NT\$480 million. In the medium term, the average annual profit decrease of NT\$2.13 billion is projected to improve to an average annual profit decrease of NT\$250 million. In the long term, the average annual profit decrease of NT\$4.1 billion is expected to improve to an average annual profit increase of NT\$360 million.

In the medium and long term, a portion of the capital expenditure cash outflows will be covered by the Company's own funds, while the remainder will be financed through bank loans.

▼ Current, Short-, Medium-, and Long-Term Risk and Strategy Illustration and Description





5.Sustainability and Climate Change-Related Metrics and Targets

■ Science Based Targets Initiative (SBTi)

Tung Ho Steel adopts the Science Based Targets initiative (SBTi) as the foundation for setting and evaluating climate-related metrics and targets. A monthly target meeting is convened, chaired by the President, to track and review the differences between actual and target greenhouse gas emission intensities at each plant and to formulate necessary corrective actions. An absolute reduction target has been established based on the Science Based Targets Initiative's (SBTi) official tool, the SBTi Steel Target Setting Tool Version 1.0, as the scientific foundation. The target also takes into account the Pathway to Net-Zero Emissions by 2050 announced in March 2022 and the emission reduction simulation target set forth in Taiwan's Nationally Determined Contributions (NDC) published in December 2022.



▲ Climate Change-related Science-based Reduction Targets (SBTi) – Guidance for Iron and Steel Sector

■ Tung Ho Steel Greenhouse gas emission reduction target and energy transition goal

In response to global trends and Taiwan's 2050 net-zero emissions target, Tung Ho Steel has designated climate change as a material issue in its sustainability agenda. At the 25th meeting of the 24th Board of Directors, the Board approved Tung Ho Steel's phased 2030 target for achieving "net-zero carbon emissions by 2050": a 30% carbon reduction and RE30.

30% Carbon Reduction	<p>Using 2005 as the base year, we have set a mid-term emissions reduction target of 30% by 2030. The long-term decarbonization goal is aligned with Taiwan's Pathway to Net-Zero Emissions in 2050.</p> <ul style="list-style-type: none">• In 2024, Tung Ho Steel's Scope 1 (Category 1) emissions totaled 211,948 tCO₂e, Scope 2 (Category 2) emissions totaled 547,191 tCO₂e, resulting in a combined total of 759,139 tCO₂e. For a comparison of emission trends and explanation of differences, please refer to 4-2 "Use of energy and resources" of the Company's 2024 Sustainability Report.• In the future, we will continue to seek alternative renewable energy and improve the performance of electric furnaces to move toward the emission reduction target of 30% in 2030.
RE30	<p>Use over 30% of renewables in total electricity consumption in 2030.</p> <ul style="list-style-type: none">• Approximately 73% of Tung Ho Steel's Scope 1 and Scope 2 greenhouse gas emissions are attributable to electricity consumption. To realize our goal for sustainable development, purchasing renewable energy certificates (RECs) is one of the important measures THO can take to achieve this goal. Additionally, fulfilling our environmental commitment, lowering fossil fuel dependency, reducing energy costs, and meeting national requirements for renewables also reflect our social responsibility and mission. However, given Taiwan's current renewable energy generation capacity, it may not be realistic for all manufacturers with high carbon emissions to commit to RE100. From a practical standpoint, Tung Ho Steel has assessed the situation and determined that RE30 is an achievable mid-term target.• In 2024, Tung Ho Steel purchased 36,509,776 kWh of (bundled) renewable energy certificates from its subsidiary, Tung Kang Wind Power, accounting for approximately 3.08% of its total electricity consumption for the year. This marks a gradual step toward achieving the RE30 target.

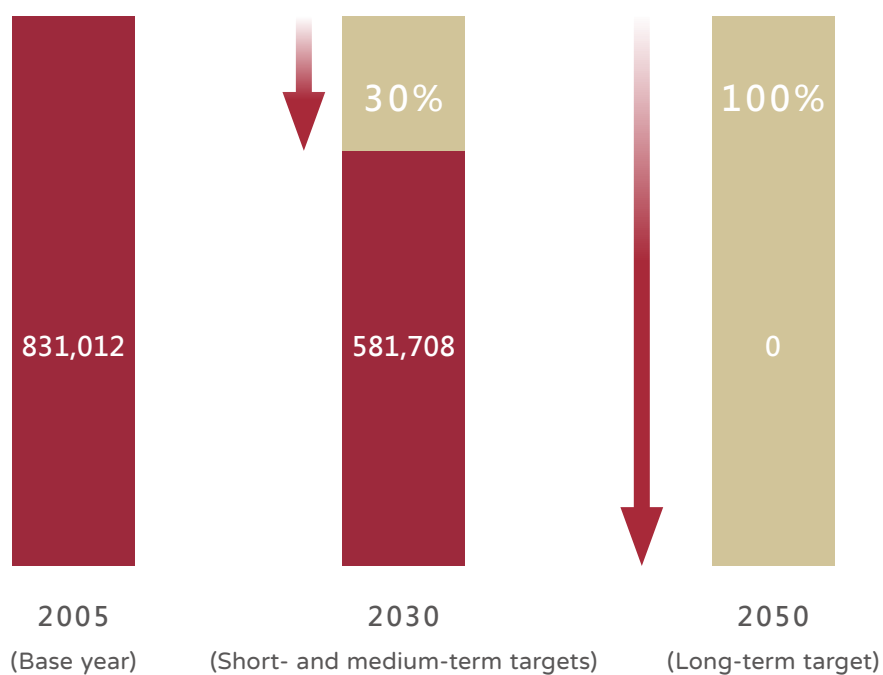
Year	Carbon Emissions (tCO ₂ e) Set According to the "Taiwan's Pathway to Net-Zero Emissions in 2050"	Percentage of Emission Reduction (%)
2005 (Reference year)	831,012	-
2030 (Short- and medium-term targets)	581,708	30%
2050 (Long-term target)	0	100%

Note:

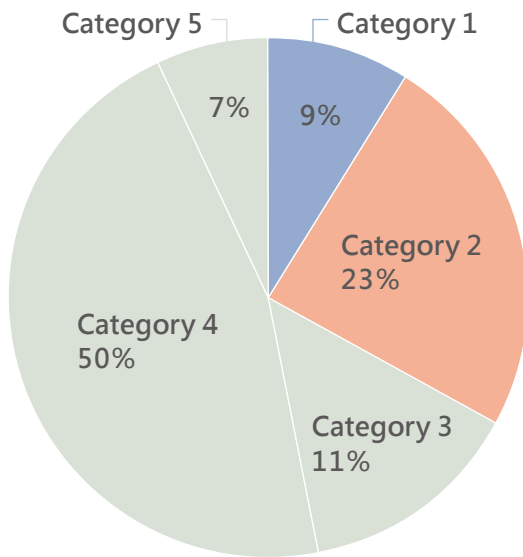
1. The Group has set its 2030 carbon reduction target at 30% compared to 2005 levels, in alignment with the emissions reduction target outlined in Taiwan's Nationally Determined Contribution (NDC) announced in December 2022.
2. Greenhouse gas emissions are the total of Scope 1 and Scope 2 emissions.

■ Greenhouse gas emission targets

Unit: metric tons CO₂e (tCO₂e)



■ 2024 Greenhouse Gas Emissions by Category



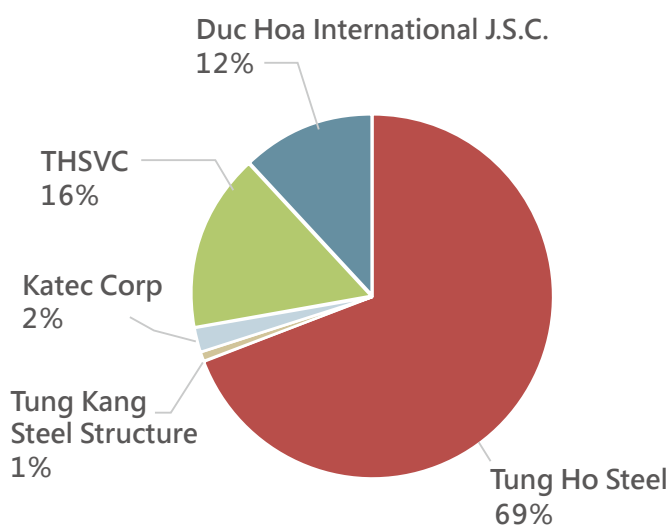
Scope	Category		Emissions (tCO ₂ e)
Scope 1	Category 1	Direct greenhouse gas emissions	211,948
Scope 2	Category 2	Energy purchased from external sources	547,191
Scope 3	Category 3	Transportation subtotal	255,656
	Category 4	Organization usage subtotal	1,170,589
	Category 5	Use of products sold by the organization subtotal	157,770
	Category 6	Other indirect greenhouse gas emissions from other sources	-
Total			2,343,153

■ Group-wide greenhouse gas emission targets and energy transition targets

30% Carbon Reduction	<p>Using 2021 as the base year, we have set a mid-term emissions reduction target of 30% by 2035. The long-term decarbonization goal is aligned with Taiwan' s Pathway to Net-Zero Emissions in 2050.</p> <ul style="list-style-type: none"> Using 2021 as the base year, the Group' s total Scope 1 and Scope 2 greenhouse gas emissions amounted to 1,278,233 tCO₂e. Among these, Tung Ho Steel accounted for the largest share, with emissions totaling 882,399 metric tons of CO₂e, representing 69% of the Group' s total emissions. The Group has designated 2035 as the target year for its short- to mid-term greenhouse gas reduction goal, with total Group-wide emissions expected to reach 894,763 tCO₂e, representing a 30% reduction compared to the base year. Between 2025 and 2035, the Group' s companies will gradually implement a series of decarbonization projects to achieve the 30% carbon reduction target. These initiatives include upgrades to electric arc furnaces, the elimination of pig iron usage, the reduction of auxiliary materials, the adoption of low-carbon fuels, waste heat recovery, improvements in energy efficiency, process optimization, and the procurement of renewable electricity. The Group' s long-term decarbonization goal is aligned with Taiwan' s 2050 net-zero emissions pathway. To achieve net-zero emissions by 2050, the Group will continue to invest in decarbonization initiatives such as energy efficiency improvements, process optimization, and the procurement of renewable electricity. In addition, once international and domestic carbon capture, utilization, and storage (CCUS) technologies become mature and economically viable, the Group plans to adopt them as the final step in its net-zero strategy.
RE30	<p>Use over 30% of renewables in total electricity consumption in 2035.</p> <ul style="list-style-type: none"> In 2024, Tung Ho Steel continued to purchase renewable electricity supplied by Tung Kang Wind Power. Other subsidiaries within the Group will also continue to invest in the installation of self-generated renewable energy facilities and the purchase of bundled RECs. The Group aims to achieve 30% renewable electricity usage across all entities by 2035.

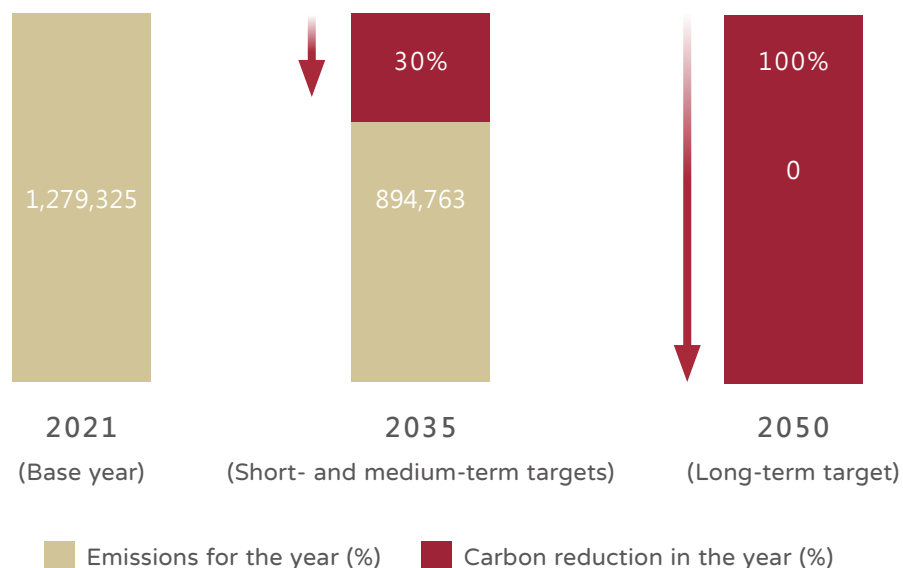
◆ Base Year (2021) Scope 1 + Scope 2 Emissions

Entity Name	2021 (base year) emissions (tCO ₂ e)
Tung Ho Steel	882,399
Tung Kang Steel Structure	9,056
Tung Kang Engineering and Construction	1,108
Tung Kang Wind Power	1,134
Katec Corp.	31,570
THSVC	199,672
Duc Hoa International J.S.C.	153,294
Fujian Tung Kang Steel Co., LTD.	1,092
Total	1,279,325



◆ Group-wide Carbon Reduction Targets

Unit: metric tons CO₂e (tCO₂e)



■ Description of the Targets for Using Low-carbon Materials

As global attention to climate change continues to rise, the importance of corporate social responsibility has become increasingly prominent. In light of this, Tung Ho Steel has adopted a production technology that does not use pig iron and shifted to more environmentally friendly low-carbon steel products.

The use of low-carbon raw materials is one of Tung Ho Steel's key goals on its decarbonization pathway. In traditional steel production, pig iron is an essential raw material; however, the greenhouse gas emissions generated during the extraction and processing of iron ore are significantly higher than those from scrap steel. Therefore, investing in the research and development of pig iron-free production technologies represents an important option for the steel industry in producing low-carbon steel products. The research and development of this production technology reduces the steelmaking industry's reliance on natural resources and lowers its ecological footprint, enabling the Company to balance environmental responsibility with competitiveness while meeting market demand.

By advancing steelmaking technologies that eliminate the use of pig iron and identifying alternative types of scrap steel, the Group has planned to cease pig iron procurement starting in 2023 and fully deplete existing inventory by the end of 2026. This innovation in pig iron-free production marks a significant step toward a more environmentally friendly and sustainable future for the steel industry.

Sustainability and climate risks	Metrics and short- and medium-term targets
<p>【Sustainability Risk】 Waste management</p>	<p>【Tung Ho Steel】 Miaoli Works is undertaking an upgrade of its electric arc furnace, scheduled for commissioning in 2030, along with the implementation of air-cooling granulation for oxidizing slag and the recycling process for reducing slag. Short-term targets: By 2030, achieve a 40% air-cooling granulation rate for oxidizing slag and an 80% recycling rate for reducing slag. Mid-term targets: By 2035, increase the air-cooling granulation rate for oxidizing slag to 70% and the recycling rate for reducing slag to 90%.</p> <p>【Tung Kang Steel Structure】 aims to reduce waste by 18% in 2025 through pallet recycling and increased use of steel pallets.</p> <p>【Katec Corp.】 plans to apply for in-house treatment of laboratory waste in 2025 to reduce waste disposal costs.</p>
<p>[Sustainability Risk] Occupational health and safety</p>	<p>【Tung Ho Steel】 will introduce four robotic arms at its plant in 2025.</p> <p>【Tung Kang Steel Structure】 will implement two automated welding machines in 2025.</p>
<p>[Sustainability Risk] Air pollutant emissions</p>	<p>【Katec Corp.】 is scheduled to complete dust collection system improvements by 2026.</p>
<p>[Transition Risk] Changes in customer behavior</p>	<p>【Tung Ho Steel】 is scheduled to apply for EPDs and carbon footprint certifications for rebar and structural steel by 2027.</p> <p>【Tung Kang Engineering and Construction】 plans to implement building carbon footprint assessments by 2030.</p>

Sustainability and climate risks	Metrics and short- and medium-term targets
<p>【Acute Physical Risk】 Tropical cyclones</p>	<p>In 2025, all entities within the Group will be covered by typhoon insurance.</p>
<p>【Chronic Physical Risk】 Changes in average precipitation and water management</p>	<p>【Tung Ho Steel】 aims to achieve zero wastewater discharge at its Taoyuan Works, Miaoli Works, and Kaohsiung Works-Jiaxing by 2030.</p>
<p>【Acute Physical Risk】 Changes in extreme temperature.</p>	<p>The entire Group ensures uninterrupted shipments during power outages, achieving zero customer complaints.</p>
<p>【Energy Efficiency】 Recycling and reuse.</p>	<p>【Tung Ho Steel】 continues to invest in circular economy industries and aims to achieve zero waste across the Group by 2035.</p>
<p>【Market】 Incentives from financial institutions.</p>	<p>【Tung Ho Steel】 aims to maintain its position in the top 5% of the Corporate Governance Evaluation in 2025 and achieve a score of A- on the CDP Climate Change Questionnaire.</p>

6. Emissions reduction actions

In order to support the development of national greenhouse gas reduction strategies and the targets for sustainable energy development that take into account resource efficiency, energy efficiency, and environmental protection, Tung Ho Steel has been promoting the ISO 50001 energy management system, ISO 14064-1 greenhouse gas inventory, and ISO 14067 product carbon footprint certification. At the same time, we have invested in capital expenditures, as well as the relevant human resources and materials, to meet the resource demands of our energy efficiency plans, with the expectation of keeping track of production costs and using energy in an effective and appropriate manner. In 2024, the total energy saved and carbon reduced across Tung Ho Steel's works amounted to approximately 43,185.14 tCO₂e.

Actions for Energy Efficiency and Carbon Reduction			
Works	Measures for Energy Efficiency and Carbon Reduction	Estimated Electricity Conserved (GJ)	Estimated Amount of Carbon Reduced (tCO ₂ e)
Taoyuan Works	• Demand response and load management – time-of-day selection type	294,002.20	40,343.64
	• Participation in Taipower's emergency load reduction program (flexible response type)	880.70	120.85
	• Reduction of slagging agents and other cold materials to lower electricity consumption	1,356.83	186.19
	• Reduction of ineffective electricity use during billet heating	1,301.93	178.65
Miaoli Works	• Shortening ladle stirring time to reduce refining duration	6,082.96	834.72
	• Energy-saving measures to reduce eccentric second-stage adjustment time	937.77	128.68
	• Energy-saving measures to reduce eccentric second-stage adjustment time	428.01	58.73
	• Replacement of Air Compressor No. 6 in the compressor room with a variable-frequency compressor	1801.12	247.15
	• Replacement of 400W skylight lamps with 150W LED lamps in the BH processing area	157.25	21.58
Kaohsiung Works-Jiaxing	• Replacement of lighting in the reheating furnace charging/ discharging area with LED lights	23.33	3.2
	• Lighting upgrade in roller assembly area	1,399.68	192
	• Replacement of outdated compressors with new models	143.96	19.75
Kaohsiung Works-Daye	• Installation of a new variable-frequency air compressor for pressure control	772.40	106.00
	• Equipment after converting heavy oil to natural gas	3,600.30	494.00
	• Water-cooled air conditioners were changed to air-cooled air conditioners	173.80	23.00
	• The heating furnace blower was changed to variable frequency control.	606.50	83.30
	• Installation of no-leakage automatic drain valves on air tanks to replace traditional drain valves	1,047.30	143.70
Total		314,716.04	43,185.14

Note:

1. The emission factor of 0.494kg CO₂e/kWh, as published by the Energy Administration, Ministry of Economic Affairs in 2023, is used for calculating Scope 2 emissions reductions from electricity savings.
2. The scope of calculation includes: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃, and other types of gases.
3. The scope of reduction only includes indirect emissions from energy (Scope 2).
4. The capacity and operating time of equipment and the production volume are used for calculation.
5. Basis for calculation of energy consumption and greenhouse gas reductions: Based on the amount of consumption in the previous year.

7.Low-carbon products

The Group's products, manufactured by Tung Ho Steel, are low-carbon products categorized by emission intensity, and low-carbon products account for 100% of the profits in the reporting year. We manufacture products by melting steel scrap using electric arc furnaces. Compared to products made with blast furnaces using the basic oxygen steelmaking method, our products are more environmentally competitive due to their low-carbon characteristics.

EAF steel is a low-carbon, recycled material. Its major material, waste steel, is a valuable recycled resource from what is called the "urban mine." A large quantity of waste steel is collected from different parts of Taiwan for smelting and refining into steel. Compared to BOS steel, EAF crude steel can reduce carbon by up to 1.5 tCO₂e/MT. To achieve the zero-emission goal, in addition to actively promoting the contributions of low-carbon steel to society, the Company will continue to introduce the latest feasible technologies to significantly reduce carbon emissions and become the world leader in EAF steel production.

Currently, most rebar makers need to reheat steel billets for rolling and forming. Since 2006, the Group has invested substantial resources in process innovation and development. In 2010, the Taoyuan Works was established and became the first steelmaker in Taiwan to adopt new processes using electric furnaces. By integrating refining with the modern rolling process, the Taoyuan Works adopted the direct rolling process without using reheating furnaces to become Taiwan's first rebar maker without using reheating furnaces.

When no reheating furnace is required, no fuel such as crude oil or natural gas will be consumed for heating. Compared to traditional processes, this process can significantly reduce energy consumption and air pollution. The low-energy consumption and near-zero pollution performance of the production processes of the Taoyuan Works is a new milestone in the steelmaking industry. The method of direct rolling without reheating furnaces has been adopted and introduced by many domestic and foreign steelmakers.

Benefits of non-use of reheating furnaces (direct rolling) compared with those of a traditional rolling process

Energy consumption	Carbon emissions	Particulate matters	NOx · SOx
Reduced by 85%	Reduced by 60%	Reduced by 100%	Reduced by 100%

More energy-efficient!



23,840,000 liters



= 1-year energy consumption of 22,495 cars

Compared with a rolling mill, a direct rolling process without reheating furnaces can save approximately 29.8 (liters – heavy oil/ton – rebar) in energy consumption and reduce the consumption of heavy oil by 23,840,000 liters annually, equivalent to the annual energy consumption of 22,495 cars (15,000km/year at 12km/liter per car).

More carbon reduced!



68,631 tons



= x 1-year amount of CO₂ absorbed by 176 Dann Forest Parks

According to the statistics of the Bureau of Energy, Ministry of Economic Affairs, the annual amount of CO₂ absorbed by the Daan Park is 389 tons.

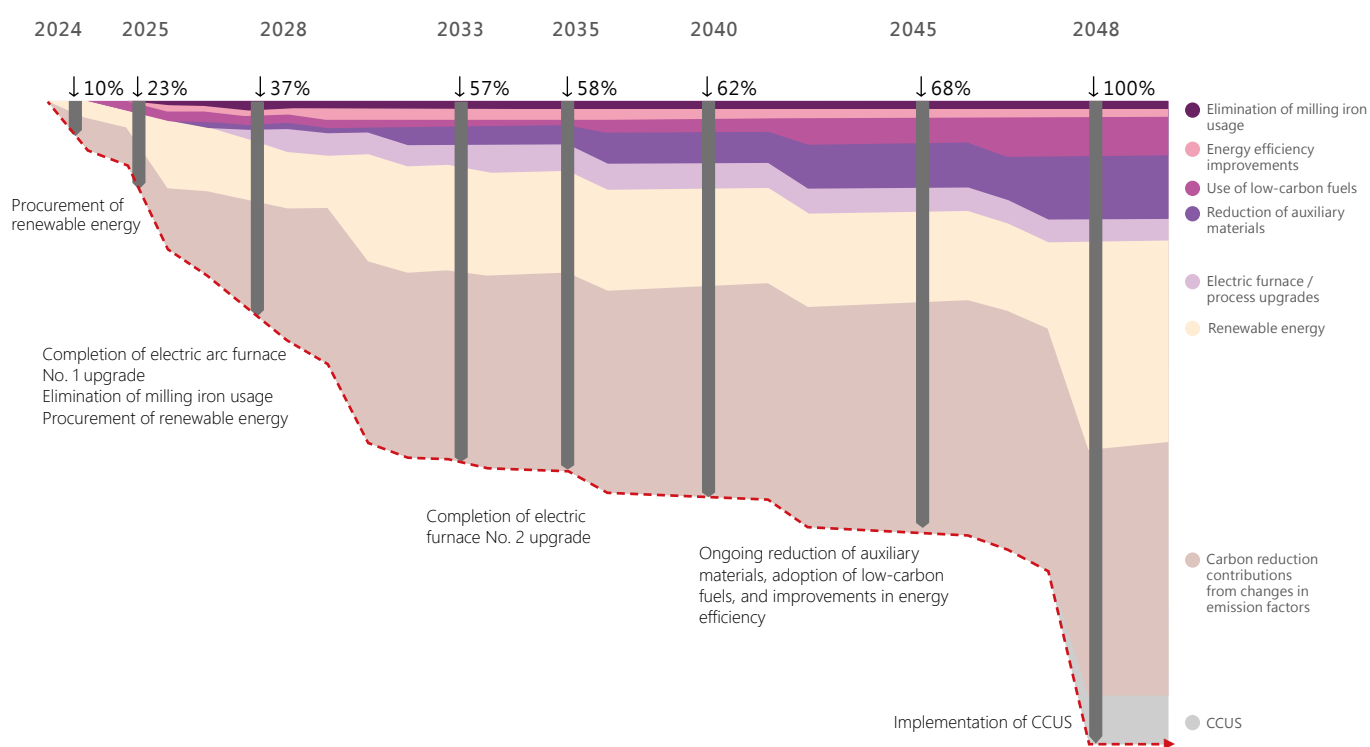
Note: The above calculations are based on the actual performance at an annual output of 800,000 MT of the Taoyuan Works and the Bade Works (former Taoyuan Works).

Projects	Percentage of Low-emission R&D Investments Among the Amount of all R&D Projects	Description
"AI-Integrated Innovation and R&D Program for Steel Manufacturing Processes and Occupational Safety Applications"	The project implementation period is from March 1, 2025, to February 28, 2027, with a total budget of NT\$32.12 million. In 2025, the planned R&D investment is NT\$16.88 million. This represents an estimated 33.8% of the total R&D expenditure.	Tung Ho Steel is integrating AI technologies across various applications, including slag detection during electric arc furnace tapping, material tipping detection, and blind spot monitoring and alerts for occupational safety. By leveraging machine vision for recognition, the system connects in-plant production processes with external safety management, enabling cross-plant information integration. This enhances process efficiency and reduces production costs. The Company has submitted this project for support under the Ministry of Economic Affairs' Science and Technology R&D Program / Industrial Upgrading Innovation Platform Guidance Program.
"Smart Scrap Inspection System" R&D Project	The project will be implemented from May 1, 2025, to October 31, 2027, with a planned R&D investment of NT\$13.82 million in 2025. This represents an estimated 27.6% of the total R&D expenditure.	<p>Project objectives:</p> <ol style="list-style-type: none"> 1. Through image recognition, scrap steel can be effectively classified by type and sorted based on material and level of contamination. This helps improve energy efficiency and reduce carbon emissions in the manufacturing process while allowing for optimized electric furnace parameter settings for each type of scrap steel. 2. Streamlining the Scrap Acceptance Process: Through real-time AI-based recognition and classification, the system accelerates the scrap feeding process and reduces unnecessary loading and transfer caused by prolonged on-site storage.

8. 1.5° C Low-Carbon Transition Plan

When developing the 1.5°C low-carbon transition plan using 2005 as the base year, Tung Ho Steel first outlines carbon reduction pathways for electricity-using items that have a higher percentage of GHG emissions before reaching the net-zero emission target through carbon capture, utilization, and storage (CCUS) technologies. The following are the Group's current carbon reduction pathways and estimated targets of carbon reduction in the current stage:

■ Tung Ho Steel Carbon Reduction Pathway



----- Scope 1 + Scope 2

Baseline Year (2005): Emissions: 830,000 tCO₂; Steel billet production: 1.38 million metric tons

Reporting Year (2024): Emissions: 760,000 tCO₂; Steel billet production: 1.84 million metric tons

(Note: Due to the inclusion of the Kaohsiung Works - Daye in 2023, the reporting year and baseline year are calculated on different bases. Excluding the Kaohsiung Works - Daye, the Company's total emissions are approximately 730,000 metric tons.)

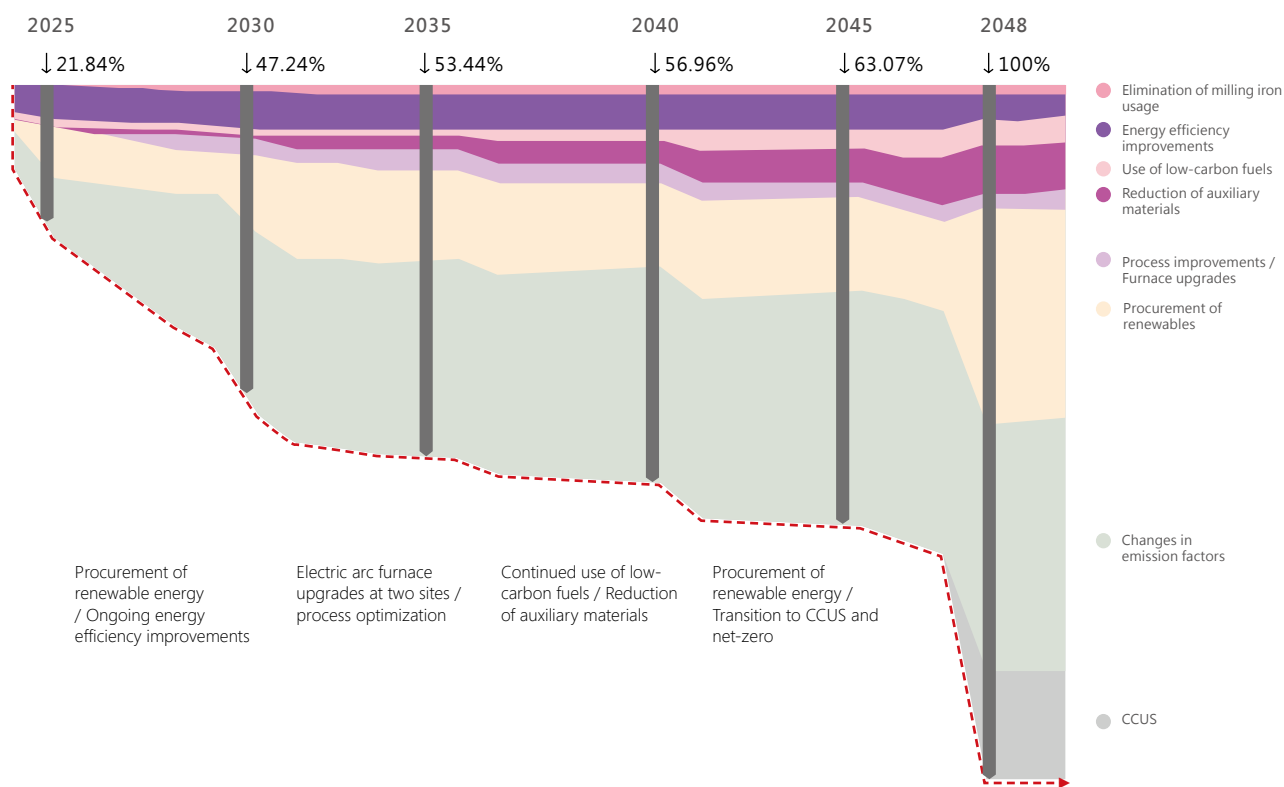
Carbon Reduction Pathway		Carbon Reduction Target	Description
Reduction of electricity consumption	Decarbonization Technologies and Equipment Modification– EAF Modification	↓ 3 %	Modifying EAFs into scrap preheating EAFs can reduce carbon emissions. With scrap preheating EAFs, the estimated electricity for steel smelting will be reduced by 50–60 kWh/m.t. This carbon reduction target is set upon the assumption that EAF modification in Miaoli Works and Taoyuan Works is completed by the end of 2027 and 2032 respectively.
	Procurement of Renewables	↓ 31 %	The estimated electricity supply from Tung Kang Wind Power in 2023 is 26GWh/year, and the estimated solar power wheeling starts in 2024H2 to supply electricity at 25GWh/year. Externally procured solar power will supply 160 million kWh annually starting in 2025. Completion of purchasing renewables at 30% of the Group' s total electricity consumption by 2030.
	Lowered electricity carbon emission factor	↓ 39 %	Based on the assumptions of percentage of the renewables at 60–70% and that the electricity carbon emission factor becomes lower in 2050.
Execution of energy efficiency and carbon reduction plans	Increasing energy efficiency	↓ 2 %	Increasing energy efficiency: High-performance energy-efficient motors, control of frequency variation, recycling of residual heat, etc.
	Improving processes	↓ 2 %	Smart combustion control of reheating furnaces, introduction of oxy-fuel combustors for reheating furnaces, a full-oxygen combustion system for the preheaters of ladles, etc.
Utilization of low-carbon fuels		↓ 4%	Increasing energy efficiency: High-performance energy-efficient motors, control of frequency variation, recycling of residual heat, etc.
Reduced use of coke and other recarburizer		↓ 10%	Such as the use of waste synthetic resins, biofuels, biochar, and high-calorific-value scrap steel.
Stop using milling iron.		↓ 1%	Zero use of milling iron as materials.
Technology of carbon capture, utilization and storage (CCUS)		↓ 8%	Tung Ho Steel plans to introduce carbon capture, utilization, and storage (CCUS) technology to achieve its remaining carbon reduction target of 8%. The CCUS technology will be introduced in an incremental and phased manner, including a preliminary research project, the construction of an experimental works, and the final establishment and operation of the works.

Note: The above outlines the Group' s Scope 1 and Scope 2 emission reduction strategies and targets.

The Group pays close attention to the trend of global climate change and the direction of global responses, including climate change as a material issue in sustainable corporate development and one of the critical, material risks for continual analysis and control, and engages in the adaptation and mitigation of greenhouse gases (GHGs). In June 2024, the Voluntary Reduction Task Force was established to lead the Group's decarbonization efforts. An initial plan comprising 57 reduction measures has been drafted, and ongoing reviews will be conducted on a rolling basis. Through concrete actions, the Group aims to proactively respond to stakeholder expectations and ensure long-term sustainable operations.

The Group plans to implement a series of strategic responses. These include adopting newer and more energy-efficient electric furnaces, investing in renewable energy generation businesses, procuring bundled renewable energy certificates (RECs), transforming steelmaking processes toward low-carbon technologies, enhancing equipment energy efficiency, applying for voluntary emission reduction programs, and leveraging carbon capture, utilization, and storage (CCUS) technologies. Through these initiatives, the Group aims not only to mitigate the impact of evolving climate-related regulations but also to convert regulatory pressure into financial opportunities for its business operations.

■ Group-wide Carbon Reduction Roadmap



9. Future Outlook

■ Climate-related engagement in supply chains

In March 2023, the “Supplier Evaluation Criteria” was revised to include “climate-related responsibility” as a scoring item. This aims to encourage suppliers to complete their greenhouse gas inventories and verification processes early. Tung Ho Steel also drafted a “Carbon Reduction Collaboration Agreement” for value chain partners and distributed a questionnaire to upstream suppliers, downstream construction contractors, and logistics companies to assess their willingness to participate in the agreement. In 2023, a total of 307 questionnaires titled “Willingness to Join the Carbon Reduction Collaboration Agreement” were distributed, resulting in 272 responses received, which corresponds to a response rate of 88.6%. Among the respondents, 257 suppliers (83.7%) expressed their willingness to join the agreement. A total of 211 suppliers formally signed the “Carbon Reduction Collaboration Agreement,” representing a signing rate of 82.1%. Additionally, 20 suppliers (9.5%) had completed greenhouse gas inventories and obtained third-party verification by the end of 2023.

In 2024, Tung Ho Steel held a series of supplier engagement events, including three sessions of the “Greenhouse Gas Reduction Briefing,” which were attended by a total of 167 participants, and three sessions of the “Greenhouse Gas Inventory Workshop,” with a total of 56 participants. Subsequently, Tung Ho Steel provided energy baseline measurement and carbon inventory guidance to 12 suppliers in the value chain. Support included assisting companies in analyzing energy efficiency improvement opportunities for key process equipment and collecting data to identify major emission sources. Through the above initiatives, Tung Ho Steel is working collaboratively with supply chain partners to achieve tangible carbon reduction and jointly advance the transition to a low-carbon future.

■ Internal carbon pricing and appropriation of emissions reduction fund

To promote climate change adaptation and mitigation activities, Tung Ho Steel has been active in managing carbon risks and establishing operating procedures and regulations concerning climate-related financial disclosures and internal carbon pricing. For internal carbon pricing, Tung Ho Steel has adopted the price of the national carbon fee to help achieve the set targets of greenhouse gas reduction and promote clean energy transition.

To implement climate change adaptation and mitigation activities, in the 20th meeting in August 2022, the 24th term Board passed the establishment of the “Regulations for Appropriation and Utilization of Special Reserve for Climate Change Adaptation and Mitigation” and temporarily set the fund at NT\$200/tCO₂e to appropriate the special reserve for addressing climate change adaptation and mitigation in respect of the total Scope 1 and 2 GHG emissions recorded in the annual internal inventory. The special reserve will be spent on projects and programs for climate change adaptation and mitigation, such as energy-efficient equipment, equipment performance improvement and replacement, the R&D of energy conservation technology, and the development of technology for low-emission products. In 2024, total expenditures amounted to approximately NT\$194.08 million, and the special surplus reserve allocated for climate change adaptation and mitigation was NT\$156.04 million. This reserve can only be utilized upon resolution by the Board of Directors and approval by the Shareholders’ Meeting, with the available amount totaling approximately NT\$270.84 million.

■ Sustainable finance taxonomy

Tung Ho Steel received incentive interest rate for sustainability-linked loans from HSBC in 2022 and 2023. We hope to be included in the taxonomy continuously in the future.

Under the current technical screening criteria of the EU Sustainable Finance Taxonomy, Tung Ho Steel products fall under the category of steel manufacturing activities that make a substantial contribution to climate change mitigation. This is based on the criterion that requires scrap usage to exceed 90%. In 2024, the Group’s scrap usage ratio reached 98.8%, with a target of achieving 100% scrap usage by 2027.



The image shows a screenshot of the EU Sustainable Finance Taxonomy document, specifically the 'Technical screening criteria' section for 'Manufacture of iron and steel'. The document is in English and includes a table of criteria. The criteria are listed in a table with columns for 'Activity' and 'Screening criteria'. The criteria include: (a) scrap usage ratio, (b) energy efficiency, (c) greenhouse gas emissions, (d) water usage, (e) air quality, (f) noise, (g) waste management, (h) safety, (i) health, (j) environment, (k) social, (l) governance, (m) other relevant factors. The document also includes a section for 'Exclusion criteria' and a section for 'Additional information'.

▲ Screening Criteria for the EU Sustainable Finance Taxonomy



Appendix 1: References

- IPCC (2021), Sixth Assessment Report of Intergovernmental Panel on Climate Change 2021: The Physical Science Basis
- Report on abstract of key scientific points in IPCC's 6th assessment report on climate change and updated analysis of climate change in Taiwan
- Taiwan's Pathway to Net-Zero Emissions in 2050



Appendix 2: SASB Sustainability Disclosure Topics and Metrics(Tung Ho Steel)

Topics	Code	Metrics	Amount / Description
Governance	EM-IS-110a.1.	Scope 1 gross global emissions, percentage covered under emissions-limiting regulations	<ul style="list-style-type: none"> • Scope 1 GHG emissions reached 211,948 metric tons CO₂e • The total Scope 1 and Scope 2 emissions of Taoyuan Works in the Environmental Impact Assessment Commitment Letter was 735,808 metric tons CO₂e / year. The Scope 1 emission limits of Taoyuan Works was 11.16% • Currently, there are no emission limits for the Head Office, Miaoli Works, Kaohsiung Works-Jiaxing and Kaohsiung Works-Daye • Please refer to GHG inventory section of this Report for Scope 1 emissions and changes of emissions in the previous year
	EM-IS-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	The strategy is to replace heavy oil by natural gas, not use milling iron and reduce the use of secondary raw materials.
Air Emissions	EM-IS-120a.1	CO, NOx (excluding N ₂ O) ,SOx, PM10, MnO, Pb, volatile organic compounds (VOCs), and Polycyclic Aromatic Hydrocarbons (PAHs)	<ul style="list-style-type: none"> • Currently, the domestic requirements do not require the monitoring of CO, MnO, lead, PAHs, NOx, SOx, PM10, and volatile organic compounds, VOCs. Please see the section of Air Pollution Prevention in this Report
Energy Management	EM-IS-130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	<ul style="list-style-type: none"> • Total energy consumed 5,961,912 GJ • Percentage grid electricity 69% • Percentage renewable 2.2%
	EM-IS-130a.2	(1) Total fuel consumed, (2) percentage coal, (3) percentage natural gas, (4) percentage renewable	<ul style="list-style-type: none"> • Total fuel consumed 1,690,856 GJ • Percentage coal 0 % • Percentage natural gas 93% • Percentage renewable 0%

Water Management	EM-IS-140a.1	(1) Total water withdrawn and (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	<ul style="list-style-type: none"> • Total fresh water withdrawn 2,244.186 thousand cubic meters • The total water consumption amounted to 2,139.842 thousand m³ • The water pressure in the region where the • Company is located belongs to low-risk to medium risk
	EM-IS-150a.1	Amount of waste generated, Percentage hazardous (%), Percentage recycled (%)	<ul style="list-style-type: none"> • Amount of waste generated 331,241.3 tons (the weight matches that in the Waste Declaration Form) • Percentage hazardous 11% • Percentage recycled 98.5%
Workforce Health and Safety	EM-IS-320a.1	Total recordable incident rate (TRIR), Fatality rate, Near miss frequency rate (NMFR) for full-time employees and contract employees	Please see the section of Occupational Safety Performance of this Report.
Supply Chain Management	EM-IS-430a.1	Discussion of the process for managing risks and opportunities associated with environmental and social issues in the sourcing of iron ore or metallurgical coal	Not applicable
Activity Indicator	EM-IS-000.A	The percentage of coarse steel production from (1) Basic Oxygen Furnace process	<ul style="list-style-type: none"> • Steel billets production: 1,840,779 tons • Tung Ho Steel does not have the basic • oxygen furnace, and steelmaking is • conducted 100% by electric furnaces
	EM-IS-000.B	and (2) Electric Arc Furnace process. Total Iron Ore Production	No usage
	EM-IS-000.C	Total Coking Coal Production	Not applicable

Appendix 3: Statement of External Verification



Conformity Statement

Climate related Financial Disclosure

This is to conform that

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Holds Statement Number SRA-TW-806209

As a result of carrying out conformity check process based on TCFD requirement, BSI declares that: Tung Ho Steel Enterprise Corporation follows the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) with Supplemental Guidance for the Non-Financial Groups to disclose climate-related financial information which is clear, comparable and consistent against its organizational risks and opportunities as well as its financial impacts. The disclosure covers the four core elements of the TCFD and is prepared based on the seven guiding principles for effective disclosures.

The maturity model for the Climate-related Financial Disclosures with Supplemental Guidance for the Non-Financial Groups is **Level-5+: Excellence** grade.

涵蓋非金融產業補充指引之氣候相關的財務揭露的成熟度模型為[第五級 **PLUS**：優秀]等級。

For and on behalf of BSI

Managing Director BSI Taiwan, Peter Pu

Latest issue: 2025-05-07

Expiry date: 2026-05-06

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Conformity Check Overall Result:

The maturity model for the Climate-related Financial Disclosures with Supplemental Guidance for the Non-Financial Groups is **Level-5+: Excellence** grade.

涵蓋非金融產業補充指引之氣候相關的財務揭露的成熟度模型為【第五級 **Plus**：優秀】等級。



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